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OF MARKS AND MEN.  
THE FUNCTIONAL AND HISTORICAL CONTEXT OF THE  
WORKMEN'S MARKS OF THE ROYAL THEBAN  
NECROPOLIS.

Proefschrift

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## PREFACE

This work is one of two doctoral dissertations written within the framework of the research project ‘Symbolizing Identity. Identity marks and their relation to writing in New Kingdom Egypt’, financed by the Netherlands Organisation for Scientific Research (NWO). It revolves mainly around the corpus of ostraca from the Theban necropolis that are inscribed with identity marks. It will be pointed out in the Introduction that it is only since recent years that serious efforts have been made to analyse these marks and to examine their purpose. As is well known, the first ostraca from the Theban necropolis to be published – mostly hieratic texts and figurative ostraca – were cherry picked. Although this may sound somewhat depreciative of earlier research it is in no way a comment on the endeavours of previous scholars. It is understandable that the priorities of the pioneers of what are nowadays called Deir el-Medina Studies lay with the extensive hieratic documentation of the village, and ostraca with marks had therefore been set aside for a later moment.

Having said this, it is believed that the lack of a systematic study of the large corpus of objects and documents with workmen’s marks has left a considerable gap in our understanding of the administrative and social practices of the community of royal necropolis workmen of Thebes. This dissertation aims to address this situation by examining the ostraca with identity marks from a historical perspective. Simultaneously it is hoped that this work may be a stepping stone for prospective research into the area of documents from Deir el-Medina created in less conventional manners. There are still scores of unpublished ostraca with pictorial lists of commodities, tally lists, and ostraca with dots. Even published examples of this kind of documents have received very little attention. The majority of such records cannot be treated in the current work. Like our academic predecessors were forced to do, it was decided to exclude such ostraca from the current study. A number of interesting documents related to the topic of this work are therefore briefly mentioned but will not be studied *in extenso* within the scope of this dissertation.

Although it is expected that other material with workmen’s marks will surface in the future, the research project ‘Symbolizing Identity’ has attempted to collect all objects and inscriptions with identity marks. A database for this corpus created by the project members is accessible online,<sup>1</sup> and it is advised that reader of this work utilises the database for details about the dimensions and the bibliography of objects with marks. In addition the database provides images of the objects that could not be printed in the current dissertation, and for each object it presents an overview of the particular identity marks with which it is inscribed.

Most of the identity marks printed in this dissertation are characters of a font, meticulously developed by my colleague Kyra van der Moezel. The decision to use a font is grounded on two advantages: the font characters are clearly recognisable to the reader and easily integrated into the running text. This of course means that the marks represented in the text are not of the exact same shape as the original marks on the ostrakon the text refers to. Similarly the font does not include an individual character for every allomorph of a single mark.

To reduce the number of footnotes, this work will not refer to text editions of hieratic ostraca or papyri from the Theban necropolis. For such matters the reader is referred to the Deir el-Medina Database.<sup>2</sup>

This work builds heavily upon the seminal prosopographic investigations in Benedict G. Davies’ *Who’s who at Deir el-Medina*.<sup>3</sup> Davies undertook the herculean task of sorting out

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<sup>1</sup> <http://marks.wepwawet.nl/>; user name: test; password: xxxxxx.

<sup>2</sup> *The Deir el-Medina Database*, <http://www.leidenuniv.nl/nino/dmd/dmd.html>.

and enumerating the hundreds of individuals that lived in and around Deir el-Medina during the Ramesside Period. New evidence presented here will be able to amend a few of his ideas, but without Davies' work this current study would not have been possible. Davies assigned each individual mentioned in his book a Latin numeral written in lower case. His system is followed here, and individuals that were later attributed a numeral in other works are here mentioned with an upper case Latin numeral.

I am very indebted to Ben Haring, who made available his preliminary notes and his collection of relevant literature. As supervisor to this dissertation, always available to talk about the ostraca, I have greatly benefited from countless suggestions and discussions of the material. To my colleague Kyra van der Moezel I am very thankful for the fruitful cooperation in the research project, and for her many contributions to the project's database. Olaf Kaper is thanked for his support and useful comments on an earlier draft of this work, and Hans van der Berg for designing the database and for answering questions concerned with statistics.

Over the course of the project I have had the pleasure of discussing several topics related to the community of Deir el-Medina with a number of persons, and I want to express my gratitude for their advice and suggestions. First and foremost thanks go to Rob Demarée (Leiden University) for his incomparable expertise; to Kathrin Gabler (currently University of Basel); Maren Goecke-Bauer (University of Munchen); Koen Donker van Heel (Leiden University), who never failed to ask me if the "book had already been finished"; Mark Collier (University of Liverpool); David Aston (Austrian Academy of Sciences); Dirk de Vries (University of Leiden); Kent Weeks (American University in Cairo; Theban Mapping Project); James Allen (Brown University). The contributions of our two research assistants, Suzanne Knauff and Rikst Ponjee, cannot be overlooked, and I thank them for all of their hard work.

I have had the privilege of examining ostraca with identity marks in a number of museum collections and for that my thanks go to Maarten Raven and Christian Greco (National Museum of Antiquities, Leiden); Stephen Quirke (University College London Petrie Museum); Christian Greco, Paulo Delvesco and Enrico Ferraris (Egyptian Museum, Turin). The research conducted for this work would not have been possible without the gracious permission of various institutes and individuals to study unpublished documents. First and foremost Nadine Cherpion, Vanessa Ritter and Pierre Grandet are warmly thanked for granting access to the ostraca in the French Institute for Oriental Archaeology and for their assistance in the process. For the use of photos of unpublished ostraca from the Egyptian Museum in Cairo thanks are due to Mamdouh Mohamed Eldamaty, Ibrahim Abd el-Gawad, and Lotfy Abd el-Hamid. I am very grateful to a number of persons who shared with the Symbolizing Identity team photos of unpublished ostraca and ceramics: Anne Austin (previously University of California, Los Angeles), Edwin C. Brock (Royal Ontario Museum, Royal Sarcophagi Project), Debora Cilli (University of Basel, Mission Siptah – Ramses X (MISR)), Andreas Dorn (University of Basel, MISR), Nicholas Reeves (University of Arizona; Amarna Royal Tomb Project); Otto Schaden (University of Memphis, Amenmesse Tomb Project); and Rob Demarée (University of Leiden) and Fredrik Hagen (University of Copenhagen) for their photos of ostraca from the Griffith Institute in Oxford. Images from Deir el-Medina have kindly been passed on to me by Petra Ándrassy and Lenka Peacock. Finally, I want to thank my family and friends, in particular both of my parents, for their continuous assistance, patience, love and support I received while completing the dissertation.

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<sup>3</sup> Benedict Davies, *Who's who at Deir el-Medina. A prosopographic Study of the Royal Workmen's Community*. EU 13 (Leiden 1991).

## INTRODUCTION

*“The falcon has flown to heaven; another has arisen in his place!”*

A message along these lines<sup>1</sup> will have resounded on about two dozen occasions in the valleys west of the city of Thebes, when an official was sent to a crew of necropolis workmen that laboured and resided in this area. These men, burdened with the task of preparing the royal tombs, will have been overcome with different emotions when these words were uttered: the king had died, and his funeral had to be prepared. If the tomb of the king had not yet been finalised, great efforts would have to be made to complete the sepulchre in time. In addition, the accession of the new king meant that the construction of a new tomb was to be started not long after the funeral. Eventful days lay ahead for the crew of workmen.

It is this group of individuals that are the main characters of this story, a tale that leads us through many episodes of what Egyptologists have termed the New Kingdom. The period comprises of three royal dynasties: the 18<sup>th</sup> Dynasty (c. 1539 – 1292 BCE), the 19<sup>th</sup> Dynasty (c. 1292 – 1191 BCE) and the 20<sup>th</sup> Dynasty (c. 1190 – 1077 BCE).<sup>2</sup> The three dynasties divide the New Kingdom into uneven segments, but it is a convenient way to describe the history of the Royal Necropolis workmen because it coincides with two important events. The first one is a reorganisation of the crew in the reign of Horemheb, the last ruler of the 18<sup>th</sup> Dynasty.<sup>3</sup> The second moment occurred in the reign of the second king of the 20<sup>th</sup> Dynasty, Ramesses III. This breakpoint is not so much represented by a singular occasion as it is by a significant increase in the number of sources that inform us about the lives of the workmen during this time.

Indeed, the community of workmen is exceptionally well documented. The small village that was erected in the 18<sup>th</sup> Dynasty to house the necropolis workmen is one of the best preserved settlements of antiquity. The inhabitants simply called it *pꜣ dmi* ‘The Village’, while in modern times it is referred to as Deir el-Medina, the Arabic name for the site. Situated in the vicinity of the Valley of the Kings – the necropolis that retained the tombs of the pharaohs of the New Kingdom – and Valley of the Queens – the cemetery of royal wives and princes – the village lies behind the hill of the Qurnet Murai (FIG. 1). It consisted of a group of houses within an enclosure wall that were inhabited by generations of necropolis workmen and their family members. Here numerous workmen would be born and raised, here they would spend most of their lives, and eventually they would be buried in one of tombs in the Eastern or the Western Cemeteries that flanked that village (FIG. 2). Local places of worship were situated to the north of the village, in an area with sanctuaries and chapels for the cult of various gods and deified kings. Outside of the village the crew of workmen left its traces as well. Temporary settlements consisting of small huts were raised in proximity of their worksites in the Valley of the Kings and the Valley of the Queens. Another provisional group of huts used by the necropolis workmen, often called the *Station de Repos du Col*, was constructed not far from the village of Deir el-Medina along the path leading to the Valley of the Kings.

Archaeological finds from all these sites are very rich and paint the most vivid pictures of the lives of the community members. They shed light on numerous aspects of local religious beliefs, social practices, literary and artistic lives. The prosopographical data

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<sup>1</sup> Compare O. Cairo CG 25515; O. DeM 39; P. Turin Cat. 1949+ vso.

<sup>2</sup> Erik Hornung, Rolf Krauss and David A. Warburton (eds.), *Ancient Egyptian Chronology*. HdO 83 (Leiden and Boston 2006), 492-493.

<sup>3</sup> See chapter 6, 6.2.3.

## INTRODUCTION

that are recorded on the funerary and commemorative stelae, tombs, statues and other monuments dedicated by the villagers are immensely detailed. Despite their complex nature, they have allowed scholars to reconstruct genealogical trees of numerous families. In addition, a vastly rich corpus of epigraphic material has been preserved at the sites in the form of thousands of ostraca (limestone chips or ceramic shards that were used as a surface for writing) and hundreds of papyri. Besides literary and poetic compositions, hymns, religious and magical texts, and medical treatises there is a great amount of texts of a documentary nature, mostly written in hieratic script. The latter category encompasses the records of the administration of the Royal Necropolis that were kept during the Ramesside Period, but there are also documents of juridical nature such as court proceedings, private letters and (business) accounts of individual necropolis workmen.

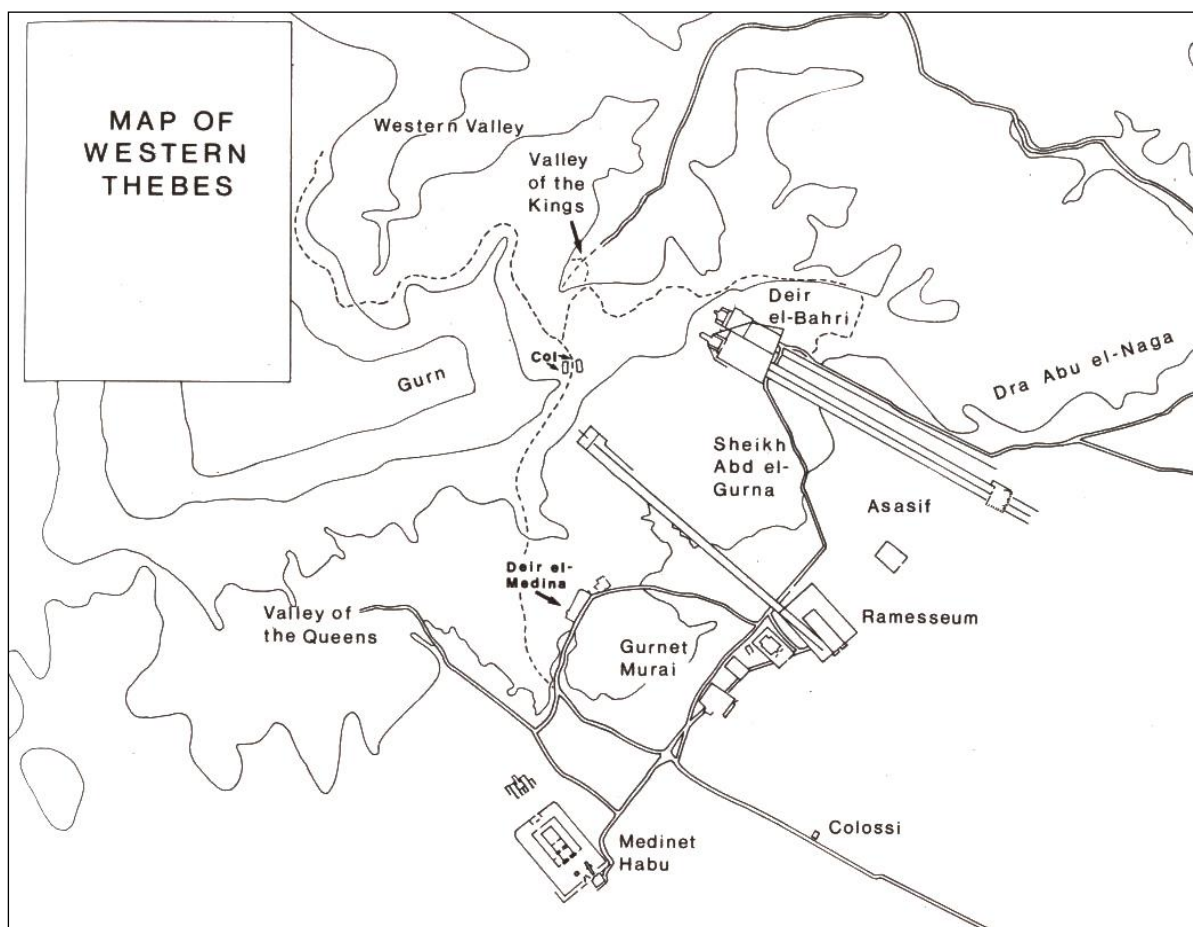


FIGURE 1. MAP OF WESTERN THEBES DURING THE RAMESSIDE PERIOD. AFTER LESKO (ED.), *PHARAOH'S WORKERS*, FIG. ON P. 3.

In scholarly literature the necropolis workmen have been described as 'workers', 'workmen', 'artisans', 'artists', and 'servants'. The latter term is a translation of the word *sḏm-š*, literally 'one who hears the call'<sup>4</sup>, a very common title used by the workmen themselves. During the Ramesside Period, the title was often specified by the addition of the institute to which the necropolis workmen were affiliated: the *s.t mꜣꜥ.t*, generally translated as the Place of Truth.<sup>5</sup> The construction-project-in-process was commonly referred to as *pꜣ hr*,

<sup>4</sup> *WB IV*, 389, 12-16; 390, 1-4.

<sup>5</sup> On the meaning of this title and its usage see Jaroslav Černý, *A Community of Workmen at Thebes in the Ramesside Period*. BdÉ 50. 2<sup>nd</sup> ed. (Cairo 2001), 29-85, and recently, Ben J.J. Haring, 'Saqqara – A Place of Truth?' (forthcoming).

‘The Tomb’, an element that occurs in many of the titles of the men involved in the operation. To describe the units of workmen, the administration of the 19<sup>th</sup> and 20<sup>th</sup> Dynasties employed nomenclature borrowed from naval contexts. The team of workmen was called *t3 is.t* ‘The Crew’, used in earlier periods for crews of sailors.<sup>6</sup> This crew was divided into halves that were called the ‘right’ and the ‘left side’, maritime terms for the oarsmen on both sides of a ship.<sup>7</sup>

The lack of written administrative records from the 18<sup>th</sup> Dynasty precludes a comprehensive overview of the organisation of the crew during that period.<sup>8</sup> Much of the discourse about the administration of the Royal Necropolis has therefore focused on the Ramesside Period. During most of this era the crew was directed on site by three ‘captains’: two of them were the chief workmen (also referred to as ‘foremen’ in this work), who each presided over one of the sides of the crew. Both foremen were assisted by a deputy, oftentimes a son of the foreman who would eventually succeed him in office. The third captain was the necropolis scribe. He was a senior administrative scribe who would be responsible for much of the written administration of the work on the royal tomb.<sup>9</sup> The administration entailed matters such as the documentation of absenteeism of workmen, keeping accounts of the supplies needed in the preparation of the tomb, logging the delivery and distribution of daily rations and noting the progress of the construction of the tomb. One particular type of document that is best attested during the 20<sup>th</sup> Dynasty is commonly referred to as a journal text. This is the collection of day-by-day records that combine several administrative details, often supplemented by notes of events that had occurred on a particular day, such as the aforementioned death of the king or the recruitment of new members.

The crew itself, which will in this work often be referred to simply as “the necropolis workmen”, was not a homogenous group of individuals. It included stone cutters, mostly unskilled labourers whose main duty was to cut out the chambers and galleries of the royal tombs and haul off the rubble. Other crew members, however, were experienced draughtsmen and sculptors that were responsible for the decoration of the tomb. Besides strictly professional differentiation, a social stratification existed within the community of the Royal Necropolis. Some workmen had adopted certain titles for themselves. For example, men other than the official necropolis scribe who were capable of reading and writing – to whatever extent – often referred to themselves as a ‘scribe’ as well. Furthermore, epigraphic material from the site records several instances of a man who was called the ‘scorpion controller’. He was probably a workman with the additional responsibility of catching the snakes and scorpions that crawled around in the area, and administering antidotes to persons who had been bitten. At times, a different workman performed to the role of the physician of the crew. Other crew members performed tasks in the sanctuaries around the village and carried titles such as ‘*wab*-priest’.

The workmen of the Royal Necropolis lived and worked in a restricted area that would not have been accessible to many others, and the region was guarded by policemen

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<sup>6</sup> Černý, *Community*, 99-100.

<sup>7</sup> Černý, *Community*, 101-102. In most of the egyptological literature the words “right side” and “left side” are placed between apostrophes. In chapters 3 and 4 it will be shown that the division into two groups reflects a significant reality of the organisation of work on the tomb. For that reason the apostrophes are omitted in this work.

<sup>8</sup> This is remedied to some extent in chapter 1, 1.4.

<sup>9</sup> The senior necropolis scribe was certainly not the only scribe in the community of Deir el-Medina, and it remains difficult to distinguish his administrative tasks from those of the other scribes of the village.

referred to in the sources as the Medjay. Doorkeepers and guardians<sup>10</sup> monitored offices around the village and accompanied the workmen in the Valley of the Kings. This does not mean that the workmen lived secluded lives. Working on an important state-led project, the crew was occasionally visited by Theban officials, sometimes by the vizier himself, who came to inspect the progress of the work. More importantly the crew members stood in close contact with a pool of service agents, collectively referred to as the *smd.t* service personnel. As employees of the state, the necropolis workmen were paid wages in the form of rations that were sent from the Treasury, the Granary and various memorial temples of Thebes. The provisions included water, beer, bread, grain, fish, and the occasional cut of meat. It was the task of the *smd.t* agents to transfer these provisions, together with materials, tools, supplies and fuels, to the workmen of the Royal Necropolis. During much of the Ramesside Period the necropolis workmen therefore interacted with numerous woodcutters, fishermen, potters, gypsum-makers, water-carriers and laundrymen.

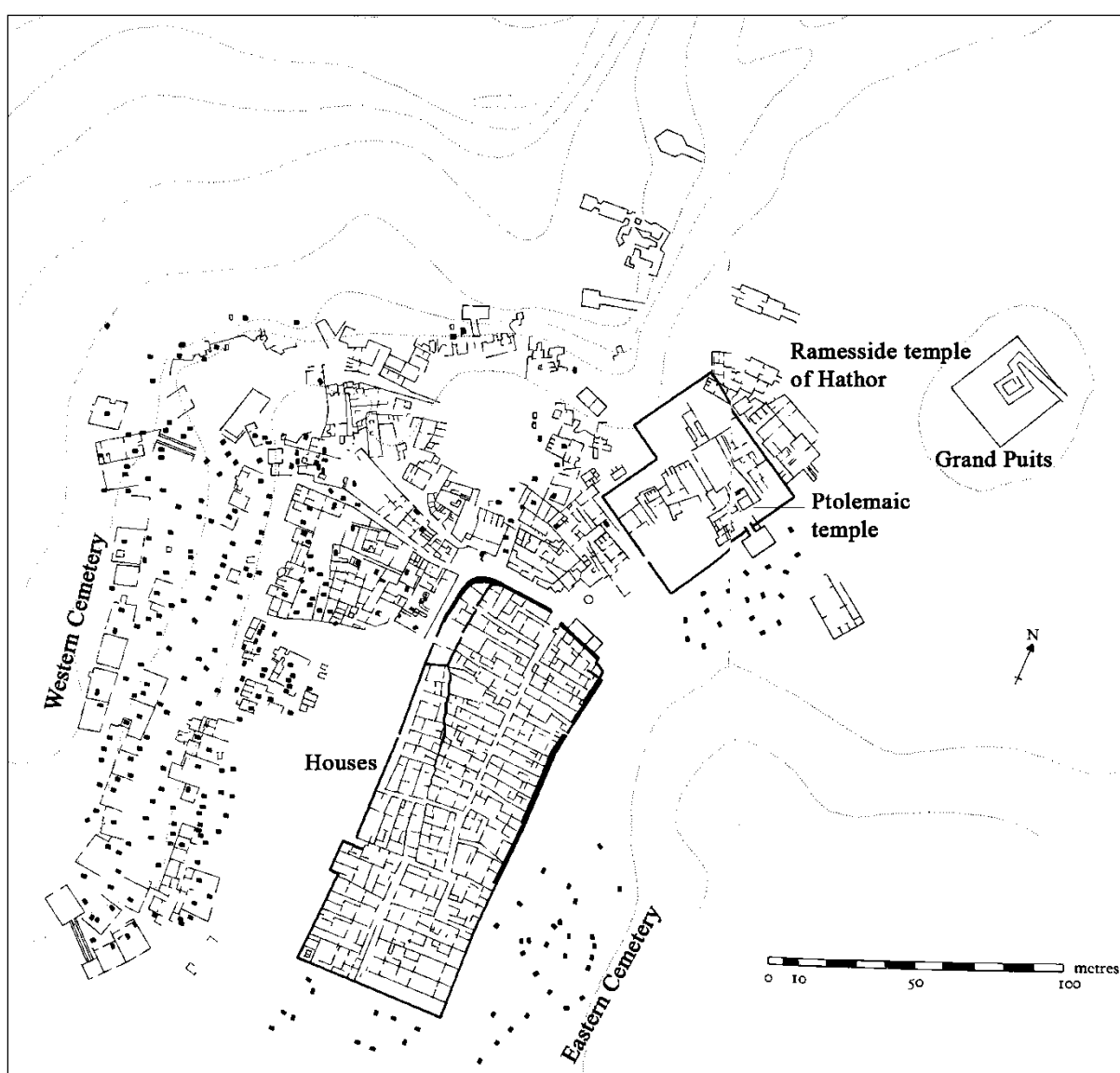


FIGURE 2. MAP OF THE VILLAGE OF DEIR EL-MEDINA

<sup>10</sup> Whether the guardians were in fact workmen of the crew with an additional task is still a matter of debate, compare e.g. Černý, *Community*, 149 and Dominique Valbelle, "Les ouvriers de la tombe". *Deir el-Médineh à l'époque Ramesside*. BdÉ 96 (Cairo 1985), 99-100.

The site of the Royal Necropolis of Thebes is a treasure chest of information about the construction of the tombs of the royal families, the organisation and administration of the work, as well as countless aspects of life in and around New Kingdom Thebes. Scholars have long ago realised this, and for about a century Deir el-Medina and its inhabitants have been the focus of a large number of studies. Many of these are dedicated to the publication of tombs, houses, and huts that were created for the necropolis workmen, and to the material remains found therein. Among a considerable number of the finds were objects inscribed or incised with an individual mark. Primarily through the work of Ben Haring, these marks were demonstrated to be identity marks: signs, of an abstract nature or borrowed from script, that refer to the identity of individual necropolis workmen. They are often indicators of ownership that were applied to objects, but they were also inscribed in series on ostraca.

This work focuses on identity marks inscribed on ostraca, but the marks were commonly used to inscribe objects and surfaces in structures and open spaces. Objects with marks come from intersecting contexts of the funerary sphere, the votive or religious sphere, the domestic sphere and the professional sphere. Marked objects have been discovered in the houses of the village, the dumps at the borders of the village, the massive dump site of the so-called Grand Puits north of the temple area (see FIG. 2), the cemeteries and tombs of Deir el-Medina, the votive chapels and temples of the village, as well as in the Valley of the Kings, including areas adjacent to royal tombs and the workmen's huts erected there.

Pottery is probably the largest category of objects from community of Royal Necropolis workmen that bear identity marks. They are found on pottery of all sorts that comes from the houses in the village, the dump sites around them, the tombs in the cemeteries of Deir el-Medina, the huts at the *Station de la Repos du Col* and the temporary settlements in the Valley of the Kings. Domestic objects, discovered in houses at the village, in tombs in the cemeteries of Deir el-Medina, as well as in huts at the *Station de la Repos du Col* and in the Valley of the Kings display workmen's marks: stools and seats, lamps, foots of lamps or altars, a standard of a lamp, head rests, wooden docketts, a wooden comb, linen clothing items, and prestigious objects such as bronze amphora stands, bronze bowls and containers. Several tools, mostly recovered from Deir el-Medina in tombs, houses and dumps are incised with workmen's marks as well: a trowel, mallets, an adze, wooden handles of chisels, wooden objects, wooden sticks, a wooden throw stick, wooden blocks, a wooden pole used for baking, a limestone mould of a figurine, and clay devices for heating bronze tools. Workmen's marks appear also as graffiti. The greater majority of graffiti with marks have been left by the necropolis workmen in the Theban mountains, but they are also attested on the pavement of the Ramesside temple at the settlement. They are sometimes combined with hieratic inscriptions, and as will be seen later on, at times these graffiti play an important role in this study.

Although a systematic study of the meaning and the function of identity marks from the Royal Necropolis was never conducted, the marks had not gone unnoticed.<sup>11</sup> In fact, one of the first serious attempts to interpret the marks was quite valuable. It was put forward by Georges Daressy in his publication of a series of ostraca from the Valley of the Kings.<sup>12</sup> Although his comments on ostraca with workmen's marks were brief, we now see that some of them were correct. The marks were described in different words: "signes,"<sup>13</sup> "signes de

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<sup>11</sup> Mention of the marks was made in print for the first time in 1868 in a publication of ostraca from the British Museum by Samuel Birch. At the time hardly anything was known about the context of ostraca with marks, and the marks were described as "hieroglyphs" and as "hieratic writing, the purport of which is obscure", see Samuel Birch, *Inscriptions in the Hieratic and Demotic Character from the Collections of the British Museum* (London 1868), 5, no. 5861; no. 5642.

<sup>12</sup> Georges Daressy, *Ostraca. Nos. 25001-25385*. CGC (Cairo 1901).

<sup>13</sup> Daressy, *Ostraca*, 81, O. Cairo CG 25315.



fantaisie”,<sup>14</sup> “marques”<sup>15</sup> and “Série de marques de pierres (?)”<sup>16</sup>. Slightly more accurate is the categorisation of ostrakon O. Cairo CG 25316 as “comptes d’ouvriers (?)”.<sup>17</sup> His most explicit description concerns O. Cairo CG 25326, the accession number for nine ostraca with a single identity mark combined with a number of strokes each. Daressy proposed that these were individual attendance sheets, counting the number of days a workman had laboured.<sup>18</sup> A very similar interpretation can be found in Daressy’s comments on ostraca O. Cairo CG 24105 – 24108, although the identity marks themselves were once again called “signes de fantaisie”.<sup>19</sup>

Workmen’s marks on ostraca, pottery fragments and other objects will occasionally have emerged among the finds of the missions that scavenged the Valley of the Kings during the early 20<sup>th</sup> century. Much to our regret, the explorers of that time were hardly interested in such matters, and we possess only some tantalising notes of their observations. Howard Carter for example, who discovered several ostraca with workmen’s marks during his excavations in the Valley of the Kings, does not seem to have been very interested in them. Only a single reference to an ostrakon with identity marks is made in his manuscripts. It concerns a piece found in 1922 near the tomb of Siptah, Find nr. 373: “[Limestone splinter bearing] primitive hiero[lyph]s.”<sup>20</sup> Edward Ayrton mentioned ostraca with workmen’s marks found at the workmen’s huts near the tomb of Seti I in a private letter to Theodore M. Davis from December 1908, where he called them “‘Mediterranean’ ostraka”. Although Ayrton wrote that he had a theory as to their meaning, he does not elaborate on it.<sup>21</sup> In his report of the excavations of 1905 and 1906, Ayrton spoke of pottery fragments that had belonged to the workmen of the tomb found in front of the tomb of Ramesses IV. He added that “[m]ost of the pots had marks scratched on them, which are interesting, because their date is quite certain. As several fragments bear the name of Ramesses II, and no other name appears on them, it is probable that this rubbish is all from his tomb”.<sup>22</sup> It can only be called unfortunate for our current purposes that this material was never fully disseminated.

Ayrton’s idea about the “Mediterranean” nature of the marks seems to resonate in William Flinders Petrie’s work, written only a few years later. He attributed the marks on a number of ostraca in his possession a place in a grand scheme of other signs and letters attested at different archaeological sites in an attempt to explain the origin of the alphabet.<sup>23</sup> Dating his Theban ostraca to the 19<sup>th</sup> Dynasty he interpreted the marks as “foreign signs” with phonetic values, which formed words or sentences.<sup>24</sup> In a discussion of a different ostrakon (O. UC 45788) in a brief article some years later, he explained the marks on that piece as signs that referred not to individuals, but to boats. The strokes added to the marks

<sup>14</sup> Daressy, *Ostraca*, 83, O. Cairo CG 25327.

<sup>15</sup> Daressy, *Ostraca*, *passim*.

<sup>16</sup> Daressy, *Ostraca*, 82, O. Cairo CG 25317.

<sup>17</sup> Daressy, *Ostraca*, 82.

<sup>18</sup> Daressy, *Ostraca*, 83.

<sup>19</sup> Georges Daressy, *Fouilles de la Vallée des Rois (1898-1899). Nos. 24001-24990*. CGC (Cairo 1902), 64.

<sup>20</sup> Carter MSS, page 24 of Notebook E, 5th excavation season. Transcript accessible via <http://www.griffith.ox.ac.uk/gri/cc/page/tscript/ts24b.html>. The suggestion that these “primitive hieroglyphs” might be workmen’s marks was first made by Gregor Neunert, ‘Neues von Siptah. Einige Ergänzungen zur Titulatur des Königs’ in: Dieter Kessler, Regine Schulz, Martina Ullmann *et al.* (eds.), *Texte –Theben – Tonfragmente. Festschrift für Günter Burkard*. ÄAT 76 (Wiesbaden 2009), 333.



<sup>21</sup> Carl Nicholas Reeves, *Valley of the Kings. The decline of a royal necropolis* (London 1990), 337, Document D.


<sup>22</sup> Edward Ayrton, ‘The excavations during the winters of 1905-1906’ in: Theodore M. Davis, Gaston Maspero, Edward Norton *et al.*, *The Tomb of Siptah; the Monkey Tomb and the Gold Tomb*. Theodore M. Davis’ excavations: Bibân el Molûk (London 1908), 7.

<sup>23</sup> William M. Flinders Petrie, *The foundation of the Alphabet*. BSAE 3 (London 1912), pl. I.



<sup>24</sup> Petrie, *Alphabet*, caption of pl. I; 2.

were seen as “probably [...] tallies of the delivery of boat loads of stone”. Petrie noted that, as some signs faced right and some left, the scribe of the ostrakon could not have been very experienced and had probably “learned his signs from big monuments, on which they face either way for symmetry.”<sup>25</sup>

In general, the excavators of Deir el-Medina dedicated more thought to the marks that were discovered on objects and ostraca from different sites at the village. Ernesto Schiaparelli, whose team discovered the intact tomb of Kha (TT 8), found that many of the objects in the funerary equipment were inscribed with marks. The marks on pieces of linen items featured briefly in his publication of the tomb and its content. Noting that a few linen items were inscribed with the name of Kha, he surmised that mark , called “una specie di cifra”, must have represented Kha in the same way clothing was marked in the days of Schiaparelli himself.<sup>26</sup> While mark  is present on several ceramic vessels published in his report, along with a few other marks on objects and pottery, only the mark of Kha on a bronze container<sup>27</sup> and a bronze vessel standard<sup>28</sup> were highlighted.

Later, Bernard Bruyère, director of the excavations of the French Institute for Oriental Archaeology at Deir el-Medina from 1922 to 1951, must have encountered thousands of workmen’s marks during his work in and around the settlement. His first ideas on the marks were published in 1925, when he examined mark  incised on the seat of a stool. Bruyère recognised that this mark was the same as the one attested on the linen cloths from the tomb of Kha. Moreover, he was the first to realise that the marks on objects from Deir el-Medina and on ostraca belonged to the same system:

*On peut relever dans la nécropole, sur des objets de toute espèce, une catégorie de signes différents, les uns pris dans le répertoire hiéroglyphique, les autres absolument étrangers à toute écriture connue. G. Daressy [...] et T. [sic] Birch [...] ont publié des ostraca trouvés à Thèbes et portant une suite de ces signes, dans lesquels on a essayé de voir une graphie secrète.*<sup>29</sup>

Bruyère noted that the signs could have been either marks of individual workmen, or marks of workshops at the necropolis. Since the mark of Kha was attested at TT 8 as well as in and around other tombs at Deir el-Medina, he believed the latter theory to be the most probable.<sup>30</sup> Yet, in his report of season 1933-1934, it appears that Bruyère had reconsidered his statement in favour of his first theory about the signs as marks of workmen. In reports published in 1925, Bruyère referred to the signs as “marques”, “marques doliaires” – loosely translated as “potmarks” – as well as “marques de propriété”. Occasionally, he endeavoured to connect the marks with the corresponding individuals. Regarding mark , attested on all items of pottery from the tomb of Huynifer (DM 1322-1323), he proposed that the signs were property marks that belonged to the tomb owner Huynifer himself.<sup>31</sup> Nevertheless, Bruyère kept an open mind about some signs. Mark , the hieroglyphic group *nb t3.w.y*, found on an amphora stamped with royal cartouches was considered to be an indication that the vessel came from royal storerooms.<sup>32</sup> In later reports, Bruyère paid more attention to the function of the marks.

<sup>25</sup> William M. Flinders Petrie, ‘Boat names in Egypt’ *AE B.3* (1915), 136-137.

<sup>26</sup> Ernesto Schiaparelli, *Relazione sui lavori della Missione Archeologica Italiana in Egitto (anni 1903-1920)*. Vol. 2. *La tomba intatta dell'architetto “Cha” nella necropoli di Tebe* (Turin 1927), 93.

<sup>27</sup> Schiaparelli, *La tomba*, 135-136.

<sup>28</sup> Schiaparelli, *La tomba*, 143.

<sup>29</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1923-1924)*. FIFAO 2.2 (Cairo 1925), 89-90.

<sup>30</sup> Bruyère, *Rapport 1923-1924*, 90.

<sup>31</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1933-1934)* I. FIFAO 14 (Cairo 1937), 55. The present study has not been able to substantiate or refute Bruyère’s suggestion.

<sup>32</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1934-1935)* II. FIFAO 15 (Cairo 1937), 93-94.

In regards to the marks on the footing of altars or lamps, he pointed out that the marks were added as a “sort of guaranty against theft”.<sup>33</sup> In the same report he examined the marks on three wooden blocks. In his opinion, the fact that another block was inscribed with a proper name suggested that the blocks with an isolated mark were indicators of ownership. Because the objects were marked, they must have been of considerable value. Bruyère remarked furthermore that the hieroglyphic signs that constitute the marks on these blocks were not evidently abbreviations of proper names. For that reason he wondered whether instead the signs were borrowed from the calendar of lucky and unlucky days or from board games.<sup>34</sup>

Conversely, many of the marks engraved in the pavement of the Ramesside temple of Hathor at Deir el-Medina were seen by him as abbreviated forms of the names of workmen. The marks themselves were interpreted as votive graffiti.<sup>35</sup> In Bruyère’s final excavation report, a separate section was dedicated to the workmen’s marks found on pottery fragments from the Grand Puits. He explained that the marks occur on domestic objects, linen, tools and toiletries, and that some marks were borrowed from hieroglyphic script while others were inspired by “la fantaisie ou par une cryptographie étrangère”. Concerning the marks on pottery Bruyère theorised that it must have been essential to mark vessels with identity marks as they contained products brought to the village as the salary of the workmen and had to be easily recognisable during distribution by the scribes.<sup>36</sup> Later, Bruyère proposed to attribute a mark attested on pottery and building blocks from tomb TT 1 and its surroundings to Sennedjem, the owner of that tomb,<sup>37</sup> an interpretation that we will see is correct.<sup>38</sup>

Another connection between an identity mark and a particular workman was established in one of the first Deir el-Medina tombs to be published in a monograph. The work deals with TT 5, the tomb of Neferabet, which was examined by Jacques Vandier and Jeanne Vandier d’Abbadie. They mentioned *en passant* a number of shards, which were incised with the “marque de propriété” of Neferabet.<sup>39</sup> Similar valuable contributions to the study of workmen’s marks were made by Georges Nagel, the ceramicist of the French excavations at Deir el-Medina. He recorded several marks in the excavation reports published by Bruyère, and in his own monograph on the pottery from the settlement<sup>40</sup> he duplicated these notes and published several additional marks found on pottery as well as on other objects. Nagel sensibly distinguished between potters’ marks, which are incised before firing of the vessel, and property marks, which are incised or inscribed after firing. The latter category was by far most often attested. Nagel noted that pottery recovered from tombs demonstrated a great variety of marks within a single ensemble. As the majority of the Deir el-Medina tombs had remained anonymous to the researchers, Nagel was not able to attribute marks to individuals. Yet, he remarked that the marks were interesting and expressed his hopes that later studies might be able to identify the individuals behind the marks.<sup>41</sup>

One might expect that the brilliant hieraticist Jaroslav Černý, famed for his work on documents from Deir el-Medina and the lives of its inhabitants, would have directed his attention to the identity marks, but his comments on the matter are surprisingly concise. Černý’s notebooks reveal that he did transcribe a few dozens of unpublished ostraca with workmen’s marks. For example, in NB 106.20, ostraca Cairo JE 72490 – JE 72500 are listed

<sup>33</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1934-1935)* III. FIFAO 16 (Cairo 1939), 213.

<sup>34</sup> Bruyère, *Rapport 1934-1935* III, 224.

<sup>35</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1935 à 1940)* I. FIFAO 20.1 (Cairo 1948), 83.

<sup>36</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1948 à 1951)*. FIFAO 26 (Cairo 1953), 60.

<sup>37</sup> Bernard Bruyère, *La tombe No. 1 de Sen-nedjem à Deir el Médineh*. MIFAO 88 (Cairo 1958), 5.

<sup>38</sup> See chapter 5, 5.2.1; 5.2.2.7.

<sup>39</sup> Jacques Vandier and Jeanne Vandier d’Abbadie, *Tombes de Deir el-Médineh. La tombe de Nefer-Abou*. MIFAO 69 (Cairo 1935), 54 and fig. 32. See chapter 5, 5.2.1; 5.2.2.6.

<sup>40</sup> Georges Nagel, *La céramique du Nouvel Empire à Deir el Médineh*. Tome I. DFIFAO 10 (Cairo 1938).

<sup>41</sup> Nagel, *La céramique*, x.

under the heading “Ostraca avec des marques d’ouvriers”.<sup>42</sup> Yet, the total of ostraca with workmen’s marks examined by Černý pales in comparison to the hundreds of marks ostraca discovered by the French mission,<sup>43</sup> all of which must have been seen by him. It is perhaps just as odd that the marks do not feature at all in his seminal book *A Community of Workmen at Thebes in the Ramesside Period*. On the other hand it is well evident that the copious amounts of hieratic papyri and ostraca from the settlement had occupied the scholar to such an extent that he gave precedence to the discussion of textual documents. Černý did publish a small number of ostraca with workmen’s marks. The marks were either not mentioned,<sup>44</sup> or referred to as “marques”<sup>45</sup> or as “marques d’ouvriers (?)”<sup>46</sup>. One particular type of ostraca with marks<sup>47</sup> must have intrigued Černý, and in a private letter written by him to Rob Demarée the former scholar proposed – correctly, as we shall see – to interpret these documents as records of a duty roster.<sup>48</sup>

Some years later the existence of ostraca with marks from Thebes was mentioned by Sir Alan H. Gardiner,<sup>49</sup> but it was not until 1975 that the subject was touched upon again, this time by Dominique Valbelle in her publication of the tomb of Hay (TT 267). Building on Bruyère’s ideas, she stated that the majority of the inhabitants of the village of Deir el-Medina possessed their own property mark, and pointed out that these marks are attested on pottery, ostraca and domestic objects. She identified the mark of Hay in several graffiti in the Theban mountains, where the mark was executed next to an inscription of Hay’s name.<sup>50</sup>

During the same decade, workmen’s marks featured in the publications of the ostraca in the collection of Turin by Jesús López, but they were not explicitly identified as such. The marks were described as “segni” or “segni di scrittura”.<sup>51</sup> Some ostraca were tentatively categorised as student’s exercises,<sup>52</sup> others as accounts<sup>53</sup> or inventories.<sup>54</sup> Similarly, in Yvan Koenig’s publication of ostraca in Strasbourg, workmen’s marks were signalled as “marques”

<sup>42</sup> Černý NB 106.20.

<sup>43</sup> These ostraca, kept at the French Institute for Oriental Archaeology in Cairo, are still unpublished. Many of these ostraca are discussed in this work (chapters 2, 3 and 4; hand copies in Appendix II) for the first time.

<sup>44</sup> Jaroslav Černý, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh*. I. Nos. 1 à 113. DFIFAO 3 (Cairo 1935), 7-8, O. DeM 32; Jaroslav Černý, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh*. IV. 242 à 339. DFIFAO 6 (Cairo 1939), 7, O. DeM 264; Jaroslav Černý, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh*. VII. Nos. 624-705. DFIFAO 14 (Cairo 1970), 5-6, O. DeM 646.

<sup>45</sup> Černý, *Ostraca hiératiques* I, 8, O. DeM 34; Jaroslav Černý, *Ostraca hiératiques*. Nos. 25501-25832. CGC. (Cairo 1935), 52, O. Cairo CG 25660.

<sup>46</sup> Černý, *Ostraca hiératiques*. Nos. 25501-25832, O. Cairo CG 25569; 49, O. Cairo CG 25651; the marks were interpreted as personal property markers in Jaroslav Černý, ‘Nouvelle série de questions adressées aux oracles’ *BIFAO* 41 (1942) 22: “la marque spéciale qu’avait adoptée chaque ouvrier – car c’est bien des ouvriers qu’il s’agit ici – pour pouvoir marquer des objets lui appartenant [...]”

<sup>47</sup> See chapter 3.

<sup>48</sup> A copy of the letter was kindly provided by Rob Demarée; see also chapter 3, 169 and n. 14.

<sup>49</sup> The marks were described as “cryptic symbols sometimes accompanied by numbers” and they were compared to “symbols” found in onomastica, see Alan H. Gardiner, *Ancient Egyptian Onomastica*. Text (2 vols) and Plates (Oxford 1947), 11 and n. 2.

<sup>50</sup> Dominique Valbelle, *La tombe de Hay à Deir el-Médineh [No 267]*. MIFAO 95 (Cairo 1975), 36 and fig. 20.

<sup>51</sup> E.g. Jesús López, *Ostraca Ieratici*. N. 57001-57092. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 1 (Milan 1978), 19, O. Turin N. 57008; Jesús López, *Ostraca Ieratici*. N. 57093-57319. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 2 (Milan 1980), 22, O. Turin N. 57140.

<sup>52</sup> E.g. Jesús López, *Ostraca Ieratici*. N. 57320-57449. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 3 (Milan 1982), 17, O. Turin N. 57350.

<sup>53</sup> E.g. López, *Ostraca Ieratici*. N. 57320-57449, 31, O. Turin N. 57394.

<sup>54</sup> E.g. Jesús López, *Ostraca Ieratici*. N. 57450-57568. *Tablelle Lignee* N. 58001-58007. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 4 (Milan 1984), 34, O. Turin N. 57532.

without further commentary.<sup>55</sup> In a review of this work, Matthias Müller suggested that ostrakon Gardiner AG 8<sup>56</sup> might offer an insight into this category of ostraca, provided that the hieratic text on the obverse is related to the marks on the reverse.<sup>57</sup>

The new editions of ostraca with marks thus overlooked the theories of Bruyère, Nagel, and Daressy. Nevertheless, they may have renewed scholarly interest in the subject, because ostraca with marks were referred to in several subsequent works. They were mentioned in Christopher Eyre's dissertation as part of a discussion about the rate of literacy among the community of workmen of the Royal Necropolis. The marks were described as "[s]imple, single signs, often not signs belonging to the writing system [...]" which "[...] would be readily recognizable by illiterate workmen [...]", who used them as marks of ownership.<sup>58</sup> Joyce Tyldesley too interpreted workmen's marks, probably those attested on objects, as personal property markers "which were obviously used by the illiterate or partially literate". She mentioned that such signs are attested on the walls of tombs and houses,<sup>59</sup> but in her opinion the signs were predominantly used to mark laundry that was sent to be cleaned by laundrymen<sup>60</sup> – perhaps inspired by the marks on the linen from the tomb Kha.

Still more new material with workmen's marks was brought to light during excavations in the Valley of the Kings that took place in the 1990s and 2000s. Somewhat surprisingly, the excavators seemed hesitant to accept previous ideas about the marks in preliminary remarks on these finds. For example, in 1995 Sakuji Yoshimura and Jiro Kondo reported the discovery of 11 ostraca with marks found during archaeological research conducted by a team from Waseda University in the West Valley of the Kings, describing them as "bearing cryptic 'texts' or 'marks'" and comparing them to similar ostraca published by Daressy.<sup>61</sup> Without providing an interpretation of the documents, a later article called them "enigmatic ostraca".<sup>62</sup> The same term was used for ostraca found by the team of Otto Schaden excavating in the area of KV 10,<sup>63</sup> as well as for an ostrakon recovered in 1999 in the Valley of the Kings by the excavations of the Amarna Royal Tomb Project under the direction of Nicholas Reeves. It was said to belong to a "class of ostraca from western Thebes with texts in a bizarre script which is neither true hieroglyphic nor true hieratic."<sup>64</sup> However, another ostrakon bearing workmen's marks found during the same season was interpreted as the inventory of a tomb, listing items such as linen, a headrest and "other domestic articles".<sup>65</sup> A very similar initial explanation was given for the marks on ostrakon O. DeM 10121 published in 2006 by Pierre Grandet, where they were tentatively believed to represent the inventory of a temple.<sup>66</sup>

<sup>55</sup> Yvan Koenig, *Les ostraca hiératiques inédits de la bibliothèque nationale et universitaire de Strasbourg*. DFIFAO 33 (Cairo 1997), 3, O. Strasbourg H. 10 and O. Strasbourg H. 11; 4, O. Strasbourg H. 13; 5, O. Strasbourg H. 45; 6, O. Strasbourg H. 59; 15, O. Strasbourg H. 193.

<sup>56</sup> Now known as ONL 6539; transcription in *KRI VII*, 356.

<sup>57</sup> Matthias Müller, review of Koenig, *Les ostraca hiératiques inédits*, in: *LingAeg* 7 (2000), 273. See for this ostrakon chapter 4, 4.3.2.3.

<sup>58</sup> Christopher J. Eyre, *Employment and Labour Relations in the Theban Necropolis in the Ramesside Period*. Unpublished PhD Dissertation (Oxford 1980), 67.

<sup>59</sup> As far as the author is aware no such marks on walls have been published.

<sup>60</sup> Joyce Tyldesley, *Daughters of Isis. Women of Ancient Egypt* (New York 1994), 120.

<sup>61</sup> Sakuji Yoshimura and Jiro Kondo, 'Excavations at the tomb of Amenophis III' *EA* 7 (1995), 18.

<sup>62</sup> Sakuji Yoshimura and Jiro Kondo, 'The tomb of Amenophis III: Waseda University excavations 1989-2000' *ASAE* 78 (2004), 207.

<sup>63</sup> <http://www.kv-10.com>, season summary of 2003.

<sup>64</sup> Nicholas Reeves (ed.), *Newsletter of the Valley of the Kings Foundation* 1 (2002), ostrakon depicted in fig. 27. Accessible via <http://www.nicholasreeves.com/item.aspx?category=Writing&id=102>.

<sup>65</sup> Reeves (ed.), *Newsletter of the Valley of the Kings Foundation* 1, ostrakon depicted in fig. 24. Accessible via <http://www.nicholasreeves.com/item.aspx?category=Writing&id=102>.

<sup>66</sup> Pierre Grandet, *Catalogue des ostraca hiératiques non littéraires de Deir el-Médîneh X. Nos. 10001-10123*. DFIFAO 46 (Cairo 2006), 118-119. In a later publication the signs on the ostrakon were correctly interpreted as

In contrast, Zahi Hawass was not at all reluctant to offer an explanation of an ostrakon inscribed with workmen's marks. In an online video uploaded in 2009, this archaeologist showed and discussed several ostraca found by the Egyptian excavations in the central Valley of the Kings. One of the ostraca was a piece with workmen's marks with strokes underneath them, and this document was said to record the amounts of "food" consumed on a daily basis by the workmen.<sup>67</sup> Implicitly, the marks were taken as signs referring to individual workmen.

The identity marks of the Deir el-Medina workmen were dubbed "funny signs" by Richard Parkinson. This term continued to be used in later publications of several other scholars, although they were designated as "signes cabalistiques"<sup>68</sup> or "name-markers"<sup>69</sup> as well. Parkinson reiterated the original view that the marks could be used as property markers and that they were used in administrative documents as "abbreviations of people's names", but noted that "[t]heir exact usage and significance, however, is as yet uncertain."<sup>70</sup>

The first scholar after Daressy and Bruyère to discuss the nature and meaning of marks on ostraca in some detail was Andrea McDowell. Her publication in 1993 of ostraca from the Hunterian Museum included two pieces with workmen's marks, and her brief comments would have a significant impact on the study of the Deir el-Medina identity marks. After Černý's interpretation of very similar ostraca,<sup>71</sup> O. Glasgow D. 1925.67 and O. Glasgow D. 1925.85 were explained as duty rosters, a genre of administrative records well known among the 20<sup>th</sup> Dynasty hieratic ostraca from Deir el-Medina. The marks on the two Glasgow ostraca are combined with semi-hieratic calendar dates, and McDowell suggested they represented workmen who partook in this roster. Comparing the two ostraca with marks to similar hieratic documents McDowell proposed to identify marks  $\perp$  and  $\text{||}$  as respectively the workmen Kasa and Mose.<sup>72</sup>

Five years later, a review of McDowell's work was published by Mounir Megally who discussed the ostraca with day numbers and marks at some length as well, as he believed they had not received the attention they deserved. The lack of interest in ostraca with marks was attributed to a number of factors: the apparent absence of a "verbal or non-verbal grammatical structure", as well as the lack of data about the nature of the activities that the ostraca record.<sup>73</sup> He noted that the "signs" ("signes") were of a particular palaeography that separated them from hieratic signs.<sup>74</sup> When compared to well-known hieratic administrative documents, the style in which the ostraca with marks were produced were in the opinion of Megally evidence of a difference in professional quality. He sought out the meaning and function of the marked ostraca in these characteristics: that the ostraca structurally displayed hands which he described as "hesitant" and "little experienced" meant that they were created by apprentice scribes who produced the documents as the first steps in their training.<sup>75</sup>

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workmen's marks, see Pierre Grandet, *Catalogue des ostraca hiératiques non littéraires de Deir el-Médîneh XI. Nos. 10124-10275*. DFIFAO 48 (Cairo 2010), 228.

<sup>67</sup> 'Dr. Hawass in the Valley of Kings: The new inscribed finds (Part 2 of 2)', a video shot by Sandro Vannini and Nico Piazza for Heritage Key. Accessible via <http://www.youtube.com/watch?v=OSTMyBuinPc>.

<sup>68</sup> Annie Gasse, 'L'inventaire des ostraca littéraires de Deir el-Médîna conservés à l'IFAO. Premiers résultats' *GM* 174 (2000), 7.

<sup>69</sup> Robert J. Demarée, *Ramesside Ostraca* (London 2002), 19, O. BM 5642; 21, O. BM 5861; 22-23, O. BM 14214.

<sup>70</sup> Richard Parkinson, *Cracking codes. The Rosetta Stone and Decipherment* (London 1999), 93.

<sup>71</sup> Explicated in a private letter written to Rob Demarée (see above, p. 9 and n. 48) who discussed its content with McDowell.

<sup>72</sup> Andrea G. McDowell, *Hieratic Ostraca from the Hunterian Museum, Glasgow (The Colin Campbell Ostraca)* (Oxford 1993), 4-5; 19-20; this genre of ostraca with marks will be the main focus of chapter 3, where McDowell's ideas will be examined in more detail.

<sup>73</sup> Mounir Megally, review of McDowell, *Hieratic Ostraca*, in: *CdE* 73 (1998), 276.

<sup>74</sup> Megally, review of McDowell, *Hieratic Ostraca*, 275-276.

<sup>75</sup> Megally, review of McDowell, *Hieratic Ostraca*, 276; 279.

Regarding the marks on the ostraca Megally deduced that it was probable that the marks referred to the individuals involved in a particular action.<sup>76</sup> Yet, Megally disagreed with McDowell's proposition that these individuals were workmen, and he refuted the identifications of Kasa and Mose because "un nom propre, même abrégé, est toujours noté avec un déterminatif, A1 ou B1; sémantiquement, c'est une partie intégrante du nom propre." Therefore, it seemed more likely to the reviewer to explain the marks as indicators of groups of individuals. Young scribes would not yet have been able to write proper names, and hence employed marks that are also attested on other objects and ostraca from Deir el-Medina. Megally suggested that such groups of workmen were each controlled by a supervisor or a scribe, each with their own mark, a representation of a certain object.<sup>77</sup>

The discussions of McDowell and Megally drew the attention of Ben Haring,<sup>78</sup> who another five years later succeeded for the first time to prove beyond any doubt that the signs inscribed on these ostraca with semi-hieratic calendar dates as discussed by McDowell and Megally, were in fact identity marks, each referring to a single workman of the royal tomb. Drawing upon McDowell's assumption that the ostraca represented duty rosters, Haring was able to suggest four possible dates for the marks on the concave side O. Berlin P 12625, thus far unpublished. Moreover, he tentatively identified the individuals behind several marks on that and other ostraca with calendar dates and identity marks. Haring also signalled the possibility that workmen could have adopted their identity marks from their predecessors.<sup>79</sup> He went on to suggest that this type of ostraca with identity marks should "be regarded as a type of administrative records that could be understood by illiterate, or rather semi-literate people [...]."<sup>80</sup>

Haring's breakthrough prompted further interest in the study of ostraca with workmen's marks. In 2006 a conference with as its topic marking systems in Ancient Egypt and elsewhere was organised in Leiden, with a follow-up in Berlin in the subsequent year. The proceedings of the former conference included two papers on the Deir el-Medina workmen's marks. David Aston addressed the question as to whether the marks found on pottery from Deir el-Medina and the Valley of the Kings represent identity marks or not.<sup>81</sup> After a cursory overview of the different theories regarding the meaning of potmarks in ancient Egypt, he noted that one should distinguish between pre-firing and post-firing potmarks, as Nagel had done before him. It is generally accepted that the latter category is mostly connected with ownership: these potmarks represent the owner of a vessel, not its manufacturer. Comparing the post-fired potmarks from Deir el-Medina and the Valley of the Kings to the identity marks on ostraca from the same location, Aston found them to be identical. Based on the provenance and typology of the ceramic vessels, he attributed identity marks to the various periods, such as the reigns of Ramesses II, Siptah, Ramesses III and Ramesses IV.<sup>82</sup> Aston remarked furthermore that among the vessels of the workmen of Deir el-Medina the number of potmarks is exceptionally high.<sup>83</sup> As a possible explanation he

<sup>76</sup> Megally, review of McDowell, *Hieratic Ostraca*, 279-280.

<sup>77</sup> Megally, review of McDowell, *Hieratic Ostraca*, 280.

<sup>78</sup> Ben J.J. Haring, 'Towards decoding the necropolis workmen's funny signs' *GM* 178 (2000), 45-58.

<sup>79</sup> Haring, 'Decoding the necropolis workmen's funny signs', 51.

<sup>80</sup> Haring, 'Decoding the necropolis workmen's funny signs', 55.

<sup>81</sup> David A. Aston, 'Theban potmarks – nothing other than funny signs? Potmarks from Deir el-Medineh and the Valley of the Kings' in: B.J.J. Haring and O.E. Kaper (eds.), *Pictograms or Pseudo Script? Non-textual identity marks in practical use in Ancient Egypt and elsewhere. Proceedings of a conference in Leiden, 19-20 December 2006*. EU 25 (Leuven and Leiden 2009), 49-65.

<sup>82</sup> Aston, 'Theban potmarks', 59-61.

<sup>83</sup> Aston, 'Theban potmarks', 52. It is doubtful if this statement still holds true because large bodies of ceramic vessels and vessels fragments with marks – which need not all have had the same function – have been identified at various other locations as well, see e.g. Barbara Ditze, 'Gedrückt – Geritzt – Gekratzt. Die Gefäße mit Topfmarken' in: Edgar B. Pusch and Manfred Bietak (eds.), *Die Keramik des Grabungsplatzes Q 1. Teil 2*.

stated that the community of workmen lived and worked under unusual circumstances: “[W]ith the Deir el-Medineh workforce we have a group of men who went away from their village to work in the Valley of the Kings for periods of 10 days at a time, where in a more communal and probably more regimented working environment, certain individuals may have felt the need to mark their own property”.<sup>84</sup> Additionally, Aston too found indications that the identity marks could be inherited or re-assigned.<sup>85</sup>

In a first progress report<sup>86</sup> of his research on ostraca with workmen’s marks, Haring concurred with Aston – and in fact with several scholars before him – that the marks on ceramic vessels from Western Thebes and the marks on ostraca are both identity marks of the workmen of the royal tomb. He noted furthermore that the same identity marks also occur in graffiti and on other object from the workmen’s settlement and cemetery.<sup>87</sup> This assumption has since been generally accepted. Concentrating on ostraca with workmen’s marks, Haring categorised the documents known to him at the time on the basis of their layout,<sup>88</sup> and continued to demonstrate that ostraca were inscribed with marks during the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> Dynasties. He dated several ostraca with marks to the time of Ramesses III on the basis of marks that also appear on ostraca with duty rosters.<sup>89</sup> Moreover, it was shown that ostraca with marks dating to the 18<sup>th</sup> Dynasty are recognisable on the basis of layout, style, and the repertory of marks. Some groups of ostraca from this time were dated to a specific reign on account of their provenance in the Valley of the Kings,<sup>90</sup> and two ostraca were assigned a date in the 19<sup>th</sup> Dynasty.<sup>91</sup> In another paper, Haring explored the nature and development of workmen’s marks on ostraca, detecting an increase in the scribal character of such ostraca over time.<sup>92</sup> Later, the significance of the 18<sup>th</sup> Dynasty marks ostraca for the understanding of the organisation and administration of the crew of workmen during that time was highlighted by Haring. It was pointed out that the number of different marks per ostrakon or per group of ostraca from a single findspot can be indicative of the size of the workforce.<sup>93</sup>

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*Schaber – Marken – Scherben. Die Grabungen des Pelizaeus-Museums Hildesheim in Qantir – Pi-Ramesse Band 5 (Hildesheim 2007), 270-507; for potmarks from the Early Dynastic Period, see e.g. Edwin C.M. van den Brink, ‘The international potmark workshop. Progressing from Toulouse to London in the study of Predynastic and Early Dynastic potmarks’ in: Renée F. Friedman and Peter N. Fiske (eds.), *Egypt at its Origins 3. Proceedings of the Third International Conference “Origin of the State. Predynastic and Early Dynastic Egypt”, London, 27th July – 1st August 2008*. OLA 205 (Leuven, Paris and Walpole 2011), 1005-1013; Gâelle Bréand, ‘The corpus of pre-firing potmarks from Adaïma (Upper Egypt)’ in: Friedman and Fiske (eds.), *Egypt at its Origins 3*, 1015-1041; Lisa Mawdsley, ‘The corpus of potmarks from Tarkhan’, in: Friedman and Fiske (eds.), *Egypt at its Origins 3*, 1043-1071; Anna Wodzinska, ‘Potmarks from Early Dynasty Buto and Old Kingdom Giza: Their occurrence and economic significance’, in: Friedman and Fiske (eds.), *Egypt at its Origins 3*, 1073-1096.*

<sup>84</sup> Aston, ‘Theban potmarks’, 54.

<sup>85</sup> Aston, ‘Theban potmarks’, 55.

<sup>86</sup> Ben J.J. Haring, ‘Workmen’s Marks on Ostraca from the Theban Necropolis: A Progress Report’ in: B.J.J. Haring and O.E. Kaper (eds.), *Pictograms or Pseudo Script? Non-textual identity marks in practical use in Ancient Egypt and elsewhere. Proceedings of a conference in Leiden, 19-20 December 2006*. EU 25 (Leuven and Leiden 2009), 143-167.

<sup>87</sup> Haring, ‘Workmen’s Marks on Ostraca’, 143.

<sup>88</sup> Haring, ‘Workmen’s Marks on Ostraca’, 145-146.

<sup>89</sup> Haring, ‘Workmen’s Marks on Ostraca’, 150-152.

<sup>90</sup> Haring, ‘Workmen’s Marks on Ostraca’, 152-154.

<sup>91</sup> Haring, ‘Workmen’s Marks on Ostraca’, 154-156.

<sup>92</sup> Ben J.J. Haring, ‘On the Nature of Workmen’s Marks of the Royal Necropolis Administration in the New Kingdom’ in: Petra Andrassy, Julia Budka and Frank Kammerzell (eds.), *Non-Textual Marking Systems, Writing and Pseudo Script from Prehistory to Modern Times*. LingAeg SM 8 (Göttingen 2009), 123-135.

<sup>93</sup> Ben J.J. Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’ in: Jaana Toivari-Viitala, Turo Vartiainen and Sara Uvanto (eds.), *Deir el-Medina Studies. Helsinki June 24–26, 2009. Proceedings*. FESOP (Helsinki 2014), 95-96.



Haring's conclusion that the marks from the Royal Necropolis were identity marks that referred to workmen inspired a number of scholars to explore the use and meaning of the marks. One particular category of ostraca that depict pieces of furniture together with workmen's marks, dubbed 'furniture ostraca', was discussed in a paper by Geoffrey Killen and Lara Weiss. The ostraca were interpreted as accounts of business transactions documenting the objects of the transaction as well as their producer(s) and/or recipient(s).<sup>94</sup>

Around the same period, Maria Fronczak and Sławomir Rzepka conducted a study on the identity marks that were carved in the Theban mountains by the necropolis workmen. Fronczak and Rzepka identified c. 600 of such instances. In a jointly written paper they noted that marks appear on their own as well as in bigger and smaller groups. Fronczak and Rzepka supported the idea that the marks represent identities by pointing out that the greater majority of textual graffiti consist of proper names. Occasionally a hieratic inscription containing proper names was found close to workmen's marks, but oftentimes it could not be established whether the hieratic text and the marks formed a single inscription. The authors analysed the spatial correlations between workmen's marks and proper names in the graffiti of the Theban mountains in an attempt to link individuals with their corresponding identity marks. Interpretation of the results of this analysis was not without difficulties, but at least in the cases of Amennakht (vi)/(xii) and Hay (vii) a matching workmen's mark was found.<sup>95</sup>

Identity marks were also discussed in Andreas Dorn's publication of finds made during the (re)excavation of the workmen's huts near the tomb of Ramesses X. The material included several jar stoppers, ostraca and ceramic vessels inscribed with workmen's marks.<sup>96</sup> In the opinion of Dorn, a mark can be seen as abbreviated writing of a name, while that sign is not necessarily connected with the name in a phonetic or graphic way. The marks were not referred to as 'workmen's marks' because the marks are used in other contexts besides the work on the tomb. Instead, the term 'name signs', "Namenszeichen" was employed as "hinter jedem Zeichen ein Name verbirgt".<sup>97</sup> Dorn put forward the idea that the marks enabled semi-literate workmen to possess simple administrative documents, or documents of private property or debt, independent of an official scribe. Moreover, he proposed that smaller ostraca inscribed with a single mark could have functioned in the same way as so-called 'name stones'.<sup>98</sup> Dorn identified over 90 different marks but noted that in almost all cases it was impossible to connect them with the individual workmen that the marks represent.

It is certainly due to the fact that the identity marks are currently much better understood that they are no longer ignored. In addition, scholars have come to realise that the study of ostraca with workmen's marks has the potential to shed light on prosopographical issues and on events that are not recorded in hieratic documentation.<sup>99</sup> The study of the

<sup>94</sup> Geoffrey Killen and Lara Weiss, 'Markings on Objects of Daily Use from Deir el-Medina. Ownership Marks or Administrative Aids?' in: Andrásy, Budka and Kammerzell (eds.), *Non-Textual Marking Systems*, 137-158. For this type of ostraca see chapter 4, 4.3.3.3.

<sup>95</sup> Maria Fronczak and Sławomir Rzepka, "'Funny Signs" in Theban Rock Graffiti" in: Andrásy, Budka and Kammerzell (eds.), *Non-Textual Marking Systems*, 159-178. For these graffiti, see chapter 4, 4.2.6.

<sup>96</sup> For a general discussion see Andreas Dorn, *Arbeiterhütten im Tal der Könige. Ein Beitrag zur altägyptische Sozialgeschichte aufgrund von neuem Quellenmaterial aus der Mitte der 20. Dynastie (ca. 1150 v. Chr. 1 Text- und Katalogband und 2 Tafelbände*. AH 23 (Basel 2011), 139-141.

<sup>97</sup> Dorn, *Arbeiterhütten*, 139.

<sup>98</sup> On this matter, see chapter 2, 2.3.4.5, chapter 5, 5.3.2.4 and particularly chapter 4, 4.3.3.4.

<sup>99</sup> As illustrated by recent papers, such as Mark Collier, 'The right side of the gang in years 1 to 2 of Ramesses IV' in: Ben J.J. Haring, Olaf E. Kaper and René van Walsem (eds.), *The workman's progress. Studies in the Village of Deir el-Medina and Other Documents from Western Thebes in Honour of Rob Demarée*. EU 28 (Leuven and Leiden 2014), 11-12; 20; Ben J.J. Haring and Daniel Soliman, 'Reading twentieth Dynasty ostraca with workmen's marks' in: Haring, Kaper and Van Walsem (eds.), *The workman's progress*, 73-93; Kathrin Gabler, 'Can I Stay or must I go? Relations between the Deir el-Medina Community and their Service Personnel', in: Andreas Dorn and Stéphan Polis (eds.), *Proceedings of the Conference "Deir el-Medina and the*

Theban identity marks indeed has much to offer to the scholar interested in the history of the Royal Necropolis workmen, as well as to academics from other fields involved in research on the use of non-textual marking systems. To this end, a four-year research project called ‘Symbolizing Identity. Identity marks and their relation to writing in New Kingdom Egypt’ was established in 2011 under the supervision of Ben Haring.<sup>100</sup> Together with Kyra van der Moezel and the author of this work, hundreds of ostraca with identity marks were analysed, in many cases for the first time, and collected in an online database. Besides several publications and two conferences in Leiden,<sup>101</sup> the present work is one of the outcomes of the research project.

The research project has confirmed that the identity marks of the Royal Necropolis are signs that refer to persons. They occur in many different shapes. Several marks appear to be abstract geometrical forms, but a large number of marks are signs or sign groups that are borrowed from hieroglyphic script, or less frequently, from hieratic script. These signs can be read, and the phonetic value that they retain is often related to the name of the workman who possessed that mark. Nevertheless, the marks differ from the characters of script in the sense that a very intimate connection exists between the signifier (the mark) and the referent (the identity of the individual the mark refers to). First and foremost that connection is established by the fact that the referent had either chosen the sign himself, or because it had come down to him via a close family member.<sup>102</sup> Unlike the characters of most forms of script, the spectrum of possibilities of identity marks is very limited, because they refer only to individuals and cannot be combined to form words or sentences by themselves. In contrast to most forms of script, the meaning of a mark is to a large extent conditioned by its physical and temporal context. A mark may have referred to a particular individual at a certain time, but one generation later it could represent someone else. Because a particular mark was sometimes in use by two different individuals, it is its environment – physically or within a particular document – that lends it its significance.

Apart from identity marks, we will encounter other signs that were created by the users of the identity marks, signs that refer not to individuals, but to elements such as commodities, parts of the crew, months and a religious institution. Such signs were invented because several individuals that employed identity marks on ostraca to create records felt impeded by the restricted possibilities of the identity marks. In combination with these other signs, as well as with dots, strokes, and drawings of objects, the identity marks were effectively used in a way that very closely approaches writing. The question whether these inscriptions can be categorised as script will not be of concern to us here; in this work we shall be occupied with the meaning of these inscriptions and their functional context.<sup>103</sup>

In this study an attempt will be made to establish the meaning of ostraca inscribed with marks and to determine the information that is conveyed by these documents. Ostraca

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*Theban Necropolis in Contact: Describing the Interactions Within and Outside the Community of Workmen, October 2014, Liège* (forthcoming); Kathrin Gabler, ‘Methods of Identification among the Deir el-Medina Workmen and their Service Personnel: The Use of Names, Titles, Patronyms and Identity Marks in Administrative Texts from Deir el-Medina’, in: Ben J.J. Haring *et al.* (eds.), *Decoding Signs of Identity. Egyptian Workmen’s Marks in Archaeological, Historical, Comparative and Theoretical Perspective. Proceedings of a conference in Leiden, December 13-15 December 2013* (forthcoming).

<sup>100</sup> Kyra van der Moezel and Daniel Soliman, ‘Workmen’s marks from the Theban necropolis’ *GM* 231 (2011), 7-9.

<sup>101</sup> Conference *Decoding Signs of Identity. Egyptian Workmen’s Marks in Archaeological, Historical, Comparative and Theoretical Perspective* (Leiden, December 13-15 2013); Conference *The Idea of Writing: Beyond Speech?* (Leiden, October 24-25, 2014).

<sup>102</sup> Some nuances to this statement are presented in chapter 6, 6.5.3 and 6.5.4.

<sup>103</sup> This question is part of the discussion of the second study of the research project ‘Symbolizing Identity’, and is treated by Kyra van der Moezel, *On Marks and Meaning. The Identity Marks from Deir el-Medina. A palaeographic, comparative and semiotic-cognitive analysis*. PhD Dissertation (Leiden 2015).

with marks will be analysed through a close comparison of the ostraca with hieratic administrative texts as well as textual graffiti. Besides identifying the workmen to whom the marks refer, this work revolves around the question what the purpose was of ostraca with marks. It shall be investigated why ostraca with marks were composed and by whom.

To this end a study of the history of the practice of using marks on ostraca is required. The origins of the practice will be retraced to ascertain when it was introduced in the community of necropolis workmen. Dating the individual ostraca will be an essential part of this work, as it will provide us with insights into the continuity and the development of the usage of ostraca with marks, and thereby into the significance of the practice to the users themselves and the extent to which it was embraced by the workmen.

To the best of our capabilities we shall scrutinise who these users were. An evident question is why of all places the necropolis workmen of Deir el-Medina employed marks to create documents, since this is the location that is most famed for its relatively large number of literate inhabitants. Based primarily on the situation of the first half of the 20<sup>th</sup> Dynasty, studies have deduced that about 25% to 30% or 40% of the necropolis workmen were “fully literate”,<sup>104</sup> a rate that is thought to have been exceptionally high for ancient Egyptian society.<sup>105</sup> Simultaneously it has been remarked that there are many gradations between complete proficiency in reading and writing of different types of texts on one side of the spectrum, and complete ignorance of the meaning and use of the characters of script on the other.<sup>106</sup> One of the aims of this work will be to examine the usage of identity marks within the context of literacies at Deir el-Medina. We will try to assess the degree to which the users of identity marks were literate, and we will investigate if and to what extent writing in the Royal Necropolis was influential in the practice of composing ostraca with marks and on the development of this custom. Through these endeavours we also intend to accumulate sufficient information to describe the various mechanisms behind the conception of individual identity marks and their transference from one necropolis workmen to another.

Prior to a study of the ostraca with marks from the Theban Necropolis, the origins of the marking system itself will be explored in chapter 1. The earliest ostraca with marks date to the 18<sup>th</sup> Dynasty, and are treated in chapter 2. Because relatively little is known about the social lives of the 18<sup>th</sup> Dynasty workmen and about the organisation and administration of work on the royal tomb at this time, these matters will first be addressed in chapter 1. Chapter 3 and chapter 4 both deal with the ostraca from the 20<sup>th</sup> Dynasty before moving on to documents of the 19<sup>th</sup> Dynasty, which are analysed in chapter 5. This non-chronological treatment of the ostraca is required because only through comprehension of the ostraca from the 20<sup>th</sup> Dynasty are we able to interpret and understand the ostraca from the preceding period. The final chapter 6 summarises the findings of the study and presents general conclusions about the meaning and purpose of the ostraca with marks, its development, and its users. It will pay special attention to the question of literacy among the workmen of the Royal Necropolis as well as the systems of transference of marks.

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<sup>104</sup> Depending on whether the agents of the *smd.t* personnel are included into the calculation or not; see John Baines and Christopher J. Eyre, ‘Four notes on literacy’ *GM* 61 (1983), 86-91; Jac. J. Janssen, ‘Literacy and Letters at Deir el-Medīna’ in: Robert J. Demarée and Arno Egberts (eds.), *Village Voices. Proceedings of the symposium ‘Texts from Deir el-Medīna and their interpretation.’ Leiden, May 31 - June, 1, 1991.* CNWS Publications 13 (Leiden 1992), 81-91.

<sup>105</sup> Baines and Eyre, ‘Four notes on literacy’, 90; Janssen, ‘Literacy and Letters’, 82; Ben Haring, ‘From Oral Practice to Written Record in Ramesside Deir El-Medina’ *JESHO* 46.3 (2003), 250.

<sup>106</sup> Janssen, ‘Literacy and Letters’, 81.

An attempt has been made to collect all ostraca with identity marks, but it is certainly possible that more pieces are still hidden in collections around the world.<sup>107</sup> An online database compiled as part of the research project ‘Symbolizing Identity’<sup>108</sup> includes all ostraca with marks that are part of this study, as well as graffiti and objects from the Royal Necropolis that display identity marks. It will aid the reader of this work by providing images of the ostraca and documents as well as various metadata and a primary bibliography. In addition, three appendices are supplied with this study. Appendix I comprises brief discussions of the date of some of the ostraca with marks that are not of crucial importance to the arguments laid out in the main text. In Appendix II the reader will find hand-copies of the ostraca the author was able to examine in person. The ostraca in question are kept in the collections of the Petrie Museum of Egyptian Archaeology (University College London), the Egyptian Museum in Turin, and the French Institute for Oriental Archaeology in Cairo. Also included are hand-copies of four ostraca on display in the Egyptian Museum in Cairo. Appendix III contains translations of the duty and delivery ostraca that are discussed in chapter 3.

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<sup>107</sup> Not included in this study are a small number of poorly preserved ostraca inscribed with a very small number of identity marks (often no more than one) that cannot be dated accurately, as well as ostraca inscribed with signs that are perhaps marks. Hand-copies of these documents are included in Appendix II: ONL 198; ONL 233; ONL 319; ONL 611; ONL 1527; ONL 1677; ONL 6190; ONL 6230; ONL 6253; ONL 6254; ONL 6276; ONL 6309; ONL 6310; ONL 6327; ONL 6328; ONL 6329; ONL 6344; ONL 6355; ONL 6356; ONL 6360; ONL 6361; ONL 6364; ONL 6373; ONL 6375; ONL 6376; ONL 6378; ONL 6379; ONL 6380; ONL 6381; ONL 6382; ONL 6383; ONL 6384; ONL 6385; ONL 6386; ONL 6388; ONL 6389; ONL 6396; ONL 6407; ONL 6409; ONL 6421; ONL 6432; ONL 6442; ONL 6456; ONL 6460; ONL 6464; ONL 6466; ONL 6490; ONL 6498; ONL 6503; ONL 6521; ONL 6534; ONL 6542; ONL 6550; ONL 6552; ONL 6553; ONL 6557; ONL 6561; ONL 6570; ONL 6577; ONL 6578; ONL 6590; ONL 6592; ONL 6593; ONL 6597; ONL 6604; ONL 6605; ONL 6606; ONL 6617; ONL 6631; ONL 6633; ONL 6636; ONL 6638; ONL 6683; ONL 6689; ONL 6695; ONL 6738; ONL 6747; Inv. C 1404; Inv. C 1810; Inv. C 7576; Inv. C 7637; Inv. C 7639; O. Turin N. 57538.

<sup>108</sup> [marks.wepwawet.nl](http://marks.wepwawet.nl) (username: test; password: xxxxxx).



# CHAPTER 1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY AND THE EARLIEST USAGE OF WORKMEN'S MARKS FROM THE THEBAN NECROPOLIS

## 1.1 INTRODUCTION

Before we will direct our attention to the ostraca with identity marks from the Theban Necropolis, we shall explore the usage of non-textual marks elsewhere. It is a well-known fact that marking systems were employed at different locations and different times in ancient Egypt, and an assessment of the use of marks at other sites is necessary to understand the context of the identity marks of the Theban Necropolis workmen. The second part of this chapter is a study of the history of the 18<sup>th</sup> Dynasty community of necropolis workmen at Deir el-Medina, and the organisation of their labour. Such an examination is required in order to better comprehend the role of the ostraca with marks at the time the marking system of the Theban Necropolis was introduced.

## 1.2 MARKS ELSEWHERE IN NEW KINGDOM EGYPT: A BRIEF OVERVIEW

Non-textual marking systems have been around since before the invention of writing. In Egypt various marking systems with different purposes existed during to the Old Kingdom up to the Roman period (and probably much later). The topic of the present dissertation are the identity marks that were used by the workmen of Deir el-Medina during the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> Dynasties, but this system of marks is definitely not the only one of its time. Notable examples of marking systems of the New Kingdom are attested at Thebes but also at Amarna.

### *Marks used in building*

Blocks and unhewn filling stones from the causeway of the temple of Thutmosis III at Deir el-Bahari demonstrate that marks were used during different phases of the construction of the complex. These marks, called “mason’s marks” by Julia Budka, were painted in red ink. Many marks are signs borrowed from hieroglyphic script, and sometimes a single mark consisting of two hieroglyphic signs. Similar marks, but in much smaller numbers, were attested on blocks from the Ramesside temple of Deir el-Bahari, situated at the entrance of the Asasif valley. The mason’s marks were interpreted as team marks, referring to a cohort of workmen.<sup>1</sup> The marks appear to attest to a division of labour, as some marks were mostly found in certain areas of the edifice on either casing stones or rough stones.<sup>2</sup> Comparing the marks with information gained from 18<sup>th</sup> Dynasty ostraca excavated near the temple of Deir el-Bahari, Budka proposed that some marks might refer to the institutions or towns that contributed to the building process.<sup>3</sup> Other marks may well be references to individual contributions by high-ranking priests and officials.<sup>4</sup> From a different perspective Budka suggested that some marked stones could represent the identity of individual masons, and that they were deposited in the construction as a means to symbolically tie oneself permanently to a significant structure. This would be in accord with a practice among high officials from the

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<sup>1</sup> Julia Budka, ‘Benchmarks, team marks and pot marks from the Asasif (Western Thebes)’ in: Haring and Kaper (eds.), *Pictograms or Pseudo script?*, 78-81.

<sup>2</sup> Julia Budka, ‘Non-textual marks from the Asasif (Western-Thebes). Remarks on function and practical use based on external textual evidence’ in: Andrassy, Budka and Kammerzell (eds.), *Non-textual marking systems*, 186-187.

<sup>3</sup> Budka, ‘Non-textual marks’, 187-190.

<sup>4</sup> Budka, ‘Non-textual marks’, 190-191.

18<sup>th</sup> Dynasty to leave name stones and privately stamped bricks in temples and tombs.<sup>5</sup> Interestingly, the marks from the causeway of the temple of Thutmosis III are very similar to painted marks from the temple proper at Deir el-Bahari. Their meaning is not yet clear, but Budka noted that “[i]t is very likely that individual marks relate to specific parts of the royal building complex and to different teams and institutions.”

On the *taffl* stone foundations of the Ramesside temple hieratic benchmarks were inscribed. They consist of control notes and data concerning the levelling of the plateau, as well as records of the work of specific stonemason’s gangs under the name of a supervisor. Some of these notes are combined with a mark. Budka differentiated between two types of benchmarks: those that were inscribed before the work, serving as instructions for supervisors, and those that were added after completing the building activity mentioned in the inscription that may have served as a reference point for further work. The meaning of the marks is as yet unclear, but they could well be team marks (or “builders’ marks”) or control marks.<sup>6</sup>

Mason’s marks from the end of the 18<sup>th</sup> Dynasty are found on the building blocks used in the Small Aten Temple. We will look into this corpus with more detail in Excursus I below.<sup>7</sup>

#### *Quarry marks*

Well attested in ancient Egypt are so-called quarry marks, signs left in stone quarries during the process of extracting stone blocks for building material. Some quarry marks can be dated to the New Kingdom. In the granite quarry of Aswan just above the unfinished Thutmoseid obelisk one can still see marks, which have been interpreted as control marks of supervisors.<sup>8</sup> At Gebel el-Silsila, marks are attested in quarries that have been dated to the reigns of Seti I and Ramesses II on the basis of archaeological evidence and inscriptions on stelae. The marks themselves might date to the same time. Perhaps even earlier marks were tentatively dated to the reigns of Amenhotep III and/or Amenhotep IV.<sup>9</sup> The marks attested in the quarry of Deir Abu Hinnis date to reign of Akhenaten.<sup>10</sup> Finally, a small number of marks are inscribed in the quarry of Dra‘ Abu el-Naga<sup>11</sup> and will be dealt with in more detail below.<sup>12</sup>

#### *Marks on the sphinxes of the alley of Karnak*

Marks are also attested on ram-headed sphinxes along a dromos west of the temple of Karnak. The date of these marks is uncertain. The sphinxes were probably sculpted under Amenhotep III or slightly earlier, but they were later reused and perhaps adjusted under Ramesses II, Pinodjem I, and/or Taharqa.<sup>13</sup> All sphinxes display an isolated sign on the lower part of the left flank. They do not seem to be interpretable as cryptographic writing. Several marks were

<sup>5</sup> Budka, ‘Non-textual marks’, 191-193.

<sup>6</sup> Budka, ‘Benchmarks, team marks and pot marks from the Asasif’, 73-78.

<sup>7</sup> See below, p. 49-63.

<sup>8</sup> Dieter Arnold, *Building in Egypt. Pharaonic Stone Masonry* (New York 1991), 37-38 and fig. 2.15.

<sup>9</sup> Maria Nilsson, ‘Pseudo Script in Gebel el Silsila: Preliminary Results of the 2012 Epigraphic Survey’ in: Kelly Accetta, Renate Fellingner, Pedro Lourenço Gonçalves *et al.* (eds.), *Current Research in Egyptology 2013. Proceedings of the Fourteenth Annual Symposium. University of Cambridge, United Kingdom, March 19-22, 2013* (Oxford 2014), 123.

<sup>10</sup> Athena van der Perre, ‘De vergeten steengroeven van Achnaton’ *Ta-Mery* 4 (2011), 117-118 and fig. 5a

<sup>11</sup> Shin-ichi Nishimoto, Sakuji Yoshimura and Jiro Kondo, ‘Hieratic Inscriptions from the Quarry at Qurna: an interim Report’ *BMSAES* 1 (2002), 20-31. Accessible via <http://www.thebritishmuseum.ac.uk/bmsaes/issue1/nishimoto.html>; Susanne Bickel, *Untersuchungen im Totentempel des Merenptah in Theben. III. Tore und andere wiederverwendete Bauteile Amenophis’ III.* BBf 16 (Stuttgart 1997), 15-35 and pls. 5-16.

<sup>12</sup> See below, p. 63-64, Excursus II.

<sup>13</sup> Agnès Cabrol, ‘Les criosphinx de Karnak: un nouveau dromos d’Amenhotep III’ *CdK* 10 (1995), 1-2.

later covered with plaster. Different possible interpretations have been offered. Firstly, the sphinxes could have been marked in the quarry and the signs might correspond to a certain order in which the sphinxes had to be installed along the dromos. This order could be connected with the texts that had to be inscribed on the sphinxes, or with which they had already been inscribed. Secondly, the marks may have been added in the time of Pinodjem when the dromos was reorganised. The sphinxes may perhaps have been supplemented with other elements that have now disappeared, such as inscribed pedestals or offerings that each corresponded with a particular sphinx.<sup>14</sup>

#### *Marks used in branding*

As is the practice in modern times, cattle were branded in ancient Egypt using branding irons.<sup>15</sup> Two brands in the Eton College Myers Museum consist of hieroglyphic sign groups,<sup>16</sup> and the branding marks (*šbw*) mentioned in Papyrus de Varzy have been interpreted as textual signs as well. The later document actually describes the mark as consisting of the sign *rwḏ* with inside of it the sign *īwn*, forming a mark that need not necessarily be read as a textual message.<sup>17</sup>

#### *Assembly marks*

Another category of signs may be called (re-)assembly marks.<sup>18</sup> The cornices of the rectangular outer sarcophagus of Maiherperi from his tomb KV 36 are marked with signs incised in the wood.<sup>19</sup> The ends of the longer and shorter panels that form the sarcophagus were marked in such a way that when properly re-assembled, the same marks would face each other. The edge of the footboard was only marked in one corner, but had an additional single mark in the middle. Apart from perhaps sign *nb* and four strokes, the marks appear to be abstract signs. Similar assembly marks are recorded on the edges of the sarcophagus of Meryt from the tomb of her husband Kha (TT 8).<sup>20</sup> Here marks are added to all four corners of the sarcophagus. The marks are all signs borrowed from hieroglyphic script, and they are all different from the marks on the coffin of Maiherperi.

#### *Weaver's marks*

On items of linen marks have been attested as well. A number of marks come from the tomb of Hatnefer (TT 71), mother of the famous Senenmut. Rosalind Janssen mentioned that the cloths of linen bear “weaver’s marks” which were inwoven. Moreover, 26 sheets displayed “identifications marks in black ink, reportedly “demonstrating that the pieces came from governmental and temple stores”.<sup>21</sup> Marks occur on royal linen too. From the embalmers

<sup>14</sup> Cabrol, ‘Les criosphinx’, 21-23.

<sup>15</sup> Kathrin Gabler kindly provides the following references to the marking of cattle (*ih*) with brands (*šbw*) in Theban administrative documents of the Ramesside Period: P. Turin Cat. 1880 vso. IV, 7; P. DeM 26, frag. B, 2; O. Berlin P 10645+ rev., 3.

<sup>16</sup> ECM 1770 and 1771, see Nicholas Reeves (ed.), *Egyptian Art at Eton College and Durham University. Catalogue of a loan exhibition to Japan, 24 February-30 November 2008* (year and place unknown), cat. nrs. 101 and 102. Unpublished but accessible via <http://www.nicholasreeves.com/item.aspx?category=Collections&id=247>.

<sup>17</sup> Henri Loffet and Valérie Matoïan, ‘Le papyrus de Varzy’ *RdE* 47 (1996), 29-36.

<sup>18</sup> For textual assembly marks from the end of the 18<sup>th</sup> Dynasty see Martha R. Bell, ‘Notes on the exterior construction signs from Tutankhamun’s shrines’ *JEA* 76 (1990), 107-124.

<sup>19</sup> O. Cairo CG 24001, see Daressy, *Fouilles de la Vallée des Rois*, 1-2.

<sup>20</sup> Turin S. 8517 RCGE 19440, see Silvio Curto and Maurizio Mancini, ‘News of Kha’ and Meryt’ *JEA* 54 (1968), 77 and fig. 1.

<sup>21</sup> Rosalind M. H. Janssen, ‘Costume in New Kingdom Egypt’ in: Jack M. Sasson, John Baines, Gary Beckman *et al.* (eds.), *Civilizations of the ancient Near East 1* (New York 1995), 387. The marks themselves do not seem



cache of Tutankhamun (KV 54) a sheet of cloth was recovered bearing several marks, both woven into the material as well as inscribed in ink. Their meaning is obscure. Winlock interpreted the woven marks as an inscription which he translated as “Long live the Good King Nofer”. The significance of the other signs was unclear to him, although one was described as “a private mark of some sort”.<sup>22</sup> Interestingly, very similar marks are found on textile objects that have been called pillows discovered in the embalmers cache of KV 63.<sup>23</sup>

#### *Potmarks and potter’s marks*

Another common category of marks is well attested in the New Kingdom: potmarks. Marks occur on blue-painted pottery from a large deposit, found out of context in the Treasury of Thutmose I at Karnak North. The pottery was dated to the late 18<sup>th</sup> Dynasty and may have come from temples and estates of Akhenaten in Karnak East. The marks were all applied in paint before firing. Colin Hope provided a tentative explanation for the purpose of the marks. Since they were added before firing of the vessel, the marks must have been added in the workshops where the vessels were manufactured and could have conveyed the ownership of a temple or royal estate. Alternatively the marks may have been added to keep track of the output of the different painters decorating the vessels, or to indicate the content of the vessels. Hope remarked that within the Karnak North corpus, the practice of marking was limited to only two types of vessels and that each type displayed a rather restricted variety of marks.<sup>24</sup>

The blue-painted pottery from the palace of Amenhotep III at Malqata had been marked too. The marks appear on five or six types of vessels, mostly large undecorated storage vessels, and were added in different ways: marks were impressed, painted or incised before firing, or incised after firing. According to Hope, the vessels had contained commodities that were used during the celebrations of the jubilee festivals of Amenhotep III. In his opinion the purpose of the marks was not to follow the output of potters or workshops or to indicate ownership, because some marks were attested with a very high frequency and others with a very low one. Instead, he tentatively connected the marks with the festivals at the palace: “They would have been commissioned locally by the administration and thus might have been marked to indicate this. If this were the case then the marks might indicate at which workshop specific numbers of vessels from a commission were made, or possibly indicate to which order the vessels belonged, and several such would surely have been placed during the period covered by the use of the palace during the last decade of Amenhotep III’s reign.”<sup>25</sup>

Among the ceramic fragments excavated at Amarna several marked examples are found as well. They are discussed in Excursus I below.<sup>26</sup>

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to have been published. One sheet of linen (MMA acc. no. 36.3.111) is accessible online via <http://www.metmuseum.org/collection/the-collection-online/search/545138?rpp=30&pg=1&ft=36.3.111&pos=1>.

<sup>22</sup> MMA acc. no. 09.184.693, see Herbert E. Winlock and Dorothea Arnold, *Tutankhamun’s funeral* (New York 2010), 32-34 and figs. 25 and 77. The captions of fig. 25B and 25D show that the editor of the book interpreted the marks respectively as a quality mark and as a mark “possibly identifying an inspection by a supervising official.”

<sup>23</sup> Otto J. Schaden, ‘The Amenmesse Project, Season of 2006’ *ASAE* 82 (2008), 233, 235, 252, fig. 20. A study of these objects and their marks is in preparation by Elise van Rooij.

<sup>24</sup> Colin A. Hope, ‘Some remarks on potmarks of the late Eighteenth Dynasty’ in: Anthony Leahy and John Tait (eds.), *Studies on ancient Egypt in honour of H.S. Smith*. EES OP 13 (London 1999), 122-126.

<sup>25</sup> Hope, ‘Some remarks’, 130-138.

<sup>26</sup> See below, p. 49-63.

### 1.3 ORIGIN OF THE MARKING SYSTEM AND THE COMMUNITY OF WORKMEN DURING THE 18<sup>TH</sup> DYNASTY

A considerable number of ostraca, objects and pottery inscribed with marks dates to the 18<sup>th</sup> Dynasty. The ostraca from this period will be discussed at length in chapter 2, but in order to understand their meaning and purpose we shall here first examine the organisation, administration and social lives of the community of workmen that lived during the 18<sup>th</sup> Dynasty. Such an assessment is necessitated due to the large gap in our knowledge of such matters, caused by the paucity of epigraphic sources from that time. Whereas the Ramesside Period is wonderfully well documented, we possess virtually no written texts from the 18<sup>th</sup> Dynasty that inform us about the organisation of labour on the royal tombs or the provision and the private lives of the workmen. It is therefore mandatory to review and analyse the little available evidence for the administration of the community during this period, which will enable us to propose a model of the organisational structure of the workforce and their superiors. Simultaneously we shall attempt to elucidate certain aspects of the social lives of the 18<sup>th</sup> Dynasty workmen.

#### 1.3.1 THE FORMATION OF THE COMMUNITY OF WORKMEN

The popularity of the cult of the deified Amenhotep I at Deir el-Medina during the Ramesside Period is no longer seen as evidence that this ruler had founded the workmen's village.<sup>27</sup> Instead, it is now generally accepted that the mudbricks from certain parts of the enclosure wall of the village that are impressed with the cartouche of Thutmose I indicate that the settlement was constructed under that king. A date for the establishment of the village in the reign of Thutmose I is corroborated by the fact that no remains can be dated to prior to his reign.<sup>28</sup> The earliest settlement is believed to have been rather small, containing only 20 houses.<sup>29</sup> Although it is clear that during the Ramesside Period the village was permanently inhabited by the workmen of the royal necropolis and their families it cannot be assumed a priori that this was also the case for the earliest settlement. In fact, it has been argued that the village may have been only intermittently inhabited during the actual construction of the royal tomb, and that the workmen lived at the village without their families.<sup>30</sup> The question as to the purpose of the 18<sup>th</sup> Dynasty village is complicated by several factors. First of all, the earliest structures of the settlement have mostly been altered and reused if not destroyed by later generations of workmen.<sup>31</sup> In part these events may have caused a second problem, which is the scarcity of inscribed material – stelae, statuary, domestic objects, ostraca, etc. – from this period.<sup>32</sup>

Furthermore, the location of the tombs of many of the first kings of the 18<sup>th</sup> Dynasty is shrouded in mystery. Supposing that royal tomb builders lived at Deir el-Medina from the reign of Thutmose I onwards, where would they have worked? There has been quite some controversy about the question as to exactly which kingly tomb was the first to be constructed

<sup>27</sup> Valbelle, *Les ouvriers*, 2 and n. 1.

<sup>28</sup> Charles Bonnet and Dominique Valbelle, 'Le village de Deir el-Médineh. Reprise de l'étude archéologique' *BIFAO* 75 (1975), 436-440; Valbelle, *Les ouvriers*, 2.

<sup>29</sup> Elke Roik, *Das altägyptische Wohnhaus und seine Darstellung im Flachbild*. Teil 1. *Text*. Europäische Hochschulschriften 38. Archäologie 15 (Frankfurt am Main, Bern, New York and Paris 1988), 14; Miriam Müller, 'Deir el-Medina in the dark – the Amarna period in the history of the village' in: Toivari-Viitala, Vartiainen and Uvanto (eds.), *Deir el-Medina Studies*, 157.

<sup>30</sup> Andreas Dorn, 'Ostraka aus der Regierungszeit Sethos' I. aus Deir el-Medineh und dem Tal der Könige. Zur Mannschaft und zur Struktur des Arbeiterdorfes vor dem Bau des Ramesseums' *MDAIK* 67 (2011), 35.

<sup>31</sup> Bruyère remarks on this fact in several of his excavation reports, see Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh* (1926). *FIFAO* 4.3 (Cairo 1927), 10; 43; Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh* (1928) II. *FIFAO* 6.2 (Cairo 1929), 3-4; Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh* (1931-1932). *FIFAO* 10.1 (Cairo 1934), 6-7.

<sup>32</sup> See below, 1.3.2; 1.4.1; 1.5.

in the Valley of the Kings. Much of this debate is summarised by Daniel Polz<sup>33</sup> and by David Aston.<sup>34</sup> Polz himself contributed to the discussion by identifying tombs K93.11 and K93.12 at Dra' Abu el-Naga as graves of respectively Amenhotep I and his mother queen Ahmes-Nefertari.<sup>35</sup> Moreover, he tentatively attributed K94.1 at Dra' Abu el-Naga to Kamose.<sup>36</sup> Thutmose I has often been accredited with building the first tomb in the Valley of the Kings, which has been identified as KV 20<sup>37</sup> or as KV 38.<sup>38</sup> The grave of Thutmose II, supposedly the second tomb in the Valley of the Kings, has been identified as KV 42<sup>39</sup> or as KV 20.<sup>40</sup> Yet, it has been pointed out by several authors<sup>41</sup> that there is no textual or archaeological evidence at all that these two rulers were the first to have a tomb constructed at the Valley of the Kings. For that reason, and because of the assumed location of Amenhotep I's tomb at Dra' Abu el-Naga, Polz argued that both Thutmose I and Thutmose II were originally buried at the location of the latter necropolis as well. Indeed, pottery fragments inscribed with the name of Thutmose I have been found at this site. According to Polz, Thutmose I would then have been reburied in KV 20 by Hatshepsut, and subsequently in KV 38 by Thutmose III.<sup>42</sup> Hence, KV 20, the kingly tomb of Hatshepsut, would have been the first tomb in the Valley of the Kings. Dorn, basing himself on the work of Polz, formulated the hypothesis that during the early New Kingdom, the mortuary temple ideally lay on a single axis with the entrance to the royal tomb, as evidenced by the topographical relation between mortuary temples and tombs of Amenhotep I and Hatshepsut. Hence he postulated that the (original) tomb of Thutmose II must have been located in the area of the Valley of the Queens. If this suggestion is accepted the tomb of Hatshepsut could well have been the first one in the Valley of the Kings, as suggested by Polz. The original tomb of Thutmose I could then have been situated elsewhere. In the opinion of Dorn, the Valley of the Queens was again a good candidate. Despite the fact that the location of the mortuary temple of Thutmose I is unknown, Dorn argued that the site of the village of Deir el-Medina, constructed under his reign, is not far from the area of the Valley of the Queens.<sup>43</sup>

Aston presented arguments in favour of the scenario as reconstructed by Polz in which the tombs of the first kings of the 18<sup>th</sup> Dynasty were located at Dra' Abu el-Naga. He remarked that the royal cachette (DB 320) included many kings and queens of the 17<sup>th</sup> Dynasty, as well as several from the early 18<sup>th</sup> Dynasty, such as Ahmose Hentimehu, Ahmose-Inhapi, Ahmose-Merytamun, Ahmose-Sipair, Ahmose-Sitkamose, Amenhotep I, Ahmose, and Thutmose II. The tombs of several of these individuals have been identified in Dra' Abu el-Naga, which would in the opinion of Aston imply that the tomb of Thutmose II must have been situated in the same location. The fact that Amenhotep I and presumably also

<sup>33</sup> Daniel Polz, *Der Beginn des Neuen Reiches. Zur Vorgeschichte einer Zeitenwende*. DAIKS 31 (Berlin and New York 2007), 211-221.

<sup>34</sup> David Aston, *Pottery recovered near the tombs of Seti I (KV 17) and Siptah (KV 47) in the Valley of the Kings*. AH 24 (Basel 2014), 85.

<sup>35</sup> Polz, *Der Beginn*, 172-192.

<sup>36</sup> Polz, *Der Beginn*, 162-172.

<sup>37</sup> Among others by John Romer, who thought the tomb had later been enlarged by Hatshepsut, see John Romer, 'Thutmose I and the Bibân el-Molûk: some problems of attribution' *JEA* 60 (1974), 121-127.

<sup>38</sup> E.g. by Catharine H. Roehrig, 'The two tombs of Hatshepsut' in: Catherine H. Roehrig (ed.), *Hatshepsut. From queen to pharaoh* (New York 2005), 185-186.

<sup>39</sup> For an overview see Polz, *Der Beginn*, 217, n. 874.

<sup>40</sup> E.g. Roehrig, 'The two tombs', 186.

<sup>41</sup> E.g. Polz, *Der Beginn*, 219; Haring, 'Workmen's Marks and the Early History of the Theban Necropolis', 91; Aston, *Pottery recovered*, 85. Andreas Dorn, 'Hatshepsuts Jenseitsarchitektur im Spannungsfeld zwischen Innovation und Legitimation' in: Suzanne Bickel (ed.), *Vergangenheit und Zukunft. Studien zum historischen Bewusstsein in der Thutmosidenzeit*. AH 22 (Basel 2013), 32, n. 19 agrees with Polz.

<sup>42</sup> Polz, *Der Beginn*, 219-220.

<sup>43</sup> Dorn, 'Hatshepsuts Jenseitsarchitektur', 35.

Thutmose II were buried at Dra' Abu el-Naga in turn suggests that Thutmose I's original tomb must have been constructed there as well.<sup>44</sup>

In summary, there are several indications that royal tombs were not constructed in the Valley of the Kings before the reign of Hatshepsut. The tombs of 18<sup>th</sup> Dynasty kings before her reign should then have been located elsewhere. A number of arguments favour Dra' Abu el-Naga as the site of these tombs. There is no evidence that the workmen of that necropolis were connected with the village of Deir el-Medina. The distance between the settlement and Dra' Abu el-Naga is about the same as the distance between the settlement and several tombs in the Valley of the Kings, so it is theoretically possible that workmen from Deir el-Medina came to Dra' Abu el-Naga to labour. However, the question why the workmen's village was founded during the reign of Thutmose I, when tomb building at Dra' Abu el-Naga had taken place since the 17<sup>th</sup> Dynasty, remains unanswered. The same question would not apply to the Valley of the Queens as the location of the original tombs of Thutmose I and Thutmose II, because no construction activity before the 18<sup>th</sup> Dynasty is attested in this part of the Theban Valley. Moreover, as Dorn stated, this area is considerably closer to the village of Deir el-Medina. If the tombs of these two kings were indeed cut out in this area, that could explain the decision to establish the settlement at a nearby location. Yet, no archaeological evidence corroborates the assumption that the tombs of Thutmose I and Thutmose II are to be found in the Valley of the Queens.

The matter of the location of the first royal tombs of the 18<sup>th</sup> Dynasty will not be solved here. In fact, apart from the mudbricks from the enclosure wall of the village stamped with the name of Thutmose I, there is not much material from the village of Deir el-Medina that can be dated to the time before the reign of Hatshepsut. Perhaps the most important indication to connect the early 18<sup>th</sup> Dynasty settlement with a group of workmen is the tomb of Amenemhat (TT 340) located in the Western Cemetery of Deir el-Medina. The tomb was dated to the time of Ahmose - Amenhotep I by Cherpion,<sup>45</sup> which would make it older than the settlement of Deir el-Medina itself.<sup>46</sup> However, a great number of the parallels for certain stylistic elements date back as far as the reign of Amenhotep II. Therefore TT 340 may have been constructed at a time when the earliest phase of the village had already been built.<sup>47</sup> The tomb owner is only described as *sdm-ꜥš*, 'servant', without further specification. In itself that title does not tie this individual to the workmen of Deir el-Medina. However, the title *sdm-ꜥš* makes it very tempting to see this Amenemhat as someone occupied with work on the royal tomb, someone like the 18<sup>th</sup> Dynasty necropolis workmen bearing the title *sdm-ꜥš m s.t ꜥz.t*.<sup>48</sup> This suggestion is upheld by the inscription of Amenemhat's son on the west wall of TT 340, where he makes claim to having been personally responsible for the tomb's decoration.<sup>49</sup> He himself does not bear a title in that inscription, but the fact that he possessed the skills to decorate a tomb and had access to material necessary to do so do suggest that he was involved in the decoration of tombs in Thebes. The connection with work on the royal tomb is thus never explicitly mentioned, but may be inferred from TT 340's close vicinity to Deir el-Medina.

A clue about the first permanent occupation of the village is provided by the oldest chapels and sanctuaries north of the village. Foundation deposits inscribed with the cartouche

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<sup>44</sup> Aston, *Pottery recovered*, 86.

<sup>45</sup> Nadine Cherpion, *Deux tombes de la XVIIIe dynastie à Deir el-Medina. Nos 340 (Amenemhat) et 354 (anonyme)*. MIFAO 114 (Cairo 1999), 31-39.

<sup>46</sup> Cf. Dorn, 'Ostraka', 35, n. 31.

<sup>47</sup> Cf. Dimitri Laboury who dates the tomb more broadly to the beginning of the 18<sup>th</sup> Dynasty, personal communication, 2012.

<sup>48</sup> More on this title below, 1.4.1.

<sup>49</sup> Cherpion, *Deux tombes*, 44, 50-51, pl. 11.

of Thutmose III suggest that such edifices were first erected during his reign.<sup>50</sup> For other elements datable to the early 18<sup>th</sup> Dynasty we are mostly dependent on the reports of Bruyère. A burial pit in the Western Cemetery, DM 1042, was said to be contemporaneous with TT 340.<sup>51</sup> In two other tombs from the West Cemetery, DM 1163 and 1164, both anonymous but dated to the 18<sup>th</sup> Dynasty by Bruyère, mudbricks stamped with the cartouche of Thutmose I were discovered.<sup>52</sup> The same cartouche was found impressed on the shard of a jar found in a trench just south of the village.<sup>53</sup> Reportedly, pottery from the Eastern Cemetery was dated by Pamela Rose to the early to mid-18<sup>th</sup> Dynasty.<sup>54</sup> Finally, a stela excavated by Schiaparelli in Deir el-Medina, Turin CG 50005, was attributed to the beginning of the 18<sup>th</sup> Dynasty. It is dedicated to a Mekymontu and his wife Nebuemweskheth by their son Semenk, and all three individuals do not bear a title.<sup>55</sup> According to Bruyère the oldest part of the sanctuary of Hathor to the north of the settlement was datable to the beginning of the 18<sup>th</sup> Dynasty, because several architectural elements from this site were inscribed with the names of kings such as Amenhotep I.<sup>56</sup> Later, however, these parts of the building have been understood as belonging to younger structures that were dedicated to kings of the early 18<sup>th</sup> Dynasty.<sup>57</sup> Nevertheless, a statue of the 18<sup>th</sup> Dynasty official Amenmes indicates that the temple existed already in the middle of the 18<sup>th</sup> Dynasty.<sup>58</sup>

In conclusion, none of the remnants discussed in this section is unequivocally related to workmen of the royal tomb. All that can be said at this point is that the construction of the village occurred by royal decree, and that the earliest phase of the settlement was rather small. Contemporary tombs surround the early houses (TT 340, DM 1042, DM 1163, DM 1164, and perhaps some tombs in the Eastern Cemetery) and if they were built for the inhabitants of the village, TT 340 may serve as an indication that the villagers were tomb builders. Which tombs they may have constructed remains highly uncertain, and there is no direct evidence that they were permanently settled at the village.

### 1.3.2 HIERATIC ADMINISTRATION OF THE 18<sup>TH</sup> DYNASTY

It has often been stated that very little of the textual administration of Deir el-Medina during the 18<sup>th</sup> Dynasty has survived.<sup>59</sup> Haring offered a useful survey of this situation.<sup>60</sup> Discussing only hieratic documents, Haring signalled “the absence of Eighteenth Dynasty records explicitly related to the royal necropolis and its employees”<sup>61</sup> and suggested that this was due

<sup>50</sup> Émile Baraize, ‘Compte rendu des travaux exécutés à Deir el-Médineh’ *ASAE* 13 (1949), 39; Morris L. Bierbrier, review of Valbelle, *Les ouvriers*, in: *JEA* 75 (1989), 279.

<sup>51</sup> Bruyère, *Rapport 1924-1925*, 48.

<sup>52</sup> DM 1163, Bruyère, *Rapport 1928 II*, 74; see DM 1164, see Bruyère, *Rapport 1928 II*, 100.

<sup>53</sup> Charles Bonnet and Dominique Valbelle, ‘Le village de Deir el-Médineh. Étude archéologique (suite)’ *BIFAO* 76 (1976), 338 and fig. 10.1.

<sup>54</sup> Lynn Meskell, ‘Spatial Analyses of the Deir el-Medina Settlement and Necropoleis’ in: Robert J. Demarée and Arno Egberts (eds.), *Deir el-Medina in the third millennium AD. A tribute to Jac. Janssen*. EU 14 (Leiden 2000), 262.

<sup>55</sup> Mario Tosi and Alessandro Roccati, *Stele e altre epigrafi di Deir el Medina. N. 50001 - N. 50262*. Catalogo del Museo Egizio di Torino. 2nd. series. 1 (Turin 1972), 36-37, 263.

<sup>56</sup> Bruyère, *Rapport 1935 à 1940*, 14-17.

<sup>57</sup> See e.g. Valbelle, *Les ouvriers*, 18-19; 315; Heidi Jauhainen, ‘Religious Buildings at Deir el-Medina’ in: René Preys (ed.), *7. Ägyptologische Tempeltagung. Structuring Religion. Leuven, 28. September - 1. Oktober 2005*. KSG 3,2 (Wiesbaden 2009), 151, 153-154.

<sup>58</sup> For this man, see below, 1.4.1.

<sup>59</sup> Valbelle, *Les ouvriers*, 21-23, 26; Davies, *Who’s who*, 1; Ben J.J Haring, ‘Scribes and scribal activity at Deir el-Medina’ in: Andreas Dorn and Tobias Hofmann (eds.), *Living and writing in Deir el-Medine. Socio-historical embodiment of Deir el-Medine texts*. AH 19 (Basel 2006), 107; Dorn, ‘Ostraka’, 31; Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 87-89.

<sup>60</sup> Haring, ‘Scribes and scribal activity’, 107-112.

<sup>61</sup> Haring, ‘Scribes and scribal activity’, 107.

to the absence of local scribes. This state of affairs stands in stark contrast with that of the nearby construction site of Deir el-Bahari during the reigns of Hatshepsut and Thutmose III, which has yielded a great number of hieratic documentary texts written on ostraca.<sup>62</sup> A group of ostraca said to have been found by Baraize at Deir el-Medina (O. Cairo CG 25662 – 25669) was discussed by Haring, as well as an ostrakon found by the excavations of Davis in the Valley of the Kings (O. Cairo CG 25501). These ostraca have all been dated to the 18<sup>th</sup> Dynasty and mention a number of individuals that clearly belong together. However, as it is not entirely certain whether O. Cairo CG 25662 – 25669 were actually found at Deir el-Medina, Haring wondered if the ostraca had in fact come from Deir el-Bahari. This would be plausible because a) a number of names mentioned in this group are also attested on the Deir el-Bahari ostraca, and b) some of the ostraca actually seem to refer to work on the temples of Deir el-Bahari.<sup>63</sup> Two further ostraca, allegedly dating to the 18<sup>th</sup> Dynasty and said to have been discovered by Schiaparelli at Deir el-Medina (O. Turin N. 57279 and O. Turin N. 57438) were dismissed by Haring as documents of that time, the former on palaeographic grounds.<sup>64</sup> Haring concluded that “[t]here is, in fact, not a single ostrakon dating from the Eighteenth Dynasty and clearly related to the royal necropolis or its workmen.”<sup>65</sup>

Regarding the discrepancy between the number of hieratic administrative documents from Deir el-Bahari and Deir el-Medina, Haring offered four hypotheses:

1. The 18<sup>th</sup> Dynasty ostraca referring to the construction of the royal tomb have not been found yet.
2. During the 18<sup>th</sup> Dynasty no records were ever made of the work at the royal tomb and the supplies to the necropolis workmen.
3. The 18<sup>th</sup> Dynasty administrative records of royal tomb construction were not left, perhaps not even composed, at the construction site or in the workmen’s village; administration of the work was based elsewhere.
4. During the 18<sup>th</sup> Dynasty the construction of the royal tomb was so secret that all records were carefully stored elsewhere or destroyed afterwards; they were not kept or discarded at the construction site or the village.<sup>66</sup>

Taking option 3 and 4 as the most plausible ones, Haring concluded that administration of the construction of the royal tomb must have been ‘of a totally different character from that of the building activity at Deir el-Bahri’.<sup>67</sup> Elsewhere Haring suggested that the absence of hieratic administration is no coincidence, and that the fact that the oldest known administrative documents of the tomb refer to the reign of Horemheb is due to the reorganisation of the workforce that took place during the reign of this king.<sup>68</sup>

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<sup>62</sup> William C. Hayes, *Ostraka and Name Stones from the Tomb of Sen-Mut (No. 71) at Thebes*. MMAEE 20 (New York 1942); William C. Hayes, ‘A Selection of Thutmoseid Ostraca from Dêr el-Bahri’ *JEA* 46 (1960), 29-52; Malte Römer, ‘Miscellen zu den Ostraka der 18. Dynastie aus Deir el-Bahri und dem Asasif’ in: Haring, Kaper and Van Walsem (eds.), *The workman’s progress*, 211-216.

<sup>63</sup> Haring, ‘Scribes and scribal activity’, 107-108.

<sup>64</sup> Haring, ‘Scribes and scribal activity’, 108.

<sup>65</sup> Haring, ‘Scribes and scribal activity’, 108. It must be noted, however, that since the publication of Haring’s article one ostrakon has been found close to the tomb of Amenhotep III (WV 22) which displays semi-hieratic words, probably reading “heights 6 el”, see Sakuji Yoshimura (ed.), *Research in the Western Valley of the Kings Egypt II. KV A and the Neighboring Areas of the Tomb of Amenophis III (KV 22)* (Tokyo 2011), 88, fig. 52, object nr. 427.

<sup>66</sup> Haring, ‘Scribes and scribal activity’, 108.

<sup>67</sup> Haring, ‘Scribes and scribal activity’, 108; Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 99.

<sup>68</sup> Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 88-89. On this reorganisation, see chapter 6, 6.2.3.

Nevertheless, the 18<sup>th</sup> Dynasty ostraca that might have come from Deir el-Medina or the Valley of the Kings deserve some scrutiny here. In the following overview ostraca O. DeM 10001 and O. DeM 10002, not discussed by Haring as they were not fully published at the time his article was written, are added. It should be noted that the prefix “O. DeM” in the accession numbers of these two ostraca is somewhat misleading, because they are of uncertain provenance: it is unknown how O. DeM 10001 ended up in the French Institute for Oriental Archaeology, while O. DeM 10002 was a gift from Černý. The ostraca in question are:

*O. Cairo CG 25501*

Provenance: Valley of the Kings, Davis excavation.

Mention is made of work at a tomb, for which the word *ḥ.t* is used. It seems unlikely that this is a reference to a royal tomb.<sup>69</sup> The individuals that are named are Maya, Iwy, Amenemhat, Amen-[...], Nakh-[...], Pa-[...], and Min. A Maya is attested at Deir el-Medina in TT 338, dated to the Amarna Period.<sup>70</sup> It might just be possible that Maya was an adult during the reign of Thutmose III. An Amenemhat is known from TT 340,<sup>71</sup> but this individual must have been active during an earlier period.

*O. Cairo CG 25662*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

Mention is made of sealbearers, a baker, a brewer, a measurer (?) and a woodcutter (?) who are connected with unspecified items. The individuals mentioned are: ‘Aba, Tjemen, Nebiry, (Per-?)erau, Hori, Iahmes, Panehsy-[...], Tery and Amenemope. From Deir el-Medina two 18<sup>th</sup> Dynasty individuals with the name Amenemope are known, one of whom was a scribe<sup>72</sup> and the other a workman.<sup>73</sup> The Amenemope mentioned in this ostrakon is perhaps a woodcutter and probably a different person.

*O. Cairo CG 25663*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

A list of 18 or 19 different men: Mahu (twice), Iry, Nay, Nebnetjeru, Neferhotep, Djehutyre, Qed, Iwy, Maani, Pererau, Herhuy, Ahaemweskheth, Nebwashery, Pary (?), Tjuy, Huy, Ru (?) and Qen. The name of Iry resembles that of Iryky, who is attested at tomb DM 1390.<sup>74</sup> However, it is extremely unlikely that Iryky is mentioned on this ostrakon, as he died as a child.

*O. Cairo CG 25664*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

A note from an Amenemhat to a Senu ordering the latter to unload the boat of a Nebiry. As mentioned above, an Amenemhat is known from TT 340, but this cannot be the same individual.

*O. Cairo CG 25665*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

<sup>69</sup> Cf. Haring, ‘Scribes and scribal practice’, 108.

<sup>70</sup> Tosi, *La cappella di Maia, passim*; cf. Haring, ‘Scribes and scribal activity’, 108.

<sup>71</sup> Cherpion, *Deux tombes*.

<sup>72</sup> Name inscribed on a scribal palette (Louvre N 3023) of unknown provenance, see Guillemette Andreu (ed.), *Les artistes de Pharaon. Deir el-Médineh et la Vallée des Rois* (Paris 2002), 226, nr. 179.

<sup>73</sup> Tomb of Kha (TT 8), wall B, see Vandier d’Abbadie, *Deux tombes*, 12.

<sup>74</sup> Bruyère, *Rapport 1934-1935 II*, 14; 202.

Mention is made of taking persons to Gebel el-Silsila and the issue of stone blocks. The individuals recorded are: Iahmes (an official), Amenmes, Masha, Amenemone, Hotep, Pever, Senu, K[...], Yn (?), Weserhat and Amenqen. Note that a Weserhat is attested in tomb DM 1386,<sup>75</sup> datable to the reigns of Hatshepsut or Thutmose III by association with other burials in the Eastern Cemetery.<sup>76</sup> An Amenmes is recorded on a painted 18<sup>th</sup> Dynasty stela from Deir el-Medina.<sup>77</sup> Amenmes is called a scribe there, but it is unknown whether he was involved in work on the royal tomb.

*O. Cairo CG 25666*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

A short note mentioning a date and three individuals: Miny, Weserkhepsh and Twa.

*O. Cairo CG 25667*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

A letter of instruction about a statue, an apportionment, divine offerings which have to be taken to Deir el-Bahari, and work that has to be kept up.

*O. Cairo CG 25668*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

An account of bricks activities connected with working stone (a hall, a stonecutter).

*O. Cairo CG 25669*

Provenance: Deir el-Medina, excavation of temple by Baraize in 1912.

Mentions the title and name of the scribe Neferhotep.

*O. DeM 10001*

Provenance: unknown

A list of workmen and foremen (*hr.y*): Mahu, Tener, Teku, Ifed, Baknefer, Nebenta, Pawoneshy, Benermerut, Penra, Nebnefer, Nebnetjeru, Senwosret, Kapu, Pentamit, Peki, Pyia, Djoserka, Hay, Amen-[...], Maaniheqau, Bakenamun, Maaniamun, R[...], Nebamun and Khaut. A draughtsman of Amun called Tener is attested at Deir el-Medina and must have lived during the reign of Thutmose III.<sup>78</sup> A “praised-of-Amun” Benermerut, son of Neferhebef is attested in the tomb of Kha,<sup>79</sup> and it is possible that he already was an adult in the reign of Thutmose III. It is however unclear if this individual was a workman. A coffin from tomb DM 1371 displays a name which ends in a female determinative and which is tentatively read as Nebytowy.<sup>80</sup> This name is reminiscent of the Nebenta mentioned in this ostrakon, although this person clearly is a male.

*O. DeM 10002*

Provenance: unknown

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<sup>75</sup> Bruyère, *Rapport 1934-1935* II, 190.

<sup>76</sup> This date is not entirely secure, see below, 1.5.

<sup>77</sup> Turin CG 50006, Tosi and Roccati, *Stele*, 37, 263; see below, p. 37.

<sup>78</sup> As the son of royal scribe of the Great Place Amenemope on stela Turin CG 50004.

<sup>79</sup> On *senet*-board game from the tomb of Kha (TT 8), Turin S. 8451, see Barbara Russo, *Kha (TT 8) and his colleagues: the gifts in his funerary equipment and related artefacts from Western Thebes*. GHPE 18 (London 2012), 14; 18 and pl. I.

<sup>80</sup> Bruyère, *Rapport 1934-1935* II, 41, 43-44; Claudia Näser, ‘Zur Interpretation funerärer Praktiken im Neuen Reich: Der Ostfriedhof von Deir el-Medine’ in: Caris-Beatrice Arnst, Ingelore Hafemann and Angelika Lohwasser (eds.), *Begegnungen. Antike Kulturen im Niltal. Festgabe für Erika Endesfelder, Karl-Heinz Priese, Walter Friedrich Reineke und Steffen Wenig von Schülern und Mitarbeitern* (Leipzig 2001), 385.



A list of workmen: Iuna, Khaut, Djeduemai, Kary, Nakhtmin, Nebnetjeru, Hery-iherraat, Amenhotep (twice), Maani and S-aa. A workman called Nakhtmin is attested at Deir el-Medina in TT 291, who might just have been an adult under the reign of Thutmose III.<sup>81</sup> Moreover, a Deir el-Medina workman called Amenhotep is known from a stela dated to the reign of Thutmose III.<sup>82</sup>

*O. Turin N. 57279*

Provenance: Deir el-Medina; Schiaparelli's excavations of 1905

This ostrakon only mentions the name Setau. Although it was dismissed as an ostrakon of the 18<sup>th</sup> Dynasty for palaeographic reasons, a person of that name is known from tomb DM 1352.<sup>83</sup> The tomb was dated to the late 18<sup>th</sup> Dynasty, so it is very doubtful whether Setau could have been an adult during the reign of Thutmose III. Haring remarked moreover that Setau could be an abbreviation for Nebsetau,<sup>84</sup> a name attested for workmen from Deir el-Medina during the Ramesside Period.

*O. Turin N. 57438*

Provenance: Deir el-Medina; Schiaparelli's excavations of 1905

Mention is made of a singer called Maya. As noted above, a Maya is attested in TT 338, but this individual is a draughtsman.

As postulated by Haring, the ostraca seem to concern building activities at the temples of Hatshepsut or Thutmose III. Some of the ostraca may have been found at Deir el-Medina, others could have come from Deir el-Bahari. Together the texts include the names of 77 different individuals.<sup>85</sup> The names of four individuals (Weserhat, Benermerut, Tener, and Amenhotep) and perhaps three more (Maya, Amenmes, and Nakhtmin; much less likely Nebenta and Setau) are also attested at Deir el-Medina. Whether these individuals had been active during the time of Hatshepsut and/or Thutmose III is uncertain.

Ostraca connected with work at Deir el-Bahari and discovered near the tomb of Senenmut provide further names that are found in the 18<sup>th</sup> Dynasty community of Deir el-Medina. A Sennefer is mentioned in an ostrakon with field nr. 27057.1<sup>86</sup>, while at Deir el-Medina a Sennefer is attested in tomb DM 1159.<sup>87</sup> Objects from this tomb have, however, been dated to the reign of Akhenaten and Tutankhamun, making it very unlikely that Sennefer was a workman under Thutmose III. The same ostrakon mentions a Na[...]y, which may be restored to Nakhy. This name is also found in tomb DM 1138, similarly dated to the end of the 18<sup>th</sup> Dynasty, rendering it improbable that this Nakhy was active under Thutmose III.<sup>88</sup> A Nakhtmin and a Weserhat reappear in ostrakon field nr. 27057.5 and 27057.6<sup>89</sup> respectively. The name of Iriky is mentioned in field nr. 27057.5<sup>90</sup> in a spelling that corresponds to that of

<sup>81</sup> Tomb of Nakhtmin (TT 291), ceiling, central band; west wall, third and fourth register, see Bernard Bruyère and Charles Kuentz, *Tombes Thébaines. La Nécropole de Deir el-Médineh. La tombe de Nakht-min et la tombe d'Ari-nefer*. MIFAO 54 (Cairo 1926), 40; 46.

<sup>82</sup> Stela Strasbourg 347, dated on stylistic grounds, see Wilhem Spiegelberg, Balthasar Pörtner, Karl Dryoff *et al.* (eds.), *Aegyptische Grabsteine und Denksteine aus süd-deutschen Sammlungen*. I Karlsruhe, Mülhausen, Strassburg, Stuttgart (Strasbourg 1902), 15, pl. XIV.

<sup>83</sup> Bruyère, *Rapport (1933-1934)* I, 95-109. Cf. Haring, 'Scribes and scribal activity', 108.

<sup>84</sup> Haring, 'Scribes and scribal activity', 108.

<sup>85</sup> Counting unique names only, and including incomplete names.

<sup>86</sup> Peter F. Dorman, *The tombs of Senenmut. The architecture and decoration of tombs 71 and 353*. MMAEE 24 (New York 1991), 88-89 and pl. 47, cat. 26.a.

<sup>87</sup> Bruyère, *Rapport 1928* II, 40-73.

<sup>88</sup> Bruyère, *Rapport 1928* II, 12-20.

<sup>89</sup> Dorman, *The tombs of Senenmut*, 89-90 and pls. 48c, e and 49c, cat. 26.c.

<sup>90</sup> Dorman, *The tombs of Senenmut*, 89 and pls. 48a, b and 49c, cat. 26.b.

an individual by the same name at Deir el-Medina, but as mentioned, this person passed away as a child.

Considering the number of individuals mentioned on all these ostraca (77 different names in the group of “Deir el-Medina ostraca”, 89 different names in the group of “Senenmut ostraca”), the names that are also attested at Deir el-Medina during the 18<sup>th</sup> Dynasty (Weserhat, Benermerut, Tener, and Amenhotep; perhaps Maya, Amenmes, and Nakhtmin) constitute a very small percentage: c. 4% to 5% or c. 8% to 9%. It could be merely coincidence that a few names of individuals connected with work at Deir el-Bahari coincide with those of men attested at Deir el-Medina during the 18<sup>th</sup> Dynasty. The names might have been popular during that period at that locality. One only has to look at Ramesside Deir el-Medina for the ubiquity of contemporaneous individuals with the same name to realise that homonymy was a common phenomenon.

In conclusion, there is very little evidence to relate the names found in the 18<sup>th</sup> Dynasty ostraca from Deir el-Medina, the Valley of the Kings or Deir el-Bahari to the small number of individuals attested on other sources from Deir el-Medina. Similarly, as Haring stated, the ostraca do not make reference to the construction of a royal tomb and there is no mention of any of the titles connected with the 18<sup>th</sup> Dynasty workforce.<sup>91</sup> This would indeed mean, as argued by Haring, that we do not possess any hieratic documentary ostraca of that period. The lack of hieratic documentation is odd, because, as had already been pointed out by other authors, scribes were in fact attached to the work on the royal tomb in the 18<sup>th</sup> Dynasty.<sup>92</sup>

At the time of Haring’s exposé on the lack of hieratic administrative ostraca, the existence of 18<sup>th</sup> Dynasty ostraca from the Theban Necropolis inscribed with marks was not yet taken into account, but these documents represent an important source of information. A considerable amount of limestone flints and ceramic shards from the Valley of the Kings and from the village of Deir el-Medina are inscribed with series of identity marks that belonged to the 18<sup>th</sup> Dynasty necropolis workmen. The ostraca are datable to this period on the basis of their provenance, as well as the repertory of marks. The corpus of 18<sup>th</sup> Dynasty ostraca with workmen’s marks will be the subject of chapter 2 and we will briefly come back to them below, but it is essential to emphasise the existence of these documents at this point.

The ostraca with marks were discussed by Haring in a later article in which they played an essential role.<sup>93</sup> The documents, some of which certainly are of an administrative character,<sup>94</sup> offer a new perspective on the absence of hieratic administration. They demonstrate that the first hypothesis, which states that the hieratic ostraca are yet to be found in the Valley of the Kings or the village of Deir el-Medina, is rather improbable because considerable numbers of 18<sup>th</sup> Dynasty ostraca with marks have been found at these sites.<sup>95</sup> The same argument can be used to partially bring into question the fourth hypothesis. If hieratic documents were of such a discrete nature that they could not be discarded near the royal tomb or in the village, then perhaps the ostraca with marks – as incomprehensible as they may be – should not have been left there either. It is Haring’s third hypothesis that appears most probable. Hieratic documentation must have been produced by the scribes who came to the worksite to assess the progress in the construction works, but their administration was probably kept elsewhere than in the Valley of the Kings or at the village.

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<sup>91</sup> See below, 1.4.

<sup>92</sup> See below, 1.4; cf. Haring, ‘Scribes and scribal activity’, 109; Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’ 89; Russo, *Kha*, 76.

<sup>93</sup> Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’.

<sup>94</sup> Haring, ‘Workmen’s Marks on Ostraca’, 152-154; Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 93, 97; chapter 2, 2.6.2.

<sup>95</sup> Cf. Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 90.

This idea ties in with a fragmentary 18<sup>th</sup> Dynasty letter written on papyrus that was found in the Valley of the Queens. The fragment has only very recently come to light in the collection of the Egyptian Museum of Turin and was unknown at the time of Haring's articles.<sup>96</sup> The letter mentions Ineni (TT 81), mayor of Thebes, and Djehutynefer (TT 80), overseer of the treasury,<sup>97</sup> both high-ranking officials who lived around the middle of the 18<sup>th</sup> Dynasty. The fragment is not preserved well enough to fully comprehend the content of the letter, but revealing is the occurrence of a *sdm* 'š, a 'servant'. The servant is not explicitly connected with any institution, yet it is plausible that he may have been a *sdm* 'š *m s.t* 'z.t, 'servant in the great place', the designation used for the workmen of the Royal Necropolis during the 18<sup>th</sup> Dynasty.<sup>98</sup> Regardless of the identity of this servant, the papyrus represents rare but secure proof of the presence of scribes in the Theban valleys before the Ramesside Period. As will be discussed below, the occurrence of Ineni in this letter suggests that it was concerned with the preparation of tombs in this area,<sup>99</sup> which in turn lends credence to the theory that administrative scribes came to the valleys to inspect the construction project. All available evidence is therefore in favour of the essence of Haring's third hypothesis: during the 18<sup>th</sup> Dynasty the organisation and progress of work on the royal tomb was probably documented by hieratic scribes, but these records were not archived at Deir el-Medina or the Valley of the Kings. It is very plausible that these records were never written on ostraca but on papyrus, which was taken with the scribe to his offices in Thebes.

#### 1.4 THE ORGANISATION OF WORK IN THE COMMUNITY OF WORKMEN DURING THE 18<sup>TH</sup> DYNASTY

While we lack hieratic documentary texts, we do possess numerous ostraca with marks from the 18<sup>th</sup> Dynasty. In order to place these documents, which assumingly played a role in the administration, into context, an assessment of the organisation of work on the royal tomb is required. However, in the absence of written administrative documentation from the 18<sup>th</sup> Dynasty this is quite a challenge. It has often been pointed out that very little about this epoch in the history of the Royal Necropolis can be determined,<sup>100</sup> but there is enough information to provide a rough sketch of the administration of the crew during the 18<sup>th</sup> Dynasty.

##### 1.4.1 INTERNAL ORGANISATION

Scholars have stated that the organisation of the workforce in the 18<sup>th</sup> Dynasty must have been similar to that of Ramesside times,<sup>101</sup> while other authors emphasised that the organisation must have been rather different from what we know of the 19<sup>th</sup> and 20<sup>th</sup> Dynasties.<sup>102</sup> It has also been suggested that labour on the 18<sup>th</sup> Dynasty royal tombs could have been directed along the lines of the organisation the Thutmoside building site of Deir el-Bahari, with several different crews of workmen that fell under the responsibility of a Theban supervisor of royal construction works connected with the Amun Temple of Karnak.<sup>103</sup>

<sup>96</sup> It was identified by Rob Demarée, who most kindly provided the details of the content of the letter.

<sup>97</sup> Peter Dorman, 'Two Tombs and One Owner' in: Jan Assmann, Eberhard Dziobek, Heike Guksch *et al.* (eds.), *Thebanische Beamtinnenkropolen. Neue Perspektiven archäologischer Forschung. Internationales Symposium Heidelberg 9. – 13. 6. 1993.* SAGA 12 (Heidelberg 1995), 145-146.

<sup>98</sup> This title will be discussed below, 1.4.1.

<sup>99</sup> See below, p. 38.

<sup>100</sup> E.g. Valbelle, *Les ouvriers*, 1; Davies, *Who's who*, xviii; 1; Sofia Häggman, *Directing Deir el-Medina. The External Administration of the Necropolis.* USE 4 (Uppsala 2002), 57.

<sup>101</sup> E.g. Valbelle, *Les ouvriers*, 1.

<sup>102</sup> E.g. Häggman, *Directing Deir el-Medina*, 57.

<sup>103</sup> Andreas Dorn, 'Ostraka', 36.

During the time of Thutmosis I such an official was Ineni, mayor of Thebes (TT 81).<sup>104</sup> Later in the 18<sup>th</sup> Dynasty dignitaries like Amenmes, who bore the title Overseer of all Construction Works of the King, must have directed the preparation of the royal burial. We will concentrate on these officials and their administrative duties in section 1.4.2 below.

Before we turn to such Theban authorities, let us summarise what evidence there is of the 18<sup>th</sup> Dynasty workforce itself. Particularly the objects from the tomb of Kha (TT 8) in the northern part of the Western Cemetery of Deir el-Medina are informative about the management of the workforce prior to the Amarna Period.<sup>105</sup> Kha is believed to have lived under Amenhotep II, Thutmosis IV and Amenhotep III.<sup>106</sup> Apart from the objects in his tomb Kha is known from two stelae from Deir el-Medina.<sup>107</sup> His most descriptive titles are:

<i>sš n(y)-sw.t</i>	Royal Scribe <sup>108</sup>
<i>hry n / m s.t ʿ3 &lt; .t &gt;</i>	Chief of/in the Great Place <sup>109</sup>
<i>imy-r k3.t m / n s.t ʿ3 &lt; .t &gt;</i>	Overseer of the construction works in/of the Great Place <sup>110</sup>
<i>imy-r k3.t pr-ʿ3</i>	Overseer of the construction works of Pharaoh <sup>111</sup>

The meaning of the designation *s.t ʿ3.t*, Great Place, has been the subject of a number of studies.<sup>112</sup> It seems to have been used during the 18<sup>th</sup> Dynasty in a similar way as the term *s.t m3ʿ.t* was in Ramesside times, as a reference to the royal necropolis of Thebes. In fact, the term *s.t ʿ3.t* appears to have been replaced by *s.t m3ʿ.t* during the reign of Akhenaten.<sup>113</sup> Because of the location of Kha's tomb at Deir el-Medina and the fact that his titles connect him with royal building activities, we deduce that Kha had supervised the work on the tomb of the king as indicated by the titles *hry* and *imy-r*. This view is supported by the titles of Neferhebef, a contemporary of Kha. This Neferhebef is depicted in scenes in Kha's funerary chapel<sup>114</sup> and his name features on a *senet*-board game<sup>115</sup> and a wooden cane<sup>116</sup> from the

<sup>104</sup> Eberhard Dziobek, *Das Grab des Ineni. Theben Nr. 81*. AV 68 (Mainz am Rhein 1992), 122, 135-139. Ineni's role in the construction of the tomb will be discussed in more detail below, 1.4.2.

<sup>105</sup> Significant discussions of this material are provided by Černý, *Community*, 72-73; 299; and Russo, *Kha*, *passim*.

<sup>106</sup> Lynn Meskell, 'Intimate Archaeologies: The case of Kha and Merit' *WorldArch* 29.3 (Feb. 1998), 369; Marcella Trappani, 'Behind the mirror. Art and prestige in Kha's funerary equipment' in: Katalin Anna Kóthay (ed.), *Art and society: ancient and modern contexts of Egyptian art: proceedings of the International Conference held at the Museum of Fine Arts, Budapest, 13-15 May 2010* (Budapest 2012), 159; Russo, *Kha*, 77-78.

<sup>107</sup> Stela Turin CG 50007, Tosi and Roccati, *Stele*, 38-39, 263; stela BM 1515, see Marianne Eaton-Krauss, 'The fate of Sennefer and Senetnay at Karnak Temple and in the Valley of the Kings' *JEA* 85 (1999), 127-129; Russo, *Kha*, 57-60.

<sup>108</sup> Two wooden canes from TT 8, Turin S. 8417 RCGE 45724 and S. 8418 RCGE 45725, see Schiaparelli, *La tomba*, 87, fig. 55; Russo, *Kha*, 67.

<sup>109</sup> Tomb of Kha (TT 8), ceiling, central band; wall B; wall A, see Jeanne Vandier d'Abbadie and Geneviève Gourdain, *Deux tombes de Deir el-Médineh*. I. *La chapelle de Khâ*. II. *La tombe du scribe royal Amenemopet*. MIFAO 73 (Cairo 1939), 9, 10, 11; stela BM 1515; numerous objects from TT 8.

<sup>110</sup> Scene in TT 8 but uncertain if referring to Kha; stela Turin CG 50007; several objects from TT 8.

<sup>111</sup> In Kha's second copy of the Book of the Dead (P. Luynes B = Bibliothèque National de France, Cabinet des Médailles no. 826), see Edouard Naville, *Das ägyptische Totenbuch der XVIII. bis XX. Dynastie aus verschiedenen Urkunden zusammengestellt und herausgegeben. Einleitung* (Berlin 1886), 105, Pj; Russo, *Kha*, 67.

<sup>112</sup> Černý, *Community*, 69; 72-75; Valbelle, *Les ouvriers*, 24; Raphael Ventura, *Living in a City of the Dead. A Selection of Topographical and Administrative Terms in the Documents of the Theban Necropolis*. OBO 69 (Göttingen 1986), 184-185; Aidan Dodson, 'The Late Eighteenth Dynasty Necropolis at Deir el-Medina and the Earliest "Yellow" Coffin of the New Kingdom' in: Demarée and Egberts (eds.), *Deir el-Medina in the Third Millennium AD*, 97; Russo, *Kha*, 67-76.

<sup>113</sup> See e.g. Černý, *Community*, 74; Dodson, 'The Late Eighteenth Dynasty Necropolis', 97; Haring, 'Saqqara – A Place of Truth?' (forthcoming).

<sup>114</sup> Tomb of Kha (TT 8), wall A, see Vandier d'Abbadie and Gourdain, *Deux tombes*, 5, pls. II-III, XV.

tomb of Kha, which are inscribed for him. They are most probably gifts of Neferhebef to Kha.<sup>117</sup> Neferhebef's titles include:

<i>imy-r ḥꜣs.w.t</i>	Overseer of the Foreign Lands <sup>118</sup>
<i>imy-r kꜣ.t m ḥr.t n(y)-sw.t</i>	Overseer of the construction works in the rock tomb of the King <sup>119</sup>
<i>imy-r kꜣ.t n s.t ꜣꜣ.t</i>	Overseer of the construction works of the Great Place <sup>120</sup>

The latter title is the same as borne by Kha, while Neferhebef's second title explicitly ties him to the construction of the Royal Tomb in the Valley of the Kings. Indirectly we may see Kha in a similar position.

Another individual with the title *ḥry n s.t ꜣꜣ.t* borne by Kha is attested in TT 8 as well: a man called Khaemwaset is described as such on a cane<sup>121</sup> that also seems to have been given to Kha as a present. Khaemwaset is therefore generally seen as a contemporary and colleague of Kha.<sup>122</sup>

If we are correct in dating titles with the element *s.t ꜣꜣ.t* at Deir el-Medina to the 18<sup>th</sup> Dynasty, then we can add two professional scribes to the administration of workmen during that time: stela Turin CG 50004<sup>123</sup> from Deir el-Medina records a *sš n(y)-sw.t n s.t ꜣꜣ.t* named Amenemope, while a scribal palette of unknown provenance, Louvre N 3023,<sup>124</sup> records a Pay with the slightly different title *sš n s.t ꜣꜣ.t*. The element *s.t ꜣꜣ.t* is otherwise attested in the title *sḏm-ꜣš n s.t ꜣꜣ.t*, seemingly referring to Deir el-Medina workmen in analogy with the title *sḏm-ꜣš m s.t mꜣꜣ.t* in the period after the reign of Akhenaten.<sup>125</sup> No more than six individuals with this title *sḏm-ꜣš n s.t ꜣꜣ.t* are known to us:

Amenemope, son of Kha<sup>126</sup>  
 Teti<sup>127</sup>  
 Amenhotep<sup>128</sup>

<sup>115</sup> Turin S. 8451 RCGE 19376, see Schiaparelli, *La tomba*, 175-179, figs. 159-162; Russo, *Kha*, 13-14 and pl. I.

<sup>116</sup> Turin S. 8591 RCGE 45794, see Schiaparelli, *La tomba*, 179-180, fig. 163; Russo, *Kha*, 19 and pl. II.

<sup>117</sup> Vandier d'Abbadie and Gourdain, *Deux tombes*, 17; Russo, *Kha*, *passim*.

<sup>118</sup> Cane from the tomb of Kha (TT 8), Turin S. 8591, see Russo, *Kha*, 19 and pl. II. This title is not only used by military officials, see Russo, *Kha*, 19-20; also William J. Murnane, "Overseer of the Northern Foreign Countries": Reflections on the Upper Administration of Egypt's Empire in Western Asia' in: Jacobus van Dijk (ed.), *Essays on Ancient Egypt in Honour of Herman te Velde*. Egyptological Memoirs 1 (Groningen 1997), 251-258.

<sup>119</sup> *Senet*-board game from the tomb of Kha (TT 8), Turin S. 8451, see Russo, *Kha*, 13-14 and pl. I.

<sup>120</sup> Tomb of Kha (TT 8), wall A, see Vandier d'Abbadie and Gourdain, *Deux tombes*, 11.

<sup>121</sup> Turin S. 8625 RCGE 45798, see Schiaparelli, *La tomba*, 179-180, fig. 163; Russo, *Kha*, 48.

<sup>122</sup> Černý, *Community*, 73; Russo, *Kha*, 48. A possible third colleague of Kha is a man named Hormes, attested in tomb DM 1159 A, but the evidence is very meagre. According to Bruyère and Černý at least one door jamb from the tomb describes Hormes as a *ḥry s.t ꜣꜣ.t*. Bruyère, *Rapport 1928 II*, 37 gives both *ḥry s.t ꜣꜣ.t* and *ḥry s.t mꜣꜣ.t*; fig. 25 or Bruyère's notes

(see [http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS\\_2004\\_0149\\_011](http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS_2004_0149_011)) are not helpful. Černý, *Community*, 73, n. 10 explicitly states that the reading *ḥry s.t mꜣꜣ.t* is incorrect. However, Davies, *Who's who*, 28 identifies this individual as the chief workman Hormes (ii) who lived in the 20<sup>th</sup> Dynasty, thus opting for the reading of *ḥr.y s.t mꜣꜣ.t*. Indeed, the title *ḥr.y is.t m s.t mꜣꜣ.t* is attested during the Ramesside Period, see Černý, *Community*, 121-122.

<sup>123</sup> Tosi and Roccati, *Stele*, 35-36, 263; dated to the reign of Thutmose III in Hermann Schlögl, 'Ein Beitrag zu den Anfängen der Arbeitersiedlung von Deir el-Medineh' in: Hedvig Györy (ed.), "Le lotus qui sort de terre". *Mélanges offerts à Edith Varga*. BMHS 2001 (Budapest 2001), 432.

<sup>124</sup> Andreu (ed.), *Les artistes*, 226, nr. 179.

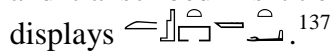
<sup>125</sup> Černý, *Community*, 45; 74.

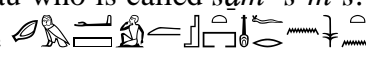
<sup>126</sup> Tomb of Kha (TT 8), wall B, see Vandier d'Abbadie and Gourdain, *Deux tombes*, 12.

<sup>127</sup> On coffin BMFA 37.14 E, see Dodson, 'The Late Eighteenth Dynasty Necropolis', 92-93.

Nu<sup>129</sup>  
Nakhtmin<sup>130</sup>  
Setau<sup>131</sup>

Perhaps the Wadjetshemes mentioned on stela CG Turin 50002<sup>132</sup> belongs in this list as well, because this monument, dated to the 18<sup>th</sup> Dynasty, was found at Deir el-Medina. On the stela Wadjetshemes bears the incomplete title *sdm-š m s.t* [sic]. He might be the son of the *sdm-š m s.t ʿz.t* Amenhotep with the same name, mentioned without a title on stela Strasbourg 347.<sup>133</sup>

According to Bruyère<sup>134</sup> an individual by the name of Amenemhat bears the title *sdm-š m s.t ʿz.t* on a rather damaged stela dedicated to Rehorakhty, but the element after *s.t* is damaged and *ʿz.t* cannot be discerned with certainty in the published photograph. The damage is caused by the erasure of the element Amun in the name of the dedicatee, which does point to a pre-Amarna date for the stela. Bruyère also published a stela fragment of a Sia or Semy<sup>135</sup> and transcribed his title as *b3 nb mw hm=f m s.t ʿz.t*<sup>136</sup> although the published drawing displays .<sup>137</sup>

The father of the *sdm-š m s.t ʿz.t* Nakhtmin, Minhotep, mentioned in TT 291 is there attested with the title *hsy n nb=f m s.t ʿz.t*.<sup>138</sup> His title suggests he was associated with the Deir el-Medina workforce as well, but it is unclear in what capacity.<sup>139</sup> Noteworthy is furthermore that the Setau who is called *sdm-š m s.t ʿz.t* on stela Hermitage 3937, bears the otherwise unattested title  *sdm-š m s.t nfr<.t> n<.t> n(y)-sw.t* on a head rest from his tomb (DM 1352)<sup>140</sup> and the title *sdm-š m s.t mʿ.t* on a shabti with the same provenance.<sup>141</sup> The former title should probably be amended to read *sdm-š m s.t*

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<sup>128</sup> On stela Strasbourg 347 dated to the reign of Thutmose III on stylistic grounds, see Spiegelberg, Pörtner, Dryoff *et al.* (eds.), *Aegyptische Grabsteine und Denksteine* I, 15, pl. XIV.

<sup>129</sup> Tomb of Nakhtmin (TT 291), ceiling, northern band; northern wall; western wall, third and fourth register, see Bruyère and Kuentz, *Tombes Thébaines*, 40; 43; 46-47.

<sup>130</sup> Tomb of Nakhtmin (TT 291), ceiling, central band; west wall, third and fourth register, see Bruyère and Kuentz, *Tombes Thébaines*, 40; 46.

<sup>131</sup> On stela Hermitage 3937 dated to reign of Akhenaten, see Alfred Grimm and Hermann A. Schlögl, *Das thebanische Grab Nr. 136 unter der Beginn der Amarnazeit* (Wiesbaden 2005), 15; Natalia Landa Borisovna, Irma Aleksandrovna Lapis and Ėrmitazh Gosudarstvennyĭ, *Egyptian antiquities in the Hermitage* (Leningrad 1974), nr. 50.

<sup>132</sup> Dated to the reign of Thutmose I based on the mention of this king, Tosi and Rocatti, *Stele*, 34, 262.

<sup>133</sup> Cf. Russo, *Kha*, 75.

<sup>134</sup> Bruyère, *Rapport 1935-40* II, 114-115, n. 270; pl. III, fig. 104. Also Russo, *Kha*, 76. Not mentioned by Černý in his discussion of the title in *Community*, 72-74.

<sup>135</sup> Not mentioned by Černý in his discussion of the title in *Community*, 72-74; not in Davies, *Who's who*; not in Robert J. Demarée, *The šh ikr n rʿ-Stelae. On Ancestor Worship in Ancient Egypt*. EU 3 (Leiden 1983); not in *PM*.

<sup>136</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1935 à 1940)* II. FIFAO 20.2 (Cairo 1952), 89. Note that the reference there to pl. III, fig. 104 is incorrect. Ben Haring kindly suggests that this inscription may contain the expression 'to be on someone's water', which denotes the dependency of the king's subject to the ruler or of a mortal to a god, see Heike Guksch, *Königsdienst. Zur Selbstdarstellung der Beamten in der 18. Dynastie*. SAGA 11 (Heidelberg 1994), 70-73.

<sup>137</sup> Bruyère, *Rapport 1935-1940* II, pl. XXIII, no. 24.

<sup>138</sup> Tomb of Nakhtmin (TT 291), ceiling, southern band, see Bruyère and Kuentz, *Tombes Thébaines*, 39.

<sup>139</sup> A parallel for the phrase *hsy n nb=f* from the Ramesside Period at Deir el-Medina is found on a pyramidion of Hori who is called a *hsy n nb=f m s.t mʿ.t*, see Černý, *Community*, 40. Note that Minhotep is also mentioned as "*m s.t mʿ.t*" in TT 291, west wall, second register, see Bruyère and Kuentz, *Tombes Thébaines*, 44.

<sup>140</sup> Cairo JE 63791, Bruyère, *Rapport 1933-1934* I, 101, nr. 10; *PM* I<sup>2</sup>, 688.

<sup>141</sup> Bruyère, *Rapport 1933-34* I, 98.

*nfr<.w>*, referring to the Place of Beauty, a designation for the Valley of the Queens.<sup>142</sup> Apart from the papyrus fragment mentioned above, this would be yet another indication that the men who worked on the tomb of the king were also active in the adjacent valley, preparing tombs of the royal wives.<sup>143</sup>

So far the basis for identifying individuals who belonged to the crew that constructed the royal tomb before the reign of Horemheb has been the element *s.t ʕz.t* in their title. To this group of individuals more men may perhaps be added, even when this element is not attested in combination with their name. It is conceivable that (some of the) owners of the 18<sup>th</sup> Dynasty tombs in the cemeteries to the east and west of the village were workmen, but these burials yielded very few names, let alone titles. It is a matter of debate whether the individuals that were interred there belonged to the crew of Deir el-Medina or not. This question will be addressed below.

The use of the common title *sḏm-ʕš* without any affiliation to an institute may have been used for other crew members. As mentioned above, the *sḏm-ʕš* recorded in the fragment of a letter from the Valley of the Queens could well have been a necropolis workman. It has similarly been pointed out above that the earliest mention of a *sḏm-ʕš* at Deir el-Medina is found in the tomb of Amenemhat (TT 340).<sup>144</sup> Although his title is not directly connected with the *s.t ʕz.t*, he could have been one of the first royal necropolis workmen of Thebes. Perhaps another title used by workmen of the royal tomb in the 18<sup>th</sup> Dynasty is *sḏm-ʕš n ʾImn*. This title is attested on a shabti inscribed for a Samut, bought by Bruyère in Cairo. Bruyère believed the shabti to have been stolen from his excavation of tomb DM 1352 (attributed to Setau). The shabti closely resembles that of Setau and it appeared on the art market in the year he worked on DM 1352.<sup>145</sup> If Bruyère's supposition is correct, then this Samut must be dated to the very end of the 18<sup>th</sup> Dynasty and based on the association with Setau he might have been involved in work on the royal tomb during that period.

The stela of the *sš n(y)-sw.t n s.t ʕz.t* Amenemope found at Deir el-Medina also records his son Tener, a draughtsman who bears the title *sš-ḳd n ʾImn*.<sup>146</sup> The element *n ʾImn* is also found on the shabti of the *sḏm-ʕš* Samut discussed above. Because the title *sš-ḳd n ʾImn* is attested at Deir el-Medina in the early 19<sup>th</sup> Dynasty,<sup>147</sup> it is plausible that Tener was involved in work on the royal tomb along with his father Amenemope.<sup>148</sup>

In support of the identification of *sš-ḳd (n ʾImn)* Tener as a draughtsman of the royal tomb is the attestation of Maya on stela Turin CG 50009<sup>149</sup> from Deir el-Medina and in his tomb in the Western Cemetery, TT 338.<sup>150</sup> On Maya's stela, dated to the first half of the reign of Akhenaten,<sup>151</sup> he bears the title *sš-ḳd*, whereas in his tomb, dated to the time of

<sup>142</sup> Černý, *Community*, 88-89.

<sup>143</sup> See also below, p. 40-41 and n. 183.

<sup>144</sup> Cf. Valbelle, *Les ouvriers*, 24.

<sup>145</sup> Bruyère, *Rapport 1933-34* I, 99; Jacques-F. Aubert and Liliane Aubert, *Statuettes Égyptiennes. Chaouabtis, Ouchebtis*. Librairie d'Amérique et d'Orient (Paris 1974), 56.

<sup>146</sup> Stela Turin CG 50004, Tosi and Roccati, *Stele*, 35-36, 263; Evgeni S. Bogoslovsky, review of Tosi and Roccati, *Stele*, in: *VDI* 132.2 (1975), 154, 158.

<sup>147</sup> E.g. Graffito nr. 817 records a draughtsman of Amun Pay below the names of Horemheb, Ramesses I and Seti I, see Wilhelm Spiegelberg, *Aegyptische und andere Graffiti (Inschriften und Zeichnungen) aus der thebanischen Necropolis. Text und Atlas* (Heidelberg 1921), 66; same individual also on a stela from Deir el-Medina, Turin CG 50048, Tosi and Roccati, *Stele*, 82-83, 281; draughtsman of Amun Pashedu on a stela from the Western Cemetery, Bruyère, *Rapport 1923-1924*, 86, fig. 15. See also chapter 6, 6.2.3.

<sup>148</sup> More on Tener, see below, p. 48.

<sup>149</sup> Tosi and Roccati, *Stele*, 41-42, 264.

<sup>150</sup> Tosi, *La cappella di Maia*.

<sup>151</sup> Grimm and Schlögl, *Das thebanische Grab Nr. 136*, 14.

Tutankhamun – Horemheb,<sup>152</sup> he is described as *sš-qd n Imn m s.t mꜣꜥ.t*. The two inscriptions demonstrate that *sš-qd* could be used as an abbreviation for *sš-qd n Imn*. Furthermore, the addition of the element *m s.t mꜣꜥ.t* proves that as early as the end of the 18<sup>th</sup> Dynasty there was a draughtsman of Amun attached to the work on the royal tomb.

A scribe (*sš*) named Amenmes is recorded on a simple painted stela found at Deir el-Medina and dated to the 18<sup>th</sup> Dynasty.<sup>153</sup> Its inscriptions display two peculiarities: the name of the depicted king Amenhotep is not written within a cartouche, and the determinative of the kneeling man after the name of Amenmes is orientated in the wrong direction. These scribal errors cast some doubt on Amenmes' claim to the title 'scribe'. With nothing else but the title *sš* it cannot be proven that Amenmes was involved in the work on the royal tomb, but the provenance of the stela in Deir el-Medina does make it plausible. However, the palaeography of the inscription on his stela renders it very improbable that he operated as an administrative scribe.

In addition to the persons who are attested with a title, there is evidence of few individuals who must have lived at Deir el-Medina during the 18<sup>th</sup> Dynasty but who do not bear a title. The lack of titles makes it very difficult to determine if these persons were involved in work on the royal tomb or not, and if so, what their function was. As we shall see below, a number of names of men without title have survived from the 18<sup>th</sup> Dynasty burials of the Eastern Cemetery. There has been some controversy regarding the question if they were necropolis workmen or not, and this matter will be addressed below.<sup>154</sup> Other men are named without titles on 18<sup>th</sup> Dynasty monuments from Deir el-Medina. Stela Turin CG 50003 from the Drovetti collection is thought to have come from the village and was attributed to the reign of Thutmosis III. The monument records a man named Pakhen.<sup>155</sup> Another stela, Turin CG 50005, is dated to the beginning of the 18<sup>th</sup> Dynasty and was excavated by Schiaparelli in Deir el-Medina.<sup>156</sup> It is dedicated to a Mekymontu and his wife Nebuemweskheth by their son Semenkh, and all three individuals are title-less.

Dated to the Amarna-period and the very end of the 18<sup>th</sup> Dynasty is a Hapy-'a who is mentioned on the stela of Setau (Hermitage 3937) without title. A shabti from Setau's tomb DM 1352 is inscribed for him as well, again without a title, suggesting that Hapy-'a was buried there.<sup>157</sup> Hapy-'a may thus have been a family member of Setau.<sup>158</sup> There is however no direct evidence that he was active as a workman in the Valley of the Kings. Another mysterious individual is Hesymeref. This name is attested on six shabtis made of different materials bearing different inscriptions, but they are all believed to belong to the same individual. On the basis of its inscription and the style of the sculpture Hesymeref's shabtis were dated to the reign of Tutankhamun. Unfortunately the provenance of these shabtis is unknown, but since three shabtis record the title *sdm ꜥš* after the name of the deceased they are thought to have come from Deir el-Medina.<sup>159</sup> This can, however, not be proven. Dated to the post-Amarna Period as well is the tomb of Maya, TT 338. Maya himself is recorded with

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<sup>152</sup> Friederike Kampp, *Die thebanische Nekropole: zum Wandel des Grabgedankens von der XVIII. bis zur XX. Dynastie*. II. Theben 13 (Mainz am Rhein 1996), 579; Tosi, *La cappella di Maia*, 17.

<sup>153</sup> Stela Turin 50006, Tosi and Roccati, *Stele*, 37, 263.

<sup>154</sup> See below, 1.5.

<sup>155</sup> Tosi and Roccati, *Stele*, 34-35, 262.

<sup>156</sup> Tosi and Roccati, *Stele*, 36-37, 263.

<sup>157</sup> Now in the Louvre, E 14374. Bruyère, *Rapport 1933-1934 I*, 98-100; Andreu (ed.), *Les artistes*, 292-293, nr. 238.

<sup>158</sup> Cf. Demarée, *ꜣḫ iḳr n Rꜥ-Stelae*, 83.

<sup>159</sup> Jacques-F. Aubert, 'Les statuettes funéraires de la collection Omar Pacha' *CdE* 50 (1976), 60-63; Hermann A. Schlögl and Andreas Brodbeck, *Ägyptische Totenfiguren aus öffentlichen und privaten Sammlungen der Schweiz*. OBOSA 7 (Freiburg and Göttingen 1990), 83; Maria Helena Assam, *Arte Egipcia. Museu Calouste Gulbenkian* (Lisbon 1991), 54, n. 11.



the title *sš-qd n Imn m s.t mšꜥ.t*, which associates him with work on the royal tomb. The tomb of Maya also records his sons. Most of them do not bear a title, but four of his sons do. There are a Parennefer and a Khonsu, both with the title *sš-qd* (draughtsman), a Sekheruefmen who is *sdm-š* (workman) and an Amenemwesekheth who is a *tꜣy* (sculptor.) Yet, all these titles are given without further specification, and so it remains speculative whether they worked in the Valley of Kings as their father did.

#### 1.4.2 EXTERNAL ORGANISATION

It is clear that during the 19<sup>th</sup> and 20<sup>th</sup> Dynasties the work on the royal tomb was a responsibility of the vizier, who represented Pharaoh as acting chief executive of the operation.<sup>160</sup> This situation might have been slightly different in the 18<sup>th</sup> Dynasty, as the few scant pieces of information we possess seem to indicate. Direct evidence is found in the famous inscriptions in the tomb of Ineni (TT 81), mayor of Thebes and overseer of building activities in the temple of Karnak during the reign of Thutmose I. One of his titles describes him as *hrp kꜣ.t hr hr.t n.t n(y)-sw.t*, Controller of construction works on the rock tomb of the King.<sup>161</sup> On a stela from his tomb Ineni articulates the secrecy that seems to have accompanied this work.<sup>162</sup> Unfortunately it is not safe to say at what exact location the construction took place, since the original tomb of Thutmose I is not securely identified in the Valley of Kings.<sup>163</sup> However, the fragmentary letter from the Valley of the Queens that mentions Ineni<sup>164</sup> signals his presence in the Theban valleys and suggests a connection with the preparations of royal burials in that area.

Another person that seems to have been responsible for the organisation of the construction of the royal tomb is a man called Amenmes. His name and titles are attested on a scribal palette included in the tomb of Kha (TT 8) and generally interpreted as a gift of Amenmes to Kha.<sup>165</sup> The cartouche of Thutmose IV on this scribal palette indicates that Amenmes was active during that reign. The titles of Amenmes recorded on the palette show him to have been a very high official.<sup>166</sup> Amongst other functions, Amenmes was Overseer of the Treasury, Fan-bearer at the right of the King, Overseer of the internal Palace, and *imy-r kꜣ.t nb.t n(y)-sw.t*: Overseer of all construction works of the King. The presence of the palette in TT 8 indicates that Amenmes, a Theban official with important positions in the higher ranks of the administration, had contact with Kha, a contemporary official responsible for the construction works at the royal tomb. Amenmes' ties to the work on the royal tomb and to the community of workmen are also materialised in the form of a seated statue he had erected at the temple site of Deir el-Medina.<sup>167</sup> A fragment of his statue was discovered in the foundations of the north-eastern corner of the external Ptolemaic wall of the Hathor temple. Its inscriptions indicate that it was dedicated to Hathor, so it is probably that already in the 18<sup>th</sup> Dynasty there was sanctuary of Hathor at the village.<sup>168</sup> As Russo pointed out,<sup>169</sup>

<sup>160</sup> Valbelle, *Les ouvriers*, 139-142; Häggman, *Directing Deir el-Medina*, 109, 116-130.

<sup>161</sup> Dziobek, *Das Grab des Ineni*, 123.

<sup>162</sup> Dziobek, *Das Grab des Ineni*, 51.

<sup>163</sup> See above, p. 23-25.

<sup>164</sup> See above, p. 32.

<sup>165</sup> Turin S. 8388, see Schiaparelli, *La tomba*, 75; Russo, *Kha*, 32, 35-36.

<sup>166</sup> Irena Pomorska, *Les flabellifères à la droite du roi en Égypte ancienne* (Warsaw 1987), 106, nr. 11 and Russo, *Kha*, 32-33, propose that this Amenmes was buried in TT 118.

<sup>167</sup> Bruyère, *Rapport (1935-1940) II*, 106-107, pl. XIX, figs. 183-184; Pomorska, *Les flabellifères*, 106, nr. 11; Russo, *Kha*, 37-40.

<sup>168</sup> It is very unlikely that this is the same individual as the 'scribe' Amenmes attested on the sketchy stela from Deir el-Medina, Turin CG 50006 (see above, p. 37) since the Amenmes attested in the tomb of Kha is not recorded with the title *sš*, and one would expect him to have erected a stela of a better quality.

<sup>169</sup> Russo, *Kha*, 39.

Amenmes probably dealt with Kha in the capacity of overseer of all construction works. Being the overseer of the treasury he would have answered to the vizier.<sup>170</sup>

Whereas in the Ramesside Period an external service personnel called the *smd.t* was burdened with the task of providing the crew of workmen with commodities, such an 'institution' is not attested for the 18<sup>th</sup> Dynasty.<sup>171</sup> According to a theory of Bruyère, the large number of baskets as well as silos attested in the 18<sup>th</sup> Dynasty houses north of the village enclosure wall and east of the temple indicates the workmen were not kept on government rations. Bruyère did not attempt to explain in what way grain and other items would have reached the village.<sup>172</sup>

### 1.4.3 CONCLUSIONS

On the basis of the available data we are able to reconstruct to some extent an outline of the organisation of the workforce from the time of about Thutmose III up to Horemheb. It differs little from the overview presented by Barbara Russo.<sup>173</sup> Outside of Deir el-Medina, a high-ranking official other than the vizier seems to have been primarily responsible for the realisation of the royal tomb. At the beginning of the New Kingdom this may well have been the mayor of Thebes, who was also involved in the building activities at Karnak. The connection with the temple of Amun in Karnak may be reflected by the element *n 'Imn* in some of the titles attested at 18<sup>th</sup> Dynasty Deir el-Medina. Around the middle of the 18<sup>th</sup> Dynasty, the final responsibility for the construction projects seems to have laid with the Overseer of all construction works of the King. Both this official and the mayor were high-ranking administrators but were subordinates to the vizier, who is not mentioned at Deir el-Medina in the 18<sup>th</sup> Dynasty. In contrast, during the Ramesside Period it is the vizier who is attested in Deir el-Medina correspondence, whereas the mayor of Thebes or other high officials are mostly absent.<sup>174</sup>

At Deir el-Medina itself, the crew was directed by a foreman, who, among other titles, was referred to as

- Chief in/of the Great Place
- Overseer of the construction works in/of the Great Place
- Overseer of the constructions works in the rock tomb of the King

At least three individuals from the middle of the 18<sup>th</sup> Dynasty are attested in this position. Since Neferhebef and Kha must have been contemporaries at a certain time, Russo suggested that they directed the work on the tomb together, in a construction similar to that of the Ramesside Period where the workforce was divided into halves, a right side and a left side, each with their own foreman.<sup>175</sup> There are however no indications for such an organisation other than the fact that Kha and Neferhebef were probably both alive during a particular period. Russo hypothesised furthermore that one could only become a Chief of the Great Place after having been an Overseer of the Great Place.<sup>176</sup> Again, there is no direct evidence for this assumption and both titles may well have been interchangeable, just as the titles *ꜥꜣ n 'is.t*, Great one of the Crew, and *ḥr.y 'is.t*, Chief of the Crew, were during the Ramesside Period.<sup>177</sup>

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<sup>170</sup> Betsy M. Bryan, *The reign of Thutmose IV* (London 1991), 248.

<sup>171</sup> Cf. Dorn, 'Ostraka', 38.

<sup>172</sup> Bruyère, *Rapport 1948 à 1951*, 90.

<sup>173</sup> Russo, *Kha*, 71-76.

<sup>174</sup> Häggman, *Directing Deir el-Medina*, 132-133, 135.

<sup>175</sup> Russo, *Kha*, 73.

<sup>176</sup> Russo, *Kha*, 73-74, 78.

<sup>177</sup> Černý, *Community*, 121.

In fact, one could make the case that during the 18<sup>th</sup> Dynasty titles for members of the workforce were in general not very significant. Two professional scribes are attested in relation to the work on the royal tomb, one as *sš n(y)-sw.t n s.t ʿz.t* and one as *sš n s.t ʿz.t*. Workmen are indicated as *sdm-ʿš m s.t ʿz.t*, *sdm-ʿš m s.t mʿz.t*, *sdm-ʿš m s.t nfr.t n n(y)-sw.t* and *sdm-ʿš n Imn*. This inconsistency in titles during the 18<sup>th</sup> Dynasty can be interpreted as an indication that the organisation at Deir el-Medina was of a more fluid nature compared to the situation in the Ramesside Period.<sup>178</sup> This ties in well with the observation that many individuals of the 18<sup>th</sup> Dynasty are attested without title at Deir el-Medina. Similarly, a number of individuals are attested from the village with a title that describes a function but does not include an affiliation to the royal tomb or the *s.t ʿz.t / s.t mʿz.t*. The few attested titles that have come down to us include servants (*sdm-ʿš*) and draughtsmen (*sš-qd*).

It can be argued that this inconsistency in, or absence of titles is indicative of a workforce that was less formally organised than during most of the Ramesside Period. In part this may have been a consequence of the lack of a local scribal tradition and the standardisation scribal practice it tends to bring about. As suggested above, the necropolis scribes did not hold office within the community itself. That is an important observation. The presence of local scribes at Deir el-Medina during the Ramesside Period has been seen as the main reason behind the scribal culture at the village resulting in the large number of hieratic documentary texts from the site.<sup>179</sup> This argument can also be reversed: the absence of local scribes accounts for the lack of hieratic documentation during the 18<sup>th</sup> Dynasty.

The general lack of hieratic texts from the 18<sup>th</sup> Dynasty agrees with the subsequent increase in the number of hieratic ostraca from Deir el-Medina as observed by Haring. Dividing the Ramesside Period in quarters, there are rather few hieratic ostraca from the first half of the 19<sup>th</sup> Dynasty, much more from the second half of the 19<sup>th</sup> Dynasty, and even more from the first half of the 20<sup>th</sup> Dynasty.<sup>180</sup> This increase in hieratic ostraca has been argued to be not a reflection of the archaeological record, but of the development of scribal practices in the community during the Ramesside Period.<sup>181</sup> Not only did the scribal output increase over time, Haring demonstrated that the village community also evolved from a predominantly oral society to one in which texts played an important role as supplements to oral practices. As a consequence, more documentary texts were produced, which became increasingly more standardised with fixed formulas and scribal conventions.<sup>182</sup> One may speculate that data from the 18<sup>th</sup> Dynasty support these observations. The increase in the local production of hieratic texts at Deir el-Medina from the early 19<sup>th</sup> Dynasty onwards is preceded by a period during which such documents were not composed locally. Whereas the rising importance of scribal practices eventually led to standardisation of texts and to the development of fixed formulae, the opposite is true for the 18<sup>th</sup> Dynasty. During this period the absence of a local scribal culture did not contribute to a standardisation of nomenclature for particular occupations, as evidenced by the rare use of titles and the great variety among titles that are attested.

<sup>178</sup> With the exception of the early 19<sup>th</sup> Dynasty, see chapter 6, 6.2.3.

<sup>179</sup> E.g. Haring, 'Scribes and scribal activity', 109-110.

<sup>180</sup> Ben J.J. Haring, 'From Oral Practice to Written Record in Ramesside Deir El-Medina' *JESHO* 46.3 (2003), 254-255. The decrease of hieratic ostraca from the second half of the 20<sup>th</sup> Dynasty is explained by the scribes' decision to use papyrus as a medium instead of limestone chips and ceramic fragments, see Eyre, *Employment and Labour Relations*, 44-47; Haring, 'Scribes and scribal activity', 111.

<sup>181</sup> Eyre, *Employment and Labour Relations*, 4-5; Haring, 'From Oral Practice to Written Record', 255.

<sup>182</sup> Haring, 'From Oral Practice to Written Record', 256-267.

### 1.5 THE EARLIEST IDENTITY MARKS IN DEIR EL-MEDINA: THE 18<sup>TH</sup> DYNASTY

Identity marks of the 18<sup>th</sup> Dynasty workmen are found on domestic objects, pottery and ostraca from the Valley of the Kings as well as at the village of Deir el-Medina, clearly linking them to the necropolis workmen. Interestingly, a group of pottery fragments discovered near tomb 34 in the Valley of the Queens are also incised with workmen's marks that date to the 18<sup>th</sup> Dynasty.<sup>183</sup> It will be demonstrated in the next chapters that the repertory of marks from this period is easily distinguished from that of the Ramesside Period. The 18<sup>th</sup> Dynasty corpus of workmen's marks can be identified because numerous specimens have been discovered in archaeological contexts stemming from that time, including private tombs at Deir el-Medina and sites located close to 18<sup>th</sup> Dynasty royal tombs. Ostraca inscribed with marks from this period will be analysed in chapter 2. There it will be shown that these ostraca are readily identifiable on the basis of their layout as well as the aforementioned repertory of marks.<sup>184</sup> This section will be concerned with the provenance of these documents in an attempt to establish when identity marks were used by the necropolis workmen for the first time. Unfortunately the archaeological record is not accurate enough to pinpoint the moment that marks were introduced, because often the exact provenance of the ostrakon or object has not been recorded. In some instances the provenance is indicative of a date around the early to mid-18<sup>th</sup> Dynasty

Remains of a group of houses were discovered in the area east of the temple enclosure and north of the hill of Qurnet Murai. The houses were dated to the 18<sup>th</sup> Dynasty on account of the great number of pottery fragments found at the lowest stratum of the site. More precisely, Bruyère associated the houses with the earliest part of the village within the enclosure wall from the time of Thutmose I. This northern part of the village was thought to have been the site where the first workmen settled at the beginning of the 18<sup>th</sup> Dynasty. This section of the village must have been removed when the temple dedicated to Amun was built under the reign of Ramesses II.<sup>185</sup> Numerous objects dating to the 18<sup>th</sup> Dynasty were found in this area, some of which were inscribed with workmen's marks of the same period. These objects comprise of wooden tools and ceramic vessels and vessel fragments.<sup>186</sup>

A significant number of ostraca with marks in the large collection of unpublished marks ostraca currently kept at the French Institute for Oriental Archaeology dates to the 18<sup>th</sup> Dynasty as well.<sup>187</sup> The provenance of the greater majority of these pieces is unknown, and we have to assume that they were recovered in or near the village of Deir el-Medina during the excavations led by Bruyère. In some cases the findspot has been indicated, but that information does not always offer a clear date. Ostraca ONL 6214, ONL 6216, ONL 6293, ONL 6558 and ONL 6788 all date to the 18<sup>th</sup> Dynasty and were found north of the village in the Grand Puits or in the rubbish heaps surrounding it,<sup>188</sup> and cannot be dated with any more precision. Ostrakon ONL 6298 was discovered during the excavations of 1922. In this season, the area of the tomb of Kha (TT 8), the tomb of Amenwahsu (DM 1138) and the tomb of Nu and Nakhtmin (TT 291) were among the sites that were cleared. These tombs all date to the timeframe covered by the reigns of Thutmose IV, Amenhotep III and Akhenaten, so the ostrakon is perhaps attributable to the same period. The provenance of ostrakon ONL 6340

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<sup>183</sup> Magdi M. Fekri and Anne-Marie Loyrette, 'Vallée des Reines: la tombe VdR 34 d'une reine inconnue et les puits VdR 87' *Memnonia* 9 (1998), fig. 4, nrs. 1-5. Together with the fragmentary 18<sup>th</sup> Dynasty letter (see above, p. 32 ; p. 38) and the title of Setau (see above p. 35-36), the workmen's marks from the Valley of the Queens represent strong evidence for the presence of the Royal Necropolis workmen in this part of the Theban valleys.

<sup>184</sup> Cf. Haring, 'Workmen's marks' 152-154; Haring, 'On the Nature of Workmen's Marks', 125-126.

<sup>185</sup> Bruyère, *Rapport 1948-1951*, 87.

<sup>186</sup> Bruyère, *Rapport 1948-1951*, 88-89, 91, pl. XXII.

<sup>187</sup> They are discussed in chapter 2.

<sup>188</sup> The same is true for ONL 6457 and ONL 6589 but an 18<sup>th</sup> Dynasty date is not certain.

was marked by the excavators as “K 215”, a designation for the *kom* to the south of TT 215 north of the village, a tomb which had been turned into a chapel during the Ramesside Period. Material from the site came from mixed contexts date to the 18<sup>th</sup> and 19<sup>th</sup> Dynasties,<sup>189</sup> which does not allow for a precise dating of the ostrakon. ONL 6210 had been found to the south-east of TT 290, which belongs to Irynefer (i) and should date to the early 19<sup>th</sup> Dynasty. Once again the provenance of the ostrakon is not very informative.<sup>190</sup> Similarly elusive is the findspot of ONL 6514. The ostrakon had been marked by its excavators as “S3”, which according to Rob Demarée might indicate that it was found in room III of house SO IV.<sup>191</sup> This house is situated in a section of the village that was built as part of an extension during the reign of Horemheb or later and it seems very improbable that the ostrakon stems from this time. Ostrakon ONL 6789 was probably discovered during the clearance of TT 291, the tomb of Nu and Nakhtmin. If the ostrakon dates to the same time as this tomb, it must stem from the late 18<sup>th</sup> Dynasty. Ostraca ONL 6266 and ONL 6305 were both recovered in the vicinity of DM 1360 in the Western Cemetery. According to Bruyère the tomb dates to the late 18<sup>th</sup> Dynasty but was incorporated into a house during the Ramesside Period.

Regarding their provenance some of the ostraca with marks discovered in the Valley of the Kings are more telling of their date.<sup>192</sup> A group of five ostraca was discovered in the vicinity of the tomb of Thutmose III (KV 34), and are attributable to his reign. The ostraca will be examined in chapter 2 (2.2.1), but for now we can state that these documents constitute the earliest dated ostraca with marks,<sup>193</sup> and there are no grounds to ascribe ostraca with marks to a time prior to Thutmose III.

Other marks are found on objects from burials of 18<sup>th</sup> Dynasty individuals. In general such burials are poorly preserved. Most 18<sup>th</sup> Dynasty tombs were disturbed in the Ramesside Period, in the Graeco-Roman period, and/or in modern times. Fortunately, a small number of tombs can be dated to some extent. A good example is the tomb of Kha (TT 8), which was intact when discovered. It has already been noted above that workmen’s marks were discovered on the objects from his funerary equipment. In total, seven different marks from Kha’s tomb are published. A single mark is ubiquitous: ⌘. It had been added to objects made of bronze, an adze, items of pottery and a large number of linen clothing items. The same mark thus occurs on different categories of objects, and several authors have already pointed out that this can only mean that the mark represents the identity of Kha himself.<sup>194</sup> Interestingly, Kha’s identity mark is not only attested on objects from his tomb, but also on ostraca found in the Valley of the Kings<sup>195</sup> and from the village,<sup>196</sup> as well as on pottery fragments found at several locations at Deir el-Medina<sup>197</sup> and the Valley of the Kings.<sup>198</sup> The

<sup>189</sup> Bruyère, *Rapport 1931-1932*, 55.

<sup>190</sup> It is also possible that the description “south-east of 290” designates the *Kom* 2, a rubbish heap that yielded many Ramesside ostraca inscribed with literary works, see Annie Gasse, ‘Le K2, un cas d’école?’ in: Demarée and Egberts (eds.), *Deir el-Medina in the third millennium AD*, 109-120.

<sup>191</sup> See a remark by Rob Demarée in the record of O. IFAO 696 in the *Deir el-Medina Database*.

<sup>192</sup> See chapter 2, p. 69-71.

<sup>193</sup> Cf. Haring, ‘Workmen’s Marks on Ostraca’, 153; Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 96-97.

<sup>194</sup> E.g. Schiaparelli, *La tomba*, 93; Bruyère, *Rapport 1923-1924*, 90; Haring, ‘Workmen’s Marks on Ostraca’, 154; Daniel Soliman, ‘Workmen’s Marks in Pre-Amarna Tombs at Deir el-Medina’ in: Julia Budka, Frank Kammerzell and Sławomir Rzepka (eds.), *Non-Textual Marking Systems in Ancient Egypt (and elsewhere)* (forthcoming) [2].

<sup>195</sup> E.g. O. Cairo JE 72490.

<sup>196</sup> ONL 6298; ONL 6330; ONL 6369; and ONL 6424.

<sup>197</sup> The Grand Puits (two instances, see Bruyère, *Rapport 1948-1951*, pl. XVII); the area of the 18<sup>th</sup> Dynasty houses that were removed during the construction of the temple of Deir el-Medina (one instance, see Bruyère, *Rapport 1948-1951*, 91, pl. XXII); the 18<sup>th</sup> Dynasty burials DM 1172 – 1174 (two instances, see Bruyère, *Rapport 1928 II*, 123, nr. 7; 125, fig. 69, nr. 7; 126, fig. 70, nr. 14; 127, nr. 14; and 124, nr. 19; 125, fig. 69, nr.

fact that Kha's mark occurs among other marks on these ostraca proves that these documents deal with the 18<sup>th</sup> Dynasty necropolis workmen, and that they record the presence of these individuals in the Valley of the Kings as well as at the village.

But Kha's mark is not the only identity mark attested elsewhere. The other six workmen's marks on objects from his tomb are likewise found on ostraca and objects from the Valley of the Kings and from the village. In the tomb of Kha they are found on a drill (mark X),<sup>199</sup> a plant-shaped altar holder (mark ⚙),<sup>200</sup> a bronze bowl (mark ⚓)<sup>201</sup> and several ceramic vessels (marks ⚓, ⚓, ⚓ and ⚓).<sup>202</sup> These identity marks must represent contemporaries of Kha, workmen with whom Kha was in close contact during the construction of the royal tomb.<sup>203</sup> Objects with marks of these men are probably objects given by them to Kha, either in life or posthumously, to be included in his funerary equipment. This interpretation would be analogous to several other objects from TT 8 that are inscribed for individuals other than Kha and his wife, which are seen as gifts.<sup>204</sup> The practice of gift-giving is also attested in the 18<sup>th</sup> Dynasty tombs of the Eastern Cemetery. In several of these burials a number of ceramic vessels were found, all with very similar content consisting of bread, pieces of fruit, other small ceramic vessels, pieces of linen etc.<sup>205</sup> These vessels have been interpreted as gifts to the deceased, and among other indications they suggest a strong communal involvement in the composition of the funerary equipment of the burials.<sup>206</sup>

Apart from the tomb of Kha, workmen's marks are attested in several other tombs in the Western Cemetery that were dated to the 18<sup>th</sup> Dynasty by Bruyère. With a few exceptions, none of tomb owners can be identified because of the disturbed nature of the burials and as such the tombs have received little attention after their initial publication. Bruyère himself was often very brief in his descriptions of the graves. Nevertheless, these tombs are numerous and comprise an important portion of the Western Cemetery. Going through the excavation reports of Bruyère one comes to a total of about 180 burials.<sup>207</sup> Most of them were dated with

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19; 126, fig. 70, nr. 11; 127, nr. 11); also in the 19<sup>th</sup> Dynasty burial TT 9 (see Bruyère, *Rapport 1924-1925*, 106, nr. 11; perhaps reused from the 18<sup>th</sup> Dynasty? The tomb is situated c. 30 meters east of DM 1172). The mark of Kha is also inscribed on a limestone seat discovered in TT 323 (see Bruyère, *Rapport 1923-1924*, 89, pl. XXV, nrs. 11-12), the tomb of Pashedu (vii) who was active during the early 19<sup>th</sup> Dynasty. His tomb is located in close vicinity to TT 8, the tomb of Kha, and it is plausible that Pashedu had reused Kha's seat. Pashedu is unlikely to have inherited the mark from Kha because the two men were no relatives, see Davies, *Who's who*, 155-156.

<sup>198</sup> Perhaps on a bowl discovered in front of the tomb of Siptah (KV 47), see Aston, *Pottery recovered*, 69, pl. 62, nr. 532.

<sup>199</sup> Turin S. 8363 RCGE 19414, see Schiaparelli, *La tomba*, fig. 48, 1; Anna Maria Donadoni, Enrichetta Leospo, Elvira D'Amico *et al.*, *Il Museo Egizio di Torino. Guida alla lettura di una civiltà*. Nuova Edizione (Turin 1993), 152.

<sup>200</sup> Cairo JE 38642, see Schiaparelli, *La tomba*, 144, fig. 128.

<sup>201</sup> Turin S. 8218 RCGE 19799, see Schiaparelli, *La tomba*, fig. 118, 4.

<sup>202</sup> Turin S. 8375 RCGE 19421, see Schiaparelli, *La tomba*, fig. 52, 2; Turin S. 8250 RCGE 19766, see <http://collezioni.museoegizio.it/eMuseumPlus?service=ExternalInterface&module=collection&objectId=102449&viewType=detailView>; Turin S. 8349 RCGE 19392, see Schiaparelli, *La tomba*, fig. 147, 2; Turin S. 8436 RCGE 19788, see Schiaparelli, *La tomba*, fig. 121, 3.

<sup>203</sup> See also chapter 2, 2.6.5.

<sup>204</sup> Cf. e.g. Russo, *Kha, passim*; Trappani, 'Behind the mirror', *passim*.

<sup>205</sup> Näser, 'Zur Interpretation', 378.

<sup>206</sup> Näser, 'Zur Interpretation', 383.

<sup>207</sup> Bruyère, *Rapport 1924-1925*, 33, 35, 40-45, 48; Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1926)* [I]. FIFAO 4.3 (Cairo 1927), 10, 14, 37, 44-50, 56; Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1927)*. FIFAO 5.2 (Cairo 1928), 3, 6, 8, 11, 14-15, 17, 19, 23, 89, 94-95, 97-99, 109, 113; Bruyère, *Rapport (1928)*, 6-12, 20-29, 33-34, 73-74, 77, 119-123, 127, 131-132; Bruyère Bernard, *Rapport sur les Fouilles de Deir el Médineh (1930)*. FIFAO 8.3 (Cairo 1933), 21, 25, 27, 30-31; Bruyère, *Rapport 1931-1932*, 7, 9, 12, 14-16, 21, 28; Bruyère, *Rapport 1933-1934*, 9-10, 13-14, 16-17, 21, 24, 37-39, 42, 61, 64-66, 72, 75, 78, 86-87, 93, 110, 117, 122, 129, 133, 134, 141-142, 144.

no more precision than to the 18<sup>th</sup> Dynasty, but in some cases there were indications of a more specific date:

- DM 1042: contemporaneous with TT 340 (Amenemhat), beginning of the 18<sup>th</sup> Dynasty<sup>208</sup>
- DM 1163: contained mudbricks with seal impressions with the name of Thutmosis I<sup>209</sup>
- DM 1164: contained a mudbrick with a seal impression with the name of Thutmosis I<sup>210</sup>
- DM 1161: contained mudbricks with seal impressions with the name of Thutmosis III<sup>211</sup>
- DM 1109: contained seal impressions with the name of Amenhotep II<sup>212</sup>
- DM 1130: contained a mudbrick with seal impression with the name of Thutmosis III or IV<sup>213</sup>
- DM 1150: contained a mudbrick with a seal impression with the name of Thutmosis IV<sup>214</sup>
- DM 1165: contained amphorae with seal impressions with the name of Thutmosis III or IV<sup>215</sup>
- DM 1041: contained mudbricks with seal impressions with the name of Amenhotep III<sup>216</sup>
- DM 1089: contained seal impressions with the name of Amenhotep III<sup>217</sup>
- DM 1300: end of the 18<sup>th</sup> or early 19<sup>th</sup> Dynasty, on basis of shape of pit and bricks<sup>218</sup>
- DM 1347: end of the 18<sup>th</sup> Dynasty, on basis of architectural elements<sup>219</sup>
- DM 1348: end of the 18<sup>th</sup> Dynasty, on basis of architectural elements<sup>220</sup>
- DM 1403: end of the 18<sup>th</sup> Dynasty, on basis of architectural elements and location<sup>221</sup>

As most tombs in the Western Cemetery remain anonymous to us, the number of graves that can be securely attributed to necropolis workmen from the time prior to the Amarna Period is very small.<sup>222</sup> Nevertheless, the workmen are attested in a great number of these tombs through the identity marks that have been discovered in them. The marks found in graves of the Western Cemetery dated to the 18<sup>th</sup> Dynasty by Bruyère will be discussed in more detail in the chapter 2, but here they are already presented in the table below (TABLE 1).

<sup>208</sup> Bruyère, *Rapport 1924-1925*, 48.

<sup>209</sup> This tomb was used in the 18<sup>th</sup> as well as in the 19<sup>th</sup> Dynasty, see Bruyère, *Rapport 1928 II*, 74.

<sup>210</sup> This tomb was used in the 18<sup>th</sup> as well as in the 19<sup>th</sup> Dynasty, see Bruyère, *Rapport 1928 II*, 77, 100.

<sup>211</sup> Bruyère, *Rapport 1928 II*, 77, 93.

<sup>212</sup> Bruyère, *Rapport 1927*, 98.

<sup>213</sup> Bruyère, *Rapport 1928 II*, 6.

<sup>214</sup> Bruyère, *Rapport 1928 II*, 27.

<sup>215</sup> Bruyère, *Rapport 1928 II*, 77, 111.

<sup>216</sup> Bruyère, *Rapport 1926 I*, 48.

<sup>217</sup> Bruyère, *Rapport 1926 I*, 51-52.

<sup>218</sup> Bruyère, *Rapport 1933-1934 I*, 9.

<sup>219</sup> Bruyère, *Rapport 1933-1934 I*, 93.

<sup>220</sup> Bruyère, *Rapport 1933-1934 I*, 110.

<sup>221</sup> Bruyère, *Rapport 1933-1934 I*, 141.

<sup>222</sup> Cf. Dodson, 'The Late Eighteenth Dynasty Necropolis', 97, n. 65; Dorn, 'Ostraka', 35. The tombs mentioned by both authors are TT 8, the tomb of Kha, see Schiaparelli, *La tomba*; Russo, *Kha*, and TT 325 + DM 1089 belonging to Smen, see Bruyère, *Rapport 1923-1234*, 100-104; Bruyère, *Rapport 1926 I*, 50-56. The inclusion of the latter seems somewhat random, because Smen is not attested with a title that ties him to the royal tomb. Likewise, both tombs DM 1166 and TT 354 were included by Dodson and Dorn, although no name or title survives, see respectively Bruyère, *Rapport 1928 II*, 119-120; Cherpion, *Deux tombes*, 59-90. From the reign of Amenhotep III onwards there are more tombs of which the owners are known and securely related to the crew of necropolis workmen on account of their titles. These are tombs TT 291 belonging to Nakhtmin and Nu, see Bruyère and Kuentz, *La tombe de Nakht-min*, 1-65; TT 338, the tomb of Maya, see Tosi, *La cappella di Maia*; DM 1138, the tomb of Nakhy and his son Amenwahsu; the former is also attested with his title on a stela from Deir el-Medina, see Bruyère, *Rapport 1928 II*, 12-20; Tosi and Roccati, *Stele*, 43-44; DM 1159, the tomb of Sennefer, see Bruyère, *Rapport 1928 II*, 40-73; and DM 1352, the tomb of Setau, see Bruyère, *Rapport 1933-1934 I*, 95-109. The tomb of Amenemhat, TT 340, see Cherpion, *Deux tombes*, 5-55, can tentatively be included if a date in or after the reign of Thutmosis I is accepted. Mention should also be made of tomb DM 1099, see Bruyère, *Rapport 1927*, 11-13, which was attributed to Nekhunefer on the basis of a hieroglyphic inscription with this name on a ceramic vessel. No title is mentioned and therefore this man is not evidently connected with the crew of necropolis workmen. Moreover the tomb could not be dated any more precise than to the 18<sup>th</sup> Dynasty. Very similarly, 18<sup>th</sup> Dynasty tomb DM 1350 yielded the name Heqanefer but no titles, see Bruyère, *Rapport 1933-1934 I*, 117.

Also included here are some pottery fragments from burial shaft DM 1164. This shaft is situated in the court of Ramesside tomb TT 356, and was dated by Bruyère to the 18<sup>th</sup> and 19<sup>th</sup> Dynasties. A breakthrough exists between this burial and DM 1165, dated to the 18<sup>th</sup> Dynasty.<sup>223</sup> Whether DM 1164 was originally an 18<sup>th</sup> Dynasty burial is not precisely clear, but it is evident that at some point the shaft was used for the burial for Amek (i) who lived during the early 19<sup>th</sup> Dynasty.<sup>224</sup> The ceramic fragments from DM 1164 indicate that the content is obviously mixed, as they display both workmen's marks datable to the 18<sup>th</sup> Dynasty as well as marks of the Ramesside Period. Only those marks that date to the 18<sup>th</sup> Dynasty are incorporated in this overview.<sup>225</sup>

DM tomb	Attested name	Indication of date	Attested marks
1006	-	18 <sup>th</sup> Dynasty	✱
1011	-	18 <sup>th</sup> Dynasty	✱
1041	-	18 <sup>th</sup> Dynasty; seal impression with name of Amenhotep III	⌒, ♂, ⊞, #
Court 1056; from TT 210	-	18 <sup>th</sup> Dynasty	☙
1057	-	18 <sup>th</sup> Dynasty	≡, ≡?
1070	-	18 <sup>th</sup> Dynasty	⊙, ♂, #
1077	name Kakheperre on bandage of mummy	18 <sup>th</sup> Dynasty	⌒
1080	-	18 <sup>th</sup> Dynasty	↑, ↑
1081	-	18 <sup>th</sup> Dynasty	≡
1082	-	18 <sup>th</sup> Dynasty	≡
1087	-	18 <sup>th</sup> Dynasty	≡
1088	Smen?	18 <sup>th</sup> Dynasty; seal impression with name of Amenhotep III	⌒, ≡
1089	-	18 <sup>th</sup> Dynasty	⌒, ♂
1091	-	18 <sup>th</sup> Dynasty	⌒, ♂
1097	-	18 <sup>th</sup> Dynasty	⌒
1098	-	18 <sup>th</sup> Dynasty	⌒, ♂, ♀, A, ♂, ⌒
1099	Nekhunefer; Senneferhotep?	18 <sup>th</sup> Dynasty	⌒, ♂, ♀, ⌒, ♂
1105	-	18 <sup>th</sup> Dynasty	⌒, ↑, ⌒
1107	-	18 <sup>th</sup> Dynasty	♂
1109	-	18 <sup>th</sup> Dynasty; seal	⌒



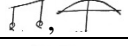




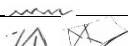

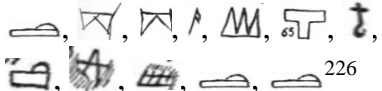





<sup>223</sup> Bruyère, *Rapport 1928 II*, 76-77.

<sup>224</sup> Bruyère, *Rapport 1928 II*, 95-100.

<sup>225</sup> Omitted is a vessel from TT 291 (Nakhtmin and Nu), which is dated to the very end of the 18<sup>th</sup> Dynasty and which contained three marks: one is datable to the 19<sup>th</sup> Dynasty, one is unclear, and the third could date to the 18<sup>th</sup> Dynasty or the Ramesside Period. Because the latter mark is of an uncertain date it is here excluded.



1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY

		impression with name of Amenhotep II	
1110	-	18 <sup>th</sup> Dynasty	
1116	-	18 <sup>th</sup> Dynasty	
1120	-	18 <sup>th</sup> Dynasty	
1130	-	18 <sup>th</sup> Dynasty; seal impressions with name of Thutmosis IV (?)	
1132	-	18 <sup>th</sup> Dynasty	
1137	Ipu, son of Akhy (?)	18 <sup>th</sup> Dynasty; large amphora with inscription in hieratic: a year 5	
1145	jar with name of Amun[...]	18 <sup>th</sup> Dynasty	
1149	Unknown	18 <sup>th</sup> Dynasty	
1150	-	18 <sup>th</sup> Dynasty; nearby tomb: seal impression with name of Thutmosis IV; hieratic inscription on pottery dated to the 18 <sup>th</sup> Dynasty.	
1153-55	-	18 <sup>th</sup> Dynasty	
1156	-	18 <sup>th</sup> Dynasty; fragment of an amphora with hieratic inscription: a year 24	
1157	-	18 <sup>th</sup> Dynasty	
1159	-	18 <sup>th</sup> Dynasty	
1161	-	18 <sup>th</sup> Dynasty; in the courtyard of TT 356: seal impression with name of Thutmosis III	
1164	reused (?) by Amek (i)	18 <sup>th</sup> Dynasty; mudbrick with a seal impression	

<sup>226</sup> See Bruyère's notebooks for the last two marks:  
[http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS\\_2004\\_0149\\_015](http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS_2004_0149_015).

		with name of Thutmose I	
1165	-	18 <sup>th</sup> Dynasty; amphorae with name of Thutmose III or IV	
1166	-	18 <sup>th</sup> Dynasty	
1169	-	18 <sup>th</sup> Dynasty	
1170	-	18 <sup>th</sup> Dynasty	
1172-74	-	18 <sup>th</sup> Dynasty	
1176	-	18 <sup>th</sup> Dynasty	
1182	-	18 <sup>th</sup> Dynasty	
1303	-	18 <sup>th</sup> Dynasty	
1304-07	-	18 <sup>th</sup> Dynasty	
1315	-	18 <sup>th</sup> Dynasty	
1322-25	-	18 <sup>th</sup> Dynasty	
1328	-	18 <sup>th</sup> Dynasty	
1350	Heqanakht	18 <sup>th</sup> Dynasty	
1406	-	18 <sup>th</sup> Dynasty	

TABLE 1. OVERVIEW OF MARKS ATTESTED IN 18<sup>TH</sup> DYNASTY TOMBS IN THE WESTERN CEMETERY

In at least 49 tombs in the Western Cemetery dated to the 18<sup>th</sup> Dynasty, workmen's marks were found that are also attested elsewhere on ostraca and on objects. In total, these 49 tombs contained 162 objects – mostly pottery fragments – with workmen's marks, displaying 58 different marks and four damaged, unclear marks. The greater majority of these marks dates to the 18<sup>th</sup> Dynasty,<sup>227</sup> which supports Bruyère's date of these tombs in the 18<sup>th</sup> Dynasty.

Apart from the Western Cemetery, workmen's marks were discovered in tombs of the Eastern Cemetery as well. All of the cemetery's tombs were dated to the timeframe of the beginning of the 18<sup>th</sup> Dynasty until the reign of Akhenaten by Bruyère, on the basis of the architecture of the burials, the names of the deceased, the pottery and the royal names found on scarabs from the tombs.<sup>228</sup> Moreover, he noted that apart from a sector for the exclusive burial of adults, the necropolis comprised of a zone for the interments of both children and adults and one for placentae, infants and children.<sup>229</sup> The burials of the Eastern Cemetery typically consist of a pit or small shaft leading to one small and irregularly cut room. None of the tombs were decorated and Bruyère's team did not find traces of any superstructures. As a

<sup>227</sup> The date of these marks will be discussed in more detail in chapter 2, 2.5.

<sup>228</sup> Bruyère, *Rapport 1934-1935* II, 6-8.

<sup>229</sup> Bruyère, *Rapport 1934-1935* II, 8-16.

consequence, these burials are often said to be “poor” or “simple”. Reportedly, a large number of the burials were not published, and in his excavation reports Bruyère seems to have focused only on his tombs DM 1365 – 1390.<sup>230</sup>

The location of the Eastern Cemetery would suggest a connection with the village of Deir el-Medina and hence with the necropolis workmen, but such an assumption was contested by several authors. Bernadette Letellier was the first to question whether the individuals buried in the Eastern Cemetery were at all associated with work on the royal tomb.<sup>231</sup> Similarly, Aidan Dodson pointed out that because of the absence in the Eastern Cemetery of titles linking the deceased to necropolis workmen, the buried individuals could not be securely identified as (family members of) necropolis workmen.<sup>232</sup> Geneviève Pierrat-Bonnefois shared this point of view and proposed to see the Eastern Cemetery in a different light. According to her theory, the burials belonged to members of the household personnel of the Theban elite or to persons who were responsible for their entertainment, since some music instruments were found in the tombs. The absence of titles and the small number of inscribed objects was seen as an indication that they must have been of an “illiterate class”.<sup>233</sup> Regarding the same matter Claudia Näser noted that on the basis of the few finds alone it could not be ascertained if the burials were of musicians,<sup>234</sup> but for the same reason it was impossible to say if they belonged to members of the crew of workmen.<sup>235</sup> Näser, in her analysis of the tomb inventories, was however able to point out that the burials contained few so-called “elite objects”<sup>236</sup> and that the buried individuals were situated at the fringe of the social elite, with limited access to textuality.<sup>237</sup>

In summary, a solid basis to identify the tomb owners as workmen of the royal necropolis is lacking. Yet, a hypothesis of Hermann Schlögl based on indirect evidence proposes that the ‘draughtsman of Amun’ Tener had been buried in tomb DM 1370 in the Eastern Cemetery. This Tener has already been mentioned above in the discussion of stela Turin CG 50004. This stela is dedicated to the Royal Scribe of the Great Place Amenemope and his son the draughtsman of Amun Tener. The monument forms the ground for the assumption that Tener was a necropolis workman during the 18<sup>th</sup> Dynasty, and it was dated by Schlögl to the time of Thutmosis III. The same author remarked that a shabti of unknown provenance is inscribed for a draughtsman of the name of Tener. The addition *n Imn* is lacking there, but since the shabti was attributable to the period of Thutmosis I – Thutmosis III, Schlögl proposed to identify the shabti’s owner with the draughtsman Tener of stela Turin CG 50004.<sup>238</sup> Moreover, Schlögl suggested that the shabti must have come from tomb DM 1370 in the Eastern Cemetery. In this tomb a coffin belonging to a lady called Madja, as well as the coffin of an anonymous male were discovered. Since the dating, the painting technique, the shape of the wig, the ductus of the signs, and the colours of the paint on the coffin of Madja are very similar to the shabti of Tener, Schlögl suggested that they could have come from the same burial.<sup>239</sup> If this proposition is accepted, there would be – through the association of Tener’s father – indirect evidence to connect at least one burial in the Eastern Cemetery of Deir el-Medina with the work on 18<sup>th</sup> Dynasty royal tombs.

<sup>230</sup> Näser, ‘Zur Interpretation’, 373.

<sup>231</sup> Bernadette Letellier, *La vie quotidienne chez les artisans de Pharaon. Le Louve présente aux Musées de Metz du 12 novembre 1978 au février 1979* (Moulins-les-Metz 1978), 16.

<sup>232</sup> Dodson, ‘The Late Eighteenth Dynasty Necropolis’, 97; Dorn, ‘Ostraka’, 35 and n. 30.

<sup>233</sup> Pierrat-Bonnefois, ‘Cimetière est du village’, 60-61.

<sup>234</sup> Näser, ‘Zur Interpretation’, 390; cf. Bruyère, *Rapport 1934-1935 II*, 9.

<sup>235</sup> Näser, ‘Zur Interpretation’, 391.

<sup>236</sup> Näser, ‘Zur Interpretation’, 380.

<sup>237</sup> Näser, ‘Zur Interpretation’, 391.

<sup>238</sup> Schlögl, ‘Ein Beitrag’, 432-438.

<sup>239</sup> Schlögl, ‘Ein Beitrag’, 442.

There is however another important reason to associate the burials of the Eastern Cemetery with the Deir el-Medina workmen: the objects found in these tombs that display workmen's marks. These marks are discussed in chapter 2 (2.5), but they are presented here in the table below (TABLE 2).

DM tomb	Attested name	Indication of date	Attested marks
1368	-	-	×
1370	-	Hatshepsut – Thutmose III	×; †
1372	-	-	⊓; ⊓
1373	-	-	∧; ⊓; ⊓
1374	-	-	⊓
1375	-	-	∧; ∨; †
1379	- Nebu - Ibenattan - Nehemtu (?)	Hatshepsut – Thutmose III	†; †
1381	-	-	×; ∨; †
1388	Satre	Thutmose III; “year 26”	∧; ⊓ <sup>240</sup> ; ∨; ∨; ∨; ⊓; ⊓; ⊓; ∧ <sup>241</sup>
1389	-	Thutmose III	†
? Tomb of a child	-	-	⊓
? Tomb of a child	-	-	∧; ∨; ∨; ∨; ∨; ∨; ∨

TABLE 2. OVERVIEW OF MARKS ATTESTED IN 18<sup>TH</sup> DYNASTY TOMBS IN THE EASTERN CEMETERY

In 12 of the 26 published tombs – seven of which were virtually empty when discovered – objects with marks on them were found. In total, the necropolis contained 28 or 29 marked objects, displaying 14 different marks. With two exceptions, all these marks are attested on 18<sup>th</sup> Dynasty ostraca and objects from other locations. In fact, the majority of these marks is attested exclusively in the 18<sup>th</sup> Dynasty and do not occur in Ramesside contexts. The marks are therefore an important indication of the presence of 18<sup>th</sup> Dynasty necropolis workmen in the Eastern Cemetery. There is no direct evidence that workmen were buried in this necropolis, but the workmen's marks do make this idea attractive and even probable. If we assume that this was indeed the case, we are offered a rare view into the community of the 18<sup>th</sup> Dynasty workmen. The women and children buried in the Eastern Cemetery must have been family members of the necropolis workmen, and must have lived with them at the village of Deir el-Medina. That would imply that the village was, at some point before the Amarna Period, permanently occupied by the workmen and their families as it was during the Ramesside Period.<sup>242</sup>

<sup>240</sup> Bruyère's publication is unclear regarding this mark, found on an amphora with the cartouches of Hatshepsut and Thutmose III. The same mark may have been attested on a similar amphora, but the passage in Bruyère's report could also be dealing with the same vessel, see Bruyère, *Rapport 1934-1935* II, 93 and 194.

<sup>241</sup> See Bruyère's notebooks for the last two marks:

[http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS\\_2004\\_0155\\_003](http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS_2004_0155_003).

<sup>242</sup> Contra Pierrat-Bonnefois, 'Cimetière est du village', 61; Dorn, 'Ostraka', 35.

**EXCURSUS I. MARKS AT AMARNA**

During year 6 of his reign, Akhenaten, moved the capital of Egypt to a new location. His new city, Akhetaten, is located at the site nowadays known as Tell el-Amarna. The residence included quarters for civilians, palaces and temples, while a royal tomb was prepared in a wadi opening onto of the central city. In between the Royal Wadi and the main city of Amarna lies an isolated site called the Workmen's Village, which was constructed to house the workmen responsible for the construction and decoration of the tomb of the king in the Royal Wadi and perhaps of some of the tombs of officials at Amarna.<sup>243</sup>

It has occasionally been postulated that among these workmen must have been members of the crew of Theban necropolis workmen, who were regarded as specialists and were sent to Amarna where they were needed in the work on the tombs that had to be prepared there. This idea is based on a number of arguments. One concerns an inscription on a seat of which the location is currently unknown. A copy of this inscription was published by Brugsch who stated that the seat was found at Thebes.<sup>244</sup> The text mentions a *sdm-š m s.t m3̄.t hr imn.t.t 3h.t-n-itn n3̄hy*, 'servant in the Place of Truth on the West of Akhetaten, Nakhy'. Černý remarked that here the term *s.t m3̄.t* – well attested at Deir el-Medina from the end of the 18<sup>th</sup> Dynasty to the 20<sup>th</sup> Dynasty – was used to designate a location in Akhetaten, referring to the place of the burial of the royal tomb. Hence, Nakhy must have been a workmen involved in the construction of the royal tomb at Amarna. Since the seat was said to have come from Thebes, Černý believed that Nakhy brought his valuables to Deir el-Medina "when Ekhнатon's residence was abandoned and the workmen of the king's Tomb transferred back to Dêr el-Medîna."<sup>245</sup> However, later research argued this reasoning to be incorrect, because this particular spelling of the toponym Akhetaten was never used for Amarna itself, but for Thebes during the early reign of Akhenaten.<sup>246</sup>

Valbelle believed that the sheer existence of the Amarna workmen's village, its houses, and the nearby chapels were enough to prove a connection between the workmen's community of Deir el-Medina and Amarna. The instances of titles at Deir el-Medina that include the element *itn*, were interpreted by her as evidence that some of workmen had returned from Amarna, while mudbricks with seal impressions of Amenhotep IV found at Deir el-Medina were seen as evidence that a few workmen had stayed. Moreover, Valbelle thought it probable that the reorganisation of the village under the reign of Horemheb was a consequence of the departure of a large portion of the workmen, after which parts of the village must have crumbled away.<sup>247</sup> Kemp concurred that the two villages of Amarna and Deir el-Medina were similar but nevertheless doubted if the workmen at Amarna had come from Deir el-Medina. He remarked that certain areas such as the animal pens and an area for *zir* jars had no counterparts at Deir el-Medina.<sup>248</sup> According to Samuel's analysis of the archaeological evidence at the Workmen's Village of Amarna, there are indications of side-by-side cooperation between households in the different stages of the production of bread at the site. This insight was interpreted by her as an argument in favour of the idea that the inhabitants of the village were members of a previously established community that had moved to Amarna, since a different pattern of pairing of households would have emerged if

<sup>243</sup> Anna Stevens, *Akhenaten's Workers: The Amarna Stone Village Survey, 2005-2009*. Volume I. *The Survey, Excavations and Architecture*. EES EM 101 (London and Cambridge 2012), 435.

<sup>244</sup> Heinrich Brugsch, *Geographische Inschriften altägyptischer Denkmäler, gesammelt während der auf Befehl Seiner Majestät des Königs Friedrich Wilhelm IV. von Preussen unternommen wissenschaftlichen Reise in Ägypten I. Die Geographie des alten Aegyptens* (Leipzig 1857), 274, pl. 50, nr. 1345.

<sup>245</sup> Černý, *Community*, 51-52.

<sup>246</sup> Barry J. Kemp, 'The Amarna Workmen's Village in retrospect' *JEA* 73 (1987), 44; Haring, 'Saqqara – A Place of Truth?', [10-11].

<sup>247</sup> Valbelle, *Les ouvriers*, 25.

<sup>248</sup> Kemp, 'The Amarna Workmen's Village', 43.

the households had built inter-relationships from scratch at Amarna.<sup>249</sup> In turn, Miriam Müller used this notion as an argument for the shift of the Theban workmen to the new site of Amarna. She agreed with Valbelle's suggestions and argued furthermore that through a re-evaluation of the archaeological data as well as an assessment of textual evidence dating to the Ramesside Period, Kemp's missing elements could be located at Deir el-Medina as well.<sup>250</sup>

Kemp himself appears to have altered his views and in a later work, siding with Valbelle regarding the idea that the Royal Necropolis workmen from Thebes might have been transferred to Amarna. In support of this hypothesis he cited the inscription on a wooden statue base from chapel 529 at Amarna, which, he pointed out, mentions an individual with a title that was also used at Deir el-Medina.<sup>251</sup> The inscription is however incomplete at a crucial point. It reads *ir(i).n sdm-š m s.t* [sic] *nḥm-mꜣ.t.y.w*,<sup>252</sup> and it is uncertain if we may amend it to understand to mean 'the servant in the Place [of Truth]', as Kemp did. Additional proof of a move to the Workmen's Village of Amarna was found in the apparent lack at Deir el-Medina material datable to the Amarna Period.<sup>253</sup> That this is incorrect can be surmised from our previous discussion of tombs and funerary objects from this time. In addition, activity in the Valley of the Kings during the reign of Akhenaten is evidenced by a recently discovered and as of yet unpublished limestone block with a head carved unmistakably in the Amarna style from the site of the workmen's huts at the so-called *Station de la Repos du Col*.<sup>254</sup>

In order to contribute to the question of a possible move of Deir el-Medina workmen to Amarna and back, the following overview is an analysis of marks that were recorded at different sites at Amarna, in comparison to workmen's marks from Deir el-Medina. The motivation behind this analysis is the idea that if Deir el-Medina workmen truly were transferred to the workmen's village at Amarna, they must have continued the habit of using identity marks. From the onset we can report that no ostraca with series of identity marks have been discovered at the site of Amarna as a whole. One could take this fact as an argument against a transfer from Thebes to Amarna, but it is of course possible that with a move the administrative practices of the workforce had changed. Yet, identity marks could then still be expected on objects where they would function as property markers. Indeed, non-textual marks occur at various sites at Amarna. Marks are mostly attested on ceramic vessels and they have often been described as potmarks. Potmarks may be applied before or after firing of the vessel. At Deir el-Medina, virtually all post-firing marks on ceramics are identity marks of workmen.<sup>255</sup> Post-firing potmarks from other localities could well have served the same purpose.<sup>256</sup> Therefore, the following overview will deal mostly with post-firing potmarks.

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<sup>249</sup> Delwen Samuel, 'Bread making and social interactions at the Amarna Workmen's Village, Egypt' *WorldArch* 31.1 (1999), 140.

<sup>250</sup> Miriam Müller, 'Deir el-Medina in the dark – the Amarna period in the history of the village', 157-163.

<sup>251</sup> Barry Kemp, *The city of Akhenaten and Nefertiti. Amarna and its people* (London 2012), 191.

<sup>252</sup> Eric Peet and Leonard Woolley, *The city of Akhenaten. Part I. Excavations of 1921 and 1922 at El-'Amarneh*. EES EM 38 (London 1923), 100-101.

<sup>253</sup> Kemp, *The city of Akhenaten*, 191.

<sup>254</sup> WHTM 372. This block is kindly brought to our attention by Rob Demarée. Related to the hypothesis that the Theban necropolis workmen were sent to work in Amarna is the case of Thutmose, the Chief Draughtsman of Place of Truth who was buried at Saqqara in tomb Bubasteion I.19. According to a theory of Alain Zivie Thutmose's career had begun in the Theban Necropolis, and during the end of the 18<sup>th</sup> Dynasty he was sent to work on construction projects in Memphis as well as in Akhetaten, see Alain Zivie, *La tombe de Thoutmes, directeur des peintres dans la Place de Maât (Bub. I. 19)*. *Les Tombes du Bubasteion à Saqqara II* (Toulouse 2013), 107-108; 128-136. The evidence for this supposition is however very meagre, cf. Haring, 'Saqqara – A Place of Truth?' (forthcoming).

<sup>255</sup> Aston, 'Theban potmarks', 54-55.

<sup>256</sup> Aston, 'Theban potmarks', 52.

An exception is made for the pre-firing symbols painted in black ink, so-called ‘painter’s marks’, found particularly on blue-painted medium-sized closed form jars with a restriction at the base of the neck.<sup>257</sup> The exact provenance of the few published examples is very often unknown, although they are said to have come from the North Palace, the Small Aten Temple, the Central City, the Workmen’s Village and the North Suburb. The function of the ‘painter’s marks’ remains unclear, but Hope concluded that the marks are not connected with storage or transport of commodities.<sup>258</sup>

A total of 134 potmarks (pre-firing *and* post-firing) were found at the Workmen’s Village during the excavations of the Egypt Exploration Society of 1979-1986.<sup>259</sup> Excavations at the site of the so-called Stone Village have brought to light 13 post-firing incised potmarks.<sup>260</sup> The Stone Village is situated at an even more distant location to the south-east of the Workmen’s village and presumably predates it by some years. The first occupants of the Stone Village have been described as “a small desert-based labour force” that early in the history of the settlement at Amarna could have been “involved in activities connected with the founding of the city, such as the laying out of the city borders and cutting of the Boundary Stelae.”<sup>261</sup> At a later stage the Stone Village expanded into the direction of the Workmen’s Village. Anna Stevens reconstructed that development as follows:

*“The impetus was possibly a growing need for desert-based labourers to supplement the workforce at the Workmen’s Village, and particularly to take on less skilled tasks such as stone cutting. Why was this community not simply added to the Workmen’s Village? Conceivably, it was so as not to interrupt the existing social order at this site. We can question similarly why the Stone Village was not laid out at this stage in the same way as the Workmen’s Village. The answer may lie in the reduced social status of the community in comparison to the Workmen’s Village. In part, it could also reflect a community that was newly established – drawn perhaps from the riverside city, and continuing an already established pattern of living.”*<sup>262</sup>

A small number of published marks – all potmarks – comes from Kom el-Nana. This is a site immediately south of the Main City of Amarna, which contained bakeries, breweries and gardens. The complex could have accommodated the production of religious and institutional provisions of temples in Amarna.<sup>263</sup>

Another group of marks is found on architectural elements from the Main City. The majority comes from the Small Aten Temple, where marks incised in the building blocks left impressions in the layers of plaster that formed the foundation of the main gateway of the edifice.<sup>264</sup> An unpublished mark (not included here) was applied to the gypsum foundation of an altar in the Altar Court at the North Palace, and a single six-pointed star features in the foundation of one of the stone buildings at Maru-Aten.<sup>265</sup> The marks were called “masons’

<sup>257</sup> Hope, ‘Some remarks’, 128-130; Pamela J. Rose, *The Eighteenth Dynasty Pottery Corpus from Amarna*. EES EM 83 (London 2007), 24-25.

<sup>258</sup> Rose, *The Eighteenth Dynasty Pottery*, 25; Hope, ‘Some remarks’, 130.

<sup>259</sup> Anna Stevens, *Akhenaten’s Workers: The Amarna Stone Village Survey, 2005-2009*. Volume II. *The Faunal and Botanical Remains, and Objects*. EES EM 101 (London and Cambridge 2012), 115.

<sup>260</sup> Stevens, *Stone Village II*, 115.

<sup>261</sup> Stevens, *Stone Village I*, 435.

<sup>262</sup> Stevens, *Stone Village I*, 435.

<sup>263</sup> Barry J. Kemp (ed.), *Amarna Reports VI*. EES OP 10 (London 1995), 433-438.

<sup>264</sup> Barry J. Kemp (ed.), *Amarna Reports V*. EES OP 6 (London 1989), 138-139, figs. 6.12, 6.23; John D.S. Pendlebury, *The city of Akhenaten*. Part III. *The central city and the official quarters. The excavations at Tell el-Amarna during the seasons 1926-1927 and 1931-1936*. Vol. I. *Text*. EES EM 44 (London 1951), 92-93, fig. 17.

<sup>265</sup> Kemp (ed.), *Amarna Reports V*, 138.

marks” by Kemp, who quoted Haeny’s idea that by such signs individual masters would acknowledge their work on a block.<sup>266</sup> Roeder noted furthermore that the fact that the blocks did not bear any relief indicates that they must have been marked already at the stone quarry and were connected with the delivery of building material.<sup>267</sup>

Finally, several *talatat* blocks discovered at Hermopolis were roughly engraved with a mark. These blocks were stripped from various buildings in Amarna during the reigns of Seti I and Ramesses II, to be reused as building material at Hermopolis.<sup>268</sup> Generally, the marks are not signs borrowed from script or depictions of objects or organisms, but geometric figures. Therefore, Roeder believed they could not have been made by the same artists who cut the reliefs. Instead he presumed they were cut by the stone masons in the quarries. He interpreted them as transaction marks of “Firmen oder Unternehmern” who would have marked the blocks at the moment of delivery to the recipient. A total of 81 different marks are attested on the *talatat* blocks. The marks would have been invisible to the spectator once the blocks were put in place.<sup>269</sup> Roeder noticed that 10 of the marks were also attested in the corpus of marks from the Small Aten Temple of Amarna, indicating that the blocks had come from this city.<sup>270</sup>

The table below (TABLE 3) includes all relevant marks attested at the sites of Amarna. Shards with potmarks are often very fragmentary, particularly from the Stone Village, and can hardly be compared to marks from other localities. Mason’s marks and painter’s marks include several marks that are attested in more than one instance, such as ☉. That is less often the case with the marks from the Workmen’s Village, the Stone Village and the Main City of Amarna. Based on the accessible material that is preserved well enough to be compared, there appears to be very little overlap between the five marking systems with the clear exception of the marks on the temple blocks. The masons’ marks from the Small Aten Temple and from the Hermopolis *talatat* blocks are very similar and overlap to a great extent. Obviously both sets of marks come from the same context of building material, and as Roeder suggested it seems likely that the marks were incised at the stone quarry. We may assume these two groups of marks belonged to the same system. The other groups of marks seem to exist separately from each other. The only marks that are found in other systems are those that are very common marks that appear outside of Amarna as well: the cross, the *mn*-sign, the *nh*-sign, and the lotus flower.<sup>271</sup> There are only four marks from the Workmen’s Village that are also found in the set of masons’ marks. The few marks from the Stone Village are too fragmentary to compare them to marks from the Workmen’s Village. The conclusion that the marks from the various sites offer no evidence that workmen from the Workmen’s Village were connected with construction of the Small Aten Temple, or that they were in contact with the population of the Stone Village, is inevitable.

Similarly there is hardly any agreement between the corpus of marks from the Amarna Workmen’s Village and the corpus of 18<sup>th</sup> Dynasty identity marks from Deir el-Medina. There are a few marks which bear some similarity to specimen in the Deir el-Medina corpus but the resemblance is not convincing enough to identify the marks as the identity marks of the Deir el-Medina workmen. The cross ✕ is present on ostraca from the late 18<sup>th</sup> Dynasty, but it

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<sup>266</sup> Kemp (ed.), *Amarna Reports* V, 138-139; Gerhard Haeny, ‘Die Steinbruch- und Baumarken’ in: Edel Elmar, Gerhard Haeny, Werner Kaiser *et al.*, *Das Sonnenheiligtum des Königs Userkaf II*. BBf 8 (Wiesbaden 1969), 47.

<sup>267</sup> Günther Roeder, *Amarna-reliefs aus Hermopolis. Ausgrabungen der Deutschen Hermopolis-Expedition in Hermopolis 1929-1939*. Band II. Pelizaeus-Museum zu Hildesheim. WVDOG 6 (Hildesheim 1969), 8.

<sup>268</sup> Roeder, *Amarna-reliefs* II, 1-4.













<sup>269</sup> Roeder, *Amarna-reliefs* II, 6-7.











<sup>270</sup> Roeder, *Amarna-reliefs* II, 8.

<sup>271</sup> Compare e.g. the various corpora of non-textual marks documented in Haring and Kaper (eds.), *Pictograms or Pseudo Script?*.



1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY

is a mark that is attested at many other localities and in many other periods.<sup>272</sup> The sign  is attested on ostracon O. Cairo JE 96603 which cannot date to the end of the reign of Amenhotep III,<sup>273</sup> but it is also attested on a ceramic vessel found near the tomb of Amenhotep III. It is however a very common potmark as well, which is attested at many other localities.<sup>274</sup> The mark  occurs in Deir el-Medina in the 18<sup>th</sup> Dynasty but is not attested after the reign of Amenhotep II. The two marks  and  from the wooden handle at the Workmen's Village of Amarna are found in the Theban workmen's community as well, although not necessarily together. If it is possible to interpret the mark  as a variant of , both marks are attested at Deir el-Medina in the late 18<sup>th</sup> Dynasty. That is also true for , if it indeed is a mark and if it represents a circle. The other marks from the Workmen's Village of Amarna are not securely attested in Deir el-Medina and the Valley of the Kings during the 18<sup>th</sup> Dynasty. The marks are hardly reminiscent of the Deir el-Medina identity marks of the early 19<sup>th</sup> Dynasty either, with the exception of  and .<sup>275</sup> Yet, other marks such as ,  and  are not attested in this period. More importantly, the marks of the Amarna Workmen's Village are attested in rather small numbers, suggesting they are not as frequent as in the Theban necropolis. It can only be concluded that the marks from Amarna do not offer any hard evidence that allows for an identification of the workmen at Amarna with the Theban necropolis workmen of the end of the 18<sup>th</sup> Dynasty or from the early 19<sup>th</sup> Dynasty.

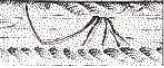














Workmen's Village	Stone Village	Amarna Main City	Painter's marks	Mason's marks	Talatat blocks
 Rose, <i>Pottery</i> , vessel 111 Post-firing, painted Workmen's Village					
 Rose, <i>Pottery</i> , vessel 112 Incised post firing Workmen's Village, Gate street 8   Rose, <i>Pottery</i> , vessel 426 Incised post-firing Workmen's Village					 2 instances;  <sub>?</sub> 1 instance
 Rose, <i>Pottery</i> , vessel 599 Workmen's Village Incised, post-firing					
 Rose, <i>Pottery</i> , vessel 136 Incised (post-firing?) Unknown provenance		 Kemp and Stevens, <i>Main City II</i> , obj. nr. 34823 Main City Incised   73 pot mark Rose, <i>Pottery</i> , vessel 689 Main City North			 1 instance

<sup>272</sup> Ibidem.

<sup>273</sup> See below, chapter 2, p. 119-120.















<sup>274</sup> Cf. above, p. 53, n. 271.



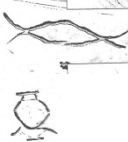













<sup>275</sup> See below, chapter 5, 5.2.2.

		Incised, post-firing			
 Rose, <i>Pottery</i> , vessel 139 Incised Workmen's Village					
 Rose, <i>Pottery</i> , vessel 391 Technique unknown Workmen's Village				 276	
 Rose, <i>Pottery</i> , vessel 450 Technique unknown Provenance unknown					
 Rose, <i>Pottery</i> , vessel 472 Incised, post-firing Workmen's Village					
 Rose, <i>Pottery</i> , vessel 582 Workmen's Village Incised, post-firing					
 Rose, <i>Pottery</i> , vessel 598 Workmen's Village Incised, post-firing					 ? 2 instances
 Obj nr. 61154 Incised, post firing Gate street, Workmen's Village		 Kemp and Stevens, <i>Main City II</i> , obj. nr. 37609 Incised post-firing T6			
 Peet and Wooley, <i>City City I</i> , pl. XXII, Obj nr. 21/342 wooden handle Incised Gate street, Workmen's Village					
	 Stevens, <i>Stone Village II</i> , obj. nr. 39035 Incised, post firing	 Rose, <i>Pottery</i> , vessel 35 Traced in gypsum From Kom el-Nana	 Rose, 'Some remarks', fig. 4; Rose, <i>Pottery</i> , fig. 3.4c	 Small Aten Temple Incised 22 instances	
























<sup>276</sup> So according to Roeder, *Amarna-reliefs II*, 8, but not included in Kemp (ed.), *Amarna Reports V*; unclear in Pendlebury, *The city III*.















1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY

			8 instances		 At least 1 instance?
					 1 instance
					
					
					
					
					
					
					
					
					
					
		Rose, Pottery, vessel 41 Painted? Main City North			

		 <p>Rose, <i>Pottery</i>, fig. 3.4a Painted Five instances: Great Palace; Q42.1; Q41.14; Coronation Hall; Main City Painted</p>			
		 <p>Rose, <i>Pottery</i>, fig. 3.4b Cemetery area behind South Tomb painted</p>			
		 <p>Rose, <i>Pottery</i>, vessel 454 Incised, post-firing Main City North</p>			 <p>1 instance</p>
		 <p>Rose, <i>Pottery</i>, vessel 690 Kom el-Nana Red ink, probably post-firing</p>			 <p>7 instances,</p>  <p>1 instance</p>
		 <p>Rose, <i>Pottery</i>, fig. 3.4d Kom el-Nana Painters mark</p>			
				 <p>Small Aten Temple</p> <p>Incised 4 instances</p>	 <p>1 instance,</p>  <p>1 instance?</p>
				 <p>Small Aten Temple</p> <p>Incised 8 instances</p>	 <p>2 instances,</p>  <p>1 instance?</p>
				 <p>Small Aten Temple</p> <p>Incised 4 instances</p>	 <p>At least 1 instance?</p>



















1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY

				 Small Aten Temple Incised 1 instance	
				 Small Aten Temple Incised 3 instances	 1 instance
		 5 instances Rose, 'Some remarks', fig. 4; Rose, Pottery, fig. 3.4c		 Small Aten Temple 6 instances	 1 instance   1 instance   1 instance?
				 Small Aten Temple 16 instances	 7 instances
				 Small Aten Temple 6 instances	 3 instances  At least 1 instance?  2 instances?
				 Small Aten Temple 16 instances	 1 instance
				 Small Aten Temple 1 instance	 3 instances
				 Small Aten Temple 3 instances	 1 instance?
				 Small Aten Temple 1 instance	
				 Maru-Aten 1 instance	
		 Rose, 'Some remarks', fig. 4; Rose, Pottery, fig.			

			3.4c 3 instances		
			 Rose, 'Some remarks', fig. 4; 2 instances		
			 Rose, 'Some remarks', fig. 4		
			 Rose, 'Some remarks', fig. 4		
			 Rose, 'Some remarks', fig. 4		
			 Rose, 'Some remarks', fig. 4		
			 Rose, Pottery, fig. 3.4c	 2 instances	
			 Rose, Pottery, fig. 3.4c		
			 Rose, Pottery, fig. 3.4c	 2 instances	
			 Rose, Pottery, fig. 3.4c		
			 Rose, Pottery, fig. 3.4c		
			 Rose, Pottery, fig. 3.4c		
			 Rose, Pottery, fig. 3.4c		




















1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY

					
			Rose, <i>Pottery</i> , fig. 3.4c		
					
			Rose, <i>Pottery</i> , fig. 3.4c		
					 1 instance
					 1 instance
					 1 instance
					 1 instance
					 1 instance
					 1 instance,  1 instance
					 2 instances
					 1 instance, //////  1 instance,  1 instance
					 2 instances
					 1 instance
					 6 instances
					 1 instance

					 1 instance
					 2 instances
					 1 instance
					 2 instances
					 1 instance,  1 instance
					 1 instance
					 2 instances,  1 instance,  1 instance
					 1 instance,  1 instance
					 3 instances
					 1 instance
					 1 instance,  1 instance
					 1 instance
					 at least 1



1. DEIR EL-MEDINA DURING THE 18<sup>TH</sup> DYNASTY





					instance?
					 at least 1 instance?
					 1 instance
					 1 instance
					 1 instance
					 at least 1 instance
					 2 instances,  1 instance?
					 1 instance
					 2 instances
					 1 instance
					 at least 1 instance?
					 2 instances
					 1 instance
					 at least 1 instance?
					 64
					 1 instance,  1 instance?
					 1 instance
					














					at least 1 instance?
					 2 instances
					 4 instances

TABLE 3. OVERVIEW OF MARKS ATTESTED AT AMARNA

## EXCURSUS II. THE MARKS OF THE QUARRY OF QURNA

A number of non-textual marks are recorded in the limestone quarry at Qurna situated in the vicinity of the beginning of the path leading to the Valley of the Kings.<sup>277</sup> Stone blocks that were extracted from the quarry were used in the memorial temples of Hatshepsut and Amenhotep III. Reportedly galleries A – D were exploited under Amenhotep III and it is in these locations that the marks are found. The marks have been compared to the identity marks of the 18<sup>th</sup> Dynasty found on ostraca from the Valley of the Kings.<sup>278</sup>

In gallery D an instance of sign  was found, and signs  and  are inscribed in gallery A. As an identity mark, the sign  is attested in the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> Dynasties at Deir el-Medina and the Valley of the Kings. On the east wall of gallery A a group of marks is painted in red.<sup>279</sup> Depicted above a horizontal line of marks is a recumbent dog or jackal. It is slightly larger than the other signs and drawn with much more detail than the other signs. Two similar dogs are found in gallery B with a small circle but no other marks or signs.<sup>280</sup> The painted dog in gallery A might therefore not be a mark, but a representation of an animal or a divinity.<sup>281</sup>

The other marks, presented in the table below (TABLE 4), do indeed have much in common with the 18<sup>th</sup> Dynasty identity marks of the Deir el-Medina workmen. Mark  occurs in the Ramesside Period<sup>282</sup> but is not securely attested on ostraca of the 18<sup>th</sup> Dynasty. The mark is however found on a pottery fragment from tomb DM 1153-1155 in the Western Cemetery, dated to the 18<sup>th</sup> Dynasty, and perhaps also in the neighbouring tomb DM 1150. Similarly, mark  is not attested on ostraca from the 18<sup>th</sup> Dynasty but does closely resemble , amply attested at Deir el-Medina and the Valley of the Kings in the 18<sup>th</sup> Dynasty. Mark  is not recorded at Deir el-Medina and the Theban Necropolis. Mark  is probably identifiable as a bird and could be the duck or goose () that is often encountered on ostraca from the 18<sup>th</sup> Dynasty, whereas mark  is attested on such ostraca in a horizontal variant. Marks  and  are well attested at Deir el-Medina and the Valley of the Kings, but usually in a form that is rotated 180 degrees.<sup>283</sup> The mark  is probably not completely preserved and cannot be clearly identified. The remaining marks are all known from the 18<sup>th</sup> Dynasty workmen's community. While the majority of these marks are found throughout several reigns, marks  and  are typical for ostraca dated to the reign of Thutmosis III rather than the reign of Amenhotep III. They are not securely attested after the reign of Amenhotep II. Conversely, mark  is associated with ostraca and contexts from the period after the reign of

<sup>277</sup> Nishimoto, Yoshimura and Kondo, 'Hieratic Inscriptions', 20-31.

<sup>278</sup> Nishimoto, Yoshimura and Kondo, 'Hieratic inscriptions', 20; Dietrich D. Klemm and Rosemarie Klemm, *Stones and quarries in ancient Egypt* (London 2008), 135.

<sup>279</sup> Nishimoto, Yoshimura and Kondo, 'Hieratic inscriptions', 21 and fig. 6.

<sup>280</sup> Nishimoto, Yoshimura and Kondo, 'Hieratic inscriptions', 21 and fig. 9.

<sup>281</sup> Compare the depiction of divinities in combination with non-textual marks in the stone quarries of Gebel el-Silsila, see Nilsson, 'Pseudo Script in Gebel el Silsila', 136-138.

<sup>282</sup> See chapters 3 and 4.

<sup>283</sup> The orientation of the 18<sup>th</sup> Dynasty workmen's marks on ostraca does not appear to have been very important to their users, see chapter 2, 2.2.2 and 2.4.

Amenhotep II. Ostraca with sets of marks comparable to that of the Qurna graffito are dated to the reign of Amenhotep III. O. Stockholm MM 14130<sup>284</sup> displays seven of the same marks (𐎓, 𐎔, Δ, 𐎕, 𐎖, 𐎗, 𐎘) as does ONL 6788<sup>285</sup> (𐎔, 𐎓, 𐎔, 𐎕, 𐎖, 𐎗, 𐎘). Related is probably also ONL 6465,<sup>286</sup> also associated with the reign of Amenhotep III, which displays five similar marks (𐎓, 𐎘, 𐎔, ⊕, Δ).

These similarities aside, it cannot be proven that the marks in the quarry of Qurna are the same identity marks of the Deir el-Medina workmen. It is nevertheless evident that gallery A contains 12 out of 14 marks that are attested in the Deir el-Medina corpus if one allows the identification of certain variants.<sup>287</sup> If these marks were indeed left at the quarry of Qurna by Deir el-Medina workmen, they should date to the reign of Amenhotep III rather than to the reign of Thutmosis III. Theoretically it would seem more than plausible that the workmen were able to visit the quarry of Qurna and leave their identity marks. One could even speculate that Deir el-Medina workmen were involved in the quarrying process. Those marks that are not attested at the Theban Necropolis could then be explained as the identity marks of quarrymen who were primarily assigned to work in Qurna, and who were occasionally assisted by Royal Necropolis workmen.















Mark	Attestation at Deir el-Medina and the Valley of the Kings
	If a variant of 𐎓: ostraca and objects
	Ostraca and objects
	If a variant of 𐎓: ostraca and objects
	Objects: tomb DM 1153-1155; perhaps DM 1150
	Ostraca and objects
	If a variant of 𐎖: ostraca
	Ostraca and objects
	Ostraca and objects
	Ostraca and objects
	Ostraca and objects
	If a variant of 𐎖: ostraca and objects
	If a variant of 𐎗: ostraca and objects
	Unattested
	Unclear

TABLE 4. OVERVIEW OF MARKS ATTESTED IN THE QUARRY OF QURNA

## 1.6 CONCLUSIONS

How can we explain the emergence of the practice of using identity marks in the workmen's community?<sup>288</sup> As has been shown, the marks of Deir el-Medina are far from unique. It may be due to a bias in the archaeological record, but several different types of marking systems are attested in Egypt during the 18<sup>th</sup> Dynasty, particularly in the Theban region. Marks used in the construction of the funerary temples of Hatshepsut and Thutmosis III at Deir el-Bahari may belong to various locally employed systems. Some marks may be control marks, others may refer to specific elements of the building, or to institutions, teams of workmen, or individuals. The (re-)assembly marks on the sarcophagi of Maiherperi and of Meryt date to the second half of the 18<sup>th</sup> Dynasty, as do the weavers' marks on the linen of the tomb of

<sup>284</sup> See chapter 2, p. 98-99.

<sup>285</sup> See chapter 2, p. 97-98.

<sup>286</sup> See chapter 2, p. 106.

<sup>287</sup> Excluding the drawing of the canine; including mark 𐎓.

<sup>288</sup> The emergence of the Deir el-Medina marking system in will be discussed in chapter 2, 2.6 and *passim*, taking into account the function(s) of the 18<sup>th</sup> Dynasty documents as well as a survey of literacy in the community of 18<sup>th</sup> Dynasty workmen.

Hatnefer and the burial of Tutankhamun. The quarry marks at Aswan are probably of a Thutmoseid date, those at Dra' Abu el-Naga, Gebel el-Silsila and Deir Abu Hinnis date to the reigns of Amenhotep III and Akhenaten. A similar date is given to the potmarks from Karnak North and from Malqata. The marks on objects and pottery from different sites at Amarna date to the reign of Akhenaten as well. Outside of Deir el-Medina, 18<sup>th</sup> Dynasty marking systems are thus known from the time of Hatshepsut onwards, and seem to be in vogue around the time of Amenhotep III and his successor Akhenaten. Based on these records, and keeping in mind that much less archaeological records are available for settlements, it appears that marking systems occur mostly in the context of labour. Surfaces are marked by and/or for individuals working in construction, stone quarrying, carpentry, or pottery production. The marks found on linen and those on domestic objects from Amarna may be examples of identity marks used to designate property in the private sphere. At Deir el-Medina both contexts are combined. We find the marks applied by workmen, a great number of whom were essentially occupied with cutting away the rock in order to create a tomb. At the same time the workmen's marks are used in a private sphere.

The marks in Deir el-Medina can demonstrably be classified as identity marks used by workmen from the 18<sup>th</sup> Dynasty onwards. The marks from the tomb of Kha prove that the marks refer to the identity of individuals, since they were found on a large variety of different objects. The identity marks of the necropolis workmen are attested in the contexts of labour (at the Valley of the Kings), funerary equipment (in the tombs of the Western and Eastern Cemeteries) and of households (in huts in the West Valley; on domestic objects from tombs, and in houses north of the village of Deir el-Medina). They are found in the poorest burials in the Eastern Cemetery, as well as in the rich tomb of Kha, a Royal Scribe who possessed royal gifts in his funerary equipment and who had his identity mark imprinted on precious bronze objects. The presence of a great number of workmen's marks on objects from the poorly preserved tombs of both the Western and the Eastern Cemeteries is best explained by postulating that the workmen themselves were buried in these necropoleis. The variety of marks within a single burial represents the gifts of various members of the community that were included in the tomb inventory. Graves of women and children in the Eastern Cemetery contained objects with workmen's marks as well, and suggest that the 18<sup>th</sup> Dynasty workmen lived at the village together with their families.<sup>289</sup>

The village of Deir el-Medina itself was established in the reign of Thutmose I. At this time the community seems to have been relatively small, as the archaeological record indicates that only 20 houses had been built. Very few structures at Deir el-Medina date to this early period. Silos and baskets found at the northern sector of Deir el-Medina may belong to the earliest phase of the settlement, and could indicate a (semi-)permanent occupation of the village. Three tombs in the Western Cemetery, TT 340, DM 1163 and DM 1164 may be tentatively associated with the earliest phase of the village. Other tombs in the Western Cemetery are dated to the reign of Thutmose III up to the reign of Tutankhamun. The tombs in the Eastern Cemetery predate the Amarna Period. Several tombs are attributable to the reigns of Hatshepsut and Thutmose III, while some may be slightly older.

The earliest *securely dated* evidence for the presence of the necropolis workmen in the village thus stem from the reign of Hatshepsut. It is around this time that the earliest marking systems of the 18<sup>th</sup> Dynasty are attested outside of Deir el-Medina. It is also remarkable that the earliest tomb in the Valley of the Kings seems to have been constructed during the reign of Hatshepsut. This date coincides with the earliest *securely attested* workmen's marks as well. In the current state of affairs, not a single workmen's mark is *irrefutably associated* with the earliest phases of the settlement of Deir el-Medina. The remains of houses north of the

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<sup>289</sup> This suggestion is supported by the 18<sup>th</sup> Dynasty burial of a child at the south-west corner of the secondary enclosure wall of the village, see Bonnet and Valbelle, 'Le village (suite)', 328-331, figs. 3-5.

village and the pottery fragments with workmen's marks were associated with the reign of Thutmose I by Bruyère, but his reports remain vague as to the arguments for such a date. Similarly, tomb DM 1164 in the Western Cemetery contained several 18<sup>th</sup> Dynasty marks and may be tentatively connected with the earliest phase of the village, but the burial was disturbed and the marks could also have come from the neighbouring tomb DM 1165. Unfortunately, ostraca with marks from the village are often difficult to date on the basis of their provenance as a large group was found in dumps around the enclosure wall. In contrast, ostraca from the Valley of the Kings are sometimes datable on the basis of their provenance and the earliest identity marks from this area are ascribed to the reign of Thutmose III. Other groups of ostraca and pottery fragments are dated to the time of Amenhotep II, Amenhotep III and Tutankhamun.

None of this seems incidental, and we may envisage a change in the community of the village of Deir el-Medina around the reign of Hatshepsut or slightly later, under Thutmose III. More and more tombs are prepared around the village in this period, and for the first time the workmen's marks emerge clearly from the archaeological record. If the tomb of Hatshepsut was indeed the first tomb in the Valley of the Kings, the workmen seem to have settled in the village permanently during her reign or that of Thutmose III. That is supported by the construction of the first chapels to the north of the village in the time of the latter ruler. The mark of Kha is found on pottery from the Grand Puits, which could be an indication that the overseer of the workmen himself resided at the village around the middle of the 18<sup>th</sup> Dynasty. Only few structures at the village can at this point be dated to an earlier period, suggesting that before the reign of Thutmose III the settlement was not continuously inhabited by the workmen, regardless of where exactly they would have been employed.

Hence the postulated permanent occupation of Deir el-Medina would have taken place around the time of the construction of the 18<sup>th</sup> Dynasty temples of Deir el-Bahari. Whereas significant numbers of hieratic administrative ostraca had been produced at this site, no such documents are known for the work on the royal tomb, despite the occasional presence of professional scribes at the site. It seems unlikely that ostraca dealing with construction activities at Deir el-Bahari mention individuals who are also attested at Deir el-Medina. In the light of 18<sup>th</sup> Dynasty administrative ostraca composed with marks that have been recovered in the village and in the Valley of the Kings, the absence of hieratic documentation of work on the royal tomb is best explained by arguing that professional scribes stored or submitted their records elsewhere than at the worksite or at the village. The necropolis scribes of the 18<sup>th</sup> Dynasty were therefore probably not permanently present with the workmen's crew and resided somewhere outside of Deir el-Medina.

The work on the royal tomb was the final responsibility of the mayor of Thebes, and later probably of the Overseer of all construction works of the King. Both offices were based in Thebes, and therefore we may conjecture that the necropolis scribes of the 18<sup>th</sup> Dynasty submitted their written records at that location. As far as the internal organisation of the workforce can be reconstructed, it does not seem to differ much from its Ramesside counterpart, including a foreman, a scribe, workmen and some specialists such as draughtsmen and sculptors. There is however no hard proof for a division of the crew into two 'sides'. Some instances of a father and a son who were both involved in work on the royal tomb as evidenced by their titles, such as Kha and his son Amenemope and Minhotep and his son Nakhtmin, provide further evidence for a permanent occupation of the village during the 18<sup>th</sup> Dynasty. The attestation of workmen's marks in the tombs of women and children who were buried in the Eastern Cemetery may add to this idea. Remarkably, just over a dozen members of the 18<sup>th</sup> Dynasty workforce are identified by name and title. Several contemporaries are attested at Deir el-Medina with the title of 'servant', without an indication of an institution, whereas other individuals are attested without a title at all. Notable is also

the inconsistency in the titles attested for the 18<sup>th</sup> Dynasty. All of this may be explained in part by the absence of the influence of scribes, who it seems only visited the workmen on occasion.<sup>290</sup>

The workmen's marks from the Valley of the Queens present for the first time hard evidence that the Theban necropolis workmen of the 18<sup>th</sup> Dynasty were responsible for the construction of tombs in the former area as well. It seems also at least plausible that prior to the reign of Hatshepsut the individuals who were accommodated at the village and the small number of them who are known to have been buried there, were employed in the preparation of the royal tomb either at Dra' Abu el-Naga or perhaps the Valley of the Queens, but there is no real evidence to substantiate this suggestion. The painted marks of the graffito in the quarry of Qurna may be another indication that the Theban necropolis workmen were active outside of the Valley of the Kings. These marks could be evidence of the workmen at work in a quarry alongside other quarrymen.

The circumstances regarding the crew of workmen during the Amarna Period and its aftermath remain unclear for now.<sup>291</sup> The marks recorded at different sites at Amarna do not provide unambiguous proof of the transfer of Theban workmen to the new capital and back again. There are several tombs and monuments belonging to necropolis workmen that are dated to the reigns of Akhenaten and Tutankhamun, demonstrating that some crew members had remained at Thebes. The workmen's marks from (the vicinity of) KV 63 and those from the tomb of Sennefer (DM 1159) are datable to the reign of the latter king and indicate that the practice of marking continued after the Amarna Period. The latest 18<sup>th</sup> Dynasty marks appear to be those found in the tomb of Nakhtmin and Nu (TT 291), attributed to the reign of Horemheb.

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<sup>290</sup> For more on this assumption, see chapter 2, 2.6.1.

<sup>291</sup> On this matter, see also chapter 2, 2.2.14; chapter 6, 6.2.2 and 6.2.3.



## CHAPTER 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

### 2.1 INTRODUCTION

Now that we have outlined the structure of the organisation of the construction of the royal tomb during the 18<sup>th</sup> Dynasty to the best of our knowledge we have set the stage for the ostraca with marks from this time. Such ostraca are often easily recognised now that we are familiar with the repertory of identity marks from the 18<sup>th</sup> Dynasty found on ceramic vessel fragments and other objects datable to that period. Unfortunately these finds originate from inaccurately dated contexts. As a consequence they are helpful in the sense that they provide valuable information that aids us in distinguishing ostraca inscribed with mark from that period. Yet they are of little assistance in our attempts to pinpoint each ostrakon to the timeline of the 18<sup>th</sup> Dynasty. A more precise date is available for three groups of ostraca discovered in the Valley of the Kings, and they will serve as important anchor points in the chronological overview of 18<sup>th</sup> Dynasty ostraca with marks. A similar role will be played by a fourth set of ostraca for which a relative date will be proposed. In the second part of this chapter the meaning and purpose of the ostraca will be discussed, but as we do not possess any contemporary written texts to compare the ostraca to, this will turn out to be a most challenging undertaking.

Problematic for the corpus of 18<sup>th</sup> Dynasty ostraca as a whole is that it is relatively small when compared to the body of ostraca with marks from the 19<sup>th</sup> Dynasty and that of the 20<sup>th</sup> Dynasty. Moreover, we will experience difficulties in the identification of allomorphs of a specific mark as a result of the variability in the shape of the marks, which is considerably greater than in other periods. In order to surpass some of these obstacles we shall on several occasions rely on the semi-fixed sequences of marks that are preserved in their entirety on ostraca such as OL 6788 and ONL 6298. Such sequences reoccur on other, less well preserved or barely decipherable ostraca and support us in interpreting and dating such documents.

### 2.2 CHRONOLOGICAL OVERVIEW

Since we possess no written 18<sup>th</sup> Dynasty texts to compare the ostraca with marks to, we are mostly dependent on the archaeological context of ostraca to inform us of their date. A large percentage of ostraca with marks was discovered in the village of Deir el-Medina, and for some of them a provenance is recorded. However, we have seen in the previous chapter that these findspots are not adequately dated. Therefore we have to rely on the ostraca discovered in the Valley of the Kings, some of which offer a fairly precise indication of the period during which they were made. Ostraca from 18<sup>th</sup> Dynasty discovered in proximity of the tomb of an 18<sup>th</sup> Dynasty king thus seem to be datable to the reign of that ruler (FIG. 3).

#### Ostraca

O. ARTP 02/236

O. Brock 27

#### Provenance

between KV 47 and KV 37 or between  
KV 11 and KV 57<sup>1</sup>  
entrance of KV 17<sup>2</sup>

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<sup>1</sup> Because the ostrakon was discovered in 2002, it must have come from either site 2 or site 4 of the excavations of the Amarna Royal Tomb Project, cf. Reeves (ed.), *Newsletter of the Valley of the Kings Foundation* 1, accessible through <http://www.nicholasreeves.com/item.aspx?category=Writing&id=102>.

<sup>2</sup> Information kindly provided by Rob Demarée, personal communication, 2015.



## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

O. BTdK 832 and 833	south east of KV 18, not <i>in situ</i> but discovered among pottery dated to the reign of Thutmosis III <sup>3</sup>
O. Cairo JE 72490 and 72494	between KV 30 and KV 26 <sup>4</sup>
O. Cairo CG 25321	near KV 37 <sup>5</sup>
O. Cairo JE 72498	end of branch leading to KV 34 <sup>6</sup>
O. Cairo CG 24105 – 24108	entrance of KV 35 <sup>7</sup>
O. Cairo JE 96650	branch leading to KV 35 <sup>8</sup>
O. Cairo JE 72492	east of KV 47 <sup>9</sup>
O. Cilli 278	area surrounding KV 47 <sup>10</sup>
O. KV 10002, 10004, 10010 – 10012	from layers of debris in ‘site K’: west side of branch leading to KV 34 <sup>11</sup>
O. KV 63 Unnumbered	shaft of KV 63 <sup>12</sup>
O. WV 1 – 6; 8 – 13	area between WV 22 and WV A <sup>13</sup>

We can roughly divide these ostraca into five groups:

1. Ostraca O. Brock 27, O. BTdK 832 and O. BTdK 833. These ostraca do not come from a site that is particularly close to a royal tomb of the 18<sup>th</sup> Dynasty. The area of their findspot may have once been the site of an 18<sup>th</sup> Dynasty settlement of huts used by the workmen that constructed the tomb of Hatshepsut, but that is far from certain. The exact date of these ostraca is therefore obscure.
2. Ostraca O. Cairo CG 24105 – 24108 and O. Cairo JE 96650. These ostraca are associated with KV 35, the tomb of Amenhotep II, and we expect them to have been made during work on this sepulchre.
3. Ostraca O. WV 1 – 6; 8 – 13. This group of ostraca is evidently datable to the reign of Amenhotep III because they were found at the remote site of the workmen’s huts close to WV 22, the tomb of this king.

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<sup>3</sup> Andreas Dorn and Elina Paulin-Grothe, ‘Zwei Ostraka der 18. Dynastie aus dem Tal der Könige mit Namenszeichen (O. BTdK 832 und O. BTdK 833)’ *GM* 231 (2011), 17.

<sup>4</sup> Reeves, *Valley of the Kings*, 328-330.

<sup>5</sup> Daressy, *Ostraca*, 82.

<sup>6</sup> According to the MA Thesis of Abdel Samie, accessible through <http://etheses.bham.ac.uk/737/1/abdelelsamie10MPhil.pdf>, this ostrakon bears number 329 attributed to it by its excavators, see Abdel Rahman Salah Hafez Abdel Samie, *Hieratic Ostraca of the Ramesside Period in the Egyptian Museum in Cairo: Documentation, Classification and Commentary* (Birmingham 2009), 94. After Reeves, *Valley of the Kings*, 329 it must therefore have been discovered at site 15 of the mission of Carter and Carnarvon in season 1920-1921.

<sup>7</sup> Daressy, *Fouilles de la Vallée des Rois*, 64-65.

<sup>8</sup> The ostrakon is inscribed with a note by its excavators: “Davis 1905-6. P.A.”, referring to site 16, the branch leading to the tomb of Amenhotep II, after Reeves, *Valley of the Kings*, 303.

<sup>9</sup> The designation “419” on this ostrakon indicates that it was discovered by the Carter-Carnarvon mission on the east side of the hill containing the tomb of Siptah (KV 47), close to the entrance of the branch leading to the tomb of Thutmosis III, see Reeves, *Valley of the Kings*, 330-331.

<sup>10</sup> Debora Cilli, ‘Delivery Ostraca Discovered Adjacent to KV 47’ in: Mark Collier and Steven Snape (eds.), *Ramesside Studies in Honour of K.A. Kitchen* (Bolton 2011), 95.

<sup>11</sup> Zahi Hawass, ‘Excavation West of the Valley of the Kings near the Tomb of Thutmose III’ in: Tamás A. Bács, Zahi Hawass and Gábor Schreiber (eds.), *Proceedings of the colloquium on Theban archaeology at the Supreme Council of Antiquities, November 5, 2009* (Cairo 2011), 57-71.

<sup>12</sup> Information kindly provided by Ben Haring through contact with Lorelei Corcoran, personal communication.

<sup>13</sup> Areas 1, 2, 4, 5 and 6; see Yoshimura (ed.), *Research in the Western Valley II*, 74-89, 173.

4. A number of ostraca were found in a branch of the Valley of the Kings that leads to KV 34, the tomb of Thutmose III. Tombs KV 40, KV 26, KV 30, KV 59, KV 31 and KV 33 are located in this part of the valley. About most of the tombs very little is known, but they are dated to the 18<sup>th</sup> Dynasty, some more specifically to the reign of Thutmose III.<sup>14</sup> KV 32 was attributed to the queen of Amenhotep II, Tia-‘a,<sup>15</sup> and KV 42 to the queen of Thutmose III, Hatshepsut-Meryt-Re, although it seems to have never been used by her. Instead, the mayor Sennefer and his wife, or the queen of Amenhotep II, Baketre are attested at the tomb.<sup>16</sup> O. Cairo JE 72498 was found in the vicinity of this tomb, and can therefore be attributed to the reign of that king. O. CG 25321 is associated with KV 37 and O. Cairo JE 72490 and O. Cairo JE 72494 with the area between KV 30 and KV 26. Very little is known about these three tombs, but KV 37 has been dated to the reign of Thutmose III as well.<sup>17</sup> O. KV 10002, 10004, 10010 – 10012 and O. ARTP 02/236 have been discovered in the same branch leading to the tomb of Thutmose III, but their exact findspot is unknown. The ostraca have come to light only recently, after the area had been ploughed through by decades of excavations, and are therefore not of a secure date.
  
5. Ostraca O. Cilli 278 and O. Cairo JE 72492 have been discovered near the entrance to the branch in the valley mentioned above. It is possible that they date to the same period, but because they were discovered in disturbed layers, we cannot rely on their provenance.

Groups 2, 3 and 4 of ostraca from the Valley of the Kings with a secured provenance serve perfectly as chronological anchor points, because they date to the reign of Amenhotep II, Amenhotep III and Thutmose III respectively. In the remainder of this chapter, we will refer to the ostraca associated with the reign of Thutmose III as group A. The ostraca found near the tomb of Amenhotep II will constitute group B, and those from the West Valley will be referred to as group C.

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<sup>14</sup> René Preys, ‘Les tombes non-royales de la Vallée des Rois’ *SAK* 40 (2011), 322-324.

<sup>15</sup> See most recently Hanna Jenni, ‘La Vallée des Rois, ses Tombeaux et ses Ouvriers. Travaux concernant les tombes KV 17, 18, 32 et 47 menés par l’Institut d’Égyptologie de l’Université de Bâle’ *EAO* 54 (2009), 17; [http://www.thebanmappingproject.com/sites/browse\\_tomb\\_846.html](http://www.thebanmappingproject.com/sites/browse_tomb_846.html) accessed on 29-4-2015.

<sup>16</sup> Catherine H. Roehrig, ‘The Building Activities of Thutmose III in the Valley of the Kings’ in: Eric H. Cline and David O’Connor (eds.), *Thutmose III. A New Bibliography* (Ann Arbor 2005), 248-250; Marianne Eaton-Krauss, ‘Who commissioned KV 42 and for whom?’ *GM* 234 (2012), 53-60; but compare Preys, ‘Les tombes non-royales’, 333-338.

<sup>17</sup> See [http://www.thebanmappingproject.com/sites/browse\\_tomb\\_851.html](http://www.thebanmappingproject.com/sites/browse_tomb_851.html) accessed on 29-4-2015.



FIGURE 3. TOMBS IN THE VALLEY OF KINGS IN THE AREAS IN WHICH 18<sup>TH</sup> OSTRACA WITH MARKS WERE FOUND.

### 2.2.1 Group A: ostraca from the reign of Thutmosis III

The four ostraca in this core group are O. Cairo JE 72490, O. Cairo JE 72494, O. Cairo JE 72498, and O. Cairo CG 25321. In terms of the particular order in which the marks are inscribed, these ostraca have very little in common. The most important document in this group is O. Cairo JE 72490. It features 22 marks but only 20 different ones because marks □ and ○ are included twice. The marks are written in two lines, but they seem to converge at the right end of the ostrakon: the right end of the upper row slants downwards, while the right end of the lower line slants upwards. It would thus appear that the upper line was written from left to right. At the right end, the author of the ostrakon inscribed mark √ below mark ∅, and then continued in the upper line from right to left. This *boustrophedonic* way of inscribing signs is very different from hieroglyphic and hieratic scribal practise, but it will be shown that other 18<sup>th</sup> Dynasty ostraca were inscribed in the same way.

In the lower line of O. Cairo JE 72490 we recognise ⌘, the identity mark of the Overseer of the Work, Kha. It is unknown if he held this position already at the moment this ostrakon was inscribed. If he did, then there is a possibility that the sequence of marks on O. Cairo JE 72490 should be right from the left end of the lower line to the right, to continue in the upper line from right to left. Such a reading would place Kha's mark closer to the beginning of the sequence, in a position where one would expect the mark of a foreman or a

deputy.<sup>18</sup> This is no more than a suggestion, as we cannot determine in what capacity Kha was recorded on this ostracon exactly. We therefore keep to the following reading of the ostracon:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

TABLE 5. SEQUENCE OF MARKS ON O. CAIRO JE 72490

O. Cairo JE 72494 shares three marks with O. Cairo JE 72490 (see TABLE 6): , and . A fourth sign is damaged and unidentifiable. The ostracon seems to be closely related to O. Cairo JE 72490, as the shape of the mark is very similar in both ostraca. The two documents may have been made by the same hand. O. Cairo JE 72498 is incompletely preserved and displays nine marks, two of which are fragmentary and can not be securely identified. O. Cairo JE 72498 shares four marks with O. Cairo JE 72490 and one with O. Cairo JE 72494. The fourth document in this group is O. Cairo CG 25321, also incompletely preserved. It displays at least 12 marks, of which two are unidentifiable. The ostracon shares eight marks with O. Cairo JE 72490 and three marks with O. Cairo JE 72498. Together the ostraca in group A contain at least 24 different marks:

<sup>18</sup> As will become clear in later chapters, the foremen and their deputies that directed the workforce were often mentioned at the beginning of lists of workmen, whether written in hieratic or composed with marks. See also ONL 6298, below, p. 100-101; and below, 2.6.5.









































JE 72490	JE 72494	JE 72498	CG 25321
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			

TABLE 6. MARKS ATTESTED ON THE OSTRACA OF GROUP A

### 2.2.2 Group B: ostraca from the reign of Amenhotep II

The ostraca in this group are O. Cairo CG 24105, O. Cairo CG 24106, O. Cairo CG 24107, O. Cairo CG 24108, and O. Cairo JE 96650. The provenance, palaeography and style of O. Cairo CG 24105 – 24108 suggests they were written by the same scribe. Two key ostraca in this group are O. Cairo CG 24105 and O. Cairo CG 24107, because they display almost the same sequence of marks. Let us begin with the former piece. It is slightly damaged and we seem to be missing two marks, but the remainder of the ostrakon is perfectly legible. Like O. Cairo JE 72490, this ostrakon is written in *boustrophedon*:<sup>19</sup> the first mark that was jotted down is  at the right end of the upper line. From that point onwards the scribe seems to have followed the contour of the ostrakon. At the rounded left end of the limestone chip the line of marks curves around, with the result that the lower line of marks was inscribed from left to right.

The rightmost mark in the upper line of O. Cairo CG 24107 is . Left of it we observe mark . The same mark features on O. Cairo CG 24105 left of , but here it

<sup>19</sup> The term *boustrophedon*, literally ‘as the ox turns’, is used for inscriptions in which the writing is reversed in every other line. In many examples of *boustrophedonic* inscriptions the individual characters are reversed as well. That is not the case with ostraca with marks written in *boustrophedon*.

orientated to the right, in contrast to  $\delta$ , the specimen found on O. Cairo CG 24105 that is orientated to the left. Nevertheless, we are in all likelihood dealing with the very same mark. At least that is what is suggested by the following marks on O. Cairo CG 24107,  $\uparrow$  and  $\parallel$ , which also follow after  $\delta$  on O. Cairo CG 24105. Moving onward in the sequence of O. Cairo CG 24107 we encounter the same phenomenon: it displays mark  $\mathfrak{M}$  in the position in which O. Cairo CG 24105 records its mirror image  $\mathfrak{M}$ .

We are here introduced to a very peculiar and sometimes problematic feature of the workmen's marks of the 18<sup>th</sup> Dynasty: the orientation of the marks varies from ostracon to ostracon, and is not at all restricted by the direction in which the marks were inscribed. There are no indications whatsoever that the orientation of a mark has any effect on its meaning, and owing to similarities in the sequence of marks on O. Cairo CG 24105 and O. Cairo CG 24107 we can securely equate mark  $\mathfrak{M}$  with mark  $\mathfrak{M}$ .

The mark after  $\mathfrak{M}$  is  $\omega$  in both ostraca. O. Cairo CG 24107 then displays mark  $\mathfrak{B}$ , which resembles O. Cairo CG 24105's  $\mathfrak{B}$ . Here we notice that there are not only mirrored variants of marks, but also variants that are rotated 90 degrees. Of the following three marks,  $\top$  and  $\uparrow$  agree with O. Cairo CG 24105, but  $\uparrow$  is another mirrored allomorph of CG 24105's mark  $\uparrow$ . The following mark on O. Cairo CG 24105 is  $\mathfrak{H}$ , and it is at this point that we lose the sequence for a moment. Mark  $\mathfrak{H}$  is situated at the left end of the lower line of O. Cairo CG 24107, with left of it only mark  $\mathfrak{L}$  and immediately right of it mark  $\top$ . These last two marks are absent on O. Cairo CG 24105. In the latter ostracon, mark  $\mathfrak{H}$  is followed by mark  $\mathfrak{L}$ , which in turn is not inscribed on O. Cairo CG 24107. Fortunately we can pick up the sequence when we continue down the lower line of O. Cairo CG 24107: after mark  $\top$  follows  $\mathfrak{M}$ , which is situated at the beginning of the sequence of O. Cairo CG 24105. The subsequent marks are  $\omega$ ,  $\uparrow$ ,  $\nabla$ ,  $\uparrow$  and  $\mathfrak{A}$ , which must be allomorphs of the corresponding marks in the sequence of O. Cairo CG 24105, respectively  $\omega$ ,  $\uparrow$ ,  $\Delta$ ,  $\uparrow$  and  $\mathfrak{B}$ . We learn from this that O. Cairo CG 24107 too was written in *boustrophedon*. In addition we see that allomorphs of a mark can also be mirrored horizontally. Particularly revealing is the observation that mark  $\mathfrak{B}$  apparently is a allomorph of mark  $\mathfrak{A}$  despite the absence of the little stem. This indicates that not only is the orientation of a mark very flexible, so is its particular shape. It should be emphasised that in the case of O. Cairo CG 24105 and O. Cairo CG 24107 marks  $\mathfrak{B}$  and  $\mathfrak{A}$  can more or less securely be identified because of their corresponding positions in the same sequence of marks. On ostraca with marks that are not ordered according to the same sequence, the variability in the shape of particular marks will on occasion lead to confusion.

After mark  $\mathfrak{A}$ , the sequence of O. Cairo CG 24107 continues with what probably is mark  $\delta$ . This mark is not present of O. Cairo CG 24105, which records  $\uparrow$  in its stead. The next mark on O. Cairo CG 24107 is  $\mathfrak{X}$ , which may have been inscribed in the lacuna of the corresponding ostracon. Similarly, mark  $\mathfrak{D}$ , which follows after  $\phi$  on O. Cairo CG 24107, may once have stood on the spot of the second lacuna of O. Cairo CG 24105, immediately left of  $\phi$ . We have now reached the end of the lower line of O. Cairo CG 24107, but there are reasons to believe that once again we need to turn a corner and continue reading from left to right. The first mark we then encounter is  $\omega$ . One might expect it to be an allomorph of the corresponding mark  $\mathfrak{B}$  on O. Cairo CG 24105, but that seems unlikely because marks  $\omega$  and  $\mathfrak{B}$  occur together on O. Cairo CG 24106. Subsequent marks  $\uparrow$  and  $\mathfrak{M}$  are found in reverse order on O. Cairo CG 24105.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

TABLE 7. SEQUENCE OF MARKS ON O. CAIRO CG 24107 (TOP) AND O. CAIRO CG 24105 (BOTTOM)

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

As mentioned, the palaeography of the marks on O. Cairo CG 24106 and O. Cairo CG 24108 appears, at least at a first glimpse, to be very similar to that of O. Cairo CG 24105 and O. Cairo CG 24107. Nevertheless, the former two ostraca have not been written in a sequence that conforms in any way to that of the latter two. On O. Cairo CG 24108 we reencounter marks  $\bigcirc$  and  $\ominus$ , known from group A. Not yet attested are  $\text{𐀀}$  and an allomorph of  $\text{𐀁}$  turned upside down. The other marks are all attested on O. Cairo CG 24105 and O. Cairo CG 24107. It would appear that the flower-shaped mark  $\text{𐀂}$  is an allomorph of  $\text{𐀃}$  and  $\text{𐀄}$ , and we will come across supporting evidence for this equivalency on O. Varille 423 discussed below.<sup>20</sup>

It is because of the similarity to O. Cairo CG 24105 and O. Cairo CG 24107 that we can identify marks  $\text{𐀅}$ ,  $\text{𐀆}$ ,  $\text{𐀇}$ ,  $\text{𐀈}$ , and  $\text{𐀉}$  on O. Cairo CG 24106 as allomorphs of  $\text{𐀊}$ ,  $\text{𐀋}$ ,  $\text{𐀌}$ ,  $\text{𐀍}$  and  $\text{𐀎}$ . Mark  $\text{𐀏}$  is probably an allomorph of  $\text{𐀐}$ , despite the fact that this mark is already present elsewhere on O. Cairo CG 24106. O. Cairo JE 72490 already clearly demonstrated that a particular mark can be repeated within the same ostracon. This appears to have happened to mark  $\text{𐀑}$  on O. Cairo CG 24106 as well. Marks  $\text{𐀒}$  and  $\text{𐀓}$  are not found on the other ostraca of group B, and as we will see, they appear to be uniquely attested on this document.

The final ostracon of group B displays no more than nine marks, which are arranged in an order that is not related to the sequence of O. Cairo CG 24105 and O. Cairo CG 24107. Eight of the marks are also attested in the previous four ostraca, but new is mark  $\text{𐀔}$ .

Together the ostraca in group B contain at least 37 different marks (TABLE 8). Of this total, 15 are also found in group A (TABLE 11), but it will be demonstrated that there are indications that mark  $\text{𐀕}$  (found in group B) is an allomorph of mark  $\text{𐀖}$  (found in group A) in at least one instance. Whether this equivalency is universally valid for the ostraca from the 18<sup>th</sup> Dynasty is unclear.<sup>21</sup>

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<sup>20</sup> See below, p. 90-91.

<sup>21</sup> See ONL 6302 below, p. 93-94.

CG 24105	CG 24106	CG 24107	CG 24108	JE 96650

TABLE 8. MARKS ATTESTED ON THE OSTRACA OF GROUP B



### 2.2.3 Group C: ostraca from the reign of Amenhotep III

The documents that constitute this group are the 12 ostraca, O. WV 1 – 6 and O. WV 8 – 13,<sup>22</sup> found in the area between KV 22 and KV A. The ostraca are clearly related to the each other because with a few exceptions, the individual marks are attested on several ostraca each (TABLE 9). Most important for our current aims is O. WV 3. Although it is badly damaged, it is clear that it is inscribed with a sequence of marks that reoccurs on several other ostraca from the 18<sup>th</sup> Dynasty.<sup>23</sup> On account of O. WV 3 this sequence can be pinpointed in the reign of Amenhotep III. We shall see below that the sequence of O. WV 3 is to some extent recognisable in O. WV 1, O. WV 4 and O. WV 10.<sup>24</sup>

One of the most evident parallels for the sequence of O. WV 3 is OL 6788. The similarity between the sequences of marks in both documents is so great that the latter ostrakon can securely be attributed to the group C ostraca. While we will discuss OL 6788 in more detail below (2.2.9), a quick peek at this ostrakon is required at this point. Among the marks in the upper line of the document feature two different marks, a flower-shaped mark  $\text{𐀀}$  (in the remainder of this chapter represented by font type  $\Psi$ ) and mark  $\text{𐀁}$ . It was pointed out above that in group B marks  $\text{𐀂}$ ,  $\text{𐀁}$  and  $\Psi$  were all allomorphs of one and the same mark. At the time of the group C ostraca this equivalency was no longer valid, and OL 6788 demonstrates that at this point  $\text{𐀁}$  is to be distinguished from  $\Psi$ . As a result, undated ostraca that display mark  $\text{𐀁}$  are difficult to interpret because we are not in every case certain whether it represents an allomorph of  $\Psi$  or not. Mark  $\text{𐀁}$  is not attested on any of the ostraca from the area of the tomb of Amenhotep III, but we can be fairly certain that it must have already been in use around the time these 12 ostraca were created. For one, that is suggested by the fact that O. WV 3 records almost the same sequence of marks as OL 6788 and other ostraca that all include mark  $\text{𐀁}$ . It is therefore expected that it originally featured on O. WV 3 too. Secondly, mark  $\text{𐀁}$  is incised on a ceramic vessel fragment from the same area of the Amenhotep III ostraca.<sup>25</sup>

Mark  $\text{𐀃}$  on O. WV 13 is most probably an allomorph of mark  $\text{𐀄}$  on O. WV 11. The latter mark is the more frequent form, and it occurs in the sequence of OL 6788. On the latter ostrakon mark  $\text{𐀄}$  is recorded adjacent to mark  $\text{𐀅}$ , as is on O. WV 13. Additionally, it will be demonstrated that mark  $\text{𐀃}$  is recorded on O. Stockholm MM 14130 in the same position as in the sequence of OL 6788.<sup>26</sup>

Mark  $\text{𐀆}$  is not attested in group B, but in group A we have discerned mark  $\text{𐀇}$ , which somewhat resembles  $\text{𐀆}$ . It is unclear if the two marks can be interpreted as allomorphs of the same mark because there is no convincing evidence in support of, or in objection to an equivalency. The possibility that it concerns a single mark will be considered in the remainder of this chapter.

As an assemblage, the ostraca in group C contain at least 49 different marks. Of these marks, 23 or perhaps 24 are also found in group B, and 16 or perhaps 17 in group A (TABLE 11). Remarkably, these 17 marks are not all the same as the 15 marks that are found both in group B and A. Looking solely at the ostraca in groups A, B and C, it would thus appear that some marks were in use in group A, disappeared in group B and reappeared in group C. On the basis of ostraca that are not securely dated it will be argued below that this is not true for all of these marks, and several of such marks will be attributed to group B. One of the newly attested marks in group C is  $\text{𐀈}$ , which is not found in groups A and B. One wonders if the

<sup>22</sup> O. WV 7 has also been described as an ostrakon with workmen's marks, see Yoshimura (ed.), *Research in the Western Valley II*, 81, but too few traces have survived on it to include it in this study.

<sup>23</sup> Particularly important parallels are OL 6788, O. Stockholm MM 14130, and ONL 6298, see below p. 97-101.

<sup>24</sup> See below, 2.2.9.

<sup>25</sup> Yoshimura (ed.), *Research in the Western Valley II*, 96, fig. 56, WV 447.

<sup>26</sup> See also below, p. 124, ONL 6416.

otherwise unique mark  $\triangle$  on O. Cairo CG 24106 is perhaps an allomorph of  $\Psi$ , because it is of a similar shape, but there is unfortunately no supporting evidence.

O. WV 1	O. WV 2	O. WV 3	O. WV 4	O. WV 5	O. WV 6	O. WV 8	O. WV 9	O. WV 10	O. WV 11	O. WV 12	O. WV 13
×				×		×		×			

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

				𐀀				𐀀			
				𐀁				𐀁	𐀁		
				𐀂				𐀂	𐀂	𐀂	
							𐀃				
								𐀄		𐀄	
									𐀅		
									𐀆		
									𐀇		
										𐀈	

TABLE 9. MARKS ATTESTED ON THE OSTRACA OF GROUP C

### 2.2.4 A fourth group: group D

As explained above, the three core groups A, B and C are established first and foremost on account of their provenance. A fourth group of 18<sup>th</sup> Dynasty ostraca, henceforth called group D, can be established on the basis of other criteria. The exact findspot of the ostraca of this group is unknown and therefore *prima facie* no specific date can be proposed for them. The ostraca in question are O. Cairo JE 96585, O. Cairo JE 96587, O. Cairo JE 96606, O. Cairo JE 96330.B and .C, and O. Cairo JE 96331. Despite their unclear provenance all five ostraca were reportedly discovered together in the Valley of the Kings by the mission of Davis and Ayrton in the season of 1905 – 1906.<sup>27</sup> They have a number of aspects in common. The first feature is the great dimensions of the marks on these ostraca. Many of the marks on these ostraca are about 5 by 5 cm in size. This is well illustrated by counting the number of marks that fit next to each other on the ostrakon:

<i>Ostrakon</i>	<i>Width</i>	<i>Number of marks in a row</i>
O. Cairo JE 96585	19.0 cm	4 marks
O. Cairo JE 96587	22.5 cm	4 marks
O. Cairo JE 96606.B	11.5 cm	3 marks
O. Cairo JE 96630	34.5 cm	5 marks
O. Cairo JE 96631	29.5 cm	7 marks

These are considerably smaller numbers than the ostraca in groups A, B and C. Compare for example the following ostraca:


<i>Ostrakon</i>	<i>Width</i>	<i>Number of marks in a row</i>
O. Cairo JE 72490	19.0 cm	13 marks
O. Cairo CG 24107	22.0 cm	13 marks
OL 6788	25.0 cm	12 marks







The marks on the ostraca in group D are clearly much larger. Related to the size of the marks is the instrument that was used to draw them. In each case this was a brush that is much










<sup>27</sup> The provenance of these five ostraca, as well as that of O. Cairo JE 96590 and O. Cairo JE 96603 – most probably related documents, see below, p. 119-120 – is indicated by the acronym “B.M.”. Because this site designation is otherwise not known, one wonders if it was perhaps misread for “P.M.”, the designation given to one of the areas excavated by Davis and Ayrton in the season of 1905-1906. The location of this site is the branch leading to the tomb of Amenhotep II and the area of KV 53 in particular, see Reeves, *Valley of the Kings*, 297 and 303.

thicker than the pen used for the ostraca in groups A, B and C. Furthermore, in all ostraca in group D red ink was used to draw marks.<sup>28</sup>











Another aspect of the ostraca in group D is that none of them is composed in neat lines. The layout of the ostraca seems to be dictated by the shape of the ostrakon itself rather than by the scribe's desire to arrange marks in columns or lines. Take for example O. Cairo JE 96606.B. The left half of the ostrakon is higher than the right half, and therefore several marks are arranged vertically on the left end, and only one mark is written on the right end.

Also characteristic for the marks in group D is their style: all marks seem to have been drawn with quick, steady lines which are never shaky or hesitant. It is difficult to compare the hand of the marks, as they are mostly simple geometric shapes that do not clearly demonstrate the traits of the hand of a particular scribe. Perhaps the only mark that can be compared is mark , which appears in O. Cairo JE 96606.B, O. Cairo JE 96587 and O. Cairo JE 96631. Particularly in O. Cairo JE 96606.B and O. Cairo JE 96631 this mark is very similar, and could well have been made by the same hand: the beak of the bird is very short, the body of the bird is slim and slants to the left, and the legs are long.

All these features strongly suggest that the five ostraca form a single group. That is supported by the repertory of marks inscribed on the ostraca (TABLE 10). The majority of the marks in this group can be identified without any problems because they occur on the ostraca from groups A, B and C. O. Cairo JE 96585 seems to be complete. It displays a total of nine marks, of which  appears here for the first time. It closely resembles mark , but O. Cairo JE 96591<sup>29</sup> is inscribed with both  and , demonstrating that the two need to be differentiated. Mark  is probably an allomorph of  turned upside down.

O. Cairo JE 96587 is completely preserved too and displays 10 marks, all of which are complete. In the left upper corner we distinguish mark , which we had not yet encountered before. O. Cairo JE 96606 is the accession number that belongs to three fragments: .A, .B and .C. Fragment .A shows unclear lines which cannot be identified as workmen's marks, and the significance of which is unclear; fragment .B displays a total of five marks, all encountered elsewhere and therefore securely identified. Fragment .C displays three incompletely preserved marks. The top mark is not securely identified, but the most likely option is an allomorph of mark : , but rotated 180 degrees. The mark left of it is damaged, but can be identified when we turn to O. Cairo JE 96630. This ostrakon appears to be complete and displays 10 marks. At the bottom we can discern mark , not attested in groups A, B and C, which is probably the same mark as the damaged mark on O. Cairo JE 96606.C. The last ostrakon, O. Cairo JE 96631, also preserved in its entirety, displays 21 different marks. Mark  at the lower half of the ostrakon would appear to be an allomorph of . A damaged mark  that somewhat resembles it is situated at the top of the ostrakon. The traverse stroke through the middle of the horizontal element suggests that it is to be distinguished from all allomorphs of , which lack such a vertical stroke. The mark perhaps represents Gardiner Y1, , but it is not attested as such elsewhere in the 18<sup>th</sup> Dynasty.















As mentioned, the marks on the ostraca in group D do not seem to have been arranged in a clear order. The ostraca are therefore not related to each other by a common sequence of marks, apart perhaps from the following short sequences of marks:






- O. Cairo JE 96587:  -  -   
O. Cairo JE 96631:  -  -  -   
O. Cairo JE 96630:  -  - 

<sup>28</sup> As an exception to the previous two statements, four marks on O. Cairo JE 96587 were not drawn with a thick brush since they consist of very thin lines. They were inscribed in a darker shade of red. The other six marks on the ostrakon do conform to the criteria of brush size and red paint.



<sup>29</sup> This ostrakon is attributed to group D below, see p. 121.



































































mark  is found in groups A and C;<sup>30</sup>  
 marks , , , ,  and  are found in groups B and C;  
 mark  is found only in group B;  
 marks , , , ,  and  are attested in group C exclusively.

The five marks , , ,  and  are not attested in any of the core groups. This observation supports the treatment of the five ostraca under discussion here as a separate group. In absolute numbers the marks in group D are closest related to group C, but in percentages the marks are strongest associated with group B:

Relation to group A: 10 common marks = 41.7% of all marks in that group  
 Relation to group B: 17 common marks, = 46.0% of all marks in that group  
 Relation to group C: 22 common marks, = 44.9% of all marks in that group

Although the group D ostraca are clearly related to group C, they include two marks,  and , which do no longer seem to occur in group C, but do feature on ostraca from groups A and B. Hence, group D is best situated between groups B and C.

Before we move on to the following section, we are required to return to mark . In our discussion of ostraca from group C it was pointed out that the interpretation of mark  can be problematic. This mark occurs in group D as well, and it will be assumed that it represents an allomorph of mark , as in group B. There is no way of determining if this assumption is correct, but since the flower-shaped mark  was in use in group B and in group C, one would expect it to appear in the intermediate group D as well. This would mean that during the reign of Amenhotep III (group C) mark  began to be used as a mark on its own, to be differentiated from mark  that was still functional.

A	B	C	D
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			

<sup>30</sup> The mark is also attested on O. KV 10004, an ostracum that will be attributed to group B below, see p. 91-92.

2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

⊕			
𐀀			
𐀁			
□			
	𐀂	𐀂	
	𐀃	𐀃	
	𐀄/𐀅/𐀆	𐀆	𐀅/𐀆
	𐀇	𐀇	𐀇
	𐀈	𐀈	
	𐀉	𐀉	𐀉
	𐀊	𐀊	𐀊
	𐀋	𐀋	𐀋
	𐀌	𐀌	
	𐀍	𐀍	
	𐀎	𐀎	
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			𓄏

TABLE 11. MARKS ATTESTED ON THE OSTRACA OF GROUPS A – D

### 2.2.5 Proposing a relative date for undated ostraca from the 18<sup>th</sup> Dynasty

Although the majority of 18<sup>th</sup> Dynasty ostraca is of an uncertain date, the four core groups A – D constitute useful points of reference. By comparing the marks on an undated ostrakon to the marks within groups A, B, C and D each, one is able to determine the degree of its association to each of these groups in terms of shared marks. In order to obtain an accurate view of the degree of association between an undated ostrakon and each of the four core groups, it is necessary to take into account not only those marks that are attested in the core groups, but also those that are not.

Simply counting the absolute number of attested or unattested marks does however not lead to an accurate assessment of the relation between an undated ostrakon and the four core groups. To arrive at a figure that expresses the degree of association for an undated ostrakon, the percentage of marks that are attested in each core group is calculated, as is the percentage of marks that are unattested in a core group. The difference of these two percentages represents the degree of association. When this degree is calculated for each of the four core groups, the group with the highest degree of association should be an indication of the date of the ostrakon.

The general assumption behind this dating method is that the greater the number of shared marks is between two ostraca, the closer they must date together. In our endeavours to attribute undated 18<sup>th</sup> Dynasty ostraca to a particular period, it should be a constant reminder that this assumption is not necessarily true. To illustrate this point, we may envisage two hypothetical scenarios. In the first one, a scribe decides at a certain moment to record particular events in which 20 workmen were involved. During these events the workmen were divided into two groups, and the scribe therefore created two different ostraca to document each group separately. The ostraca were thus created at the very same moment, but display a completely different set of marks. This cautions us that two ostraca with little overlap need not date far apart. A second imaginary scenario warns us that the opposite situation is not *per se* indicative of contemporaneity. A group of workmen may have employed a set of identity marks during the reign of Thutmosis III. The generation after them could have employed a completely different set of marks. Another generation later, the grandsons of the workmen active under Thutmosis III may have found the inspiration for their own identity marks in those of their grandfathers. As a result, a set of marks on an ostrakon from the reign of Thutmosis III could be very similar to a much later document.

Our dating method is of course more reliable: we will not compare the marks on one ostrakon to the marks on another, but the marks of one ostrakon to the marks attested within a *group* of ostraca that are well dated. Nevertheless, there is no way of determining to what extent the ostraca in each core group are representative of the complete set of marks that were in use during the period to which they date. The validity of the use of these core groups may therefore be questioned. Take for example ONL 6489. This ostrakon is attributed below to group A.<sup>31</sup> Among the marks on this ostrakon features 𓄏. In the ostraca that constitute our core groups this mark is only attested in group C, but not in A, B or D. This observation may throw into doubt the reliability of using the ostraca as core groups: how can it be that ONL 6489 dates to group A if mark 𓄏 occurs in our core groups only in group C? Unfortunately it is impossible to qualify how accurate the dating method actually is. It could be through chance that mark 𓄏 is not attested in any of the key ostraca in groups A, B and D, which

<sup>31</sup> See below, p. 88.



might lead to a bias in the method of dating: undated ostraca with mark  $\overline{\Gamma}$  might be unjustly associated with group C. On the other hand, the method appears to be robust enough to overcome its partial bias. After all, the calculation of the degrees of association does relate ONL 6489 to group A instead of group C. In addition, there is of course the possibility that a mark was employed for a while at the time of the group A ostraca, but occurred only infrequently during that period and may have been abandoned all together during the period of groups B and D. It would then have been reinstated in the period of group C. In this scenario, the ostraca that constitute the core groups would indeed be quite a realistic representation of the development of the repertory of marks during the 18<sup>th</sup> Dynasty.

Nevertheless, the calculation of degrees of association may only serve as a guideline. Occasionally it will be of great importance, but the attribution of an undated ostrakon to a specific period will be based on other significant factors as well. In some instances, particularly in the case of fragmentary ostraca, the absolute number of marks that occurs in one of the core groups is more revealing than is the calculated degree of association. Much weight will furthermore be given to marks that are ordered in a specific sequence that also occurs on better dated ostraca. Some relevance will be assigned to the style of the marks and occasionally to the provenance of the ostrakon. Collectively, these aspects should provide us with an indication of the date of 18<sup>th</sup> Dynasty ostraca.

### 2.2.6 Ostraca attributable to group A

There are six ostraca that can be attributed to group A, and they should therefore date to the reign of Thutmose III. Such an attribution may be considered for four more ostraca but is less certain.

#### *O. KV 10011*

This incomplete ostrakon displays only four marks. Marks  $\uparrow$ ,  $\overline{\epsilon}$  and  $\overline{\gamma}$  are found in groups A, B and C, but  $\oplus$  is only found in group A. Therefore this ostrakon most likely belongs to group A as well.

Relation to group A:	4 common marks, 16.7%; 0 unattested marks, 0% <b>degree of association is 16.7% – 0% = 16.7%</b>
Relation to group B:	3 common marks, 8.1%; 1 unattested mark, 2.7% <b>degree of association is 8.1% – 2.7% = 5.4%</b>
Relation to group C:	3 common marks, 6.1%; 1 unattested mark, 2.0% <b>degree of association is 6.1% – 2.0% = 4.1%</b>
Relation to group D:	2 common marks, 6.9%; 2 unattested marks, 6.9% <b>degree of association is 6.9% – 6.9% = 0%</b>

The calculated degrees of association show that O. KV 10011 is closest related to group A.

#### *O. KV 10002*

This ostrakon is completely preserved but one mark is damaged and unrecognisable:  $\varpi$ . The other 15 marks are clear. The sequence of marks is not known from other documents. Marks  $\uparrow$ ,  $\circ$ ,  $\overline{\Sigma}$ ,  $\overline{\gamma}$ ,  $\overline{\epsilon}$  and  $\mathbb{H}$  are found in all four core groups; mark  $\uparrow$  is found in groups A, B and C;  $\mathbb{H}$  in group A, B and D;  $\overline{\Gamma}$  and  $\overline{\delta}$  in both A and C;  $\overline{\Gamma}$  in C (and in A if  $\overline{\Gamma}$  is an allomorph of  $\overline{\Gamma}$ );  $\overline{\Gamma}$  in B, C and D;  $\oplus$  only in A;  $\overline{\epsilon}$  only in B; and  $\overline{\delta}$  in C and D. There is a strong relation to the marks in group A:

Relation to group A:	11 or 12 common marks, 45.8% or 50.0%; 4 or 3 unattested marks, 16.7% or 12.5% <b>degree of association is 45.8% – 16.7% = 29.1%</b> <b>or 50.0% – 12.5% = 37.5%</b>
Relation to group B:	10 common marks, 27.0%; 5 unattested marks, 13.5% <b>degree of association is 27.0% – 13.5% = 13.5%</b>
Relation to group C:	12 common marks, 24.5%; 3 unattested marks, 6.1% <b>degree of association is 24.5% – 6.1% = 18.4%</b>
Relation to group D:	9 common marks, 31.0%; 6 unattested marks, 20.7% <b>degree of association is 31.0% – 20.7% = 10.3%</b>

With an association degree of 29.1% or 37.5%, O. KV 10002 appears to be closest related to group A.

### *ONL 6371*

The top of ONL 6371 features a triangular shape that is probably not a workman's mark.<sup>32</sup> In the right lower corner of the ostrakon a mark is inscribed that looks like  $\llcorner$ . It would seem to be a double variant of mark  $\lrcorner$ , but it is as such nowhere else attested. Perhaps  $\llcorner$  is an attempt to write  $\lrcorner$  in a double outline as on O. Cairo JE 72490. Alternatively, it may indeed constitute two instances of mark  $\lrcorner$ . In contrast to the all other marks on ONL 6371,  $\llcorner$  is written in black ink, seemingly in finer lines of ink. It may have been added at a later point. Mark  $\boxminus$  could be an allomorph of mark  $\square$ , attested on O. Cairo JE 72490. Indeed, if we comprehend the reading direction of the sequence of marks on the latter ostrakon correctly, some of the marks on ONL 6371 are inscribed according to their relative position in the arrangement of O. Cairo JE 72490: marks  $\ulcorner$ ,  $\boxminus$ ,  $\smile$ ,  $\Delta$ ,  $\dagger$  and  $\lrcorner$  are situated in slots 9, 12, 14, 15, 17 and 19. Calculating the degree of association for all groups supports the observation that ONL 6371 is related to O. Cairo JE 72490: the ostrakon is evidently related to the ostraca in group A. ONL 6371 is therefore attributed to the reign of Thutmosis III.

Relation to group A:	9 common marks, 37.5%; 2 unattested marks, 8.3% <b>degree of association is 37.5% – 8.3% = 29.2%</b>
Relation to group B:	7 common marks, 18.9%; 4 unattested marks, 10.8% <b>degree of association is 18.9% – 10.8% = 8.1%</b>
Relation to group C:	7 common marks, 14.3%; 4 unattested marks, 8.2% <b>degree of association is 14.3% – 8.2% = 6.1%</b>
Relation to group D:	4 common marks, 13.8%; 7 unattested marks, 24.1% <b>degree of association is 13.8% – 24.1% = -10.3%</b>

### *ONL 6443*

Five marks are preserved on ONL 6443 and traces of a possible sixth mark are visible at the left edge of the ostrakon. As on ONL 6371 mark  $\boxminus$  is probably an allomorph of mark  $\square$  attested on O. Cairo JE 72490. Because the marks do not appear to have been inscribed in a particular order that is known from other ostraca we have to rely on the marks themselves for a date of ONL 6443. An attribution to group A seems most plausible because (the allomorph of) mark  $\square$  is only attested in this group. Additionally the degree of association with this group is higher than with others.

<sup>32</sup> See below, p. 144; p. 159.

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

Relation to group A:	4 common marks, 16.7%; 1 unattested mark, 4.2% <b>degree of association is 16.7% – 4.2% = 12.5%</b>
Relation to group B:	4 common marks, 10.8%; 1 unattested mark, 2.7% <b>degree of association is 10.8% – 2.7% = 8.1%</b>
Relation to group C:	2 common marks, 4.1%; 3 unattested marks, 6.1% <b>degree of association is 4.1 – 6.1 = -2.0%</b>
Relation to group D:	2 common marks, 6.9%; 3 unattested marks, 10.4% <b>degree of association is 6.9% – 10.4% = -3.5</b>

### *ONL 6489*

The obverse of ONL 6489 is inscribed with a row of at least nine marks that feature in a sequence that is not attested elsewhere. The signs on the reverse are unclear. The repertory of marks as well as the particular shape of mark  $\perp$  is similar to ostraca O. Cairo JE 72498 and O. Cairo CG 24108, situated in groups A and B.<sup>33</sup> The degree of association with group A is very high and suggests ONL 6489 dates to the reign of Thutmose III.

Relation to group A:	7 common marks, 29.2%; 2 unattested marks, 8.3% <b>degree of association is 29.2% – 8.3% = 20.9%</b>
Relation to group B:	6 common marks, 16.2%; 3 unattested marks, 5.4% <b>degree of association is 16.2% – 5.4% = 10.8%</b>
Relation to group C:	7 common marks, 14.3%; 2 unattested marks, 4.1% <b>degree of association is 14.3 – 4.1% = 10.2%</b>
Relation to group D:	3 common marks, 10.4%; 6 unattested marks, 20.7% <b>degree of association is 10.4% – 20.7% = -10.3%</b>

### *ONL 6454*

This fragment of an ostrakon displays not more than three marks:  $\Sigma$ ,  $\oplus$  and  $\ominus$ . As will become clear later, these marks are attested in the Ramesside period as well. The date of ONL 6454 is therefore uncertain. The layout of the ostrakon with marks written in a row is, however, suggestive of a date in the 18<sup>th</sup> Dynasty. The three marks are attested together on O. Cairo CG 25321, where they appear, coincidentally perhaps, in the same relative positions. O. Cairo CG 25321 is one of the ostraca that constitute group A, and ONL 6454 is best attributed to the period of these ostraca. That is also suggested by the degree of association with group A, which is higher for this group than for any other.

Relation to group A:	3 common marks, 12.5%; 0 unattested marks, 0% <b>degree of association is 12.5% – 0% = 12.5%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = 2.7%</b>
Relation to group C:	2 common marks, 4.1%; 1 unattested mark, 2.0% <b>degree of association is 4.1% – 2.0% = 2.1%</b>
Relation to group D:	1 common mark, 3.5%; 2 unattested marks, 6.9% <b>degree of association is 3.5% – 6.9% = -3.4%</b>

<sup>33</sup> Compare also O. UC 45683, which is of an uncertain date, see below, p. 133-134.

### ONL 6461

The damaged mark in the upper row situated on the right edge is probably O. Traces of another mark are visible underneath it, but it is impossible to identify. The order of marks on ONL 6461 is not attested on other ostraca, and it is difficult to date. Mark  $\lambda$  is only securely attested in group A, while on the other side of the spectrum mark  $\Gamma\Gamma$  is only attested in group C. One could propose a later date for ONL 6461 because  $\lambda$  is also attested on O. Cairo JE 72450, attributed to group D.<sup>34</sup> On the other hand, the degree of association with group A is relatively high. We may speculate that  $\Gamma\Gamma$ , on ONL 6461 rendered as  $\mathbb{I}$ , is a hieratic variant of  $\Pi$ , attested in group A. Support for this assumption is provided by the sequence of ONL 6465.<sup>35</sup> With much hesitation ONL 6461 is attributed to this group.

Relation to group A:	4 common marks, 16.7%; 2 unattested marks, 8.3% <b>degree of association is 16.7% – 8.3% = 8.4%</b>
Relation to group B:	3 common marks, 8.1%; 3 common marks, 8.1% <b>degree of association is 8.1% – 8.1% = 0%</b>
Relation to group C:	4 common marks, 8.2%; 2 unattested marks, 4.1% <b>degree of association is 8.2% – 4.1% = 4.1%</b>
Relation to group D:	2 common marks, 6.9%; 4 unattested marks, 13.8% <b>degree of association is 6.9% – 13.8% = -6.9%</b>

### ONL 6424

Apart from a pre-fired potter's mark, this ceramic ostrakon displays four marks. The sequence is not attested elsewhere. Mark  $\ast$  is not found on any of the ostraca in the four key groups. Mark  $\lambda$  is attested in group A, but it occurs also on ONL 6298, which is attributed to group C. The small number of marks on ONL 6424 forms an obstacle in the process of dating the ostrakon. All three marks occur in group A, and on O. Cairo JE 72490 in particular. We may propose that mark  $\ast$  is an allomorph of  $\star$ , also found on the latter ostrakon, but this mark does not provide a better indication of the date of ONL 6424. The document is hesitantly attributed to group A. ONL 6424 would then probably date around the period of Thutmose III. A much later date in the reign of Amenhotep III is also possible, but statistically less probable.

Relation to group A:	3 common marks, 12.5%; 0 unattested marks, 0% <b>degree of association is 12.5% – 0% = 12.5%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = 2.7%</b>
Relation to group C:	2 common marks, 4.1%; 1 unattested mark, 2.0% <b>degree of association is 4.1% – 2.0% = 2.1%</b>
Relation to group D:	1 common mark, 3.5%; 2 unattested marks, 6.9% <b>degree of association is 3.5% – 6.9% = -3.4%</b>

### ONL 6402

The interpretation of this ostrakon is very unclear because it displays marks that are not attested elsewhere, or perhaps rather allomorphs of marks that are difficult to identify. The marks are very tentatively interpreted as  $\Upsilon - \omega - \ast - \mathbb{H} - \Gamma - \Upsilon - \mathfrak{C}$ , a sequence that is not

<sup>34</sup> See below, p. 121-122.

<sup>35</sup> See below, p. 106.

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encountered on other documents. The identification of mark  $\overline{\text{𓆎}}$  is particularly uncertain because it is not completely preserved. Mark  $\overline{\text{𓆏}}$  is not attested in the four core groups, the other marks are. Mark  $\overline{\text{𓆏}}$  does feature on ONL 6424, which is very tentatively attributed to group A. Proposing a date is similarly difficult for ONL 6402. Six of its marks are found in group C, but if mark  $\overline{\text{𓆏}}$  is an allomorph of  $\overline{\text{𓆏}}$  the same marks are attested in group A as well. A calculation of the degrees of association suggests that ONL 6402 is closer related to group A than to group C. In analogy with ONL 6424, ONL 6402 is thus attributed to group A, albeit with much reservations.

Relation to group A:	6 common marks, 25.0%; 0 unattested marks, 0% <b>degree of association is 25.0% – 0% = 25.0%</b>
Relation to group B:	4 common marks, 10.8%; 2 unattested marks, 5.4% <b>degree of association is 10.8% – 5.4% = 5.4%</b>
Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	4 common marks, 13.8%; 2 unattested marks, 6.9% <b>degree of association is 13.8 – 6.9% = 6.9%</b>

### *O. ARTP 02/236*

As mentioned above, this ostrakon was probably discovered in the branch of the Valley of the Kings leading towards the tomb of Thutmosis III. The majority of the ostraca with marks from this area are attributable to the reign of this king (group A), and so *O. ARTP 02/236* could well be dated to the same time. That is not unproblematic because the ostrakon displays no more than four marks in an order that does not adhere to a sequence known from other ostraca. Mark  $\overline{\text{𓆏}}$ , probably for  $\overline{\text{𓆏}}$ , as well as  $\overline{\text{𓆏}}$  and  $\overline{\text{𓆏}}$  are found in group A, but  $\overline{\text{𓆏}}$  is only attested in group C. Yet, ostraca ONL 6465 and ONL 6461 demonstrate that  $\overline{\text{𓆏}}$ , an allomorph of  $\overline{\text{𓆏}}$ , may have been used as an allomorph of  $\overline{\text{𓆏}}$ . The latter mark is attested on *O. Cairo JE 72490*, one of the key ostraca of group A. If we are correct in equating  $\overline{\text{𓆏}}$  with  $\overline{\text{𓆏}}$  all four marks of *O. ARTP 02/236* are attested in group A, which would drastically increase the degree of association with group A. The ostrakon is therefore tentatively attributed to group A.

Relation to group A:	4 common marks, 16.7%; 0 unattested marks, 0% <b>degree of association is 16.7% – 0% = 16.7%</b>
Relation to group B:	3 common marks, 8.1%; 1 unattested mark, 2.7% <b>degree of association is 8.1% – 2.7% = 5.4%</b>
Relation to group C:	4 common marks, 8.2%; 0 unattested marks, 0% <b>degree of association is 8.2% – 0 = 8.2%</b>
Relation to group D:	1 common mark, 3.5%; 3 unattested marks, 10.4% <b>degree of association is 3.5% – 10.4% = -6.9%</b>

### **2.2.7 Ostraca attributable to group B**

Seven ostraca, and perhaps four others, are attributed to group B, suggesting they date to the period of Amenhotep II.

#### *O. Varille 423*

The ostrakon is incompletely preserved. It displays 21 marks in total, some of which are repeated. It contains 16 unique marks. Marks  $\overline{\text{𓆏}}$ ,  $\overline{\text{𓆏}}$ ,  $\overline{\text{𓆏}}$ ,  $\overline{\text{𓆏}}$  and  $\overline{\text{𓆏}}$  are found in all four groups;  $\overline{\text{𓆏}}$

and  $\uparrow$  are found in groups A, B and C; mark  $\Gamma$  is found in group C, and perhaps A if it is indeed an allomorph of  $\Gamma$ ; marks  $\Psi$ ,  $\uparrow$  and  $\smile$  are found in groups B, C and D; marks  $\boxplus$ ,  $\uparrow$ ,  $\delta$ , and  $\uparrow$  occur in both group B and group C; mark  $\omega$  is found exclusively in group B. Comparing the calculated degrees of association it becomes clear that the marks on O. Varille 423 are closest related to group B:

Relation to group A:	7 or 8 common marks, 29.2% or 33.3%; 9 or 8 unattested marks, 37.5% or 33.3%
	<b>degree of association is 29.2% – 37.5% = -8.3% or 33.3% – 33.3% = 0%</b>
Relation to group B:	15 common marks, 40.5%; 1 unattested mark, 2.7%
	<b>degree of association is 40.5% – 2.7% = 37.8%</b>
Relation to group C:	15 common marks, 30.6%; 1 unattested mark, 2.0%
	<b>degree of association is 30.6% – 2.0% = 28.6%</b>
Relation to group D:	8 common marks, 27.6%; 8 unattested marks, 27.6%
	<b>degree of association is 27.6% – 27.6% = 0%</b>

Another indication that O. Varille 423 should be attributed to group B is the sequence of its marks, which is closely related to the sequence found in ostraca O. Cairo CG 24105 and O. Cairo CG 24107. Explaining the similarity between the sequence of marks on O. Varille 423 and the two ostraca from group B is difficult because of the repetition of some marks on O. Varille 423 (see TABLE 12). The first line of the ostrakon is read from right to left. It begins with  $\uparrow$ , followed by  $\delta$ , after which  $\uparrow$  appears again. The sequence  $\delta - \uparrow$  is found in O. Cairo CG 24105 and 24107 as well. O. Varille 423 then continues with  $\smile$ . On O. Cairo CG 24105 and 24107 the marks  $\parallel$  and  $\Psi$  stand between  $\delta$  and  $\uparrow$ , but these marks are absent on O. Varille 423. O. Varille 423 continues with  $\circ$ , which is a mark that belongs in group B but that is absent in O. Cairo CG 24105 and O. Cairo 24107. The sequence of O. Varille 423 continues with  $\uparrow$  and  $\boxplus$ , which are found together in O. Cairo CG 24105; after that follow on the second line – which is read from left to right – what appear to be marks  $\uparrow$  and  $\uparrow$ . Mark  $\uparrow$  is thus repeated. On O. Cairo CG 24105 and O. Cairo 24107 both marks do appear next to each other, but in a reversed order. After that, the sequence of O. Varille 423 is fully in accord with O. Cairo CG 24107:  $\boxplus - \omega - \uparrow - \Delta - \uparrow - \Psi - \delta$ . The traces after  $\delta$  on O. Varille 423 could be part of the mark  $\Phi$ , which should be the subsequent mark according to O. Cairo CG 24017. The marks  $\Gamma$  and  $\delta$  below the second line do not fit in the sequence of marks in O. Cairo CG 24105 and O. Cairo CG 24107.

CG 24107	$\uparrow$	$\delta$	$\uparrow$	$\parallel$	$\Psi$	$\smile$	$\boxplus$	$\uparrow$	$\uparrow$	$\boxplus$	$\uparrow$	$\boxplus$	$\omega$	$\uparrow$	$\Delta$	$\uparrow$	$\Psi$	$\delta$	$\Phi$	$\omega$	$\uparrow$	$\Psi$	$\delta$
CG 24105	$\uparrow$	$\delta$	$\uparrow$	$\parallel$	$\Psi$	$\smile$	$\boxplus$	$\uparrow$	$\uparrow$	$\boxplus$	$\uparrow$	$\boxplus$	$\omega$	$\uparrow$	$\Delta$	$\uparrow$	$\Psi$	$\delta$	$\Phi$	$\omega$	$\uparrow$	$\Psi$	$\delta$
Varille 423		$\delta$	$\Gamma$	$\uparrow$	$\smile$	$\circ$	$\uparrow$	$\boxplus$	$\uparrow$	$\uparrow$			$\boxplus$	$\omega$	$\uparrow$	$\Delta$	$\uparrow$	$\Psi$	$\delta$				

TABLE 12. SEQUENCE OF MARKS ON O. CAIRO CG 24107, CG 24105 AND O. VARILLE 423

### O. KV 10004

This ostrakon is incompletely preserved. It probably displays 24 marks, of which 19 can be identified. The order of marks on O. KV 10004 is not known from other ostraca, except for perhaps the sequence  $\uparrow - \boxplus - \uparrow$ , which is reminiscent of the sequence  $\boxplus - \uparrow - \uparrow$  in O. Cairo CG 24105 and O. Cairo 24107. Marks  $\circ$ ,  $\boxtimes$ ,  $\Delta$  and  $\boxplus$  are present in all four groups; marks  $\delta$ , and  $\uparrow$ , are attested in groups A, B and C; mark  $\smile$  is found in group A, C and D; marks  $\Psi$ ,  $\smile$ ,  $\uparrow$  and  $\boxplus$  are found in groups B, C and D; marks  $\delta$  and  $\uparrow$  occur in groups B and C; mark  $\Psi$  is found in group B and D; marks  $\uparrow$ ,  $\parallel$  and  $\boxplus$  are found in group B only; and

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marks  $\lambda$  and  $\beta$  are only attested in group C. The calculated degrees of association indicate that the marks on O. KV 10004 are closest related to group B:

Relation to group A:	7 common marks, 29.2%; 12 unattested marks, 50.0% <b>degree of association is 29.2% – 50.0% = -20.8%</b>
Relation to group B:	16 common marks, 43.2%; 3 unattested marks, 8.1% <b>degree of association is 43.2% – 8.1% = 35.1%</b>
Relation to group C:	15 common marks, 30.6%; 4 unattested marks, 8.2% <b>degree of association is 30.6% - 8.2% = 22.4%</b>
Relation to group D:	10 common marks, 34.5%; 9 unattested marks, 31.0% <b>degree of association is 34.5% – 31.0% = 3.5%</b>

### *O. MMA 09.184.770*

This ostrakon appears to have been preserved in its entirety, but not all marks are clearly visible. O. MMA 09.184.770 displays at least 12 marks, of which two marks are illegible. Furthermore, the interpretation of three marks is difficult. Firstly, there is mark  $\delta$  of which the lower half is not well preserved. It might be seen as an allomorph of  $\delta$ , but this is uncertain. We will encounter mark  $\delta$  later on an ostrakon that clearly belongs to group C (O. UC 31988), where its interpretation is uncertain as well, although its position in a sequence of marks would support its interpretation as an allomorph of  $\delta$ . In the ostraca discussed so far, mark  $\omega$  has not been encountered. One might be inclined to interpret this mark as an allomorph form of  $\mu$ , but that cannot be proven. Mark  $\pi$  has not been encountered before either. It is similar to, but probably distinguishable from mark  $\pi$  in O. Cairo JE 72490. Mark  $\tau$  is interpreted as a form of the mark  $\square$  in analogy with the allomorph of this mark found on O. Cairo CG 24107. Similarly, mark  $\epsilon$  must be an allomorph of the mark  $\epsilon$ , cf. O. Cairo CG 24107. Comparing the marks on O. MMA 09.184.770, we find that  $\delta$  occurs in groups A, B and C if it is interpreted as an allomorph form of  $\delta$ ; mark  $\omega$  occurs in groups B and C, if it is interpreted as  $\mu$ ;  $\omega$  is attested in groups B, D and C;  $\Gamma$  is attested in group A only, but if it is an allomorph  $\Gamma$  of it occurs also in group C;  $\lambda$  is attested in group C only; and marks  $\epsilon$ ,  $\beta$ ,  $\parallel$  and  $\square$  are found in group B exclusively; mark  $\pi$  and perhaps marks  $\delta$  and  $\omega$  (when not interpreted as variant forms of marks from the core groups A, B and C) are not found in any of the groups. Despite all factors of uncertainty, the legible marks on O. MMA 09.184.770 are strongly related to group B:

Relation to group A:	1 or 2 common marks, 4.2% or 8.3%; 9 or 8 unattested marks, 37.5% or 33.3% <b>degree of association is 4.2% – 37.5% = -33.3%</b> <b>or 8.3% – 33.3% = -25.0%</b>
Relation to group B:	5 or 7 common marks, 13.5% or 18.9% 5 or 3 unattested marks, 13.5% or 8.1% <b>degree of association is 13.5% – 13.5% = 0% or 18.9% – 8.1% = 10.8%</b>
Relation to group C:	2 or 4 common marks, 4.1% or 8.2%; 8 or 6 unattested marks, 16.3% or 12.3% <b>degree of association is 4.1% – 16.3% = -12.2 or 8.2% – 12.3% = -4.1%</b>
Relation to group D:	2 or 3 common marks, 6.9% or 10.3% 8 or 7 unattested marks, 27.6% or 24.1% <b>deg. of association is 6.9% – 27.6% = -20.7% or 10.3% – 24.1% = -13.8%</b>

When we consider only the marks of which the interpretation is certain, we are left with marks 𐀀, 𐀁, 𐀂, 𐀃, 𐀄, 𐀅, 𐀆 and 𐀇. Of these eight marks, five are found in group B, and a sixth mark 𐀁 is found in an ostrakon attributed to group B (O. KV 10004). Mark 𐀀 is found in group A only and the final mark 𐀇 is not found in any of the core groups. An attribution of O. MMA 08.184.770 to group B thus seems probable. Because the attribution is in part based on a parallel with O. KV 10004, itself attributed toward the end of period of group B ostraca, O. MMA 09.184.770 should date around the same time.

### *ONL 6630*

This piece is badly damaged, but four marks can be discerned. On the right edge we see the left end of mark 𐀃, and above it we recognise traces of mark 𐀆. Both marks are attested in adjacent positions on O. Cairo JE 96650, which also includes mark 𐀁. It should therefore not come as a surprise that ONL 6630 is closely related to group B. All marks are found in this group, and the degree of association is by far highest for group B. ONL 6630 is thus dated to the reign of Amenhotep II.

Relation to group A:	1 common mark, 4.2%; 3 unattested marks, 12.5% <b>degree of association is 4.2% – 12.5% = -8.3%</b>
Relation to group B:	4 common marks, 10.8%; 0 unattested marks, 0% <b>degree of association is 10.8% – 0% = 10.8%</b>
Relation to group C:	0 common marks, 0%; 4 unattested marks, 8.2% <b>degree of association is 0% – 8.2% = -8.2%</b>
Relation to group D:	1 common mark, 3.5%; 3 unattested marks, 10.4% <b>degree of association is 3.5% – 10.4% = -6.9%</b>

### *ONL 6302*

This ostrakon is preserved in its entirety and displays 16 different marks. The rightmost mark in the upper row seems to be an elaborate form of the mirror-shaped mark 𐀁. The third line is very interesting, because if read from right to left, it lists marks in the same relative position as in the sequence of O. Cairo CG 24107: marks 𐀁, 𐀂, 𐀃, 𐀄 and 𐀅 on ONL 6302 are situated on O. Cairo CG 24107 in slots 5, 9, 17, 18 and 23 respectively. In this light it becomes very attractive to interpret mark 𐀃, attested in group B in this exact shape exclusively, as an allomorph of mark 𐀄. Both marks precede 𐀃 – 𐀄 in O. Cairo CG 24107 and ONL 6302 respectively. This equivalency is a priori unproblematic because mark 𐀄 is already attested in group A and continued to be used in group C. In addition there are no ostraca that feature both 𐀃 and 𐀄. Although the equivalency is probably true for the core ostraca in group B, it cannot be verified for other ostraca attributed to this group.

It is nevertheless clear that the order of marks on ONL 6302 is related to the sequence of O. Cairo CG 24107. Apart from the sequence of 𐀁 to 𐀃, marks 𐀄 and 𐀅 are inscribed in adjacent positions in both ostraca. On the basis of these striking similarities we expect ONL 6302 to date to the same period as the ostraca in group B. Indeed the degree of association with group B is high, but the degree of association with group A is slightly higher. In all likelihood ONL 6302 is still better situated in group B. That is not only suggested by the adherence to the sequence of O. Cairo CG 24107, but also by the occurrence of mark 𐀃, which is only securely attested in group B.

Relation to group A:	12 common marks, 50.0%; 4 unattested marks, 16.7% <b>degree of association is 50.0% – 16.7% = 33.3%</b>
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Relation to group B:	14 common marks, 37.8%; 2 unattested marks, 5.4% <b>degree of association is 37.8% – 5.4% = 32.4%</b>
Relation to group C:	14 common marks, 28.6%; 2 unattested marks, 4.1% <b>degree of association is 28.6% – 4.1% = 24.5%</b>
Relation to group D:	9 common marks, 31.0%; 7 unattested marks, 24.1% <b>degree of association is 31.0% – 24.1% = 6.9</b>

### *ONL 6516*

The total of marks that are recognisable on this ostrakon is five, but this incompletely preserved ostrakon must have originally included more marks. The marks do not seem to have been ordered in a particular sequence. The occurrence of mark  $\text{𐀀}$  on this ostrakon poses a problem because it is unclear if it should be interpreted as an allomorph of  $\text{𐀁}$  or not. We are forced to leave it out of our comparison for the moment. Based on the four remaining marks, the degree of association is highest for group B. Both marks  $\text{𐀀}$  and  $\text{𐀁}$  are attested in group B, so we are probably correct in attributing ONL 6516 to the time from which these ostraca stem.

Relation to group A:	1 common mark, 4.2%; 3 unattested marks, 12.5% <b>degree of association is 4.2% – 12.5% = -8.3%</b>
Relation to group B:	4 common marks, 10.8%; 0 unattested marks, 0% <b>degree of association is 10.8% – 0% = 10.8%</b>
Relation to group C:	2 common marks, 4.1%; 2 unattested marks, 4.1% <b>degree of association is 4.1% – 4.1% = 0%</b>
Relation to group D:	2 common marks, 6.9%; 2 unattested marks, 6.9% <b>degree of association is 6.9% – 6.9% = 0%</b>

### *ONL 6349*

Five marks are discernable on this ostrakon fragment. The scribe of this piece does not appear to have ordered the marks in a meaningful sequence. We can probably ascribe the ostrakon to the time of Amenhotep II because all of its six marks are attested in group B. The degree of association with this group indeed is highest.

Relation to group A:	4 common marks, 16.7%; 2 unattested marks, 8.3% <b>degree of association is 16.7% – 8.3% = 8.4%</b>
Relation to group B:	6 common marks, 16.2%; 0 unattested marks, 0% <b>degree of association is 16.2% – 0% = 16.2%</b>
Relation to group C:	5 common marks, 10.2%; 1 unattested mark, 2.0% <b>degree of association is 10.2% – 2.0% = 8.2%</b>
Relation to group D:	4 common marks, 13.8%; 2 unattested marks, 6.9% <b>degree of association is 13.8% – 6.9% = 6.9%</b>

### *ONL 6194*

The marks on ONL 6194 are neatly arranged in rows separated from each other by register lines. This gives the impression of an ordered list of workmen's marks, but unfortunately the sequence of marks is not attested on other ostraca. To make matters worse, the ostrakon is rather damaged, and only four marks can be identified with certainty:  $\text{𐀀}$ ,  $\text{𐀁}$ ,  $\text{𐀂}$  and  $\text{𐀃}$ . The small number of marks is an obstacle in the process of dating ONL 6194. Mark  $\text{𐀂}$  is

exclusively attested in group C. The degree of association is slightly higher for group B than for group C. Indeed, marks  $\uparrow$ ,  $\downarrow$ ,  $\times$  and  $\uparrow$  are found together on O. Cairo CG 24106 and O. Cairo CG 24107. With much hesitation, ONL 6194 is thus attributed to group B.

Relation to group A:	2 common marks, 8.3%; 2 unattested marks, 8.3% <b>degree of association is 8.3% – 8.3% = 0%</b>
Relation to group B:	3 common marks, 8.1%; 1 unattested mark, 2.7% <b>degree of association is 8.1% – 2.7% = 5.4%</b>
Relation to group C:	3 common marks, 6.1%; 1 unattested mark, 2.0% <b>degree of association is 6.1% – 2.0% = 4.1%</b>
Relation to group D:	2 common marks, 6.9%; 2 common marks, 6.9% <b>degree of association is 6.9% – 6.9% = 0%</b>

#### *O. Cilli 278*

No more than four marks are preserved:  $\uparrow$ ,  $\star$ ,  $\triangleleft$  and  $\downarrow$ . The latter mark is typical for group B, and despite the small number of marks, we may tentatively attribute this ostrakon to that group. Indeed, the calculated degree of association with group B is slightly higher than that of the other groups. It would thus seem that the most probable date for this piece is the time of Amenhotep II, although its provenance near the valley leading to the tomb of Thutmose III would suggest a date in that reign. Perhaps this is an indication that the ostrakon dates to the very end of the reign of Thutmose III or the beginning of the reign of Amenhotep II.

Relation to group A:	2 common marks, 8.3%; 2 unattested marks, 8.3% <b>degree of association is 8.3% – 8.3% = 0%</b>
Relation to group B:	3 common marks, 8.1%; 1 unattested mark, 2.7% <b>degree of association is 8.1% – 2.7% = 5.4%</b>
Relation to group C:	3 common marks, 6.1%; 1 unattested mark, 2.0% <b>degree of association is 6.1% – 2.0% = 4.1%</b>
Relation to group D:	0 common marks, 0%; 0 unattested marks, 0% <b>degree of association is 0% – 0% = 0%</b>

#### *O. UC 45708*

The date of O. UC 45708 poses somewhat of a dilemma. The first mark from the right is faintly preserved, and could be mark  $\downarrow$ . If this reading is correct, we encounter the sequence  $\downarrow$  –  $\times$  –  $\phi$  –  $\uparrow$  –  $\star$  –  $\triangleleft$ . The first three marks occur in the exact same order as the sequence of O. Cairo CG 24107, and the position of mark  $\triangleleft$ , two marks removed from  $\phi$ , is similar to its position on O. Cairo CG 24105, where it is one mark removed from  $\phi$ . On the other hand, mark  $\star$  is not securely attested in group B. It is found in group C, as are all five other marks. The calculated degree of association of O. UC 45708 for group C is only slightly higher than for group B. The ostrakon is therefore tentatively attributed to group B on account of its sequence, but as it is related to group C as well, it might date to the reign of Thutmose IV.

Relation to group A:	3 common marks, 12.5%; 3 unattested marks, 12.5% <b>degree of association is 12.5% – 12.5% = 0</b>
Relation to group B:	5 common marks, 13.5%; 1 unattested mark, 2.7% <b>degree of association is 13.5% – 2.7% = 10.8%</b>

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Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	2 common marks, 6.9%; 4 unattested marks, 13.8% <b>degree of association is 6.9% – 13.8% = -6.9%</b>

### *ONL 6405*

The marks on ONL 6405 are inscribed in two lines but are hardly legible. When the upper line was inscribed, the author appears to have turned the ostrakon upside down, like the scribe of O. Varille 423. The marks left of  $\sqcap$  are probably  $\updownarrow$  and  $\Delta$ . The mark left of the latter mark is no longer discernible. In the lower line we can to some extent secure the reading of marks  $\uparrow$ ,  $\Psi$  and  $\lambda$ . The latter shape is taken as an allomorph of mark  $\star$ . If we suppose that the left end of the upper line is continued at the left end of the lower line, than marks  $\sqcap - \updownarrow - \Delta - \uparrow - \Psi$  are situated in the same relative position as in the sequence of O. Cairo CG 24105. The calculated degree of association is quite high for group C. Indeed, all marks on ONL 6405 are attested in this group. Since the sequence of marks appears to be similar to O. Cairo CG 24105, a piece in core group B, we may propose to attribute ONL 6405 to group B, but is probably older than the ostraca that constitute this group and dates closer towards the group C ostraca.

Relation to group A:	5 common marks, 20.8%; 3 unattested marks, 12.5% <b>degree of association is 20.8% – 12.5% = 8.3%</b>
Relation to group B:	6 common marks, 16.2%; 2 unattested marks, 5.4% <b>degree of association is 16.2% – 5.4% = 10.8%</b>
Relation to group C:	8 common marks, 16.3%; 0 unattested marks, 0% <b>degree of association is 16.3% – 0% = 16.3%</b>
Relation to group D:	1 common mark, 3.5%; 7 unattested marks, 24.1% <b>degree of association 3.5% – 24.1% = -24.79</b>

### 2.2.8 Ostraca attributable to groups A and B

There are two ostraca that demonstrates a strong relation to both the ostraca in group A and the ostraca in group B. They may date to the period of either group, or perhaps to a time between the two groups.

#### *O. Parker H 5*

This ostrakon is incompletely preserved and three of the marks are damaged and unrecognisable. Comparing the two existing hand copies of the ostrakon, a fourth damaged mark appears to be  $\curvearrowright$  or  $\curvearrowleft$ . Because it is not securely identified we cannot include it in our comparison. The remaining eight marks are easily identified as  $\sqsubseteq$ ,  $\top$ ,  $\updownarrow$ ,  $\mathbb{H}$ ,  $\Psi$ ,  $\oplus$ ,  $\smile$  and  $\ddagger$ . Mark  $\oplus$  is exclusively attested on documents from group A. O. Parker may be connected with the same group, because the degree of association with group A is considerable. The relation to group B is however stronger, as six of the eight marks are attested in this group. Additionally marks  $\top$ ,  $\updownarrow$  and  $\mathbb{H}$ , adjacent on O. Parker H 5, are situated in positions 8, 10 and 11 in O. Cairo CG 24105. There is no way of telling if this is a coincidence or not. The other marks on O. Parker H 5 do adhere to the same sequence, and marks  $\smile$  and  $\ddagger$  are also found in adjacent positions on O. Cairo JE 72492 (group A). Since there is no clear indication for an attribution to specifically group A or B, O. Parker H 5 is can only be assigned to both groups.

Relation to group A:	5 common marks, 20.8%; 3 unattested marks, 12.5% <b>degree of association is 20.8% – 12.5% = 8.3%</b>
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Relation to group B:	6 common marks, 16.2%; 2 unattested marks, 5.4% <b>degree of association is 16.2% – 5.4% = 10.8</b>
Relation to group C:	6 common marks, 12.3%; 2 unattested marks, 4.1% <b>degree of association is 12.3% – 4.1% = 8.2%</b>
Relation to group D:	5 common marks, 17.2%; 3 unattested marks, 10.4% <b>degree of association is 17.2% – 10.4% = 6.8%</b>

### *O. Strasbourg H 193*

This ostrakon is inscribed on two sides of a very narrow limestone chip, but one side is poorly preserved. It may have been inscribed with marks as well, but that cannot be verified. The other marks are well identifiable, and they are not listed in a sequence that is recorded on other ostraca. Mark  $\text{𐀓}$  is attested in core group D, but occurs also on ostraca attributed to the period between B and D (O. Ashmolean HO 298, O. MMA 09.184.786, ONL 6365) and on an ostrakon that is tentatively attributed to group B (O. Brock 27). Proposing a date for O. Strasbourg H 193 is problematic because apart perhaps from mark  $\text{𐀓}$ , it does not display marks that are characteristic for a particular core group. Rather, it includes five marks that are found in all four key groups. This in itself is perhaps an indication that O. Strasbourg H 193 should date to the middle of the period covered by our four key groups. The calculated degree of association is however highest for group A. Indeed, 10 out of the 13 marks are attested in this group. As mark  $\text{𐀓}$  is not securely attested that early, O. Strasbourg dates perhaps to a period between groups A and B.

Relation to group A:	10 common marks, 41.7%; 3 unattested marks, 12.5% <b>degree of association is 41.7% – 12.5% = 28.5%</b>
Relation to group B:	10 common marks, 27.0%; 3 unattested marks, 8.1% <b>degree of association is 27.0% – 8.1% = 18.9%</b>
Relation to group C:	12 common marks, 24.5%; 1 unattested mark, 2.0% <b>degree of association is 24.5 – 2.0% = 22.5%</b>
Relation to group D:	7 common marks, 24.1%; 6 unattested marks, 20.7% <b>degree of association is 24.1% – 20.7% = 3.4%</b>

### **2.2.9 Ostraca attributed to group C**

In this section 47 ostraca are attributed to group C, datable to the reign of Amenhotep III. The attribution of 12 of these ostraca is less certain than of the other 35. Technically it is possible that some ostraca discussed in this section are slightly later and date to the end of the 18<sup>th</sup> Dynasty.<sup>36</sup> Instrumental in the process of assigning ostraca to group C are the sequences of marks on OL 6788 and O. Stockholm MM 14130. The two ostraca are clearly related to the group C material, both in terms of the number of shared marks and an adherence to the sequence of marks found on O. WV 3. Before elaborating on these sequences we will have a look at the marks which the ostraca have in common with the ostraca of group C.

#### *OL 6788*

This ostrakon appears to be completely preserved.<sup>37</sup> It displays a total of 44 marks, two of which are repeated. Comparing the 42 unique marks on the ostrakon to the marks in the core

<sup>36</sup> See below, 2.2.14.

<sup>37</sup> The ostrakon was published by Bruyère, *Rapport 1948-1951*, pl. XVIII, top left, and is referred to in earlier literature e.g. as an ostrakon “published by Bernard Bruyère” (Haring, ‘Workmen’s Marks on Ostraca’, 153) or

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groups, it becomes clear that they are strongly related to the marks in group C: all marks but  $\text{𓆎}$  are found in group C. Marks  $\text{𓆏}$ ,  $\text{𓆐}$ ,  $\text{𓆑}$ ,  $\text{𓆒}$ ,  $\text{𓆓}$ ,  $\text{𓆔}$ ,  $\text{𓆕}$ ,  $\text{𓆖}$ ,  $\text{𓆗}$  and  $\text{𓆘}$  are found in groups A, B and C; marks  $\text{𓆙}$ ,  $\text{𓆚}$  and  $\text{𓆛}$  occur in both groups A and C;  $\text{𓆜}$  appears in group C, perhaps also in group A; marks  $\text{𓆝}$ ,  $\text{𓆞}$ ,  $\text{𓆟}$ ,  $\text{𓆠}$ ,  $\text{𓆡}$ ,  $\text{𓆢}$ ,  $\text{𓆣}$ ,  $\text{𓆤}$ ,  $\text{𓆥}$  and  $\text{𓆦}$  occur in both groups B and C; marks  $\text{𓆧}$ ,  $\text{𓆨}$ ,  $\text{𓆩}$ ,  $\text{𓆪}$ ,  $\text{𓆫}$ ,  $\text{𓆬}$ ,  $\text{𓆭}$ ,  $\text{𓆮}$ ,  $\text{𓆯}$ ,  $\text{𓆰}$ ,  $\text{𓆱}$ ,  $\text{𓆲}$ ,  $\text{𓆳}$ ,  $\text{𓆴}$ ,  $\text{𓆵}$  and  $\text{𓆶}$  occur only in group C; mark  $\text{𓆷}$  is not attested in any of the ostraca in the core groups, but can be associated with group C.<sup>38</sup> The calculated degrees of association indicate that there is a very strong relation between the marks on OL 6788 and the marks in group C:

Relation to group A:	15 common marks, 62.5%; 27 unattested marks, 112.5% <b>degree of association is 62.5% – 112.5% = -50.0%</b>
Relation to group B:	22 common marks, 59.5%; 20 unattested marks, 54.1% <b>degree of association is 59.5% – 54.1% = 5.4%</b>
Relation to group C:	41 common marks, 83.7%; 1 unattested mark, 2.0% <b>degree of association is 83.7% – 2.0% = 81.7%</b>
Relation to group D:	22 common marks, 75.9%; 20 unattested marks, 69.0% <b>degree of association is 75.9% – 69.0% = 6.9%</b>

### *O. Stockholm MM 14130*

The ostrakon is not completely preserved. It displayed at least 31 marks, 29 of which are identifiable. Of these 29 marks there are 28 unique ones. Marks  $\text{𓆏}$ ,  $\text{𓆐}$ ,  $\text{𓆑}$ ,  $\text{𓆒}$ ,  $\text{𓆓}$ ,  $\text{𓆔}$ ,  $\text{𓆕}$ ,  $\text{𓆖}$ ,  $\text{𓆗}$  and  $\text{𓆘}$  are found in groups A, B and C;  $\text{𓆙}$  and  $\text{𓆚}$  occur in both groups A and C;  $\text{𓆜}$  appears in group C, perhaps also in group A; marks  $\text{𓆝}$ ,  $\text{𓆞}$ ,  $\text{𓆟}$  and  $\text{𓆠}$  (we shall see below that the damaged mark at the left end of the second line is probably  $\text{𓆠}$ ) occur in both groups B and C; finally, marks  $\text{𓆡}$ ,  $\text{𓆢}$ ,  $\text{𓆣}$ ,  $\text{𓆤}$ ,  $\text{𓆥}$ ,  $\text{𓆦}$ ,  $\text{𓆧}$ ,  $\text{𓆨}$  and  $\text{𓆩}$  occur only in group C. The calculated degrees of association show that the relation between the marks on Stockholm MM 14130 and the marks in group C is very strong in comparison to other groups:

Relation to group A:	12 or 13 common marks, 50.0% or 54.2% 16 or 15 unattested marks, 66.7% or 62.5% <b>degree of association is 50.0% – 66.7% = -16.7%</b> <b>or 54.2% – 62.5% = - 8.3%</b>
Relation to group B:	14 common marks, 37.8%; 14 unattested marks, 37.8% <b>degree of association is 37.8% – 37.8% = 0%</b>
Relation to group C:	28 common marks, 57.1%; 0 unattested marks, 0% <b>degree of association is 57.1% – 0% = 57.1%</b>
Relation to group D:	12 common marks, 41.4%; 16 unattested marks, 55.2% <b>degree of association is 41.4% – 55.2% = -13.8%</b>

An indication that O. Stockholm MM 14130 belongs to group C is the fact that it displays 11 out of 28 unique marks (39.3%) that are found exclusively in group C. Moreover, when we look at absolute numbers, we see that all 28 marks on O. Stockholm MM 14130 are attested in group C. It is therefore attributed to that group.

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“O. Bruyère” (Daniel Soliman, ‘The Functional Context of the 18<sup>th</sup> Dynasty Marks Ostraca from the Theban Necropolis’ in: Carl Graves, Gabrielle Heffernan, Luke McGarrity *et al.* (eds.), *Current Research in Egyptology 2012. Proceedings of the Thirteenth Annual Symposium. University of Birmingham 2012* (Oxford 2013), *passim*).

<sup>38</sup> See above, 2.2.3.





at some points from that of OL 6788 the former ostrakon originates probably from a somewhat earlier or later period.<sup>39</sup>

One of the marks that does not occur on OL 6788 is  $\text{𓆎}$ , situated on ONL 6298 in a slot that suggests it is an allomorph of mark  $\text{𓆏}$ . Both marks look rather similar, so it would a priori not be problematic to equate the two if it was not for O. WV 12. Mark  $\text{𓆎}$  is also present in this document, but in the line above it mark  $\text{𓆏}$  is recorded, indicating the two marks need to be distinguished. Therefore the occurrence of mark  $\text{𓆎}$  in the slot of  $\text{𓆏}$  on ONL 6298 may be wholly coincidental. Mark  $\text{𓆑}$  is not attested on any of the ostraca that constitute group C, and it does not appear on O. Stockholm MM 14130 and OL 6788 either. The mark is differentiated from  $\text{𓆒}$ , found higher up in the sequence of ONL 6298. At the beginning of the sequence we observe mark  $\text{𓆓}$ , which we recognise as the mark of Kha. His mark is not often found on ostraca together with other marks, but we had encountered it on O. Cairo JE 72490, which is of a much earlier date. Attributing ONL 6298 to group C would situate the document approximately in the reign of Amenhotep III. Kha must certainly have been active during this period, and therefore mark  $\text{𓆓}$  is likely to refer to this person.

#### *O. UC 45709*

This fragment displays six marks, four of which are completely preserved. The damaged marks can, however, be recognised, because all marks seem to fit perfectly in the sequence found on OL 6788 and O. Stockholm MM 14130. The first line of O. UC 45709, when read from right to left, shows the beginning of the sequence of OL 6788: mark  $\text{𓆔}$  is inscribed twice and then follows mark  $\text{𓆕}$ , as in OL 6788. In the sequence of the latter ostrakon, the next mark is  $\text{𓆖}$ . What remains on O. UC 45709 of the mark after  $\text{𓆕}$  would indeed agree with  $\text{𓆖}$ . In the second line of O. UC 45709 we see mark  $\text{𓆗}$ . This mark is absent in OL 6788, but it is present in O. WV 3 and O. Stockholm MM 14130, where it is followed by  $\text{𓆘}$ . Again the remains of the mark on O. UC 45709 fit a reconstruction of  $\text{𓆘}$ . The ostrakon thus seems to record a sequence that is very similar to that of O. WV 3, OL 6788 and O. Stockholm MM 14130, and must therefore be attributed to group C:

$\text{𓆔}$	$\text{𓆔}$	$\text{𓆕}$	$\text{𓆖}$		$\text{𓆗}$	$\text{𓆘}$
1	2	3	4		45	24

When one accepts the reconstruction of marks  $\text{𓆖}$  and  $\text{𓆘}$ , all of the surviving marks on O. UC 45709 are found in group C, whereas only  $\text{𓆔}$  occurs in group A, and only  $\text{𓆕}$ ,  $\text{𓆘}$  and  $\text{𓆖}$  are found in group B. Calculating the degrees of association confirms that the few visible marks on the ostrakon are closest related to those of group C:

Relation to group A:	1 common mark, 4.2%; 4 unattested marks, 16.7% <b>degree of association is 4.2% – 16.7% = -12.5%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>
Relation to group D:	2 common marks, 6.9%; 3 unattested marks, 10.4% <b>degree of association is 6.9% – 10.4% = -3.5%</b>

<sup>39</sup> The presence of mark  $\text{𓆓}$  on ONL 6298 suggests that it dates to an earlier date than OL 6788, see below, 2.6.5.



*O. Ashmolean HO 1114*

This ostrakon appears to have been completely preserved. It displays a total of 15 marks and 10 unique marks. The ostrakon is written in two lines, which appear to record separate data, suggested by the repetition of marks. Marks  $\uparrow$ ,  $\boxtimes$  and  $\Upsilon$  are found in groups A, B and C; mark  $\star$  is attested in groups A and C; marks  $\top$  and  $\wp$  are found in groups B and C; and marks  $\pi\pi$ ,  $\curvearrowright$ ,  $\Gamma\Gamma$ ,  $\times$  are found in group C exclusively. Indeed, all marks on O. Ashmolean HO 1114 are attested in group C, and so the marks on this ostrakon are strongly related to the marks on the ostraca in group C. That is also suggested by the calculated degree of association:

Relation to group A:	4 common marks, 16.7%; 6 unattested marks, 25.0% <b>degree of association is 16.7% – 25.0% = -8.3%</b>
Relation to group B:	5 common marks, 13.5%; 5 unattested marks, 13.5% <b>degree of association is 13.5% – 13.5% = 0%</b>
Relation to group C:	10 common marks, 20.4%; 0 unattested marks, 0% <b>degree of association is 20.4% – 0% = 20.4%</b>
Relation to group D:	7 common marks, 24.1%; 3 unattested marks, 10.4% <b>degree of association is 24.1% – 10.4% = 13.7%</b>

Looking at the sequence in which the marks occur, we find more evidence to attribute O. Ashmolean HO 1114 to group C. As the ostrakon seems to be complete, it records a much smaller number, perhaps a smaller selection, of workmen's marks, than ostraca such as O. WV 3 and O. Stockholm MM 14130. Yet, it appears that many of the marks on O. Ashmolean HO 1114 are inscribed in agreement with their position in the ordered sequence found on ostraca such as O. WV 3 and O. Stockholm MM 14130. This is particularly true for the marks in the second line of O. Ashmolean HO 1114, which when read from right to left appear in the same relative position in the sequence of O. Stockholm MM 14130.

Line 2:

$\star$	$\pi\pi$	$\uparrow$	$\uparrow$	$\curvearrowright$	$\Gamma\Gamma$	$\times$
1	45	37	38	39	41	43

The order of marks in the first line, when read from right to left, agrees better with O. WV 3 and OL 6788, with the exception of the second instance of  $\Upsilon$  written above mark  $\boxtimes$ . Moreover, on O. Ashmolean HO 1114 mark  $\boxtimes$  appears before  $\times$ , whereas in OL 6788 it is  $\times$  that appears before  $\boxtimes$ .

Line 1:

$\Upsilon$	$\wp$	$\top$	$\curvearrowright$	$\Gamma\Gamma$	$\Upsilon$	$\boxtimes$	$\times$
14	24	26	39	41	14	44	43

*O. MMA 09.184.700*

The contours of the ostrakon and some of its marks are damaged, but it is unclear whether any marks are lost. In its current state the ostrakon displays 15 marks. One of the marks,  $\wp$ , has been erased but is still visible. Mark  $\star$  is not entirely clear, but is here interpreted as  $\sqcup$ . The mark at the right end of the third line is probably  $\phi$ . Comparing the order of the marks, we notice that it partially resembles the sequence of ostraca from group C, such as OL 6788.

The marks in the upper line correspond to positions 3, 5 and 6; the superimposed marks  $\curvearrowright$  and  $\curvearrowleft$  correspond to positions 7 and 8; mark  $\phi$  right of this group and  $\Upsilon$  mark to the left are

positions 11 and 14 respectively; the remaining marks are mostly found in the third quarter of the sequence of OL 6788 (positions 21-22, 24, 27-30, 44) and are inscribed in almost the same sequence. The similarities with the series of marks on OL 6788 suggest that O. MMA 09.184.700 should be attributed to group C. The high degree of association with group C points in the same direction.

Relation to group A:	4 common marks, 16.7%; 11 unattested marks, 45.8% <b>degree of association is 16.7% – 45.8% = -29.1%</b>
Relation to group B:	9 common marks, 24.3%; 6 unattested marks, 16.2% <b>degree of association is 24.3% – 16.2% = 8.1%</b>
Relation to group C:	15 common marks, 30.6%; 0 unattested marks, 0% <b>degree of association is 30.6% – 0% = 30.6%</b>
Relation to group D:	10 common marks, 34.5%; 5 unattested marks, 17.2% <b>degree of association is 34.5% – 17.2% = 17.3%</b>

### *O. UC 31988*

This ostrakon is completely preserved but unfortunately it is very weathered. It displays a total of 23 marks, but several are unclear. The marks in the top section of the obverse – written upside down from the rest of this face of the ostrakon – appear to be  $\Delta$ , then perhaps  $\curvearrowright$  upside down, and then  $\Upsilon$ . The mark after that is damaged but seems to be  $\subseteq$ . Then follows  $\boxplus$ , and after that comes mark  $\sigma$ . The latter mark is not attested on any of the four core groups. Because of its specific position on this ostrakon there is reason to believe that it is an allomorph of  $\delta$ , but that is far from certain. In the section below the line we find  $\lambda$ ,  $\Gamma$ ,  $\circ$ ,  $\mathcal{A}$ ,  $\mathcal{B}$ ,  $\mathcal{C}$ ,  $\mathcal{D}$ , and then what seems to be  $\imath$ . This is probably not the same mark as  $\Gamma$ , which is differently executed in the line above. The mark is reminiscent of  $\Gamma$  in O. Cairo JE 72948, but it might also be  $\dot{\imath}$  or  $\dot{\iota}$ . As demonstrated below, the former mark seems to be the most plausible. Then follow marks  $\Gamma$  and  $\subseteq$ , and the next mark  $\sigma$  is unclear. The mark is written on the lower edge of the ostrakon, and the scribe's pen may have slipped a bit at this point. It is perhaps mark  $\Upsilon$  with a very short vertical stem. The reverse of the ostrakon displays six more marks. The first mark appears to be an upside down  $\underline{\imath}$ , probably for  $\dot{\delta}$ . The next mark is  $\lambda$ , here probably not used as an allomorph of mark  $\Psi$ , because the order of marks on O. UC 31988 partly resembles the sequence of OL 6788, the ostrakon in which mark  $\lambda$  is differentiated from  $\Psi$ . The following mark is perhaps  $\mathcal{B}$ . The leftmost mark in the line below is  $\mathcal{H}$ , and the damaged mark next to it is perhaps  $\mathcal{K}$ . Finally there is a damaged mark at the bottom that cannot be identified.

It should be emphasised that the identification of several of the marks is uncertain, but if we consider them as a working hypothesis, we get the impression that the ostrakon is closely related to group C. All of the marks are attested in this group, and the degree of association is by far the highest:

Relation to group A:	10 common marks, 41.7%; 12 unattested marks, 50.0% <b>degree of association is 41.7% – 50.0% = -8.3%</b>
Relation to group B:	11 common marks, 29.7%; 11 common marks, 29.7% <b>degree of association is 29.7% – 29.7% = 0%</b>
Relation to group C:	22 common marks, 44.9%; 0 unattested marks, 0% <b>degree of association is 44.9% – 0% = 44.9%</b>
Relation to group D:	8 common marks, 27.6%; 14 unattested marks, 51.9% <b>degree of association is 27.6% – 51.9% = -24.3%</b>

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The suspicion that O. UC 31988 belongs in group C is confirmed by the sequence of marks in the second line: marks  $\lambda - \Gamma - \bigcirc - \lambda - \text{ø} - \gamma\text{f}$  are found in almost the exact same order on OL 6788, O. WV 3 and related ostraca. The other marks do not adhere to the same sequence, but the influence of the sequence can be detected. The identified marks of our working hypothesis are situated in the following positions on OL 6788:

obv. line 1: 13 – 3 – 4 – 14 – 6 – 7  
 obv. line 2: 16 – 18 – 19 – 20 – 21 – 22  
 obv. line 3: 28 – 31 – 32 – 35 – 23  
 rev. line 1: 34 – 9 – 5  
 rev. line 2: (?) – 1 – 25.

Together, the marks correspond to slots 1, 3-7, 9, 13-14, 15, 18-23, 25, 28, 31-32, and 34-35. The tentatively identified marks would fit well into the sequence of OL 6788, which in turn is in agreement with the attribution of the securely identified marks to group C. O. UC 31988 should therefore have been inscribed in the reign of Amenhotep III.

### *ONL 6342*

The marks on this ostrakon are evidently related to OL 6788 and therefore to group C. All marks are attested in this group, and they are inscribed in accordance with their relative position in the sequence of OL 6788. Indeed, the degree of association with group C is the highest of all groups. We conclude that ONL 6342 should be attributed to the reign of Amenhotep III.

Relation to group A:	3 common marks, 12.5%; 2 unattested marks, 8.3% <b>degree of association is 12.5% – 8.3% = 4.2%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>
Relation to group D:	3 common marks, 10.4%; 2 unattested marks, 6.9% <b>degree of association is 10.4% – 6.9% = 3.5%</b>

### *ONL 6410*

The marks on ONL 6410 do not appear in an ordered sequence that is attested on other pieces. Marks  $\delta$  and  $\Gamma$  are found in adjacent positions on O. Varille 423, but other than that the sequences of both pieces do not seem to be related. Mark  $\hat{\Gamma}$  is not attested on any of the ostraca from the core groups, but appears on other pieces from the 18<sup>th</sup> Dynasty.<sup>40</sup> Depending on whether  $\Gamma$  is an allomorph of  $\hat{\Gamma}$ , ONL 6410 shares either two or three marks with group A. The degree of association is however highest for group C, six marks of which are present on ONL 6410.

Relation to group A:	2 or 3 common marks, 8.3% or 12.5% 5 or 4 unattested marks, 20.8% or 16.7% <b>degree of association is 8.3% – 20.8% = -12.5%</b> <b>or 12.5% – 16.7% = -4.2%</b>
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<sup>40</sup> ONL 6579 and ONL 6564, both of uncertain date, see below, p. 119.

Relation to group B:	3 common marks, 8.1%; 4 unattested marks, 10.8% <b>degree of association is 8.1% – 10.8% = -2.7%</b>
Relation to group C:	6 common marks, 12.3%; 1 unattested mark, 2.0% <b>degree of association is 12.3% – 2.0% = 10.3%</b>
Relation to group D:	4 common marks, 13.8%; 3 unattested marks, 10.4% <b>degree of association is 13.8% – 10.4% = 3.4%</b>

#### *ONL 6372*

The ostrakon is inscribed with a set of marks of which three or four are too damaged to be identified. A faint mark in the lower left corner is perhaps mark  $\Psi$ . In spite of its damaged state, the ostrakon can easily be dated on account of the order in which the marks are inscribed. Marks  $\$$  –  $\equiv$  –  $\Uparrow$  appear in that order in the sequence of OL 6788; marks  $\Gamma$  –  $\dot{\Gamma}$  –  $\smile$  are also attested in the sequence of OL 6788 and on O. WV 3;  $\Psi$  and  $\Gamma$  are adjacent as well in OL 6788 and the sequence of ONL 6298. ONL 6372 is thus evidently associated with ostraca from group C. Calculating the degree of association to all groups adds to the argument: ONL 6372 is closest related to group C, and is therefore attributable to the reign of Amenhotep III.

Relation to group A:	3 common marks, 12.5%; 7 unattested marks, 29.2% <b>degree of association is 12.5% – 29.2% = -16.7%</b>
Relation to group B:	6 common marks, 16.2%; 4 unattested marks, 10.8% <b>degree of association is 16.2% – 10.8% = 5.4%</b>
Relation to group C:	10 common marks, 20.4%; 0 unattested marks, 0% <b>degree of association is 20.4% – 0% = 20.4%</b>
Relation to group D:	5 common marks, 17.2%; 5 common marks, 17.2% <b>degree of association is 17.2% – 17.2% = 0%</b>

#### *ONL 6400*

The four marks on this piece are in all probability allomorphs of marks  $\sqcup$ ,  $\Delta$ ,  $\pi^n$  and  $\gamma^f$ . Although the piece is not entirely preserved, the order of the marks is similar to that of three ostraca from / attributed to group C. As in ONL 6400, marks  $\sqcup$  and  $\Delta$  are adjacent in O. WV 4. In the sequence of OL 6788 there is only one mark in between the two. Similarly, mark  $\pi^n$  is only one mark removed from mark  $\gamma^f$  in O. Stockholm MM 14130.

Relation to group A:	1 common mark, 4.2%; 3 unattested marks, 12.5% <b>degree of association is 4.2% – 12.5% = -8.3%</b>
Relation to group B:	2 common marks, 5.4%; 2 unattested marks, 5.4% <b>degree of association is 5.4% – 5.4% = 0%</b>
Relation to group C:	4 common marks, 8.2%; 0 unattested marks, 0% <b>degree of association is 8.2% – 0% = 8.2%</b>
Relation to group D:	2 common marks, 6.9%; 2 unattested marks, 6.9% <b>degree of association is 6.9% – 6.9% = 0%</b>

#### *ONL 6444*

On account of the resemblance to the sequence of O. Stockholm MM 14130 the marks on the reverse are undoubtedly identifiable as  $\mathcal{A}$  –  $\circ$  –  $\lambda$  –  $\bar{\delta}$ . With this knowledge it is not farfetched to interpret mark  $\lambda$  on the reverse as an allomorph of  $\star$ , and  $\mathcal{A}$  as an allomorph of

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Ψ: on ONL 6444 these marks are separated only by ⤴, and on O. Stockholm MM 14130 by mark ⤴. We can safely attribute the ostracon to the latter group on account of the similarities to the sequence of the Stockholm piece, the more so because the degree of association with group C is highest.

Relation to group A:	5 common marks, 20.8%; 3 unattested marks, 12.5% <b>degree of association is 20.8% – 12.5% = 8.3%</b>
Relation to group B:	3 common marks, 8.1%; 5 unattested marks, 13.5% <b>degree of association is 8.1% – 13.5% = -5.4%</b>
Relation to group C:	8 common marks, 16.3%; 0 unattested marks, 0% <b>degree of association is 16.3% – 0% = 16.3%</b>
Relation to group D:	2 common marks, 6.9%; 6 unattested marks, 20.7% <b>degree of association is 6.9% – 20.7% = -13.8%</b>

### ONL 6465

The ostracon is inscribed with 16 marks which are scattered over its surface. Yet, rows of marks can to some extent be discerned, and the marks appear to be inscribed in accordance with the sequence of OL 6788 and related ostraca from group C. Right of ⤴ traces of a mark are visible that could well be ⤴ because it is adjacent to mark ⤴. Both marks are situated in positions 5 and 6 on OL 6788. The leftmost mark in the line below it is damaged and cannot be identified. The following marks are Ψ and ⤴, situated in position 12 and 11 on OL 6788. Inscribed below it is mark ⤴, found in position 15. The two circular signs right of it are probably two instances of mark ⊙ (position 19), because right of them follow marks ⤴, ⤴ and ⤴ (positions 17, 18 and 16). Below this row we recognise marks ⤴ and ⤴ (positions 22 and 23), and although mark ⤴ (position 24) is not inscribed immediately next to them, its occurrence on the far right of the ostracon is no coincidence. Left of ⤴ we observe mark ⤴ (position 42) with above it ⤴. The latter mark is not attested on OL 6788, but it is somewhat reminiscent of mark ⤴ (position 41). This mark occurs also as ⤴, and we could explain the relation between this mark and mark ⤴ by interpreting the latter as the hieroglyph for *p* and ⤴ as its hieratic form. ONL 6465 is evidently associated with the ostraca from group C, and is for that reason attributed to the reign of Amenhotep III.

### ONL 6544

Three marks are preserved on ONL 6544: ⤴, ⊙ and ⤴. All marks are attested in group C. Both in core ostraca as well as attributed ostraca in this group ⤴ and ⊙ are recorded next to each other. The degree of association is slightly higher for group C than for group A, confirming the suspicion that ONL 6544 belongs to group C.

Relation to group A:	2 common marks, 8.3%; 1 unattested mark, 4.2% <b>degree of association is 8.3% – 4.2% = 4.1%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = 2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	2 common marks, 6.9%; 1 unattested mark, 3.5% <b>degree of association is 6.9% – 3.5% = 3.4%</b>

### ONL 6600

Six marks are discernable on ONL 6600, which appears to be complete. Marks  $\curvearrowright - \uparrow - \star - \Psi$  appear in exactly the same sequence on O. Stockholm MM 14130, attributed to group C. Mark  $\Upsilon$  is also attested on that ostracon, while the sixth mark  $\beta$  is found on ostraca from group C as well. ONL 6600 should thus be attributed to the same group, which is also suggested by the high degree of association with group C.

Relation to group A:	1 common mark, 4.2%; 5 unattested marks, 20.8% <b>degree of association is 4.2% – 20.8% = -16.6%</b>
Relation to group B:	3 common marks, 8.1%; 3 unattested marks, 8.1% <b>degree of association is 8.1% – 8.1% = 0%</b>
Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	3 common marks, 10.4%; 3 unattested marks, 10.4% <b>degree of association is 10.4% – 10.4% = 0%</b>

### ONL 6588

Without much effort ONL 6588 is attributed to group C because the order of marks is completely in accord with the sequence of OL 6788: marks  $\uparrow$  to  $\smile$  correspond to positions 36 to 42. The difference between ONL 6588 and ostraca such as OL 6788, O. Stockholm MM 14130 and O. WV 3 is that mark  $\uparrow$  is not repeated. One may speculate that ONL 6588 is therefore somewhat earlier than the other pieces since the workman represented by  $\uparrow$  is here still recorded without his presumed son or apprentice.<sup>41</sup>

### ONL 6634

No more than four marks have been preserved on this ostracon, but we can date it fairly well because the marks appear in the same relative position in the sequence of OL 6788 and associated ostraca. The second mark from the right in the upper line is probably a poorly executed instance of  $\curvearrowright$ . On ONL 6634 it is preceded by mark  $\smile$ , and both marks are only one mark removed in the sequence of OL 6788. The second line features marks  $\uparrow$  and  $\Psi$ , separated by three marks on OL 6788. ONL 6634 is therefore best situated in group C, and this is also suggested by the degree of association, which is highest for this group.

Relation to group A:	1 common mark, 4.1%; 3 unattested marks, 12.5% <b>degree of association is 4.1% – 12.5% = -8.4%</b>
Relation to group B:	1 common mark, 2.7%; 3 unattested marks, 8.1% <b>degree of association is 2.7% – 8.1% = -5.4%</b>
Relation to group C:	4 common marks, 8.2%; 0 unattested marks, 0% <b>degree of association is 8.2% – 0% = 8.2%</b>
Relation to group D:	1 common mark, 3.5%; 3 unattested marks, 10.4% <b>degree of association is 3.5% – 10.4% = -6.9%</b>

### ONL 6293

The ostracon is inscribed on two sides, and although the layout of each side is different (two lines with register dividers on the obverse, three or four lines without register dividers on the

<sup>41</sup> For this interpretation, see below, 2.6.3.

reverse), there are no clear indications that the ostrakon was not created by a single scribe.<sup>42</sup> Several marks on the reverse have faded away and are now illegible, in contrast to the other 28 marks that can be discerned. The damaged mark at the left end of the upper row on the obverse might be mark  $\ominus$  or  $\uparrow$ , and the third mark from the right in the upper row on the reverse is either  $\Upsilon$  or  $\Delta$ . Almost every mark on ONL 6293 is attested in the sequence of OL 6788, O. Stockholm MM 14130, ONL 6298 etc., suggesting that mark  $\uparrow$  is here in all probability an allomorph of mark  $\dagger$ . Along the same lines we may assume that mark  $\uparrow$  on the reverse is here not an allomorph of  $\Psi$  (present on the obverse) but a different mark. Depending on the identification of the uncertain marks, the marks correspond to positions 1-2, 4-6 (when opting for mark  $\ominus$  and  $\Delta$ ), 9, 11-12, 14-17, 21, 23-27, 32, 35-37, 39 and 44. Mark  $\uparrow$  is not attested on OL 6788, but O. Stockholm MM 14130 and other pieces indicate that it would be situated between positions 23 and 24. The marks on OL 6293 are thus evidently related to OL 6788 and associated ostraca, yet the marks are inscribed in a completely different order. The only exception are the two instances of mark  $\star$ , positions 1 and 2, which are inscribed one above the other. Mark  $\delta$  on the reverse is not attested in any of the four core groups but occurs on O. UC 31988, securely attributed to group C and partly inscribed according to the sequence of OL 6788. Interpreting the uncertain marks as  $\ominus$  and  $\Delta$ , we observe that the degree of association with group C and D are very high. Since ONL 6293 does not include marks that are typical for group D, an attribution to group C seems more likely. That is also suggested by the occurrence of at least eight marks that are not attested in group D.

Relation to group A:	12 common marks, 50.0%; 14 unattested marks, 58.3% <b>degree of association is 50.0% – 58.3% = -8.3%</b>
Relation to group B:	17 common marks, 46.0%; 9 unattested marks, 24.3% <b>degree of association is 46.0% – 24.3 = 21.7%</b>
Relation to group C:	26 common marks, 53.1%; 0 unattested marks, 0% <b>degree of association is 53.1% – 0% = 53.1%</b>
Relation to group D:	18 common marks, 62.1%; 8 unattested marks, 27.6% <b>degree of association is 62.1% – 27.6% = 34.5%</b>

### ONL 6266

Although only five marks are identifiable on this small fragment, ONL 6266 is an interesting piece. In the upper line marks  $\Delta$  and  $\dagger$  are visible, which occupy adjacent slots in the sequence of a number of ostraca from group C, such as OL 6788. In the line below we observe mark  $\curvearrowright$ , which is not attested in any of the four core groups, but there is a possibility that it is an allomorph of  $\curvearrowleft$ . Apart from the fact that the two marks resemble each other, that is suggested by mark  $\Gamma$ , one mark removed from  $\curvearrowright$ . In the sequence of OL 6788 marks  $\curvearrowleft$  and  $\Gamma$  are situated in slots 39 and 41, indicating that an equation of  $\curvearrowright$  with  $\curvearrowleft$  would be logical. In between marks  $\curvearrowright$  and  $\Gamma$  is the allomorph of mark  $\Upsilon$  with a horizontal line below it:  $\Upsilon$ . Up to this point we had not paid much attention to this variant. Allomorph  $\Upsilon$  is attested on O. MMA 09.184.700 in a slot that is in accordance with the relative position of  $\Upsilon$  in the sequence of OL 6788, and on O. WV 10 it is found adjacent to  $\curvearrowright$ , reminiscent of slots 14 and 15 in the sequence of OL 6788. On the basis of these observations it would appear that  $\Upsilon$  and  $\Upsilon$  are interchangeable. However, on ONL 6266, an ostrakon with a series of marks that appears to adhere to the sequence of OL 6788 and similar ostraca, mark  $\Upsilon$  is

<sup>42</sup> Black ink is used on both sides; none of the marks on the obverse occur on the reverse and vice versa; the handwriting seems at a first glance to be consistent.

situated between  $\text{𐀓}$  (slot 39) and  $\text{𐀓}$  (slot 41). If  $\text{𐀓}$  is indeed an allomorph of  $\text{𐀓}$  (slot 14) one would not expect it this close to the end of the sequence. Remarkably, the sequence of ONL 6298, which is related to but in several respects different from the sequence of OL 6788, records mark  $\text{𐀓}$  before  $\text{𐀓}$  and  $\text{𐀓}$ . Mark  $\text{𐀓}$  is certainly to be distinguished from  $\text{𐀓}$ . The latter mark is also attested on ONL 6298, preceding mark  $\text{𐀓}$  as on OL 6788. In analogy with the order  $\text{𐀓} - \text{𐀓} - \text{𐀓}$  on ONL 6298,  $\text{𐀓}$  in the sequence  $\text{𐀓} - \text{𐀓} - \text{𐀓}$  on ONL 6266 might be – at least on this ostrakon – a different mark from  $\text{𐀓}$ . We can only speculate as to why  $\text{𐀓}$  and  $\text{𐀓}$  do seem to be interchangeable on other ostraca, but a tentative explanation would be that the two marks were used by related workmen, perhaps a father and a son, one of whom would on occasion substitute for and/or eventually replace the other. These conjectures set aside, ONL 6266 is in all probability attributable to group C. That is also suggested by the degree of association with this group.

Relation to group A:	3 common marks, 12.5%; 2 unattested marks, 8.33% <b>degree of association is 12.5% – 8.3% = 4.2%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>
Relation to group D:	2 common marks, 6.9%; 3 unattested marks, 10.4% <b>degree of association is 6.9% – 10.4% = -3.5%</b>

#### ONL 6272

The 17 preserved marks on this ostrakon are rather crudely executed but can all be identified. The damaged marks situated on the left fracture line are  $\text{𐀓}$ ,  $\text{𐀓}$ ,  $\text{𐀓}$  and  $\text{𐀓}$ , and the marks on the right edge are  $\text{𐀓}$  (the horizontal variant) and  $\text{𐀓}$ . The dots placed over some the marks render them sometimes difficult to recognise. Without any doubt we still discern  $\text{𐀓}$  above  $\text{𐀓}$ , and  $\text{𐀓}$  above  $\text{𐀓}$ . The marks on ONL 6272 are not inscribed in accordance with a sequence known from other documents. It is however evident that the marks are related to the identity marks recorded on ostraca from group C. Taking OL 6788 as a guideline, we see that marks on OL 6272 originate roughly from the first quarter (positions 3, 7, 8 and 11), the third quarter (positions 20 – 24, 26, 29, 30 and 32) and the fourth quarter (positions 39, 41, 43 and 44). ONL 6272 should therefore date to about the same period as the group C ostraca, which is suggested by the high degree of association with group C as well.

Relation to group A:	2 common marks, 8.3%; 15 unattested marks, 62.5% <b>degree of association is 8.3% – 62.5% = -54.2%</b>
Relation to group B:	8 common marks, 21.6%; 9 unattested marks, 24.3% <b>degree of association is 21.6% – 24.3% = -2.7%</b>
Relation to group C:	17 common marks, 34.7%; 0 unattested marks, 0% <b>degree of association is 34.7% – 0% = 34.7%</b>
Relation to group D:	11 common marks, 37.9%; 6 unattested marks, 20.7% <b>degree of association is 37.9% – 20.7% = 17.2%</b>

#### ONL 6223

We are able to identify 15 marks on this ostrakon, although it certainly contains more marks. The mark right of  $\text{𐀓}$  seems to be  $\text{𐀓}$ , and the damaged mark right of  $\text{𐀓}$  is probably  $\text{𐀓}$ . Mark  $\text{𐀓}$  is not securely attested on ostraca from the 18<sup>th</sup> Dynasty, but it is attested as a post-fired mark



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on a pottery fragment from the settlement of huts near the tomb of Amenhotep III (WV 22).<sup>43</sup> The marks are not arranged in an order that is attested on other ostraca, but ONL 6223 is certainly attributable to group C. All 14 recognisable marks on ONL 6223 are found in this group and of all groups the degree of association with group C is the highest.

Relation to group A:	4 common marks, 16.7%; 10 unattested marks, 38.5% <b>degree of association is 16.7% – 38.5% = -21.8%</b>
Relation to group B:	8 common marks, 21.6%; 6 unattested marks, 16.2% <b>degree of association is 21.6% – 16.2% = 5.4%</b>
Relation to group C:	14 common marks, 28.6%; 0 unattested marks, 0% <b>degree of association is 28.6 – 0 = 28.6%</b>
Relation to group D:	9 common marks, 31.0%; 5 unattested marks, 17.2% <b>degree of association is 31.0% – 17.2% = 13.8%</b>

### *ONL 6210*

Although the marks on ONL 6210 are written in an attractive hand, damage to the ostrakon hampers its interpretation. No more than 11 marks can be identified, but the document shows traces of additional marks. The marks are not listed in a sequence that is known from other documents. All of the marks on ONL 6210 are attested on ostraca from group C and appear together in the sequence of OL 6788 and similar lists of workmen's marks. The degree of association of ONL 6210 with group D is quite high, but even higher for group C. The ostrakon is for these reasons attributed to the latter group and should date to the reign of Amenhotep III.

Relation to group A:	3 common marks, 12.5%; 8 unattested marks, 33.3% <b>degree of association is 12.5% – 33.3% = -20.8%</b>
Relation to group B:	6 common marks, 16.2%; 5 unattested marks, 13.5% <b>degree of association is 16.2% – 13.5% = 2.7%</b>
Relation to group C:	11 common marks, 22.5%; 0 unattested marks, 0% <b>degree of association is 22.5% – 0% = 22.5%</b>
Relation to group D:	7 common marks, 24.1%; 4 unattested marks, 13.8% <b>degree of association is 24.1% – 13.8% = 10.3%</b>

### *O. BTdK 833*

Although this ostrakon was inscribed with at least nine marks, we can identify only eight of them. They do not feature in a sequence known from other ostraca. One of the marks is the problematic mark  $\text{𐀀}$ , employed as an allomorph for  $\text{𐀁}$  in group B and perhaps D, but not in group C. Because the ostrakon also features mark  $\text{𐀂}$ , attested in group C but not in group B, we may propose to interpret  $\text{𐀀}$  as a different mark from  $\text{𐀁}$ . This would mean that all of the marks on O. BTdK 833 are found on the ostraca from group C. Calculating the degree of association for all four core groups indicates that O. BTdK 833 is closest related to group A and C, but on the basis of the occurrence of marks  $\text{𐀂}$  and  $\text{𐀀}$  the ostrakon should be attributed to the latter group.

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<sup>43</sup> Yoshimura (ed.), *Research in the Western Valley II*, 97, fig. 53, WV 312. Also attested on ceramic from 18<sup>th</sup> Dynasty contexts at the village of Deir el-Medina, see Bruyère, *Rapport 1928 II*, 9, fig. 4, nr. 7 (from tomb DM 1149); 129, fig. 69, nr. 12 (from tombs DM 1172 – 1174).

Relation to group A:	5 common marks, 20.8%; 3 unattested marks, 12.5% <b>degree of association is 20.8% – 12.5% = 8.3%</b>
Relation to group B:	5 common marks, 13.5%; 3 unattested marks, 8.1% <b>degree of association is 13.5% – 8.1% = 5.4%</b>
Relation to group C:	8 common marks, 16.3%; 0 unattested marks, 0% <b>degree of association is 16.3% – 0% = 16.3%</b>
Relation to group D:	4 common marks, 13.8%; 4 common marks, 13.8% <b>degree of association is 13.8% – 13.8% = 0%</b>

#### *O. Turin N. 57310*

A facsimile of this ostrakon is available,<sup>44</sup> but personal inspection of the piece indicates that this is not quite accurate. The ostrakon is inscribed with 10 marks, eight of which are fairly well identifiable. All of the marks occur in group C, and O. Turin N. 57310 can be attributed to the same group. Some of the marks are inscribed in accordance with the sequence of ostraca from that group. For instance, adjacent marks  $\Gamma\Gamma$  and  $\times$  on the lower half of the ostrakon correspond to positions 41 and 43 of the sequence of OL 6788, while mark  $\Sigma$  in the upper line is positioned in slot 44. Right of the latter mark we observe  $\sqcup$  and a mark that is probably  $\sqsupset$ , found in positions 3 and 4. In the line below marks  $\top$  and  $\phi$  are discernable, which are situated next to each other in the sequence of ONL 6298. The mark in the lower left corner is probably  $\bullet$ . Besides similarities to the sequence of OL 6788 and ONL 6298 an attribution to group C is suggested by the high degree of association.

Relation to group A:	1 common mark, 4.2%; 6 unattested marks, 25.0% <b>degree of association is 4.2% – 25.0% = -20.8%</b>
Relation to group B:	5 common marks, 13.5%; 2 unattested marks, 5.4% <b>degree of association is 13.5% – 5.4% = 8.1%</b>
Relation to group C:	7 common marks, 14.3%; 0 unattested marks, 0% <b>degree of association is 14.3% – 0% = 14.3%</b>
Relation to group D:	4 common marks, 13.8%; 3 unattested marks, 10.4% <b>degree of association is 13.8% – 10.4% = 3.4%</b>

#### *O. Ashmolean HO 1100*

This ostrakon appears to be preserved in its entirety and contains five identity marks. They have not been inscribed in an order that we recognise from other ostraca. All marks are attested in group C, and the degree of association to this group is slightly higher than to group B. It is therefore probably best attributed to the reign of Amenhotep III.

Relation to group A:	1 common mark, 4.2%; 4 unattested marks, 16.7% <b>degree of association is 4.2% – 16.7% = -12.5%</b>
Relation to group B:	4 common marks, 10.8%; 1 unattested mark, 2.7% <b>degree of association is 10.8% – 2.7% = 8.1%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>
Relation to group D:	3 common marks, 10.4%; 2 unattested marks, 6.9% <b>degree of association is 10.4% – 6.9% = 3.5%</b>

<sup>44</sup> López, *Ostraca Ieratici N. 57093-57319*, pl. 97.

*O. KV 10010*

The ostrakon is inscribed with nine marks. From left to right we recognise mark  $\equiv$  written upside down (probably an allomorph of  $\equiv$ ),  $\updownarrow$  and  $\lambda$  followed by an unclear tall vertical mark, and then marks  $\Gamma$ ,  $\odot$ ,  $\top$ ,  $\text{R}$  and  $\Delta$ . The identification of mark  $\odot$  may be disputed. The mark resembles a circle with a traverse horizontal stroke. One would not expect it to be an allomorph of  $\ominus$ , the characteristic of which appears to be a horizontal stroke that extends from the outline of the circle. It is probably not an allomorph of  $\oplus$  either, of which the crossed lines are the most characteristic element. In favour of interpreting the mark as  $\odot$  is the fact that in the sequence of OL 6788  $\odot$  is adjacent to  $\Gamma$ , as on O. KV 10010. The latter mark in turn is one mark removed from  $\lambda$ , which is the case on O. KV 10010 as well. In between  $\lambda$  and  $\Gamma$  OL 6788 lists  $\Upsilon$ , which would correspond to our unidentified tall vertical mark. The order of marks on O. KV 10010 thus seems to adhere partly to the sequence of group C. On OL 6788 the marks are situated in positions 35, 27, 16, 17, 18, 19, 26, 24 and 6. This suggests that, despite the provenance of the ostrakon in the valley leading to the tomb of Thutmose III, the ostrakon should be attributed to group C. It dates therefore in the period of Amenhotep III. The attribution is supported by the high degree of association with group C.

Relation to group A:	4 common marks, 16.7%; 5 unattested marks, 20.8% <b>degree of association is 16.7% – 20.8% = -4.1%</b>
Relation to group B:	6 common marks, 16.2%; 3 unattested marks, 8.1% <b>degree of association is 16.2% – 8.1% = 8.1%</b>
Relation to group C:	9 common marks, 18.4%; 0 unattested marks, 0% <b>degree of association is 18.4% – 0% = 18.4%</b>
Relation to group D:	6 common marks, 20.7%; 3 unattested marks, 10.4% <b>degree of association is 20.7% – 10.4% = 10.3%</b>

*ONL 6475*

Seven marks are discernable on this ostrakon fragment, but one or two marks in the lower right corner cannot be identified securely. No ordered sequence is detectible on the ostrakon, and as a result it is unclear if mark  $\updownarrow$  should be interpreted as an allomorph of  $\dagger$  or not. Regardless of that question, all marks on ONL 6475 are attested in group C. The degree of association with group C is the highest of all groups, indicating that we are probably correct in attributing ONL 6475 to the same group.

Relation to group A:	2 or 3 common marks, 8.3% or 12.5% 5 or 4 unattested marks, 20.8% or 16.7% <b>degree of association is 8.3% – 20.8% = -12.5%</b> <b>or 12.5% – 16.7% = -4.2%</b>
Relation to group B:	5 common marks, 13.5%; 2 unattested marks, 5.4% <b>degree of association is 13.5% – 5.4% = 8.1%</b>
Relation to group C:	7 common marks, 14.3%; 0 unattested marks, 0% <b>degree of association is 14.3% – 0% = 14.3%</b>
Relation to group D:	4 common marks, 13.8%; 3 unattested marks, 10.4% <b>degree of association is 13.8% – 10.4% = 3.4%</b>

*ONL 6499*

Damage to this ostrakon hinders us in its interpretation. Recognisable are marks  $\Pi\Pi$ ,  $\text{H}$ ,  $\Delta$ ,  $\updownarrow$  and a mark that seems to be  $\text{R}$ . The latter mark is here interpreted as an allomorph of  $\text{R}$ . The

marks do not appear in a sequence known from other ostraca. The degree of association with group C is higher than with other groups. The fact that all five marks of ONL 6499 occur in group C supports the idea that the ostrakon is best attributed to this group.

Relation to group A:	3 common marks, 12.5%; 2 unattested marks, 8.3% <b>degree of association is 12.5% – 8.3% = 4.2%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>
Relation to group D:	3 common marks, 10.4%; 2 unattested marks, 6.9% <b>degree of association is 10.4% – 6.9% = 3.5%</b>

#### *ONL 6514*

The attestation of mark  $\text{𐤀}$  on this ostrakon is cause for concern, as its interpretation is problematic. Nevertheless, we seem to be able to attribute this ostrakon without much difficulty to group C, because the sequence of marks is very comparable to that of OL 6788. Marks  $\text{𐤁}$  and  $\text{𐤂}$  and marks  $\text{𐤃}$  and  $\text{𐤄}$  have switched positions in ONL 6514, but the marks clearly originate from the first half of the sequence of OL 6788. Yet, without including mark  $\text{𐤀}$  in the comparison, the degree of association is highest for group A. Here we are once again reminded that the calculated degrees of association may only serve as tentative guidelines. Despite the relatively low degree of association to the marks attested in group C, we are probably right in relating ONL 6514 to that very group. That is suggested by the fact that all marks on ONL 6514 are attested in this group, but more so by the sequence of marks that is evidently related to OL 6788.

Relation to group A:	5 common marks, 20.8%; 1 unattested mark, 4.2% <b>degree of association is 20.8% – 4.2% = 16.6%</b>
Relation to group B:	5 common marks, 13.5%; 1 unattested mark, 2.7% <b>degree of association is 13.5% – 2.7% = 10.8%</b>
Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	3 common marks, 10.4%; 3 unattested marks, 10.4% <b>degree of association is 10.4% – 10.4% = 0%</b>

#### *ONL 6529*

The considerable amount of damage to this ostrakon renders it difficult to interpret the document. Marks  $\text{𐤀}$ ,  $\text{𐤁}$ ,  $\text{𐤂}$ ,  $\text{𐤃}$  and  $\text{𐤄}$  are only hesitantly identified. The other traces are unclear. The order of the marks is not related to any of the attested sequences on other ostraca. All five marks are attested in group C. Calculating the degree of association also points out that an attribution to group C is most plausible.

Relation to group A:	2 common marks, 8.3%; 3 unattested marks, 12.5% <b>degree of association is 8.3% – 12.5% = -4.2%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

Relation to group C: 5 common marks, 10.2%; 0 unattested marks, 0%  
**degree of association is 10.2% – 0% = 10.2%**

Relation to group D: 3 common marks, 10.4%; 2 unattested marks, 6.9%  
**degree of association is 10.4% – 6.9% = 3.5%**

### *ONL 6562*

The three marks preserved on this ostrakon are  $\overline{\text{d}}$ ,  $\text{r}$  and  $\text{nn}$ . The latter mark is in all probability an allomorph of  $\text{nn}$ , also attested on O. WV 12. The marks are ordered in accordance with their relative position within the sequence of OL 6788 and associated ostraca. An attribution to group C seems fairly plausible because the degree of association is highest for group C, the order of marks on ONL 6562 is related to group C, as well as the fact that all marks are attested in group C.

Relation to group A: 1 common mark, 4.2%; 2 unattested marks, 8.3%  
**degree of association is 4.2% – 8.3% = -4.1%**

Relation to group B: 1 common mark, 2.7%; 2 unattested marks, 5.4%  
**degree of association is 2.7% – 5.4% = -2.3%**

Relation to group C: 3 common marks, 6.1%; 0 unattested marks, 0%  
**degree of association is 6.1% – 0% = 6.1%**

Relation to group D: 2 common marks, 6.9%; 1 unattested mark, 3.5%  
**degree of association is 6.9% – 3.5% = 3.4%**

### *ONL 6305*

This ostrakon is poorly preserved and several marks are damaged. Although some marks are partially erased, we can identify the marks in the upper row as  $\text{m}$ ,  $\text{u}$ ,  $\text{r}$  and  $\text{r}$ . Reading the lines from right to left (and from top to bottom in the case of  $\text{m}$  and  $\text{u}$ ), the marks appear to have been written in accordance with their relative position within the sequence of ONL 6298, attributed to group C. Indeed all marks on ONL 6305 are attested in group C, and ONL 6305 is attributed to the period without calculating the degrees of association.

### *ONL 6354*

This ostrakon must have been inscribed with at least 15, perhaps 17 marks, but several are incompletely preserved. Two damaged marks written in black ink on the reverse of the ostrakon are probably  $\overline{\text{d}}$  and  $\text{f}$ . This would mean that the latter mark is inscribed twice on ONL 6354. The damaged mark above it is probably  $\text{r}$ , attested on ONL 6298. Whether the square-shaped sign is here used as a mark is not clear, but because it is attested in group A we will treat it like one. Marks  $\text{r}$  and  $\text{r}$  are inscribed next to each other, as are  $\text{r}$  and  $\text{u}$ , and  $\text{f}$  and  $\overline{\text{d}}$ . They are all found in adjacent positions in the sequence of OL 6788 and associated ostraca as well, which might be indicative of a relation with group C. That is also suggested by the fact that apart from mark (?)  $\text{r}$ , all marks on OL 6788 are attested in group C. Indeed, the degree of association is highest for group C. Because of the similarities to the sequence of marks on ostraca from group C and the occurrence of mark  $\text{r}$ , attested on an ostrakon attributed to this group, ONL 6354 should date to the period of the group C ostraca.

Relation to group A: 5 common marks, 20.8%; 8 unattested marks, 33.3%  
**degree of association is 20.8% – 33.3% = -12.5%**

Relation to group B: 9 common marks, 24.3%; 4 unattested marks, 10.8%  
**degree of association is 24.3% – 10.8% = 13.5%**

Relation to group C:	12 common marks, 24.5%; 1 unattested mark, 2.0% <b>degree of association is 24.5% – 2.0% = 22.5%</b>
Relation to group D:	9 common marks, 31.0%; 4 unattested marks, 13.8% <b>degree of association is 31.0% – 13.8% = 17.2%</b>

### *ONL 6287*

Six marks can be recognised on this fragmentary ostrakon, and they are not arranged in accordance with an attested sequence of marks. Yet, we observe that the marks originate from the beginning and the very end of the sequence:  $\Delta$ ,  $\bar{\rho}$ ,  $\Psi$  and  $\lambda$  (positions 6, 10, 12 and 16 on OL 6788) and  $\times$  and  $\Sigma$  (positions 43 and 44 on OL 6788). We may therefore expect ONL 6287 to date to the period of the ostraca from group C. That is also suggested by the relatively high degree of association for this group.

Relation to group A:	2 common marks, 8.3%; 4 unattested marks, 16.7% <b>degree of association is 8.3% – 16.7% = -8.4%</b>
Relation to group B:	4 common marks, 10.8%; 2 unattested marks, 5.4% <b>degree of association is 10.8% – 5.4% = 5.4%</b>
Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	3 common marks, 10.4%; 3 unattested marks, 10.4% <b>degree of association is 10.4% – 10.4% = 0%</b>

### *ONL 6216*

The ostrakon appears to be completely preserved and is inscribed with no other marks than  $\lambda$ ,  $\bar{\rho}$  and  $\Psi$ . The use of red ink and the shape of mark  $\bar{\rho}$  reminds one of ONL 6788, but the marks of ONL 6216 are not related to its sequence. We may however be correct in relating ONL 6216 to ONL 6788, attributed to group C, because all of the marks on ONL 6216 are attested in group C. In addition, the degree of association is highest for this group.

Relation to group A:	0 common marks, 0%; 3 unattested marks, 12.5% <b>degree of association is 0% – 12.5% = -12.5%</b>
Relation to group B:	1 common mark, 2.7%; 2 unattested marks, 5.4% <b>degree of association is 2.7% – 5.4% = -2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	1 common mark, 3.5%; 2 unattested marks, 6.9% <b>degree of association is 3.5% – 6.9% = -3.4%</b>

### *ONL 6203*

Three sides of this limestone chunk are inscribed with workmen's marks in a rather haphazardly fashion. Mark  $\Upsilon$  occurs on two different sides. The disorganised arrangement of the marks gives the impression that the ostrakon was not created with a particular sequence in mind, but some pairs of marks are recorded in adjacent positions in the sequence of OL 6788:  $\Gamma$  and  $\circ$  (positions 18 and 19),  $\top$  above  $\rho$  (positions 36 and 37), perhaps  $\sim$  and  $\Gamma\Gamma$  (positions 41 and 42) and to a lesser extent  $\Upsilon$  and  $\lambda$  (positions 14 and 16). Since OL 6788 is attributed to group C, we expect ONL 6203 to have been created around the time of Amenhotep III as well. The high degree of association of ONL 6203 with group C agrees with that idea.

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

Relation to group A:	11 common marks, 45.8%; 8 unattested marks, 33.3% <b>degree of association is 45.8% – 33.3% = 12.5%</b>
Relation to group B:	11 common marks, 29.7%; 8 unattested marks, 21.6% <b>degree of association is 29.7% – 21.6% = 8.1%</b>
Relation to group C:	18 common marks, 36.7%; 1 unattested mark, 2.0% <b>degree of association is 36.7% – 2.0% = 34.7%</b>
Relation to group D:	10 common marks, 34.5%; 9 unattested marks, 31.0% <b>degree of association is 34.5% – 31.0% = 3.5%</b>

### *O. KV 10012*

Inconveniently this ostrakon is accessible only through a black and white photo of poor quality. The marks with which it is inscribed are not securely identifiable. The leftmost mark in the upper line could be  $\boxplus$  followed by  $\boxminus$  as in the sequence of OL 6788. One would then expect the tall vertical sign right of it to be  $\dagger$  in accordance with the same sequence, but it rather resembles  $\ddagger$ . The next mark could be  $\clubsuit$ . All four marks are attested in group C, and the possible adherence to the sequence of OL 6788 may be taken as an argument in favour of an attribution of O. KV 10012 to this group. Because the marks are only hesitantly identified, the attribution is unsure.

### *ONL 6601*

Traces of five marks are visible on this limestone ostrakon fragment, but only  $\times$  and  $\circ$  are identifiable. The mark left of  $\times$  could be  $\ddagger$ ,  $\ddagger$ ,  $\heartsuit$ ,  $\spadesuit$  or  $\lrcorner$ , but it is not attested adjacent to any of these marks in an ordered sequence. On O. WV 8, an ostrakon from group C,  $\times$  and  $\ddagger$  are adjacent, and this ostrakon also includes  $\circ$ . On account of this resemblance, coupled with the observation that  $\times$  is only securely attested in group C, ONL 6601 is tentatively attributed to the period of the same group.

### *ONL 6340*

The very small number of marks preserved on this ostrakon makes it difficult to date. To make matters more complicated, the marks do not feature in a sequence known from other ostraca. All three marks are attested in group C, and the degree of association is slightly higher for this group than for others. ONL 6340 is very tentatively attributed to group C.

Relation to group A:	2 common marks, 8.3%; 1 unattested mark, 4.2% <b>degree of association is 8.3% – 4.2% = 4.1%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = 2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	2 common marks, 6.9%; 1 unattested mark, 3.5% <b>degree of association is 6.9% – 3.5% = 3.4%</b>

### *ONL 6423*

Marks  $\dagger$ ,  $\ddagger$  and  $\heartsuit$  are well preserved on ONL 6423 but one or two other marks have not survived well enough to be identified. The marks are not evidently part of an ordered sequence, and therefore the ostrakon is difficult to date. The degree of association for group C is slightly higher than for other groups, and the ostrakon is hesitantly ascribed to group C because all marks on ONL 6423 are attested in this set of ostraca.

Relation to group A:	2 common marks, 8.3%; 1 unattested mark, 4.2% <b>degree of association is 8.3% – 4.2% = 4.1%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = 2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	1 common mark, 3.5%; 2 unattested marks, 6.9% <b>degree of association is 3.5% – 6.9% = -3.4%</b>

### *ONL 6260*

Three marks are preserved in their entirety on this ostrakon, and traces of two more are visible but indiscernible. As is the case with many other fragmentary ostraca, ONL 6260 is difficult to date. The marks are not ordered in a sequence that is attested on other documents, and there are only small differences in the degrees of association with the four core groups. Because all three marks are attested in group C, ONL 6260 is tentatively dated to the period of this group.

Relation to group A:	2 common marks, 8.3%; 1 unattested mark, 4.2% <b>degree of association is 8.3% – 4.2% = 4.1%</b>
Relation to group B:	1 common mark, 2.7%; 2 unattested marks, 5.4% <b>degree of association is 2.7% – 5.4% = -2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	2 common marks, 6.9%; 1 unattested mark, 3.5% <b>degree of association is 6.9% – 3.5% = 3.4%</b>

### *ONL 6348*

The first mark from the right on the obverse of fragmentary ostrakon ONL 6348 is unclear, but might be  $\text{𓆎}$ . Mark  $\Delta$  on the reverse is probably an allomorph of mark  $\Delta$ . The mark is inscribed next to  $\text{𓆎}$ , the problematic mark that can be interpreted as an allomorph of  $\Psi$  depending on the date of the ostrakon. The occurrence of mark  $\text{𓆎}$  on the obverse, not attested in groups A and B, suggest that mark is here used not as an allomorph but as a mark of its own. To the best of our knowledge the marks of ONL 6348 do not feature in a meaningful sequence. The ostrakon is tentatively attributed to group C and probably dates to the reign of Amenhotep III. All marks on ONL 6348 are attested in group C, and the degree of association to group C is highest of all groups.

Relation to group A:	2 common marks, 8.3%; 3 unattested marks, 12.5% <b>degree of association is 8.3% – 12.5% = -4.2%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>
Relation to group D:	3 common marks, 10.4%; 2 unattested marks, 6.9% <b>degree of association is 10.4% – 6.9% = 3.5%</b>



*ONL 6565*

Although four marks are visible on this ostrakon, only three can be identified:  $\mathcal{A}$ ,  $\dagger$  and  $\Psi$ . The marks are not positioned in accordance with a known sequence, which makes it difficult to accurately date this small group of marks. Mark  $\mathcal{A}$  is only attested in group C, the group with the highest degree of association. ONL 6565 is on these grounds cautiously attributed to group C.

Relation to group A:	1 common mark, 4.2%; 2 unattested marks, 8.3% <b>degree of association 4.2% – 8.3% = -4.1%</b>
Relation to group B:	1 common mark, 2.7%; 2 unattested marks, 5.4% <b>degree of association is 2.7% – 5.4% = -2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	1 common mark, 3.5%; 2 unattested marks, 6.9% <b>degree of association is 3.5% – 6.9% = -3.4%</b>

*ONL 6580*

This ostrakon probably dates to the 18<sup>th</sup> Dynasty because mark  $\overline{m}$ , attested in group C, is clearly recognisable. All other marks and signs however are very puzzling. Discernable is mark  $\uparrow$ , and left of it perhaps  $\uparrow$  adjacent to a tall vertical stroke of unclear meaning. A mark in the left lower corner is damaged and unidentifiable. The square with dot inside it situated below  $\overline{m}$  is not attested as a mark, and what it signifies is inexplicable. It is similarly unclear if the horizontal stroke and dot left of it represent mark  $\mathcal{A}$  or not. ONL 6580 is with much reservations attributed to group C because the more or less securely identified marks are attested in this group.

*ONL 6646*

The only marks that are preserved on ONL 6646 are  $\beta$  and  $\mathcal{A}$ . Calculating degrees of association is pointless in this case, because mark  $\mathcal{A}$  is attested in all four core groups and mark  $\beta$  is only known from ostraca in group C. The two marks are attested together in two ostraca from group C: O. WV 3 and attributed ostrakon OL 6788. They are, however, not found in adjacent positions as on ONL 6646. The attribution of this ostrakon to group C remains therefore tentative.

*ONL 6692*

The marks on this ostrakon are only faintly visible and might have been erased by the scribe. Marks  $\Upsilon$  and  $\Psi$  can be discerned without too much trouble, and a third mark may be  $\mathcal{M}$ , but the other traces are illegible. Each mark is inscribed in the cell of a large table comparable to the one we have seen on ONL 6634. We had attributed the latter ostrakon to group C, and if this particular format is any indication of a date, ONL 6692 might have been created around the same period. The three marks on ONL 6692 are not ordered in accordance with a sequence attested elsewhere. The ostrakon is tentatively attributed to group C on account of its layout and the fact that all three marks are attested in this group. This attribution is supported by the degree of association with group C.

Relation to group A:	0 common marks, 0%; 3 unattested marks, 12.5% <b>degree of association is 0% – 12.5% = -12.5%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = -2.7%</b>

Relation to group C: 3 common marks, 6.1%; 0 unattested marks, 0%  
**degree of association is 6.1% – 0% = 6.1%**

Relation to group D: 2 common marks, 6.9%; 1 unattested mark, 3.5%  
**degree of association is 6.9% – 3.5% = 3.4%**

### ONL 6579

Mark  $\hat{\text{r}}$  is quite rare in the 18<sup>th</sup> Dynasty, but it is attested together with mark  $\text{r}$  on ONL 6410 and ONL 6372. It is also present on ONL 6564, but there without mark  $\text{r}$ . In analogy with ONL 6410, ONL 6579 is attributed to group C, if only tentatively.

### ONL 6564

Only three marks are visible on this ostrakon:  $\square$ , only attested in group A;  $\text{f}$ , attested in all four groups; and  $\hat{\text{r}}$ , only found on ostraca attributed to group C. The ostrakon is thus difficult to date. On account of the latter mark, it is tentatively attributed to group C.

## 2.2.10 Ostraca attributed to group D

A total of nine ostraca are attributed to group D. As explained above, this group is situated between groups B and C. Ostraca from this group should therefore date to the period between the reign of Amenhotep II and Amenhotep III.

### O. Cairo JE 96603

The lower edge of the ostrakon appears to be damaged because the marks on the edge are not fully preserved. The ostrakon seems to have been divided into three separate sections. Some marks are inscribed more than once in different sections. The ostrakon probably displays 22 different marks, but this is not entirely certain: are mark ~~⌘~~ and the three instances of mark  $\text{H}$  on this ostrakon different forms of the same mark? Other than its orientation ~~⌘~~ the shape of the mark is not dissimilar from  $\text{H}$ , and it is therefore interpreted as an allomorph. The faintly visible mark  $\square$  could here be an allomorph of  $\square$ , and that possibility is considered here. It is otherwise attested on O. MMA 09.184.770, attributed to group B. The mark  $\text{H}$  on O. Cairo JE 96603 is not seen as an allomorph of  $\square$  because it is distinctly different, closely resembling hieroglyphic sign  $\text{mn}$ . The mark  $\text{r}$  is somewhat similar to  $\text{r}$  and could be an allomorph of it.<sup>45</sup>

Comparing the marks on O. Cairo JE 96603 to the ostraca in groups A, B, C and D, we see that  $\text{O}$ ,  $\Delta$ ,  $\text{Y}$ ,  $\text{r}$  and  $\text{H}$  occur in all four groups; mark  $\text{v}$  is attested in groups A, C and D; marks  $\text{f}$ ,  $\text{w}$ ,  $\text{T}$  and ~~⌘~~ are found in groups B, C and D; mark  $\text{l}$  is found in groups A and B; marks  $\text{r}$ ,  $\text{f}$ ,  $\text{d}$ ,  $\text{m}$  and  $\text{Y}$  are found in groups C and D; if mark  $\square$  indeed is an allomorph of  $\text{u}$ , it is attested only in group C; and marks  $\Delta\Delta$  and  $\text{H}$  are attested in group D only. Marks  $\text{H}$  and  $\text{r}$  are not found in any of the four core groups. The marks on O. Cairo JE 96603 are strongly related to group D:

Relation to group A: 7 common marks, 29.2%; 15 unattested marks, 62.5%  
**degree of association is 29.2% – 62.5% = -33.3%**

Relation to group B: 10 common marks, 27.0%; 12 unattested marks, 32.4%  
**degree of association is 27.0% – 32.4% = -5.4%**

Relation to group C: 15 or 16 common marks, 30.6% or 32.7%  
 7 or 6 unattested marks, 14.3% or 12.3%  
**degree of association is 30.6% – 14.3% = 16.3%**

<sup>45</sup> See also ONL 6416 below, p. 124.

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

or  $32.7\% - 12.3\% = 20.4\%$

Relation to group D: 17 common marks, 58.6%; 5 unattested marks, 17.2%  
**degree of association is  $58.6\% - 17.2\% = 41.4\%$**

Both in absolute numbers and in terms of degrees of association the marks on O. Cairo JE 96603 fit best in groups D. The fact that the ostrakon displays  $\perp$ , a mark which is present in groups A and B but not in group C, but also contains a number of marks which are present in group C but not in groups A and B, supports the attribution of O. Cairo JE 96603 to position between group B and C. An attribution to group D is also suggested by the two marks that are not attested in any other core group than group D ( $\Delta\Delta$  and  $\text{𐀀}$ ) versus only one mark which is (perhaps!) attested exclusively in group C ( $\text{𐀁}$ ). The marks on O. Cairo JE 96603 do not appear in a sequence that is known from other ostraca, which is yet another aspect that O. Cairo JE 96603 has in common with the ostraca in group D.

### *O. Cairo JE 96590*

The ostrakon is completely preserved and all marks are well recognisable. The ostrakon contains 19 marks, but one mark is repeated. Marks  $\text{𐀁}$ ,  $\text{𐀂}$ ,  $\text{𐀃}$  and  $\text{𐀄}$  are found in group A, B, C and D; mark  $\text{𐀅}$  is found in groups A, B and C; mark  $\text{𐀆}$  is found in groups A, B and D; marks  $\text{𐀇}$ ,  $\text{𐀈}$  and  $\text{𐀉}$  are found in groups B, C and D; mark  $\text{𐀊}$  is attested in group A and D; marks  $\text{𐀋}$  and  $\text{𐀌}$  are found in groups B and C; mark  $\text{𐀍}$  is attested in groups B and D; marks  $\text{𐀎}$ ,  $\text{𐀏}$  and  $\text{𐀐}$  are found in groups C and D; mark  $\text{𐀑}$  could well be the same mark as the damaged mark  $\text{𐀒}$  in group C (O. WV 2); finally, mark  $\text{𐀓}$  is not attested in any of the core groups. The marks on O. Cairo JE 96590 are closest related to groups B, C and D:

Relation to group A: 7 common marks, 29.2%; 11 unattested marks, 45.8%  
**degree of association is  $29.2\% - 45.8\% = -16.6\%$**

Relation to group B: 12 common marks, 32.4%; 6 unattested marks, 16.2%  
**degree of association is  $32.4\% - 16.2\% = 16.2\%$**

Relation to group C: 13 or 14 common marks, 26.5% or 28.6%  
 5 or 4 unattested marks, 10.2% or 8.2%  
**degree of association is  $26.5\% - 10.2\% = 16.3\%$**   
**or  $28.6\% - 8.2\% = 20.4\%$**

Relation to group D: 12 common marks, 41.4%; 6 unattested marks, 20.7%  
**degree of association is  $41.4\% - 20.7\% = 20.7\%$**

In absolute numbers, more marks on O. Cairo JE 96590 are attested in group C than in any other group. Yet when the degrees of association are calculated, the marks on O. Cairo JE 96590 are strongest related to group D.<sup>46</sup> The marks on O. Cairo JE 96590 are not inscribed in a sequence that is known from other ostraca. Although the marks are inscribed in three distinct lines, the lines are far from perfectly horizontal. It is the shape of the ostrakon that dictates the inclination of the lines: the first line is more or less horizontal because the upper edge of the ostrakon is horizontal. Yet, the second line declines from mark  $\text{𐀃}$  onwards, because the edge of the ostrakon does too. This layout, where the shape of the ostrakon determines the arrangement of the marks, is a characteristic of group D.<sup>47</sup> The layout of the ostrakon, the fact that the ostrakon does not display a sequence of marks found in group C,

<sup>46</sup> See above, 2.2.4.

<sup>47</sup> See above, 2.2.4.

and the high degree of relatedness to group D argue in favour of an attribution of O. Cairo JE 96590 to group D.

#### *O. Cairo JE 96591*

The ostrakon is most likely completely preserved and displays six marks. Marks  $\Sigma$  and  $\mathbb{H}$  are found in groups A, B, C and D; mark  $\uparrow$  is attested in groups B, C and D; mark  $\mathfrak{F}$  is attested in groups B and C; mark  $\mathfrak{H}$  is found in groups C and D; and mark  $\mathfrak{K}$  is found in group D only. On the basis of the calculated degrees of association, the marks on O. Cairo JE 96591 are closest related to group D:

Relation to group A:	2 common marks, 8.3%; 4 unattested marks, 16.7% <b>degree of association is 8.3% – 16.7% = -8.4%</b>
Relation to group B:	4 common marks, 10.8%; 2 unattested marks, 5.4% <b>degree of association is 10.8% – 5.4% = 5.4%</b>
Relation to group C:	5 common marks, 10.2%; 1 unattested mark, 2.4% <b>degree of association is 10.2% – 2.4% = 7.8%</b>
Relation to group D:	5 common marks, 17.2%; 1 unattested mark, 3.5% <b>degree of association is 17.2 – 3.5% = 13.7%</b>

Clearly, the marks in O. Cairo JE 96591 are related to groups B, C and D. The fact that mark  $\mathfrak{K}$  is found in no other core group than group D makes an attribution of O. Cairo JE 96591 to that particular group plausible. The marks on O. Cairo JE 96591 are neatly arranged in a horizontal line. In the sequence of group B marks  $\mathfrak{D}$  and  $\uparrow$  are found next to each other, as in O. Cairo JE 96591. Moreover, the situation of  $\mathfrak{H}$  next to  $\mathbb{H}$  on O. Cairo JE 96591 resembles the sequence  $\mathfrak{H} - \mathfrak{K} - [\mathbb{H}]$  on O. Stockholm MM 14130 (restoring  $\mathbb{H}$  after  $\mathfrak{K}$  cf. the sequence of OL 6788). Yet, the marks of O. Cairo JE 96591 are not inscribed in a longer sequence that is known from other ostraca.

On the basis of this fact, the high degree of association to group D, and the occurrence of mark  $\mathfrak{K}$ , O. Cairo JE 96591 is attributed to the same group. Within group D, it should be situated closer to group C than to group B, because of the high number of marks that occur in group C as well.

#### *O. Cairo JE 72450*

This ostrakon is not completely preserved and it displays some fragmentary marks. Mark  $\mathfrak{L}$  is damaged and not securely identified as a mark known from other ostraca. It is unclear whether  $\mathfrak{L}$  is incomplete or not. If it is incomplete, it is not attested on any other ostrakon. If it is, there is a possibility that this mark is  $\mathfrak{L}$ . The mark next to  $\uparrow$  might be  $\mathfrak{K}$  or  $\mathfrak{L}$ , but that is uncertain. Mark  $\uparrow$  is found in groups A, B, C and D; mark  $\mathfrak{L}$  is found in group B and D; marks  $\mathfrak{H}$ ,  $\mathfrak{D}$  and  $\mathfrak{M}$  are attested in groups C and D; mark  $\mathfrak{A}$  is attested in group A only; and mark  $\Delta\Delta$  is found in group D only; if the damaged mark at the left end of the ostrakon is indeed either  $\mathfrak{K}$  or  $\mathfrak{L}$ , it is found in groups B, C and D; and if  $\mathfrak{L}$  indeed is  $\mathfrak{L}$ , it is found in group C only. The small number of marks on O. Cairo JE 72450 and the uncertain identification of three of them make it difficult to analyse the relation between its marks and the marks on the ostraca in the core groups A, B, C and D. Both in absolute numbers and in calculated degrees of association the marks on O. Cairo JE 72450 are closest related to the marks in group D.

Relation to group A:	2 common marks, 8.3%; 7 unattested marks, 29.2% <b>degree of association is 8.3% – 29.2% = -20.9%</b>
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## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

Relation to group B:	2 or 3 common marks, 5.4% or 8.1% 7 or 6 unattested marks, 18.9% or 16.2% <b>degree of association is 5.4% – 18.9% = -13.5%</b> <b>or 8.1% – 16.2% = -8.1%</b>
Relation to group C:	4 or 6 common marks, 8.2% or 12.3% 5 or 3 unattested marks, 10.2% or 6.1% <b>degree of association is 8.2% – 10.2% = -2.0%</b> <b>or 12.3% – 6.1% = 6.2%</b>
Relation to group D:	6 or 7 common marks, 20.7% or 24.1% 3 or 2 unattested marks, 10.3% or 6.9% <b>degree of association is 20.7% – 10.3% = 10.4%</b> <b>or 24.1% – 6.9% = 17.2%</b>

The ostrakon does not display a sequence of marks known from other ostraca. The occurrence of mark  $\aleph$  (only found in group A), mark  $\beth$  (only found in groups B and D) and of mark  $\Delta\Delta$  (only found in group D) argue against an attribution to group C, the group with which O. Cairo JE 72450 shares almost as many marks as with group D. One ostrakon in core group D, O. Cairo JE 96331, shows  $\aleph$  next to  $\beth$ , which in turn is situated above the mark  $\Delta\Delta$ . This mark is found right of  $\beth$  on O. Cairo JE 72450, which itself could be preceded by  $\aleph$ , but that is very uncertain. O. Cairo JE 72450 is thus tentatively attributed to group D. Because of the occurrence of marks  $\aleph$  and  $\beth$ , O. Cairo JE 72450 should be situated closer to groups A and B than to group C.

### *ONL 6339*

Four out of the five marks can be identified. Although it is doubtful if the marks on O. Cairo JE 96603 are inscribed according to a meaningful sequence, it is interesting that the order of marks  $\Delta - \beth - \Delta\Delta$  is similar to the order on ONL 6339, which displays  $\beth - \beth - \Delta - \Delta\Delta$ . Since O. Cairo JE 96603 is associated with group D, we expect ONL 6339 to date to the same period. This is also suggested by the degree of association that is highest for group D. For this reason ONL 6339 is attributed to group D.

Relation to group A:	1 common mark, 4.2%; 3 unattested marks, 12.5% <b>degree of association is 4.2% – 12.5% = -8.3%</b>
Relation to group B:	2 common marks, 5.4%; 2 unattested marks, 5.4% <b>degree of association is 5.4% – 5.4% = 0%</b>
Relation to group C:	3 common marks, 6.1%; 1 unattested mark, 2.0% <b>degree of association is 6.1% – 2.0% = 4.1%</b>
Relation to group D:	3 common marks, 10.4%; 1 unattested mark, 3.5% <b>degree of association is 10.4% – 3.5% = 6.9%</b>

### *ONL 6789*

Apart from one damaged mark on the right edge of the ostrakon, all marks of ONL 6789 are well identifiable. The marks do not feature in exactly this sequence on other ostraca, but those marks that are attested on ONL 6788 do appear in the relative position they occupy within the sequence of that document. Yet, marks  $\beth$  and  $\Delta\Delta$  are adjacent on O. Cairo JE 96603, an ostrakon attributed to group D. The relation between ONL 6789 and group D is very strong, as indicated by the high degree of association with this group. Coupled with the fact that marks  $\Delta\Delta$  and  $\beth$  are only attested on ostraca in group D, ONL 6789 is best assigned to this group and should thus date between the reign of Amenhotep II and Amenhotep III.

Relation to group A:	2 common marks, 8.3%; 6 unattested marks, 25.0% <b>degree of association is 8.3% – 25.0% = -16.7%</b>
Relation to group B:	3 common marks, 8.1%; 5 unattested marks, 13.5% <b>degree of association is 8.1% – 13.5% = -5.4%</b>
Relation to group C:	6 common marks, 12.3%; 2 unattested marks, 4.1% <b>degree of association is 12.3% – 4.1% = 8.2%</b>
Relation to group D:	6 common marks, 20.7%; 2 unattested marks, 6.9% <b>degree of association is 20.7% – 6.9% = 13.8%</b>

#### *ONL 6214*

This ostrakon, inscribed on obverse and reverse, is not completely preserved. Mark  $\square$  is attested on both sides. The marks are not ordered in a sequence that is attested on other documents, but the occurrence of marks  $\text{𐤀}$  and  $\Delta\Delta$ , only found on ostraca that constitute group D, are indicative of its date. An ascription to group D is also suggested by the degree of association with group D. Mark  $\square$  is only securely attested in group C, but it is also found on O. Cairo JE 96590, associated with group D, and is further evidence for the attribution of ONL 6214 to the latter set of ostraca.

Relation to group A:	0 common marks, 0%; 6 unattested marks, 25.0% <b>degree of association is 0% – 25.0% = -25.0%</b>
Relation to group B:	1 common mark, 2.7%; 5 unattested marks, 13.5% <b>degree of association is 2.7% – 13.5% = -10.8%</b>
Relation to group C:	4 common marks, 8.2%; 2 unattested marks, 4.1% <b>degree of association is 8.2% – 4.1% = 4.1%</b>
Relation to group D:	4 common marks, 13.8%; 2 unattested marks, 6.9% <b>degree of association is 13.8% – 6.9% = 6.9%</b>

#### *ONL 6346*

Three marks can be discerned on this much faded ostrakon, and traces of a fourth unidentifiable mark are visible to the left. The three marks  $\square$ ,  $\text{𐤀}$  and  $\text{𐤁}$  are not found in this order on other ostraca. The degree of association with group A is relatively high for ONL 6346, but such a date seems unlikely because of the occurrence of mark  $\text{𐤀}$ , only securely attested in group D. The degree of association with group D is only slightly lower than for group A, and an attribution to this group seems more plausible. That is suggested by the fact that mark  $\square$ , not attested on the key ostraca that constitute group D, is found on O. Cairo JE 96590, which evidently belongs to that group as well.

Relation to group A:	2 common marks, 8.3%; 1 unattested mark, 4.2% <b>degree of association is 8.3% – 4.2% = 4.1%</b>
Relation to group B:	1 common mark, 2.7%; 2 unattested marks, 5.4% <b>degree of association is 2.7% – 5.4% = -2.7%</b>
Relation to group C:	2 common marks, 4.1%; 1 unattested mark, 2.0% <b>degree of association is 4.1% – 2.0% = 2.1%</b>
Relation to group D:	2 common marks, 6.9%; 1 unattested mark, 3.5% <b>degree of association is 6.9% – 3.5% = 3.4%</b>

*ONL 6416*

The damaged mark right of  $\bar{\Gamma}$  might be  $\bar{\Gamma}$  in analogy with O. WV 2 but that cannot be verified. We are therefore obliged to leave it out of our comparison. Mark  $\bar{\Gamma}$  left of  $\bar{\Gamma}$  is not attested in this shape on other ostraca, but it closely resembles  $\bar{\Gamma}$  and  $\bar{\Gamma}$ , suggesting that both marks may be abstract representations of some sort of mammal.<sup>48</sup> This is also a strong indication that marks  $\bar{\Gamma}$  and  $\bar{\Gamma}$  are in fact allomorphs of the same mark. Indeed, mark  $\bar{\Gamma}$  is situated adjacent to  $\bar{\Gamma}$  on ONL 6416, just like  $\bar{\Gamma}$  on O. WV 13 and O. Stockholm MM 14130, and  $\bar{\Gamma}$  on OL 6788 and ONL 6298. ONL 6416 also displays mark  $\bar{\Gamma}$ , which is often difficult to interpret. This ostrakon however seems to be closer related to groups C and D than to B, and therefore we can take  $\bar{\Gamma}$  as an autonomous mark. That is suggested by the calculated degrees of association, which is highest for groups C and D. Even though marks  $\bar{\Gamma}$  and  $\bar{\Gamma}$  are not attested on the ostraca that constitute group D, we may hesitantly attribute ONL 6416 to this group because these marks are found on O. Cairo JE 96590 and O. Cairo JE 96603, attributed to group D.

Relation to group A:	2 common marks, 8.3%; 5 unattested marks, 20.8% <b>degree of association is 8.3% – 20.8% = -12.5%</b>
Relation to group B:	4 common marks, 10.8%; 3 unattested marks, 8.1% <b>degree of association is 10.8% – 8.1% = 2.7%</b>
Relation to group C:	6 common marks, 12.3%; 1 unattested mark, 2.0% <b>degree of association is 12.3% – 2.0% = 10.3%</b>
Relation to group D:	5 common marks, 17.2%; 2 unattested marks, 6.9% <b>degree of association is 17.2% – 6.9% = 10.3%</b>

**2.2.11 Ostraca attributed to groups B and D**

In five instances it is not evident if the ostrakon is better attributed to group B or group D. They may date somewhere in the reign of Amenhotep II, but a later date, perhaps in the reign of Thutmose IV is also plausible.

*ONL 6365*

Seven marks are visible on ONL 6365, but they are not all well preserved. The mark in the lower line is damaged and hesitantly identified as  $\bar{\Gamma}$ . Traces of the second mark from the right in the upper line appear to belong to mark  $\bar{\Gamma}$ , but this mark is also inscribed two marks down the very same line. Yet this should not be a problem, because we have seen similar instances of a double mark on other ostraca. ONL 6365 does not display a sequence of marks that is found elsewhere, which makes it difficult to date. The degree of association with groups B and C (0%) is higher than both other groups. Yet, ONL 6365 displays marks  $\bar{\Gamma}$  and  $\bar{\Gamma}$  that are attested in group B exclusively. Similarly, mark  $\bar{\Gamma}$  is found only in group D. These marks are suggestive of a date earlier than group C, and the ostrakon is for that reason attributed to the period between group B and D.

Relation to group A:	2 common marks, 8.3%; 4 unattested marks, 16.7% <b>degree of association is 8.3% – 16.7% = -8.4%</b>
Relation to group B:	3 common marks, 8.1%; 3 unattested marks, 8.1% <b>degree of association is 8.1% – 8.1% = 0%</b>

<sup>48</sup> This observation lends more credence to the idea that mark  $\bar{\Gamma}$  on O. Cairo JE 96603 is an allomorph of  $\bar{\Gamma}$ . It may in fact be the same mark as on ONL 6416.

Relation to group C:	3 common marks, 6.1%; 3 common marks, 6.1% <b>degree of association is 6.1% – 6.1% = 0%</b>
Relation to group D:	2 common marks, 6.9%; 4 unattested marks, 13.8% <b>degree of association is 6.9% – 13.8% = -6.9%</b>

#### *O. MMA 09.184.786*

Nine marks are well preserved on this ostrakon and a 10<sup>th</sup> mark is too damaged to identify. The remaining marks are, from right to left, ⤴, ⤵, ⊥, ⤶, ⤷, ⤸, ⤹, ⤺ and ⤻. The occurrence of mark ⤶ would suggest that the ostrakon is related to group D, and with six common marks the degree of association with group D is higher than for other groups. Yet, O. MMA 09.184.786 displays six marks that are attested in group B, and particularly mark ⤺, found in groups A and B exclusively, is suggestive of an earlier date. Reading the ostrakon from right to left we notice that the marks that also appear on O. Cairo CG 24105, one of the key ostraca of group B, correspond to their relative position within the sequence of the latter document: 2, (-), 8, (-), (-), 9, 12, 16, and 18. Obviously the order of marks is not the same, and it appears that on O. MMA 09.184.786 the sequence has been augmented with marks that were not yet in use during the period of the group B ostraca, such as ⤶ and ⤵. These marks are not attested in group A either, which suggests that MMA 09.184.786 should be of a later date than the group B ostraca. Since the ostrakon does partly follow the sequence of two ostraca from group B it cannot date to far from it, and it is therefore attributed to the period between group B and D.

Relation to group A:	4 common marks, 16.7%; 5 unattested marks, 20.8% <b>degree of association is 16.7% – 20.8% = -4.1%</b>
Relation to group B:	6 common marks, 16.2%; 3 unattested marks, 5.4% <b>degree of association is 16.2% – 5.4% = 10.8%</b>
Relation to group C:	7 common marks, 14.3%; 2 unattested marks, 4.1% <b>degree of association is 14.3% – 4.1% = 10.2%</b>
Relation to group D:	6 common marks, 20.7%; 3 unattested marks, 10.4% <b>degree of association is 20.7% – 10.4% = 10.3%</b>

#### *O. Parker H 7*

This ostrakon is incompletely preserved and features six marks: ⤴, ⤵, ⤶, ⤷, ⤸ and ⤹. Mark ⤹ is only securely attested in group D. The other five marks are all attested in group B. In the sequence of O. Cairo CG 24107 marks ⤴, ⤵, ⤶ and ⤷ correspond to slots 15, 5, 21 and 26, while in O. Cairo CG 24105 marks ⤴, ⤵, ⤷ and ⤸ correspond to slots 14, 5, 24 and 26. With the exception of mark ⤴, the marks on O. Parker H 7 thus seem to be listed to a limited extent in accordance with the sequence of two of the key ostraca of group B. This does not necessarily mean that O. Parker H 7 should be attributed to that group. As indicated by the high degree of association, the relation to group D is strong as well. It seems therefore likely that the ostrakon dates to the period between the core groups B and D.

Relation with group A:	3 common marks, 12.5%; 3 unattested marks, 12.5% <b>degree of association is 12.5% – 12.5% = 0%</b>
Relation with group B:	5 common marks, 13.5%; 1 unattested mark, 2.7% <b>degree of association is 13.5% – 2.7% = 10.8%</b>
Relation with group C:	2 common marks, 4.1%; 4 unattested marks, 8.2% <b>degree of association is 4.1% – 8.2% = -4.1%</b>



## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

Relation with group D: 5 common marks, 17.2%; 1 unattested mark, 3.5%  
**degree of association is 17.2% – 3.5% = 13.7%**

### *O. Ashmolean HO 892*

It is unfortunate that this ostrakon is not preserved in its entirety because it contains a long sequence of marks written in a neat hand. All 19 marks can be discerned without much trouble. We observe the double instance of mark  $\text{⤵}$ . Unattested in our core ostraca is mark  $\text{⤵}$ , written upside down on this piece. A similar mark is attested on O. UC 31988, attributed to group C and discussed below. On that ostrakon the mark may perhaps be an allomorph of  $\text{⤵}$ , but it is not clear if  $\text{⤵}$  on O. Ashmolean HO 892 can be interpreted in the same way. As a consequence we have to omit the mark from our comparison. Two other marks on O. Ashmolean HO 892 are notable:  $\text{⤵}$ , only securely attested in group D, and  $\text{⤵}$ , in the core ostraca exclusively found in group C. The latter mark is however also present on ostraca that we have attributed to group B (O. KV 10004, O. MMA 09.184.770 and O. UC 45708). One of these ostraca, O. KV 10004 has 10 marks in common with the 18 marks of O. Ashmolean HO 892, and may therefore date to approximately the same period. This would suggest that O. Ashmolean HO 892 is to be attributed to group B, and the high degree of association with that group stands in support of this view. The degree of association with group D is however quite high too, and mark  $\text{⤵}$  is indicative of an attribution to that group. On the other hand we have observed that this mark  $\text{⤵}$  is also found on ostraca that may antedate the group D ostraca (O. Brock 27 and ONL 6365). Some evidence for a closer connection with the group B ostraca is provided by the sequence of the marks on O. Cairo CG 24105. Four marks on O. Ashmolean HO 298 are inscribed in accordance with their relative position within that particular sequence:

O. Cairo CG 24105	$\text{⤵}$	...	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$
O. Ashmolean HO 298	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$	$\text{⤵}$

If we assume that this is not a coincidence, then O. Ashmolean HO 298 is best attributed to group B. Yet it is clear that the ostrakon is also strongly related to the ostraca in group D. It is therefore ascribed to both groups, and could date to the end of the reign of Amenhotep II or perhaps the reign of Thutmose IV.

Relation to group A: 6 common marks, 25.0%; 11 unattested marks, 45.8%  
**degree of association is 25.0% – 45.8% = -20.8%**

Relation to group B: 13 common marks, 35.1%; 4 unattested marks, 10.8%  
**degree of association is 35.1% – 10.8% = 24.3%**

Relation to group C: 13 common marks, 26.5%; 4 unattested marks, 8.2%  
**degree of association is 26.5% – 8.2% = 18.3%**

Relation to group D: 11 common marks, 37.9%; 6 unattested marks, 20.7%  
**degree of association is 37.9% – 20.7% = 17.2%**

### *O. Brock 27*

The interpretation of this ostrakon is much hindered by the fact that the upper half of this ostrakon is lost. It is inscribed with at least 17 different marks, four of which cannot be identified. The marks are not ordered in a sequence that is known from other ostraca. The damaged mark below  $\text{⤵}$  is perhaps  $\text{⤵}$ , and the mark right of  $\text{⤵}$  could either be  $\text{⤵}$ , attested on O. Cairo JE 72490, or  $\text{⤵}$  in analogy with O. MMA 09.184.770. The rightmost mark on the same side of the ostrakon resembles  $\text{⤵}$ , but the two marks to its left are not attested elsewhere

and cannot be identified. It is uncertain if they are to be taken as marks. Because we are not sure about these two marks and mark  $\square$  or  $\sqcap$ , we will omit them from an initial calculation of the degrees of association. The calculation demonstrates that marks on the ostracon are predominantly related to groups B and D. An attribution to the latter two groups is suggested by the occurrence of  $\parallel$  (only securely attested in group B) and of  $\text{𐀓}$  (only securely attested in group D). Yet, taking into account the possible presence of  $\square$  or  $\sqcap$ , a date prior to group D is plausible because the former mark is attested in group A and the latter is found on O. MMA 09.184.770 attributed to group B. The ostracon is for that reason tentatively attributed to group B, but a slightly later date near the ostraca of group D remains plausible as well.

Relation to group A:	6 common marks, 25.0%; 4 unattested marks, 16.7% <b>degree of association is 25.0% – 16.7% = 8.3%</b>
Relation to group B:	9 common marks, 24.3%; 1 unattested mark, 2.7% <b>degree of association is 24.3% – 2.7% = 21.6%</b>
Relation to group C:	6 common marks, 12.3%; 4 unattested marks, 8.2% <b>degree of association is 12.3% – 8.2% = 4.1%</b>
Relation to group D:	8 common marks, 27.6%; 2 unattested marks, 6.9% <b>degree of association is 27.6% – 6.9% = 20.7%</b>

### 2.2.12 Ostraca attributed to groups D and C

There are 13 ostraca that are strongly related to the ostraca in group D and group C, but cannot be assigned to one of them specifically. In some instances a date between these two groups seems most plausible. We may expect these ostraca to date to the reign of Thutmose IV or the first half of the reign of Amenhotep III.

#### *ONL 6509*

Two marks on ONL 6509 require some discussion. We had seen that in group B mark  $\text{𐀗}$  occurs in one instance as an allomorph of flower-shaped mark  $\text{𐀙}$ , and that possibility should be considered for this mark on ONL 6509 as well. The rightmost mark in the upper line is damaged and therefore it is unclear whether we are dealing with mark  $\text{𐀚}$  or mark  $\text{𐀛}$ . Despite this ambiguity, all marks in the upper line are situated in the first part of the sequence of OL 6788. Depending on their interpretation, they are situated in positions 9 or 12, 7, 3, and 8 or 14. Marks  $\text{𐀜}$  and  $\text{𐀝}$  are quite far apart on OL 6788, but in the sequence of related ostracon ONL 6298, there is but a single mark between them. Since we are not quite sure about the exact shape of the rightmost mark in the upper line, we will leave it out of our comparison. As the sequence of marks indicates, ONL 6509 is probably related to group C. Indeed, the degree of association with this group is considerable. The degree of association is however almost as high for group D. Because of the fact that all identifiable marks on ONL 6509 are attested in group C as well as the fact that the order of marks is reminiscent of that of OL 6788, an attribution to group C is slightly more plausible.

Relation to group A:	0 common marks, 0%; 5 unattested marks, 20.8% <b>degree of association is 0% – 20.8% = -20.8%</b>
Relation to group B:	3 common marks, 8.1%; 2 unattested marks, 5.4% <b>degree of association is 8.1% – 5.4% = 2.7%</b>
Relation to group C:	5 common marks, 10.2%; 0 unattested marks, 0% <b>degree of association is 10.2% – 0% = 10.2%</b>

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

Relation to group D: 4 common marks, 13.8%; 1 unattested mark, 3.5%  
**degree of association is 13.8% – 3.5% = 10.3%**

### *ONL 6415*

The surface of this fragmentary ostrakon is crammed with numerous crudely drawn marks that are extremely difficult to identify. They are evidently not listed in accordance with a sequence that is attested elsewhere. It is with the greatest hesitation that we can make out marks  $\Upsilon$ ,  $\Upsilon$ ,  $\sim$ ,  $\lambda$ ,  $\triangle$ ,  $\ddagger$  and  $\lambda$ . The latter mark must be an allomorph of  $\ddagger$ , attested in group D. The identified marks do not unequivocally point towards a specific date. Mark  $\lambda$  is only securely attested in group A, but occurs also on O. Cairo JE 72450, attributed to group D. Marks  $\lambda$  and  $\ddagger$  are also suggestive of a date after the period of Amenhotep II. Despite the high degree of association with group A, ONL 6415 is here attributed to groups D and C.

Relation to group A: 5 common marks, 20.8%; 3 unattested marks, 12.5%  
**degree of association is 20.8% – 12.5% = 8.3%**

Relation to group B: 4 common marks, 10.8%; 4 common marks, 10.8%  
**degree of association is 10.8% – 10.8% = 0%**

Relation to group C: 6 common marks, 12.3%; 2 unattested marks, 4.1%  
**degree of association is 12.3% – 4.1% = 8.2%**

Relation to group D: 3 common marks, 10.4%; 5 unattested marks, 17.2%  
**degree of association is 10.4% – 17.2% = -6.8%**

### *ONL 6316*

We discern 21 marks on this ostrakon, which originally displayed several more marks that are now lost. The majority of the marks are attested in the sequence of OL 6788 and associated documents (OL 6788: positions, 3, 7, 11, 14, 15, 18, 20, 21, 24, 25, 26, 27, 31, 32, 37, 39, 41, 43 and 44), but they are barely arranged in accordance with that order. Only marks  $\ddagger$  and  $\ddagger$ , recorded in positions 24 and 25 on OL 6788, are written next to each other, while adjacent marks  $\ddagger$  and  $\Upsilon$  are listed in that order on ONL 6298. Whether it is a coincidence or not that mark  $\Upsilon$ , written above  $\ddagger$  on ONL 6316, is inscribed next to  $\ddagger$  on O. Cairo JE 72450 is not clear. Another parallel is O. Cairo JE 96603, like O. Cairo 72450 attributed to group D; in the former ostrakon mark  $\ddagger$  is adjacent to  $\Upsilon$ , as in ONL 6316. These similarities are perhaps meaningful. Although 20 out of the total of 21 marks on ONL 6313 are attested in group C, mark  $\Delta\Delta$  occurs only in group D. Moreover, mark  $\Delta\Delta$  is not included in the sequence of marks recorded on OL 6788, O. Stockholm MM 14130, O. WV 3 and ONL 6298. This might be an indication that ONL 6316 predates these documents. Since the degree of association for group D is rather high as well, we attribute ONL 6316 to a time between the two groups.

Relation to group A: 8 common marks, 33.3%; 13 unattested marks, 54.2%  
**degree of association is 33.3% – 54.2% = -20.9%**

Relation to group B: 11 common marks, 29.7%; 10 unattested marks, 27.0%  
**degree of association is 29.7% – 27.0% = 2.7%**

Relation to group C: 20 common marks, 40.8%; 1 unattested mark, 2.0%  
**degree of association is 40.8% – 2.0% = 38.8%**

Relation to group D: 14 common marks, 48.3%; 7 unattested marks, 24.1%  
**degree of association is 48.3% – 24.1% = 24.2%**

### ONL 6486

Six marks are discernable on this ostrakon, which are partially ordered in accordance with a sequence attested on other pieces (OL 6788, marks 12 – 17 – 23 – 7 – 28 – 21 – 35). The mark between  $\overline{\Upsilon}$  and  $\overline{\Xi}$  is probably  $\text{⋈}$ . It is evident that ONL 6486 is hardly related to group A, with which it only has mark  $\text{⋈}$  in common. In contrast, all marks are attested in group C. The calculated degrees of association indicate that the ostrakon is only slightly more related to group C than to group D. It is therefore dated somewhere between both groups.

Relation to group A:	1 common mark, 4.2%; 5 unattested marks, 20.8% <b>degree of association is 4.2% – 20.8% = -16.6%</b>
Relation to group B:	3 common marks, 8.1%; 3 unattested marks, 8.1% <b>degree of association is 8.1% – 8.1% = 0%</b>
Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	4 common marks, 13.8%; 2 unattested marks, 6.9% <b>degree of association is 13.8% – 6.9% = 6.9%</b>

### ONL 6504

This ostrakon is preserved in a very unfortunate state. Marks  $\overline{\Gamma}$  and  $\text{⋈}$  are perfectly clear, and the damaged marks at the upper edge can be identified as  $\text{⋈}$  and  $\text{⋈}$ . The incompletely preserved mark in the upper left corner might be  $\text{⋈}$ , but because that is highly uncertain we should not include it in our comparison of marks. Marks  $\overline{\Gamma}$  and  $\text{⋈}$  are found in adjacent positions in the sequences of OL 6788 and O. WV 3, but because it is far from clear that the marks on ONL 6504 are listed in a meaningful order, this could be a coincidence. All four marks are indeed attested in group C to which OL 6788 and O. WV 3 belong, but the degree of association for group D is almost as high. ONL 6504 can therefore not be precisely dated and might belong to either group D or C.

Relation to group A:	0 common marks, 0%; 4 unattested marks, 16.7% <b>degree of association is 0% – 16.7% = -16.7%</b>
Relation to group B:	3 common marks, 8.1%; 1 unattested mark, 2.7% <b>degree of association is 8.1% – 2.7% = 5.4%</b>
Relation to group C:	4 common marks, 8.2%; 0 unattested marks, 0% <b>degree of association is 8.2% – 0% = 8.2%</b>
Relation to group D:	3 common marks, 10.4%; 1 unattested mark, 3.5% <b>degree of association is 10.4% – 3.5% = 6.9%</b>

### O. Cairo JE 96601

This ostrakon fragment, inscribed on two sides, displays three signs that could be workmen's marks. Like several ostraca from group D it was discovered in the excavations in the Valley of the Kings by Davis and Ayrton in the season 1905-1906, but its exact findspot is not recorded. The great size of the signs and the use of red ink is typical for the group D ostraca, but whether they are marks or not is difficult to say. Sign  $\overline{\Gamma}$  is not attested elsewhere. It could be an allomorph of  $\overline{\Xi}$  or perhaps of  $\overline{\Gamma}$ . The mark next to it might be  $\text{⋈}$ , and the mark on the reverse is perhaps the flower-shaped mark  $\text{⋈}$ . These two marks are only securely attested together in ostraca from group C. Because of a possible connection with the group D ostraca, a date between groups D and C is considered for O. Cairo JE 96601.

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

### *O. Cairo JE 72492*

As mentioned above we expect that the findspot of O. Cairo JE 72492 near the opening to the branch leading to the tomb of Thutmose III is no proper indication of its date, because the archaeological context is rather disturbed. We rely therefore on a comparison to the ostraca in the four key groups. There are 10 marks that are well legible on this ostrakon, but the 11<sup>th</sup> mark at the right edge is too damaged for a secure identification. The marks are not ordered in accordance with a sequence that we know from other ostraca, but they seem to appear predominantly at the beginning (positions 4 – 11) and the end (positions 39 – 44) of the sequence of OL 6788. In analogy with ONL 6266 we will take mark  $\overline{\text{𐓗}}$  as an allomorph of mark  $\overline{\text{𐓗}}$ . Mark  $\overline{\text{𐓗}}$  is perhaps an allomorph of mark  $\overline{\text{𐓗}}$ . With the exception of  $\overline{\text{𐓗}}$ , all marks are attested in group C. The latter mark is found in group D, and the degree of association for this group is almost as high as for group C. O. Cairo JE 72492 should therefore probably date to the period of Thutmose IV – Amenhotep III.

Relation to group A:	2 common marks, 8.3%; 8 unattested marks, 33.3% <b>degree of association is 8.3% – 33.3% = -25.0%</b>
Relation to group B:	6 common marks, 16.2%; 4 unattested marks, 10.8% <b>degree of association is 16.2% – 10.8% = 5.4%</b>
Relation to group C:	9 common marks, 18.4%; 1 unattested mark, 2.0% <b>degree of association is 18.2% – 2.0% = 16.2%</b>
Relation to group D:	7 common marks, 24.1%; 3 unattested marks, 10.4% <b>degree of association is 24.1% – 10.4% = 13.7%</b>

### *ONL 6370*

Four marks are visible on ONL 6370, a small part of a limestone ostrakon. The damaged mark on the left edge is in all probability to be reconstructed as  $\overline{\text{𐓗}}$ . The marks are not inscribed in adherence to an attested sequence. Once again the small number of marks hinders an attempt to provide an accurate date for the piece. Calculation of the degrees of association is not of much assistance either. The degree is highest for group C, but not at all convincingly so. A relation to group D is suggested by the occurrence of mark  $\overline{\text{𐓗}}$ , not found in any of the other core groups. However, mark  $\overline{\text{𐓗}}$  is only securely attested in group C. It is also attested on ONL 6789, above attributed to group D. The odds weigh therefore in favour of an attribution of ONL 6370 to group D, if only slightly, but because of the fragmentary state of the ostrakon a date in the period of group C cannot be ruled out.

Relation to group A:	2 common marks, 8.3%; 2 unattested marks, 8.3% <b>degree of association is 8.3% – 8.3% = 0%</b>
Relation to group B:	2 common marks, 5.4%; 2 unattested marks, 5.4% <b>degree of association is 5.4% – 5.4% = 0%</b>
Relation to group C:	3 common marks, 6.1%; 1 unattested mark, 2.0% <b>degree of association is 6.1% – 2.0% = 4.1%</b>
Relation to group D:	2 common marks, 6.9%; 2 unattested marks, 6.9% <b>degree of association is 6.9% – 6.9% = 0%</b>

### *ONL 6407*

This ostrakon must have been inscribed with several identity marks but only marks  $\overline{\text{𐓗}}$ ,  $\overline{\text{𐓗}}$  and  $\overline{\text{𐓗}}$  are discernable. They are not ordered in accordance with a sequence known from other ostraca. All three marks are both attested in groups D and C, and the degree of association is

higher for the former than for the latter group. There are nevertheless too few marks to provide an accurate date, and ONL 6407 is therefore attributed to groups D and C.

Relation to group A:	0 common marks, 0%; 3 unattested marks, 12.5% <b>degree of association is 0% – 12.5% = -12.5%</b>
Relation to group B:	2 common marks, 5.4%; 1 unattested mark, 2.7% <b>degree of association is 5.4% – 2.7% = 2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 common marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	3 common marks, 10.4%; 0 unattested marks, 0% <b>degree of association is 10.4% – 0% = 10.4%</b>

### *ONL 6568*

Traces of three marks cannot be identified, but the other two marks are  $\curvearrowright$  and  $\boxtimes$ , situated next to each other. These marks do not point towards a specific sequence known from any of the key ostraca. ONL 6568 is for that reason difficult to date. Mark  $\boxtimes$  is attested in all four core groups, while  $\curvearrowright$  is found in groups D and C. The ostrakon is hesitantly assigned to these two sets of ostraca.

### *ONL 6307*

Only three marks on this ostrakon can be identified with certainty:  $\bar{\delta}$ ,  $\curvearrowright$  and  $\hat{\Upsilon}$ . A fourth mark could perhaps be  $\ominus$ . Because that is uncertain we cannot include this mark in our comparison. The marks on ONL 6307 do not belong to a sequence of marks attested on other ostraca, which renders the task of dating ONL 6307 a difficult one. Groups D and C score highest in terms of the degree of association, and marks  $\curvearrowright$  and  $\hat{\Upsilon}$  are attested in both groups. With the little information we possess we can only attribute the ostrakon to the period of both groups.

Relation to group A:	1 common mark, 4.2%; 2 unattested marks, 8.3% <b>degree of association is 4.2% – 8.3% = -4.1%</b>
Relation to group B:	1 common mark, 2.7%; 2 unattested marks, 5.4% <b>degree of association is 2.7% – 5.4% = -2.7%</b>
Relation to group C:	3 common marks, 6.1%; 0 unattested marks, 0% <b>degree of association is 6.1% – 0% = 6.1%</b>
Relation to group D:	2 common marks, 6.9%; 1 unattested mark, 3.5% <b>degree of association is 6.9% – 3.5% = 3.4%</b>

### *ONL 6207*

This poorly preserved ostrakon fragment is problematic because the small number of marks does not allow for a more precise attribution than to groups D and C. Marks  $\curvearrowright$  and  $\pi\pi$  are identified with certainty, and they are found on ostraca from groups D and C. They are not arranged in accordance with a sequence attested on other ostraca. Traces of a third mark are visible above both marks, and belong perhaps to mark  $\bar{\Upsilon}$ , only securely attested in group C.

## **2.2.13 Ostraca of uncertain date**

The following section deals with 14 instances for which our methods fail to provide a clear indication of the date of an ostrakon. Oftentimes our approaches are hindered by the fact that the ostrakon is poorly preserved and displays only a small number of marks. In other cases,

marks cannot be securely identified due to the crude handwriting of the author of the ostrakon. There are an additional 27 ostraca that are inscribed with a single mark only, which can not be accurately be dated either.

### *ONL 6331*

No more than three marks are visible on this fragmentary ostrakon. The identification of the rightmost marks is difficult. It might be  $\delta$ , attested on ostraca such as O. Ashmolean HO 892, ONL 6293 and O. UC 31988, but another option is  $\psi$ , the allomorph of  $\lambda$  that is only attested on O. Cairo CG 24105. Interestingly, marks  $\mu$ ,  $\rho$  and  $\psi$  feature in the same relative position as in the sequence of O. Cairo CG 24105. Yet, the infrequency of  $\psi$  weighs against such a reading. This does not aid us much, because the alternative, mark  $\delta$ , is not attested in the core groups. Marks  $\mu$  and  $\rho$  are both attested in groups B and C. It is thus impossible to provide an accurate date for this ostrakon. In all likelihood it dates somewhere in the period between Amenhotep II and Amenhotep III.

### *ONL 6401*


Visible are the remnants of four marks, three of which can be identified as  $\rho$ ,  $\psi$  and  $\tau$ . The fourth mark in the top right corner could be  $\lambda$  (upside down) or  $\delta$ , but other marks are plausible as well. Since  $\rho$ ,  $\psi$  and  $\tau$  are attested in all four core groups it is very difficult to date ONL 6401. Marks  $\psi$  and  $\tau$  are recorded in adjacent positions on O. Stockholm MM 14130, but this may be coincidental. A relation between ONL 6401 and the Stockholm ostrakon is dubious because this ostrakon records mark  $\rho$  between  $\psi$  and  $\rho$ , neither of which agrees with the traces left of on ONL 6401. The date of this ostrakon remains therefore uncertain.

### *O. Cairo JE 96285*

This ostrakon, divided into two sections, can be interpreted in two different ways, depending on the understanding of  $\omega$  on the left half of the document. The left section is separated from the right half by a vertical line. Whereas the right section contains two lines of workmen's marks, the left section contains a short column of three signs. The middle sign is  $\omega$ , and it is nowhere else securely attested as a workman's mark on ostraca, pottery or other objects. It is true that we have encountered mark  $\omega$  on O. MMA 09.184.770, but there it was interpreted as an allomorph of  $\nu$ . That is not possible in this case, because mark  $\nu$  is inscribed in the right section of O. Cairo JE 96285 and is of distinctly different shape than  $\omega$ . There is an alternative to the understanding of sign  $\omega$ , but it is a provocative one. Instead of taking  $\omega$  as a workman's mark, this and the other signs in the column in the left section of the column may be hieratic and cursive hieroglyphic signs, together spelling the word *irp* 'wine'. This reading is debatable, because signs  $\beta$  and  $\mu$  certainly are attested as workmen's marks. Moreover, the word would then have been written in a column instead of horizontally as scribes are wont to do in documentary texts, and the word would be lacking a determinative. More importantly, it would represent a unique instance in the 18<sup>th</sup> Dynasty of the use of marks in combination with script. A single extremely brief hieratic note has been discovered near the tomb of Amenhotep III,<sup>49</sup> but otherwise 18<sup>th</sup> Dynasty hieratic ostraca are, as emphasised in the previous chapter, not forthcoming in the community of necropolis workmen. Nevertheless, the sole mention of wine without any further information, written with two hieroglyphic signs and one hieratic sign, would not be completely unexpected in the context of an ostrakon with marks. As will have become clear by now, ostraca with marks from the 18<sup>th</sup> Dynasty are everything but explicit about the content of the documents as well. In

<sup>49</sup> Yoshimura (ed.), *Research in the Western Valley II*, 88; 89, fig. 52; pl. 32, nr. 427.

addition, the hieratic writing for ‘wine’ is ubiquitously found on jar docketts from the proximity of the tomb of Amenhotep III,<sup>50</sup> and therefore it is not unlikely that workmen were able to read and spell this word.










Yet, the interpretation is far from certain, and the signs could be workmen’s marks. Mark  would then appear exclusively on O. Cairo JE 96285. Taking each sign as a mark, the ostrakon would probably have to be attributed to group B or C. No sequence of marks on other ostraca agrees with that of O. Cairo JE 96285, but the sequence of OL 6788 would be related. The marks would correspond mostly to the last quarter of this sequence (positions 5, 10, 13, 31, 35, 37-38, 40-41). Despite a higher degree of association with group B, O. Cairo JE 96285 would then display seven out of eight marks that are also attested in group C.

Relation to group A:	4 common marks, 16.7%; 4 unattested marks, 16.7% <b>degree of association is 16.7% – 16.7% = 0%</b>
Relation to group B:	6 common marks, 16.2%; 2 unattested marks, 5.4% <b>degree of association is 16.2% – 5.4% = 10.8%</b>
Relation to group C:	7 common marks, 14.3%; 1 unattested mark, 2.0% <b>degree of association is 14.3% – 2.0% = 12.3%</b>
Relation to group D:	1 common mark, 3.5%; unattested marks, 24.1% <b>degree of association is 3.5% – 24.1% = -20.6%</b>

Would one opt for the second interpretation and read the left section as a textual inscription, the ostrakon would best be attributed to group B. That would be indicated by the degree of association with group B, but also by the fact that each mark would then be attested in group B.

Relation to group A:	4 common marks, 16.7%; 2 unattested marks, 8.3% <b>degree of association is 16.7% – 8.3% = 8.4%</b>
Relation to group B:	6 common marks, 16.2%; 0 unattested marks, 0% <b>degree of association is 16.2% – 0% = 16.2%</b>
Relation to group C:	5 common marks, 10.2%; 1 unattested mark, 2.0% <b>degree of association is 10.2% – 2.0% = 8.2%</b>
Relation to group D:	1 common mark, 3.5%; 5 unattested marks, 17.2% <b>degree of association is 3.5% – 17.2% = -13.7%</b>

### *O. UC 45683*

The date of this ostrakon is rather problematic because we are not sure how to interpret it. The second mark from the left in the upper line seems to be a crudely drawn instance of , attested in groups A and B. It appears on O. Cairo JE 72498 (group A) in a very similar shape. The rightmost mark in the upper line seems to be . This mark too is securely attested in group A, and is present on O. Cairo JE 72498. The fifth mark of the same line poses a problem. It resembles  but possesses a rounded element underneath it. Possibly this is a more elaborate allomorph of the seemingly abstract mark .<sup>51</sup> We shall here tentatively consider it as such, and some support for this idea is provided by O. Cairo JE 72490. On this ostrakon from group A,  is situated immediately next to  as on O. UC 45683. Marks ,  and  are all

<sup>50</sup> Yoshimura (ed.), *Research in the Western Valley II*, 68-72, figs. 43-47, pls. 29-31, nrs. 280+281-283, 285-290, 404-406.

<sup>51</sup> It could be indicative of the inspiration for this particular mark, perhaps a bovine head with horns *en face*?



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known from the group A ostraca, suggesting O. UC 45683 might date to the same time. The degree of association with group A is by far the highest as well. Yet, mark  $\Pi\Pi$  – probably an allomorph of  $\Pi\Pi$ , and mark  $\Gamma$  appear only on later ostraca from groups D and C. It is hard to explain their presence on O. UC 46863. In addition, the sequence  $\Sigma - \Pi\Pi - \sim$  on this ostrakon is reminiscent of the end of the sequence of OL 6788 (group C), which features  $\Pi\Pi - \sim - \Sigma$ . This order may or may not be coincidental, but an attribution to group A does still not seem convincing because of marks  $\Pi\Pi$  and  $\Gamma$ . The date of O. UC 46863 thus remains obscure.

Relation to group A:	9 common marks, 37.5%; 2 unattested marks, 8.3% <b>degree of association is 37.5% – 8.3% = 29.2%</b>
Relation to group B:	6 common marks, 16.2%; 5 unattested marks, 13.5% <b>degree of association is 16.2% – 13.5% = 2.7%</b>
Relation to group C:	9 common marks, 18.4%; 2 unattested marks, 4.1% <b>degree of association is 18.4% – 4.1% = 14.3%</b>
Relation to group D:	6 common marks, 20.7%; 5 unattested marks, 17.2% <b>degree of association is 20.7% – 17.2% = 3.5%</b>


### *O. Cairo CG 25327 bis*

Five different signs are inscribed on this ostrakon, but it is not entirely clear if they are workmen's marks. The hesitation is caused by the first sign from the left, which is completely preserved but still cannot be identified with a mark attested on other ostraca or objects. Its meaning is utterly unclear. In contrast, the signs to its right are known as workmen's marks: we recognise  $\lambda$ , followed by two superimposed instances of the same sign, perhaps  $\text{—}$  or  $\text{—}$  turned upside down. The next sign is  $\Psi$ . With only two securely identified marks, O. Cairo CG 25327 bis is impossible to date accurately, and it should be emphasised that it is doubtful if the signs are workmen's marks at all. If one does interpret them as such, an attribution to group A seems least likely because marks  $\text{—}$ ,  $\text{—}$  and  $\Psi$  are not securely identified on ostraca from that group.









### *O. BTdK 832*

The style of this ostrakon is distinctly different from other 18<sup>th</sup> Dynasty ostraca, which beckons the question if it is inscribed with marks or not. Odd is also the difference in the sizes of the shapes. Moreover, some signs are drawn as silhouettes rather than as outlines. If one sets out to identify the signs as marks one recognises perhaps  $\beta$ ,  $\lambda$ ,  $\Pi$ ,  $\wedge$ ,  $\times$ ,  $\circ$ ,  $\text{—}$  and  $\text{—}$ . Marks  $\Pi$  and  $\wedge$  are not found on the ostraca of the four core groups. Calculating the degree of association for each group without taking these two marks into account the remaining six hesitantly identified marks are only slightly indicative of an attribution to group C:




Relation to group A:	3 common marks, 12.5%; 3 unattested marks, 12.5% <b>degree of association is 12.5% – 12.5% = 0%</b>
Relation to group B:	3 common marks, 8.1%; 3 unattested marks, 8.1% <b>degree of association is 8.1% – 8.1% = 0%</b>
Relation to group C:	4 common marks, 8.2%; 2 unattested marks, 4.1% <b>degree of association is 8.2% – 4.1% = 4.1%</b>
Relation to group D:	2 common marks, 6.9%; 4 unattested marks, 13.8% <b>degree of association is 6.9% – 13.8% = -6.9%</b>

On the other hand, mark  is attested in group B exclusively. Moreover, marks  $\sqcap$  and  $\wedge$  do feature on O. MMA 09.184.700, a piece we had attributed to group B. For this reason, O. BTdK 832, if indeed inscribed with workmen's marks, is best assigned to this group.

#### ONL 6341















ONL 6341 is inscribed with two marks exclusively, probably mark  and mark . The latter mark, not attested in the four core groups, is perhaps an allomorph of . This cannot be verified because  and mark  are nowhere attested together in a recurring sequence. The presumed allomorph of  resembles mark  that is attested on ONL 6402 and ONL 6424. Both pieces were tentatively attributed to group A. Associating ONL 6341 with that group is problematic because mark  is only securely attested in group D, and on O. MMA 09.184.786 attributed to groups B–D. It is therefore impossible to date the ostrakon with any precision.



#### ONL 6362

The marks on this ostrakon are not inscribed in a sequence that we know from other documents. The two leftmost marks are oddly executed and therefore not straightforwardly recognisable. They are here – extremely tentatively – identified as  and . If mark  $\sqcap$  in group A is an allomorph of mark  $\sqcap$ , all marks on ONL 6362 but  are attested in this group, while all six marks are attested in group C. Yet, the degree of association with group A is higher than with group C. Because the identification of two of the six marks is very uncertain, we are forced to conclude that ONL 6362 cannot be accurately dated.

Relation to group A:	5 common marks, 20.8%; 1 unattested mark, 4.2% <b>degree of association is 20.8% – 4.2% = 16.6%</b>
Relation to group B:	4 common marks, 10.8%; 2 unattested marks, 5.4% <b>degree of association is 10.8% – 5.4% = 5.4%</b>
Relation to group C:	6 common marks, 12.3%; 0 unattested marks, 0% <b>degree of association is 12.3% – 0% = 12.3%</b>
Relation to group D:	3 common marks, 10.4%; 3 unattested marks, 10.4% <b>degree of association is 10.4% – 10.4% = 0%</b>

#### ONL 6589 and ONL 6457

ONL 6589 is considered as an ostrakon from the 18<sup>th</sup> Dynasty because of the occurrence of mark , not attested in the Ramesside Period. Such a date is however contestable because of the presence of a damaged mark that might be . This mark is not securely attested in the 18<sup>th</sup> Dynasty as a workman's mark on ostraca or in any other context. Perhaps the only other instance of mark  in the 18<sup>th</sup> Dynasty is the equally poorly preserved and enigmatic ostrakon ONL 6457. A date for this ostrakon in the 18<sup>th</sup> Dynasty is suggested by the occurrence of mark , not attested in the Ramesside period.<sup>52</sup> Both documents are therefore cautiously dated to the 18<sup>th</sup> Dynasty. Apart from marks  and perhaps , ONL 6589 is inscribed with , attested in groups A, B and C. Mark  is only attested in groups D and C, and the ostrakon is best attributed to the time of these two groups. ONL 6457 is inscribed with two instances of mark , and marks ,  and . These marks are not indicative of the date of the ostrakon. Mark  is only attested in group D, and since we have attributed ONL 6589 to groups D – C, we may suggest a similar date for ONL 6457 on account of mark .

<sup>52</sup> We will encounter mark  in the late 20<sup>th</sup> Dynasty (see chapter 4, 4.2.17, O. Cairo JE 96614), which does resemble mark , but the style of the ostrakon is more befitting of an 18<sup>th</sup> Dynasty date.

*ONL 6608*

This fragmentary ostrakon is inscribed in charcoal with crudely drawn marks, or perhaps rather signs or scribbles. With some imagination one can make out (fragments of)  $\Gamma$ ,  $\epsilon$  and  $\Upsilon$ , all three attested as workmen's marks in the 18<sup>th</sup> Dynasty. Yet, the ductus of these signs differs from that of all other 18<sup>th</sup> Dynasty ostraca with marks to such an extent that it is very uncertain if these signs are to be interpreted as marks.

*O. IFAO C 1298*



Two marks are discernable on this very fragmentary ostrakon:  $\ddagger$  and  $\Upsilon$ , which are not attested in adjacent positions in a meaningful sequence. The latter mark is attested in all four key groups, the former only in groups A, B and D. The ostrakon is therefore dated to a period prior to the reign of Amenhotep III.



*ONL 6520*

It is somewhat difficult to establish a date for this ostrakon because the marks with which it is inscribed are rather damaged. Marks  $\ddagger$ ,  $\Psi$  and  $\beta$  can be discerned without any problems. Particularly the latter mark points towards a date in the 18<sup>th</sup> Dynasty. We have encountered mark  $\ddagger$  on ONL 6405 (attributed to group B) and ONL 6444 (attributed to group C), where they appear probably as an allomorph of mark  $\star$ . Right of mark  $\Psi$  we make out mark  $\Pi$ , not attested in the ostraca from the four core groups but present among other ostraca on O. MMA 09.184.770 and O. Brock 27, both attributed to group B. The faintly visible mark right of  $\Pi$  is probably  $\Upsilon$ , and traces of the marks in the lower section of the ostrakon are tentatively identified as  $\wp$ ,  $\top$ ,  $\beta$  and  $\phi$ . Two or perhaps rather one mark in the left upper corner of the ostrakon is as interesting as it is difficult to interpret. Immediately left of mark  $\ddagger$  we see a mark that could well be  $\nabla$ , and just below it a second sign that is clearly  $\underline{\text{z}}$ . Now the latter sign is not attested in the 18<sup>th</sup> Dynasty as a mark, and it challenges our provisional date of the ostrakon. We may consider a later date, but that is equally problematic because we will see in the following chapters that marks  $\wp$ ,  $\top$ ,  $\beta$  and  $\phi$  are no longer attested in the Ramesside Period. A solution to this conundrum would be to suggest that signs  $\nabla$  and  $\underline{\text{z}}$  are two elements of one single workmen's mark, used as an elaborate allomorph of mark  $\nabla$ . The evidence in favour of this argument runs ahead of current matters, but if we steal a quick look at the marks that were in use during the 19<sup>th</sup> Dynasty (chapter 5) and the 20<sup>th</sup> Dynasty (chapters 3 and 4), it becomes clear that there are several marks that consist of more than a single element. One of many examples from the 20<sup>th</sup> Dynasty is  $\Gamma$ , a single mark consisting of two hieroglyphic signs for *hm* and *ntr*, employed to refer to a workman called *Pahemnetjer*.<sup>53</sup> A revealing example from the 19<sup>th</sup> Dynasty is  $\mathcal{L}$ , a mark consisting of the *m3* sickle  $\wp$  (Gardiner U1) in combination with the determinative  $\epsilon$  (Gardiner D4), together forming a sign coded by Gardiner as U4 and used in spellings of the verb *m33* 'to see'. In the 19<sup>th</sup> Dynasty mark  $\mathcal{L}$  referred to a workman named *Maaninakhtuef*.<sup>54</sup> This mark is not securely attested before the 19<sup>th</sup> Dynasty, but there is a possibility that we encounter it in the 18<sup>th</sup> Dynasty on ONL 6520 for the first time. This however is nothing but a careful suggestion, because the mark is not elsewhere found in the 18<sup>th</sup> Dynasty. Moreover, apart from the ubiquitous mark  $\mathcal{E}$  consisting of the elements *nb* and *t3.w.y*, 18<sup>th</sup> Dynasty marks that comprise of more than one element are as yet unknown. Even if one accepts the assumption that  $\mathcal{L}$  constitutes a single mark on ONL 6520, we cannot be sure if it was used as an allomorph of  $\nabla$ . If it were, we obtain some insight into the identity of the workman behind the mark: the instance with the sickle suggests that mark  $\nabla$  holds a phonetic value. In









<sup>53</sup> See chapter 3, p. 217.

<sup>54</sup> See chapter 5, p. 405- 407.



analogy with the 19<sup>th</sup> Dynasty mark, it would be plausible that the 18<sup>th</sup> Dynasty marks  and  referred to a man with the element *mꜣꜣ* in his name, perhaps another Maaninakhtuef. Unfortunately we cannot substantiate this hypothesis, and no man of this name is attested at Deir el-Medina during the 18<sup>th</sup> Dynasty.

Regardless of the identity behind the mark, we shall here assume that  is the same mark as , which in our four core groups is attested in group B exclusively. Still, proposing a date on the basis of the marks that appear in the core groups is difficult. There are six marks that belong to group B and seven that are attested in group C. The calculated degree of association is almost identical for both groups:

Relation to group A:	2 common marks, 8.3%; 7 unattested marks, 29.2% <b>degree of association is 8.3% – 29.2% = -20.9%</b>
Relation to group B:	6 common marks, 16.2%; 3 unattested marks, 8.1% <b>degree of association is 16.2% – 8.1% = 8.1%</b>
Relation to group C:	7 common marks, 14.3%; 2 unattested marks, 4.1% <b>degree of association is 14.3% – 4.1% = 10.2%</b>
Relation to group D:	5 common marks, 17.2%; 4 unattested marks, 13.8% <b>degree of association is 17.2% – 13.8% = 3.4%</b>










Significant perhaps is the occurrence of mark , which like  is attested only in group B. Additionally, mark  is attested on O. Brock 27 and O. MMA 09.184.770, both attributed to group B as well. The latter ostracon has four marks (, ,  and ) in common with ONL 6520. Mark  on ONL 6520 is only securely attested in group C, but occurs on O. KV 10004 too, which we have also attributed to group B. Should we be correct in assigning ONL 6520 to the 18<sup>th</sup> Dynasty, it must have been created during the time of the group B ostraca.

#### *O. IFAO C 2503*

The inscription on the obverse of this ostracon is very damaged, but it may have contained workmen's marks. The leftmost mark could be , attested in groups B and D. The other marks are not identifiable. The reverse is inscribed with a single and very large instance of mark .

#### *Ostraca with a single mark*

There are 27 ostraca, datable to the 18<sup>th</sup> Dynasty, which are inscribed with a single mark only. These documents are of course extremely difficult to date. A list is here provided with the marks and the groups in which they are attested. There is too little evidence to assign a specific date to these ostraca.

ONL 6198		B, C
ONL 6202		B, D, C
ONL 6206	 <sup>55</sup>	-
ONL 6326		D
ONL 6330		A, C <sup>56</sup>
ONL 6332		A, B, C, D
ONL 6333		B, C
ONL 6334		B, D, C
ONL 6335		B, D, C

<sup>55</sup> If indeed an allomorph of mark .

<sup>56</sup> Attested on ONL 6298 securely attributed to group C.

## 2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

ONL 6336	𐎢	A (?), C
ONL 6343	𐎣	A, B, C
ONL 6345	𐎤	A, B, C
ONL 6352	𐎥	B, D, C
ONL 6353	𐎦	B, C
ONL 6357	𐎧	B
ONL 6363	𐎨	A, B, D, C
ONL 6368	𐎩	C
ONL 6369	𐎪	A, C
ONL 6390	𐎫?	- <sup>57</sup>
ONL 6398	𐎬	A, B
ONL 6403	𐎭	A, B, C
O. IFAO C 1443	𐎮	
O. IFAO C 2503	𐎯	A, B, D, C
O. IFAO C 3271	𐎰	A, B, D, C
O. IFAO C 7635	𐎱	C
O. KV 63	𐎲	A, B, D, C
O. OIM 19206 <sup>58</sup>	𐎳	A, B, D, C

TABLE 16. OSTRACA FROM THE 18<sup>TH</sup> DYNASTY INSCRIBED WITH A SINGLE MARK

### 2.2.14 Identity marks from the end of the 18<sup>th</sup> Dynasty

It is evident that the group of ostraca attributed to group C is by far larger than other groups. This can be explained in different ways that need not be mutually exclusive. First of all, the higher figure may be the result of a bias in the archaeological material, as older material generally has a smaller chance of surviving than younger material.<sup>59</sup> Secondly, the high number may be seen as evidence that later in the 18<sup>th</sup> Dynasty the need for ostraca with marks or rather the wish to produce them had increased. This idea will be explored further below.<sup>60</sup>

Another explanation is that some of the ostraca in group C do not date to the reign of Amenhotep III, but to a somewhat later period. We have no anchor points for the time after the reign of Amenhotep III at our disposal and there are no clear indications that any ostrakon should date to the time of Amenhotep IV / Akhenaten or one of his successors. For that reason all ostraca that are datable to the period subsequent to the group D ostraca have been ascribed to group C, associated with the reign of Amenhotep III. In each case we had good reasons for such an attribution, but the possibility exists that some ostraca date in fact to a slightly later period.

Frustratingly, we lack clear evidence of the production of ostraca with workmen's marks from the period after the reign of Amenhotep III, with perhaps the exception of ostrakon O. KV 63, which bears mark 𐎲. Reportedly, this ostrakon was found in the shaft of O. KV 63. This rock-cut space in the central area of the Valley of the Kings may have been cut already in the reign of Amenhotep III,<sup>61</sup> and seems to have been used as an embalmers cache at some point in or near the reign of Tutankhamun.<sup>62</sup> The piece is a limestone chip and displays a mark drawn in the upper right corner. Instead of an ostrakon, it may be designated

<sup>57</sup> Attested on ONL 6402 and ONL 6424, attributed to group A.

<sup>58</sup> Also inscribed with a series of strokes, see below, 2.3.4.5.

<sup>59</sup> More on this matter, see below, p. 165.

<sup>60</sup> See below, 2.4.

<sup>61</sup> Eberhard Dziobek, Michael Höveler-Müller and Christian E. Loeben (eds.), *The Mysterious Tomb 63. The Latest Discovery in the Valley of the Kings. Art and Archaeology of Susan Osgood* (Rahden 2009), 63.

<sup>62</sup> Schaden, 'Amenmesse Project 2006', 237; Dziobek, Höveler-Müller and Loeben (eds.), *The Mysterious Tomb 63, 64*.

as a name stone with a mark.<sup>63</sup> Whatever its exact function may have been, the piece lends some credence to the idea that identity marks were still employed after the reign of Amenhotep III, and that ostraca with marks continued to be created. Still, the date of this piece in the late 18<sup>th</sup> Dynasty is not secured, because KV 63 was clearly disturbed, presumably during the Ramesside Period.<sup>64</sup>

That is also suggested by the pottery that was apparently found within the embalmers cache of KV 63. Seven of the published ceramic vessels<sup>65</sup> display signs that we recognise as 18<sup>th</sup> Dynasty workmen's marks: √ (inscribed twice on the same vessel); Ψ; ^; ▣; ⚡ (or ⊕); and finally ☼ (attested on two vessels), which is unattested on ostraca but occurs on a ceramic jar from the tomb of Kha.<sup>66</sup> Mark ^ is attested on O. BTdK 832, the date of which is very uncertain, and on O. MMA 09.184.700, attributed to group B. The mark is quite rare and it is not attested in group C. However, if mark ^ is in fact an allomorph of mark ~, attested on pottery near the tomb of Amenhotep III, its presence in KV 63 is not very surprising. The other marks are all present in group C.

Even though we are familiar with the marks that come from KV 63, we are not sure how to precisely date the objects on which they appear. The cache was probably furnished after the reign of Amenhotep III, but according to Schaden the chamber itself was prepared before that time. More importantly perhaps, we ask ourselves why vessels marked and probably originally owned by necropolis workmen ended up in an embalmers cache. We do not possess enough data to provide any answer.

Nevertheless, we have to acknowledge the possibility that workmen's marks were still in use in the period of Tutankhamun and that the repertory of that time did not differ substantially from that of the period of Amenhotep III. Hence, some of the ostraca attributed to group C could originate from the end of the 18<sup>th</sup> Dynasty as well.

## 2.3 THE PURPOSE OF THE OSTRACA WITH IDENTITY MARKS

### 2.3.1 Introduction

In the previous section the 18<sup>th</sup> Dynasty ostraca with marks were each assigned a provisional date. Some problematic cases aside, we seem to be able in some measure to follow the chronological distribution of marks. In addition, it has been observed that several ostraca are inscribed with more or less the same sequence of marks. This sequence appears to be meaningful, and its influence can even be detected on ostraca with marks that are not neatly inscribed in accordance with the ordered sequence: they display clusters of marks that are adjacent or almost adjacent in the fixed sequence, or they record a series of marks in accordance with their relative position in the fixed sequence. Apart from these insights, the 18<sup>th</sup> Dynasty ostraca remain, much to our regret, highly enigmatic. In the sections below we will attempt to deduce the meaning and purpose of the documents in question, but it will become clear that the results are highly unsatisfactory. This is due to the fact that the subject matter of almost every single ostrakon is not explicated in any way. It will be shown that there are numerous ostraca in which strokes and/or dots accompany the marks, but their exact function is unclear: we lack every form of context. Even if we would know the identity behind every single 18<sup>th</sup> Dynasty workman's mark, and if the strokes and dots were instead

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<sup>63</sup> See below, 2.3.4.5.

<sup>64</sup> Schaden, 'Amenmesse Project 2006', 232.

<sup>65</sup> Schaden, 'Amenmesse Project 2006', 231-254, fig. 23. Another flower-shaped mark is visible on a blue painted jar from the tomb (a drawing and a photo are available on <http://www.kv-63.com/photos2010.html>), but it is not clear if the mark was added before or after firing of the jar. It may therefore be a potters' mark rather than a workman's mark.

<sup>66</sup> Turin S. 8436 RCGE 19788, see Schiaparelli, *La tomba*, fig. 121, 3.

perfectly legible hieratic numerals, it would nonetheless be left to our imagination what the ostraca record exactly because they omit headings that inform us of their content. In the absence of contemporary hieratic documentary texts about the necropolis workmen we cannot compare the ostraca with marks to written records, and we are ignorant as to the structure of the tomb administration and particularly to those matters the workmen and their supervisors would have deemed worthy to note down during this period.

Indeed, one is inclined to interpret the majority of ostraca in the context of the administration of labour at the worksite and the provision of the workforce. That is suggested by the usage of dots and strokes, most likely evidence of simple forms of bookkeeping. There are no indications that we should seek the purpose of the ostraca with marks in the domains of religion or magic. Were this the case, one would expect the mention or depiction of deities and religious or magical symbols. Additional evidence against the idea that ostraca with marks are related to religious or magical practices comes from the much better understood Ramesside ostraca with marks. The majority of these documents are demonstrably administrative documents, created within the context of the collective tomb administration or to record private transactions and accounts. None of the ostraca point towards a magical or religious meaning. Moreover, the ostraca have not been found in a context that would require such an explanation.

### 2.3.2 The provenance of the 18<sup>th</sup> Dynasty ostraca from Deir el-Medina

The provenance of most of the 18<sup>th</sup> Dynasty ostraca – when recorded at all – is hardly indicative of their purpose. In fact, very little is known about the exact findspots of the ostraca. It has been pointed out that several ostraca were discovered in the Valley of the Kings, often close to tombs. In the case of the ostraca from the West Valley the ostraca were found in or near the huts located close to the tomb of Amenhotep III. Whether the other ostraca from the Valley of the Kings originated from similar huts is unclear. But even if that were the case, we have no way of determining what role these ostraca played. The workmen's huts are evidently not far removed from the worksites, which would suggest the ostraca are related to the administration of work. On the other hand, the provenance of the ostraca in the area of huts may point towards a more domestic and private sphere. One may even speculate that some ostraca inscribed solely with marks were intentionally left behind by the workmen in the vicinity of the royal tomb they had prepared, as a sort of ex-voto. Particularly in the case of O. Cairo JE 72490 and perhaps O. Cairo JE 96650 this would not be an implausible hypothesis. The handwriting of their inscription indicates that it was written with much care, and no dots or strokes were added to the marks. More importantly, the ostrakon was discovered in the same area that was used for foundation deposits of Thutmose III and his queen.<sup>67</sup> Like the name stones deposited in the walls of the more or less contemporaneous sanctuaries at Deir el-Bahari,<sup>68</sup> O. Cairo JE 72490 may conceivably have been buried at the same site as an ex-voto on behalf of the entire crew.<sup>69</sup>

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<sup>67</sup> Site 13 of the Carnarvon-Carter excavations, see Reeves, *Valley of the Kings*, 329; Haring, 'Workmen's Marks on Ostraca', 153.

<sup>68</sup> Name stones inscribed with hieroglyphs, recording Senenmut and contemporaneous architects were found in the walls of the tomb of Senenmut and presumably also the valley temple of Hatshepsut, see Hayes, *Ostraka*, 45-47; some of the stones inscribed with marks discovered in the fill of the causeway of the temple of Thutmose III at Deir el-Bahari may have been deposited there by individual workmen; for a discussion see Budka, 'Non-Textual marks', 179-193.

<sup>69</sup> Several hieratic ostraca with name lists of workmen have been found in the Valley of the Kings, but most of these are administrative documents rather than ex-votos. Votive offerings and religious objects of the necropolis workmen have been found in the workmen's huts in the Valley of the Kings, but are not attested in association with royal tombs. On the other hand, votive graffiti from the Ramesside Period are numerous in the Valley of the

None of this can, however, be proven. The provenance of the 18<sup>th</sup> Dynasty ostraca found in the village of Deir el-Medina does not prove or disprove any of the suggested purposes. Only in a few cases has the findspot been recorded, and we can distinguish three sectors. The locations are discussed below for the sake of completeness, if only to illustrate the problem that is connected with all ostraca from Deir el-Medina, whether inscribed with marks, hieratic texts, or any other content: in very few cases are the exact circumstances of the discovery of an ostrakon documented; when such information is available, the provenance is only rarely indicative of the date or the purpose of the ostrakon. There are examples of groups of Ramesside ostraca, both in hieratic and with marks, that are similar in content and that were discovered at the same location as well. In these instances, the findspot is proof that the documents were originally kept together.<sup>70</sup> Still, the *provenance itself* explains little about the *purpose* and *use* of the ostraca, because in most cases the ostraca were found at a dump site. It is rather the content of the ostraca *combined* with a shared provenance that is significant. Because the precise meaning of many of ostraca with marks is unclear, the findspots of the ostraca are of limited value.

### 1. The Grand Puits

At least five ostraca were discovered in or near the Grand Puits, the large pit to the north east of the village to which so many hieratic ostraca as well as domestic and cult objects found their way. The pit appears to have been used as dump site some time in antiquity,<sup>71</sup> and the ostraca from this location were surely found outside of their original context.

ONL 6589	Grand Puits
OL 6788	Kom Grand Puits
ONL 6457	Kom Grand Puits
ONL 6214	Qurnet Murai North, probably Kom Grand Puits
ONL 6216	Qurnet Murai North, probably Kom Grand Puits
ONL 6293	Qurnet Murai North, probably Kom Grand Puits

### 2. Dump sites around the village

At least four ostraca were recovered from spots just outside of the enclosure wall around the houses of the village in what are probably dump sites as well. Because the location of these sites, it is likely that the discarded material originated from the houses of the village.

ONL 6287	village, south east quarter of enclosure wall
ONL 6266	vicinity of tomb DM 1360 in the Western Cemetery, probably from houses
ONL 6305	vicinity of tomb DM 1360 in the Western Cemetery, probably from houses
ONL 6514	perhaps room III in house S.O. IV (located opposite of tomb DM 1360)

### 3. The area north of the houses and the vicinity of the Kom 2

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Kings, see Dorn, *Arbeiterhütten*, 192-193; Sławomir Rzepka, *Who, where and why. The rock graffiti of members of the Deir el-Medina community* (Warsaw 2014), 266-273; 276.

<sup>70</sup> Some fortunate exceptions of groups of hieratic ostraca that were found together at a particular site are discussed by Koen Donker van Heel, 'Clusters of individual handwritings and the duplication of information in the administrative documents from Deir el-Medina' in: Koen Donker van Heel and Ben J.J. Haring, *Writing in a Workmen's Village. Scribal Practice in Ramesside Deir el-Medina*. EU 16 (Leiden 2003), 39-82. See also chapter 3, 3.3.14; 3.3.20.

<sup>71</sup> Most probably not before the 20<sup>th</sup> Dynasty, see Bruyère, *Rapport 1948-1951*, 129-130; Raphael Ventura, 'On the location of the administrative outpost of the community of workmen in Western Thebes' *JEA* 73 (1987), 155-157; Delphine Driaux, 'Le Grand Puits de Deir al-Medina et la question de l'eau : nouvelles perspectives' *BIFAO* 111 (2011), 111-137.



At least three ostraca were found near tombs TT 290 and TT 291, adjacent to the so-called Kom 2. This *kom* too is a dump heap that covered the area between TT 290 and TT 357, which yielded a high amount of ostraca inscribed with literary compositions, besides some documentary ostraca from the 19<sup>th</sup> and 20<sup>th</sup> Dynasty.<sup>72</sup> The heap covered several votive chapels, but the exact date of these structures is not clear. ONL 6340 was found near tomb TT 215, not far removed from the same heap. The exact findspot of ONL 6298 is unknown, but it may have come from the vicinity of tombs north-west of the houses of the village. These five ostraca were all found near votive chapels and tombs, so it would seem possible that they were produced for a votive purpose. Yet, three of the five ostraca are clearly of a documentary nature, because the marks are accompanied by dots and strokes.<sup>73</sup>

OL 6789	perhaps (the vicinity of) tomb TT 291 in the Western Cemetery
ONL 6210	south east of tomb TT 290 in the Western Cemetery
ONL 6520	east of tomb TT 290 in the Western Cemetery
ONL 6340	<i>kom</i> south of tomb TT 215 in the Western Cemetery
ONL 6298	excavated in year 1922: the Western Cemetery, i.a. area of TT 8, tomb of Kha; tomb DM 1138 of Amenwahsu; TT 291, tomb of Nu and Nakhtmin

### 2.3.3 The administrative ostraca from Deir el-Bahari

The majority of the ostraca with marks must have been of an administrative nature. In the absence of written documentary texts from the 18<sup>th</sup> Dynasty community of workmen, one is tempted to widen one's gaze and look across the borders of the Royal Necropolis. During the reign of Hatshepsut the construction of a large tomb for Senenmut (TT 71 + TT 353) was part of the building activity at Deir el-Bahari. Documents from the worksite include figurative ostraca with studies of draughtsmen,<sup>74</sup> as well as ostraca with hieroglyphic inscriptions that were interpreted as *Vorlagen* used in the decoration of the tomb.<sup>75</sup> But more revealing for our current aims are the ostraca with hieratic inscriptions. Apart from copies of funerary and religious texts, copies of literary texts, and letters, the hieratic ostraca from the construction site record the day-to-day administration of the preparation of the tomb. There are records of the progress of labour, notes of inspections, lists of the workmen employed in the project, lists of rations and supplies, dates, measurements, and isolated names.<sup>76</sup>

The 18<sup>th</sup> Dynasty ostraca with workmen's marks from the Royal Necropolis are best comparable to the latter type of administrative documents. Interesting are documents such as ostrakon nr. 62,<sup>77</sup> which records the total in cubic rods (*nby*) that was excavated by a group of masons over the course of one day. Other documents<sup>78</sup> record the individual progress of workmen, each occupied with a different task: cutting out sections of rock, trimming of sections of rock, as well as polishing and painting. Records of the supplies needed in the preparation of the tomb are preserved as well.<sup>79</sup> They document the men who were sent to bring quantities of plaster, water, wood and other supplies. Ubiquitous are lists of individuals involved in the construction project.<sup>80</sup> The lists are accounts of the distribution of rations, records of absence or of activity at the worksite, but in some cases<sup>81</sup> the ostraca are not

<sup>72</sup> Gasse, 'Le K2', 109-120.

<sup>73</sup> ONL 6298; ONL 6340; ONL 6520.

<sup>74</sup> Hayes, *Ostraka*, 5.

<sup>75</sup> Hayes, *Ostraka*, 5-6.

<sup>76</sup> Hayes, *Ostraka*, 5-6.

<sup>77</sup> Hayes, *Ostraka*, 21, pls. XIII.

<sup>78</sup> E.g. ostraca nrs. 63, 64, 66-69, 71-76, see Hayes, *Ostraka*, 21-23, pls. XIII-XVI.

<sup>79</sup> E.g. ostraca nrs. 64 and 65, see Hayes, *Ostraka*, 22, pls. XIII-XIV.

<sup>80</sup> Ostraca nrs. 82-96, see Hayes, *Ostraka*, 23-25, pls. XVII-XIX.

<sup>81</sup> E.g. ostraca nrs. 88 and 89, see Hayes, *Ostraka*, 24, pl. XVIII.

explicit about the meaning of the lists. Groups of masons are sometimes not individually listed but are instead mentioned as a group, e.g. “the 13 masons”, but other ostraca enumerate each individual. Ostraca nrs. 98-115<sup>82</sup> record dates, sometimes in combinations with a proper name, or are inscribed solely with a proper name. Similar brief notes are found on ostraca 116 – 120,<sup>83</sup> which appear to document an individual’s output over the course of one day.<sup>84</sup>

Now there are of course no data that indicate to what extent the administration of the work on the tomb Senenmut overlaps with that of the construction of the royal tomb. The fact alone that hieratic accounts written on ostraca were discarded at the worksite of Deir el-Bahari but not at the construction sites in the Valley of the Kings is a stern warning that the organisation and documentation of work at the two locations may have been very different. Nevertheless, the tomb of Senenmut is of such a grand scale that its preparation must have been in a certain degree similar to that of the royal tomb. Indeed, the architectural features of his tomb resemble that of royal tombs of the 18<sup>th</sup> Dynasty and that of Hatshepsut in particular, despite the fact that Senenmut was no member of the royal family.<sup>85</sup> It has even been suggested that the tomb was decorated by artisans of the royal workshop.<sup>86</sup> For these reasons, and for the lack of a better option, the administrative texts pertaining to the construction of Senenmut’s tomb will serve as a framework for the discussion of the possible meaning and purpose of ostraca with marks from the community of the Royal Necropolis workmen.

### **2.3.4 Analysis of the layout of ostraca with marks**

The accounts created with marks on ostraca from the 18<sup>th</sup> Dynasty occur in many different formats. In most cases it is not possible to connect a particular layout with a specific type of document. Nevertheless, a closer look at the ways in which the marks are arranged on ostraca reveals various aspects of the administration of labour during the 18<sup>th</sup> Dynasty and of the individuals that were involved in this process.

#### **2.3.4.1 Colour use**

The 18<sup>th</sup> Dynasty ostraca were evidently made by individuals who had access to scribal material such as pens and ink. The marks are written in red and/or in black ink, the two colours that are generally used in Egyptian administrative texts. Some ostraca are written entirely in black ink, for other documents only red ink was used. The use of black ink is slightly more frequent than the use of red ink, but no pattern can be detected in the choice for either colour. As far as the material provides any indications, the choice for a particular colour is not bound to a specific provenance or a specific document type. Some ostraca are inscribed with two colours of ink.<sup>87</sup> The usage of a second colour can mostly be explained as later additions to an existing record, or as different sections on an ostrakon that were inscribed at different moments.

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<sup>82</sup> Hayes, *Ostraka*, 25, pls. XX-XXI.

<sup>83</sup> Hayes, *Ostraka*, 26, pl. XXII.

<sup>84</sup> Among the hieratic administrative records made during the construction of sanctuaries at Deir el-Bahari during the reigns of Hatshepsut and Thutmose III are very similar records such as name lists, often headed by a date, which record the labour performed by individual workmen, or the presence and absence of workmen, see Hayes, ‘Tuthmoside Ostraca’, 31 and pls. IX-IXa, ostrakon nr. 2; 47-48 and pls. XIII-XIIIa, ostrakon nr. 21.

<sup>85</sup> Particularly but not exclusively in the separation of the cult chamber and the funerary chamber, see Dorman, *The Tombs of Senenmut*, 163 and n. 469.

<sup>86</sup> Peter F. Dorman, ‘The Tombs of Senenmut’ in: Roehrig (ed.), *Hatshepsut*, 131.

<sup>87</sup> O. Cairo CG 24106; O. Cairo JE 96590; O. MMA 09.184.700; ONL 6354; and O. WV 10; use of different colours for different sides of an ostrakon: ONL 6214 and ONL 6348.

### 2.3.4.2 Ostraca with marks arranged in rows

During the 18<sup>th</sup> Dynasty the preferred layout for ostraca with marks seems to be an arrangement of marks in rows. The marks appear on their own, but almost just as often together with vertical strokes, dots or both. ONL 6298, discussed below, suggests that there may be no meaningful difference between the usage of dots or strokes. Both types of signs appear to be tally marks.

#### *Ostraca with rows of marks without additional signs*

Our corpus contains 66 ostraca inscribed with rows of marks without additional signs. Ostraca of this type have been discovered both at the village of Deir el-Medina and the Valley of the Kings. The greater majority of the ostraca are inscribed in black ink, but there are 23 ostraca with marks in red ink, and one ostrakon with marks inscribed in black ink and others in red.<sup>88</sup> Most of the ostraca in this category (44 instances) do not display a sequence that is known from other documents.<sup>89</sup>

On the remaining 22 ostraca the marks are at least partly in keeping with a fixed, longer sequence. That is certainly the case for O. Ashmolean HO 1114, ONL 6342, ONL 6266, and ONL 6588. The marks on O. Cairo JE 72490, preserved in its entirety, are perhaps written in a semi-fixed order as well. Other ostraca<sup>90</sup> display shorter strings or clusters of marks from a fixed sequence, or record marks in the same relative position within such a sequence.

Two of the ostraca in this category, ONL 6371 and O. UC 45683, are also inscribed with what is tentatively explained as a depiction of a metal spike.<sup>91</sup> In both cases the presumed spike is of a slightly larger size than the marks, and it is respectively drawn above and below the other marks. If the interpretation of this depiction is correct, the two ostraca could be records of the distribution of metal spikes to a group of workmen (11 in both cases) by a supervisor. Other ostraca without the depiction of a spike could of course have a similar purpose.

There is a possibility that O. Cairo JE 96285 is inscribed with the word *irp* ‘wine’. The reading of this word is highly conjectural, but worth contemplating. Amphorae with wine labels are attested in 18<sup>th</sup> Dynasty tombs at Deir el-Medina<sup>92</sup> and so there is *a priori* nothing that contradicts such an interpretation. The document could be a record of the delivery of wine to or by a group of workmen. Other ostraca in this category may similarly record workmen in the context of distribution or delivery of certain commodities.

The meaning of the other ostraca with rows of marks is not immediately clear. Some may be explained in the same way as ONL 6371, O. UC 45683 and O. Cairo JE 96285. It has also been suggested that O. Cairo JE 72490 was an *ex-voto*.<sup>93</sup> An administrative purpose is particularly plausible for ostraca with marks that are arranged in accordance with a sequence

<sup>88</sup> In four instances no details are known about the use colour.

<sup>89</sup> O. Ashmolean HO 1100; O. ARTP 02/236; O. Brock 27; O. Cairo CG 25321; O. Cairo JE 72492; O. Cairo JE 72494; O. Cairo JE 72498; O. Cairo JE 96285; O. Cairo JE 96590; O. Cairo JE 96591; O. Cairo JE 96601; O. Cairo JE 96603; O. Cairo JE 96650; O. Cilli 278; O. KV 10002; O. KV 10012; ONL 6194; ONL 6210; ONL 6216; ONL 6260; ONL 6293; ONL 6316; ONL 6331; ONL 6365; ONL 6370; ONL 6402; ONL 6407; ONL 6410; ONL 6423; ONL 6424; ONL 6443; ONL 6454; ONL 6461; ONL 6565; ONL 6568; ONL 6579; ONL 6601; O. Parker H 5; O. Strasbourg H 193; O. UC 45683; O. WV 1; O. WV 8; O. WV 9; O. WV 11; and O. WV 12.

<sup>90</sup> O. Cairo JE 72490; O. Cairo JE 96630; O. Cairo JE 96631; O. KV 10004; O. KV 10010; O. MMA 09.184.786; ONL 6302; ONL 6339; ONL 6371; ONL 6400; ONL 6416; ONL 6444; ONL 6465; ONL 6600; OL 6789; O. Parker H 7; and O. UC 45708.

<sup>91</sup> See below, p. 159.

<sup>92</sup> E.g. tomb DM 1156, see Bruyère, *Rapport 1928* II, 34.

<sup>93</sup> See above, p. 140.

attested elsewhere. They may be lists of workmen that were present at the worksite at a particular day.

#### *Ostraca with rows of marks and with vertical strokes*

The corpus contains seven ostraca of this kind, found both at the village as well as the Valley of the Kings. Three of these ostraca do not seem to have been written in accordance with a sequence,<sup>94</sup> the other four at least partly so.<sup>95</sup> The vertical strokes are added below the marks,<sup>96</sup> underneath or to the right,<sup>97</sup> or above, to the right or to the left.<sup>98</sup> In virtually all ostraca, the marks are either accompanied by one or by two marks. The exception is perhaps ONL 6354, where on one of the sides a row of five vertical strokes are inscribed, but it is not clear if they belong to a specific mark or not. The strokes are generally written in the same colour of ink as the marks, apart from O. Ashmolean HO 892. There, the strokes are inscribed in black ink whereas the marks are written in red. This could be an indication that the strokes were added at a later point.

The meaning of these ostraca is unclear. One would expect the ostraca with marks written according to a sequence to be related to the official tomb administration, but we are unable to determine what is tallied. It is problematic to explain ostraca with strokes as accounts of the distribution of rations among the workmen, because in five ostraca (O. Ashmolean HO 892, ONL 6345, ONL 6346, ONL 6489, and O. Varille 423) there are several marks that are not accompanied by any strokes. It seems unlikely that some workmen were not paid at all. In addition, we do not recognise a distribution of the strokes in accordance with ranks: marks with one or with two strokes are attested both at the beginning, the middle and the end of a sequence of marks. Still, this explanation cannot be excluded, especially because we have no knowledge of the provision of the workmen during the 18<sup>th</sup> Dynasty. It is also possible that these ostraca record the individual output of a workman during a day's work, individual presence or absence during a specific timeframe, or the consumption of a certain commodity by individual workmen.

#### *Ostraca with rows of marks and with dots*

There are 26 ostraca with marks arranged in rows that are accompanied by dots. These ostraca originate both from the Valley of the Kings as well as from the village of Deir el-Medina. The dots on the ostraca in this category are often added underneath the marks (six ostraca), but they occur in several other positions as well.<sup>99</sup> The great variety suggests that the exact position of the dots was hardly relevant to the scribes of these ostraca.

Thirteen ostraca are completely or partly inscribed with a sequence of marks that is attested on other documents.<sup>100</sup> The marks on O. WV 4 are not ordered in such a way, but the marks are clearly related to an existing order. Whether the marks of ONL 6401 adhere to a sequence is unclear. Most of the ostraca contain one or two dots per mark. 11 Ostraca are not

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<sup>94</sup> ONL 6346; ONL 6489 and O. WV 2.

<sup>95</sup> O. Ashmolean HO 892; ONL 6354; ONL 6514; and O. Varille 423.

<sup>96</sup> O. Ashmolean HO 892; ONL 6354; ONL 6346; and ONL 6489.

<sup>97</sup> O. Varille 423 and O. WV 2.

<sup>98</sup> ONL 6514.

<sup>99</sup> On other ostraca, the dots are positioned above the marks (two ostraca), to the left the marks (one ostraca), to the left and underneath the marks (one ostraca), over the marks (one ostraca), over and underneath the marks (one ostraca), above and underneath the marks (two ostraca), above and to the right of the marks (one ostraca), right and underneath the marks (one ostraca), above, underneath, and to the left of the marks (one ostraca), above, underneath, to right and left of the marks (eight ostraca), and surrounding the marks (one ostraca).

<sup>100</sup> O. Cairo CG 24107; O. MMA 09.184.700; OL 6788; ONL 6372; ONL 6405; ONL 6509; ONL 6562; O. Stockholm MM 14130; O. UC 31988; O. UC 45709; O. WV 3; O. WV 10; and O. WV 13.

inscribed with an order of marks that is in accordance with an attested sequence, but the dots appear to function in the same way: they are most often added in ones or twos, but occasionally in larger quantities.<sup>101</sup>

On most ostraca the dots are inscribed in the same colour as the marks are, but there are exceptions in which the dots are added in a different colour.<sup>102</sup> The inscriptions on O. Stockholm MM 14130 and O. WV 10 are a more complicated matter. The latter ostrakon contains both a series of red marks and a series of black marks. The black marks are accompanied by black dots exclusively, and the red marks by both red and black dots. It would therefore appear that the red marks with red dots were inscribed at an earlier phase, and the black marks with black dots at a second stage. At this point black dots may have been added to the red marks as well. We may propose a similar scenario for O. Stockholm MM 14130, inscribed with black marks exclusively. The black dots added to the marks are fine points added with the tip of a pen. They could have been added at the same moment the marks were inscribed. The red dots on the other hand are mostly far thicker. They are large blobs of ink, and in most cases they are visibly added over one or two earlier black dots. These red additions could be either check marks or corrections.

On O. MMA 09.184.700 and O. Cairo JE 72450 a single mark is accompanied by a single dot, which could be nothing else but a check mark left by the scribe when he revised his inscription. On O. WV 4 and ONL 6529 we appear to be dealing with check marks as well. That is suggested by the fact that a different colour of ink is used for the dots, and that dots are added inside or over the marks. In analogy with these documents, ostraca with marks accompanied by a single dot each (ONL 6401; ONL 6499) or with some marks with a single dot next to it (O. KV 10011; OL 6788; ONL 833; ONL 6340; ONL 6405; ONL 6510; O. WV 3; O. WV 13) could be similar records in which the scribe ticked off the marks as he went through his document to double check the account.

On four ostraca each mark is accompanied by either one or two dots,<sup>103</sup> and in two ostraca either one or two dots are added to almost every single mark.<sup>104</sup> These documents may well be similar to ostraca with marks with one or two strokes added to them. But besides these ostraca we encounter in this category marks with a larger number of dots. The ostraca in question may well be different from ostraca with single dots, or with one or two dots added to particular marks. The distinction is based on the facts that in ostraca with larger quantities of dots, there are no marks without any dots. We count two or three dots per mark (O. WV 6), one, two or three dots (ONL 6372), one to four dots (O. UC 31988), around seven dots (ONL 6646), between one and nine dots (ONL 6486), and between one and nineteen (O. Cairo CG 24107).

Because the 18<sup>th</sup> Dynasty ostraca with marks are typically implicit about their content, it is unclear what the meaning of the dots is exactly. It seems evident that among the ostraca in this category there are documents that deal with the crew of workmen in its entirety, such as OL 6788, O. Stockholm MM 14130 and O. WV 3. These and other ostraca record the marks in a semi-fixed order. This suggests they are records of the collective tomb administration. Evidence of the revision of documents and of check marks points in the same direction. Still, it is not clear what it is that the dots are counting. Single dots could be check marks. There seems to be a distinct subcategory of ostraca with marks accompanied by either one or two dots. We recognise this type of documents from the category of marks with

<sup>101</sup> O. BTdK 833; O. Cairo JE 72450; O. KV 10011; ONL 6223; ONL 6340; ONL 6486; ONL 6499; ONL 6520; ONL 6529; ONL 6646; and O. WV 6.

<sup>102</sup> Black marks and red dots: O. Cairo JE 72450; ONL 6510; red marks and black dots: ONL 6529; O. UC 45709; O. WV 4.

<sup>103</sup> ONL 6509; ONL 6562; O. UC 45709; O. WV 10.

<sup>104</sup> ONL 6223; O. Stockholm MM 14130.

vertical strokes. Some of these documents, as well as the ostraca with marks and greater number of dots could be accounts of the distributions of rations. Yet we cannot exclude the possibility that documents record the output of labour on the tomb, but they could record something entirely different.

*Ostraca with rows of marks and with vertical strokes and dots*

Only a small number of the ostraca with marks arranged in rows are inscribed with both vertical strokes and dots. Three were discovered in the village and one was found in the Valley of the Kings. Two ostraca<sup>105</sup> are written in a meaningful, ordered sequence that is attested on other documents, and seem to record the complete workforce. A meaningful sequence is not detected in the other two ostraca.<sup>106</sup> In one ostrakon (O. Cairo CG 24105) the marks and additional dots and strokes are of the same colour, but in the other three ostraca both black and red ink is used.

O. Cairo CG 24105 is also different in that it records marks with either dots or strokes. In fact it is only the first mark of the sequence that is accompanied by strokes. It is possible that the strokes record the exact same thing as the dots. The scribe may have simply continued with dots in the rest of the document after a short break.

The reverse of ONL 6348 displays two marks without dots or strokes, but the obverse is different. It is inscribed in black ink with three marks: one mark has three red dots; one mark has three strokes and one dot; and the last mark has one dot and one stroke. The colour difference clearly indicates that the dots and strokes were added after the marks were inscribed. Whether there is a difference between dots and strokes is difficult to determine, but that need not be the case.<sup>107</sup>

In contrast, the dots and strokes on ONL 6286 are added in both red and black ink, while all marks are black. One vertical stroke is inscribed left of mark ⤴, and what are perhaps three short strokes are situated below mark Δ. The meaning of the red signs, assumedly added at a later point, is unclear. A single black dot is added to one mark, one or two vertical strokes are added to others, and one mark is accompanied by two short horizontal strokes. Again we do not know if there is a difference between these signs.

However, ONL 6289 suggests that dots and strokes signify the same thing: they are tallies that represent a quantity that is connected with a specific workman. This quantity can be conveyed with dots, vertical, horizontal and even diagonal strokes. Although dots and strokes of different quantities, shapes and colours are combined (e.g. a single mark accompanied by one black vertical stroke, one red vertical stroke and one red dot), the shape of the strokes is always consistent per mark. For example, above mark ▯▯ one black diagonal stroke and two red diagonal strokes were added, but there are no instances of marks with vertical as well as horizontal strokes. The quantities in horizontal, vertical and diagonal strokes also suggest that they do not mean something different: per colour they are added as a single stroke, or in pairs or triples. Hence the total number of strokes never exceeds six regardless of their shape. On ONL 6289 the dots seem to be tally marks, just as the strokes are. We come to that conclusion because the number of dots inscribed in a particular colour is never larger than three, like the strokes. Moreover, it is often difficult to distinguish dots from a very short stroke, indicating that the scribe did not make an effort to differentiate between dots and strokes. Together, the dots and strokes of both colours seem to convey a quantity between one and six for each recorded workman on ONL 6289. The marks on this ostrakon are all written in black ink and seem to have been inscribed in one go. Black dots and strokes would seem to have been added to the marks at the same moment and red strokes may have

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<sup>105</sup> O. Cairo CG 24105 and ONL 6298.

<sup>106</sup> ONL 6287 and ONL 6348.

<sup>107</sup> Compare ONL 6289 below.

been added at a later point, in the sense that the document may have been reused for another administrative round.

The evidence thus leads us to believe that dots and strokes were employed in the same way. It is nevertheless still unclear what the tallies represent. In the ordered list of O. Cairo CG 24105 there is no proof of an arrangement according to rank, in which the workmen at the beginning of the sequence are the recipients of larger portions than the workmen further down the sequence: mark  $\sqcup$  (position 1) is connected with seven strokes; mark  $\wp$  (position 2) is connected with perhaps six dots; but mark  $\wp$  (position 6) is connected with 14 dots. In contrast, the list of ONL 6298 may have been arranged in accordance with the rank or rather seniority of the workmen.<sup>108</sup> The sequence opens with  $\wp$ , identified as the mark of foreman Kha. His mark is accompanied by a total of six strokes, while the other individuals recorded in the list of ONL 6298 are associated with a smaller quantity. The figures connected with the marks in positions 2 – 6 are relatively high as well (three or four).

If the idea that strokes and dots are essentially the same sort of tally marks is valid, then the ostraca in this category are probably no different from the ostraca in the categories discussed above. ONL 6298 and O. Cairo CG 24105 appear to record the entire workforce and are in all likelihood documents of the collective administration. One would expect them to deal with matters such as the output of labour, absence or presence at the worksite, or the distribution of goods. ONL 6287 and ONL 6348 could in theory record private matters as well.

### 2.3.4.3 Ostraca with marks in compartmented sections

Ostraca of this sort are exceedingly rare during the 18<sup>th</sup> Dynasty. We know of two examples from the village and one from the Valley of the Kings. The best preserved and clearest instance of this document type is ONL 6643. At least nine marks are inscribed in compartmented sections, demarcated by black lines. Each mark occupies a rectangular space. Below each mark a series of vertical strokes are inscribed, sometimes accompanied by one or two dots as well. Like the dots in the ostraca of the previous category, the meaning of the dots on ONL 6643 is not quite clear. They may not be any different from the vertical strokes. Indeed, some of the dots could in fact be very short strokes. Other dots are very faint and small, and were perhaps made by the scribe when he recounted the strokes he had added below each mark. The number of strokes ranges between one and seven, and are probably tally marks. It has been pointed out above that the marks are probably inscribed in accordance with their relative position in the sequence of OL 6788, which speaks in favour of an interpretation of ONL 6634 as an administrative tomb record.

ONL 6692 is a similar ostrakon but is preserved in a far less favourable state and therefore it cannot be properly compared. No dots or strokes seem to have been added to the marks, which in turn are apparently not inscribed in accordance with any known sequence. The document is therefore not necessarily a record of the collective administration. Still it is possible that dots and/or strokes were to be inscribed at a later moment.

Mention should here be made of O. BTdK 832, the date and meaning of which are far from but clear. The layout of this ostrakon is rather dissimilar to the other ostraca. Here, wavy lines are drawn between the assumed marks, perhaps to create compartmented sections in order to separate series of dots added to one mark from the dots added to the next.

### 2.3.4.4 Ostraca with marks not arranged in rows or columns

*Ostraca with marks not in rows or columns without additional signs*

<sup>108</sup> More on this matter, see below, 2.6.5.

Of the 18 ostraca in this category six were discovered in the Valley of the Kings. The remainder was found in the village of Deir el-Medina. As one might expect, the disordered scattering of marks over the surface of the ostrakon means that the scribe did not organise the document in accordance with a specific order of marks. However, the influence of such a sequence is still recognisable in O. WV 5 and ONL 6203, and could indicate that these ostraca were made as part of the collective tomb administration. The other 16 ostraca<sup>109</sup> may well have been similar documents. It is conceivable that they are brief notes of attendance of individual workmen at the worksite on a specific day. However, they may just as likely be unrelated to labour. For all we know such ostraca represent private accounts listing individuals involved in a certain transaction. Particularly ostraca with smaller numbers of marks are more likely explained in this way.

*Ostraca with marks not in rows or columns and with vertical strokes*

We possess four ostraca in which marks, scattered over the surface, are accompanied by vertical strokes. Three ostraca originate from the village and one ostrakon was found in the Valley of the Kings. In each document one colour of ink is used for the marks as well as the strokes. Unsurprisingly, the marks on two ostraca<sup>110</sup> do not adhere to a semi-fixed sequence attested elsewhere, but in the two other ostraca<sup>111</sup> this may indeed be the case. The strokes that accompany the marks are situated at various positions. They are added above the marks,<sup>112</sup> underneath the marks,<sup>113</sup> to the right or left of the marks,<sup>114</sup> and above, underneath or to the right of the marks.<sup>115</sup> The account on O. Cairo CG 24108 appears to have undergone a lot of revision. Dark smudges surrounding several marks indicate that several marks were deliberately erased by the scribe, and the ostrakon may have been reused.

On ONL 6504, each mark seems to be accompanied by either one or two strokes. The other ostraca display greater numbers of strokes. On O. IFAO C 1298 only a single mark is accompanied by a total of three strokes, but the ostrakon is very fragmentary. It is unclear if strokes were added to the other marks too. On ONL 6544 – likewise fragmentary – two marks are accompanied by four and by five strokes. On O. Cairo CG 24108 between two and six strokes are added to the marks.

There are no reasons to believe that the strokes in this category of ostraca are any different from the strokes added to marks that are neatly arranged in rows. Therefore the purpose of ostraca with marks not arranged in rows or columns accompanied by vertical strokes is probably similar as well: they could be accounts of the delivery or distribution of goods among the members of the workforce, overviews of the days of work recorded for individual workmen, or documents that are directly related to the progress of the work on tomb. Unfortunately the evidence does not point to a particular direction. The large number of marks on O. Cairo CG 24108 suggests that it must have been a document of the collective tomb administration. That cannot be said of the other three fragmentary ostraca, and they could theoretically be private accounts as well.

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<sup>109</sup> O. Cairo JE 96585; O. Cairo JE 96587; O. Cairo JE 96606 B-C; O. Cairo CG 25327 bis; O. MMA 09.184.770; ONL 6207; ONL 6214; ONL 6307; ONL 6341; ONL 6362; ONL 6415; ONL 6457; ONL 6475; ONL 6564; ONL 6589; and ONL 6608. Note that the date of ONL 6589 and ONL 6608 is uncertain.

<sup>110</sup> O. Cairo CG 24108 and O. IFAO C 1298.

<sup>111</sup> ONL 6504 and ONL 6544.

<sup>112</sup> ONL 6544.

<sup>113</sup> O. IFAO C 1298.

<sup>114</sup> ONL 6504.

<sup>115</sup> O. Cairo CG 24108.



*Ostraca with marks not in rows or columns and with dots*

The five ostraca that constitute this category have all been found at the village of Deir el-Medina. It does not follow that this particular document type is specific for this location, because the ostraca within this group are quite different from each other. We observe that the dots are added below the marks,<sup>116</sup> to the right of the marks,<sup>117</sup> to the right and left of the marks,<sup>118</sup> above, to the right and left of the marks<sup>119</sup> and over the marks.<sup>120</sup> In all cases the marks and dots have been written in the same colour of ink, except for ONL 6349. On the latter ostrakon charcoal is used to inscribe the marks, and a single small red dot has been added next to one of them. It is unclear if it is meaningful, and it could have been left by a scribe – the original scribe or a second individual – that revised the document and let his pen rest next to one of the marks whilst counting the total of marks on the ostrakon.

Despite a rather disorganised arrangement of the marks on most of the ostraca of this category, O. Turin N. 57310 and ONL 6305 do appear to have been composed by an individual who was familiar with the fixed order of workmen. On the former ostrakon a single dot appears to have been added to each mark, in the latter the number of dots is higher. It is unclear if each mark received a series of dots, but the number of dots that is attested per mark ranges from one to four.

The marks on ONL 6272, ONL 6349 and ONL 6516 do not appear to follow a specific order. Whether the dot on ONL 6349 is meaningful is uncertain. In ONL 6272 a large dot was added on top of each mark. We may assume they are check marks, added by a scribe who used the original inscription on the ostrakon as a list of a group (or perhaps all) workmen, and then crossed them off at some point. It is therefore conceivable that the ostrakon was used during the distribution of goods. Alternatively the ostrakon could be a checklist employed at the beginning of a workday to record the men that were present at the site. Regarding ONL 6516 it is not clear if each mark was accompanied by dots, but the preserved marks display two and six marks.

Again it would appear that there is no reason to suspect that the ostraca with marks that are not arranged in rows are any different from ostraca with marks that are. In both categories we recognise documents that adhere to a particular sequence, and documents that do not, and in both categories we encounter dots that may be check marks, and dots that are probably tally marks. The five ostraca mentioned in this section presumably served the same purpose as those discussed above.

*Ostraca with marks not in rows or columns and with dots and strokes*

This category of ostraca contains but two pieces, one from the Valley of the Kings,<sup>121</sup> the other from the village.<sup>122</sup> Whereas the latter ostrakon may be related to the sequence of O. Cairo JE 96650, the marks on the former ostrakon appear to have been distributed over the surface of the ostrakon at random. ONL 6630 is very fragmentary and therefore difficult to interpret. Four (plus more?) and six vertical strokes are positioned underneath two marks respectively. Up to five dots are visible above these marks but it is not quite certain if they too were added to a workman's mark.

O. Cairo CG 24106 is preserved in its entirety, but grasping the meaning of the document is no less difficult. The strokes and dots feature mostly right of the marks but also

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<sup>116</sup> O. Turin N. 57310.

<sup>117</sup> ONL 6349.

<sup>118</sup> ONL 6516.

<sup>119</sup> ONL 6305.

<sup>120</sup> ONL 6272.

<sup>121</sup> O. Cairo CG 24106.

<sup>122</sup> ONL 6630.

left of and underneath the marks, as well as above and within the contours of the marks. Some marks are accompanied by dots exclusively, others only by strokes, and three marks by both dots and strokes. As we observed earlier, there are no clear indications that dots and strokes have a distinct meaning, and on O. Cairo CG 24106 too it is sometimes difficult to tell a dot from a small stroke. In the case of marks  $\text{D}$  and  $\text{X}$ , where dots are added inside of the contours of the mark, it seems the scribe opted for the usage of dots because of the limited space. It would thus seem that the dots and strokes were both used as tally marks. Combined, the dots and strokes record rather high figures that range between one and 29. It is clear that this ostrakon has been reused. There are smudges of red ink around some of the marks that indicate the deliberate erasure of strokes or dots. The ostrakon would therefore seem to have been adjusted on at least one occasion. This may explain to some extent the difference in the colour of the marks, and of the dots and strokes added to them. We count 15 black marks and 11 red marks. Then there are three marks that were redone in a different colour of ink. It is unclear in which colour these three marks were written in first instance, but we can make a case for black ink. Because there are more black marks than there are red marks, we may for the moment assume that the ostrakon was initially inscribed with black marks, to which red marks were added at a later stage. The colour of the strokes that accompany the marks suggests the same. We notice that there are five, perhaps six marks which have both red and black marks added to them:  $\text{A}$ ,  $\text{X}$ ,  $\text{B}$ ,  $\text{M}$ ,  $\text{N}$ ,  $\text{O}$  and maybe  $\text{H}$ . In the case of  $\text{A}$ ,  $\text{B}$ ,  $\text{M}$ ,  $\text{N}$  and  $\text{O}$ , the black strokes are situated at the centre of the series of strokes, flanked on both ends by red strokes. It would thus appear that the red strokes were added around the black strokes,<sup>123</sup> probably because the red strokes were added at a later stage. By association, the red marks may have been inscribed at the same stage. It could have been at that moment that some of the originally black marks (and some strokes as well) were traced in red ink, because the original black ink had faded. If we now reconstruct the different phases in the ostrakon's usage, we envisage a scribe picking up a piece of limestone to inscribe it with a list of workmen's marks. To these marks he added both strokes and dots, presumably as tally marks. At a later stage, the scribe returned to his document, erasing some dots and strokes. Either then or at a later moment, he added new marks with dots and/or strokes in red ink, and also added some red dots and/or strokes to already existing marks and their tallies. If this reconstruction is correct, then the document records an accumulation of data. It is unknown how much time passed between each phase in the usage of the ostrakon. Since more workmen's marks seem to have been added, we may be dealing with a record of different workdays. The marks of the workmen who were added later may not have been present at the worksite on the day the first marks were inscribed in black ink. As such, O. Cairo CG 24106 could document the individual progress made by the workmen over the course of some days. This remains highly uncertain because it would then be very odd that some tally marks were erased. For this ostrakon to be a record of the accumulated progress of workmen over time, the erased spots have to be explained as mistakes of the scribe or as the remnants of an even older phase of the document.

### 2.3.4.5 Ostraca with a single mark

There are 26 ostraca that are completely preserved and display nothing more than a single mark, or a double instance of the same mark.<sup>124</sup> Apart from O. KV 63 (perhaps dating the 18<sup>th</sup> Dynasty), they were all discovered at the village of Deir el-Medina. These pieces appear to

<sup>123</sup> Although one red stroke below mark  $\text{O}$  seems to have been squeezed in between two black strokes.

<sup>124</sup> O. IFAO C 1443; O. IFAO C 2503; O. IFAO C 3271; O. IFAO C 7635; O. KV 63; ONL 6198; ONL 6202; ONL 6206; ONL 6326; ONL 6330; ONL 6332; ONL 6333; ONL 6334; ONL 6335; ONL 6336; ONL 6343; ONL 6345; ONL 6352; ONL 6353; ONL 6357; ONL 6363; ONL 6368; ONL 6369; ONL 6390; ONL 6398; and ONL 6403.

form a distinct group, because except for O. IFAO C 3271<sup>125</sup> they were all inscribed on chips of limestone. A slim majority (15 instances) is inscribed in red ink.

Because each ostrakon is inscribed with a single mark they cannot be documents made for the collective tomb administration. Instead, the objects in this group are similar to so-called name stones. Ramesside name stones from Deir el-Medina are pieces of limestone inscribed with a single name, usually written in hieratic. Their exact purpose is unclear, but they have been explained as countermarks that were to be handed over to the directors of the workforce in exchange for rations or tools. Because the discussion of such ‘administrative objects’ has exclusively focussed on evidence from the Ramesside Period, we will return to this issue in chapter 4.<sup>126</sup> For now it suffices to state that the evidence for an interpretation of these pieces as countermarks is meagre. The theory cannot be refuted, but it seems equally plausible that these stones were used in the private domain. Frustratingly, the exact findspot in the village has not been recorded for any of the 18<sup>th</sup> Dynasty ostraca with a single mark. We propose the theory that the stones may have been placed in a certain space, perhaps a house or a store room, to designate its owner. It is also possible that the stones were used as ex-votos in (the construction of) private tombs, religious chapels or domestic shrines.<sup>127</sup>

Ostrakon O. OIM 19206 is also inscribed with a single mark, but it is evidently of a documentary character. It displays mark 𐀀 accompanied by 10 vertical strokes that may or may not tally a workmen’s individual output over the course of a workday.

#### 2.3.4.6 Unclear ostraca

Three ostraca, ONL 6546, ONL 6558 and ONL 6580, are too fragmentarily preserved to analyse.

### 2.4 SCRIBES AND SCRIBAL COMPETENCE

In section 2.1 it has been demonstrated that the 18<sup>th</sup> Dynasty ostraca with marks are datable to the period between the reign of Thutmose III and Amenhotep III, and that there are vague indications that some ostraca could have been made after the reign of Amenhotep III. The corpus of 18<sup>th</sup> Dynasty ostraca as identified in this chapter, including ostraca inscribed with only one mark, consists of 138 examples. This figure is extremely small considering that the timespan between the beginning of the reign of Thutmose III and the end of the reign of Amenhotep III amounts to about 125 years. If we suppose for a second that the 138 ostraca available to us represent only 10%<sup>128</sup> of the original amount of ostraca that were ever created during this period, that would still mean that c. 12 ostraca with marks were authored every year. The small amount of ostraca with marks is paralleled by the finds of the controlled excavations conducted by the University of Waseda in the area of the workmen’s hut near the tomb of Amenhotep III, which yielded no more than 12 ostraca with identity marks on them. Surely this site was already disturbed before modern excavations took place, but we get the impression that ostraca with marks were not created on a daily basis.

One of the questions we are concerned with in the current section is the chronological distribution of the ostraca, as we wonder if there is a development in the usage of marks and

<sup>125</sup> It is uncertain if O. IFAO C 3271 is preserved in its entirety and it may be an ostrakon of a different type.

<sup>126</sup> See chapter 4, 4.3.3.4.

<sup>127</sup> For possible use of stones with marks as ex-votos, see above, p. 140.

<sup>128</sup> Cf. an estimation by Janssen, ‘Literacy and Letters’, 85-86; admittedly, this percentage is far from accurate. Janssen’s calculation is based on a group of ostraca recording deliveries and duty rosters from a very specific period in the history of the written administration of Deir el-Medina: years 24 – 31 of Ramesses III; the ostraca in question do not appear to be representative for the entire Ramesside Period. In fact, ostraca composed with marks suggest that after year 2 of Ramesses IV the hieratic scribe responsible for this specific type of documentation discontinued the practice, while a different individual carried on producing records of deliveries and the duty roster using marks, see chapter 3, 3.3.20.

the production of ostraca. This question is, however, problematic. It has been discussed that there may well exist an archaeological bias in the material available to us, but it is difficult to assess its severity and we are unable to compensate for it. We may only look at the data as they present themselves to us and draw tentative conclusions from it. Excluding ostraca of which the date is unclear, as well as ostraca inscribed with a single mark only, the chronological distribution of ostraca is as follows:

Group A:	Thutmosis III	4 + 10 attributed ostraca	14
Groups A-B:	Thutmosis III – Amenhotep II	2 attributed ostraca	2
Group B:	Amenhotep II	5 + 11 attributed ostraca	16
Groups B-D:	Amenhotep II – Amenhotep III	5 attributed ostraca	5
Group D:	Amenhotep II – Amenhotep III	5 + 9 attributed ostraca	14
Groups D-C:	Amenhotep II – Amenhotep III	12 attributed ostraca	12
Group C:	Amenhotep III (and later?)	12 + 48 attributed ostraca	60

The blocks consisting of ostraca attributed to groups B-D, D and D-C contain most probably ostraca that were inscribed during the reign of Thutmosis IV, but it is very difficult to identify which ostraca exactly. Because the groups between group B and group C are not very accurately dated, the overview makes somewhat more sense when the intermediate groups A-B, B-D and D-C are seen separately from the ostraca attributed to the four core groups:

Group A:	14 ostraca	Group A-B:	2 ostraca
Group B:	16 ostraca	Group B-D:	5 ostraca
Group D:	14 ostraca	Group D-C:	12 ostraca
Group C:	60 ostraca		

A slight increase in the number of ostraca in the core groups is visible, and the same development appears to take place in the ostraca in the intermediate groups. The larger number of ostraca towards the later part of the 18<sup>th</sup> Dynasty could be due to archaeological circumstances. Moreover, we do not know exactly how far group C extends beyond the reign of Amenhotep III. On the other hand, the growing frequency of ostraca with marks is understandable in the light of the increased number of workmen.<sup>129</sup> More workmen will probably have meant more labour, and therefore more administration. Apart from the documentation of activities at the worksite, the infrastructure of the provision of an increased number of workmen<sup>130</sup> would also have become more challenging, which could have caused the necessity for more administrative documents. An even simpler reason is that a larger group of workmen would be able to generate a greater number of ostraca.

Certainly, there are indications that the ostraca from the 18<sup>th</sup> Dynasty were not all created by a single individual. That becomes quite evident when the handwriting of the documents is compared, which display many different hands. Some insights into the palaeography of the 18<sup>th</sup> Dynasty ostraca will here be offered, but it must be explicated from the onset that they do not follow from extensive palaeographic research. They are mere suggestions that deserve to be elaborated in future research. It is therefore with some reservations that we propose to identify the scribe of O. WV 3 (FIG. 4) with that of OL 6788 (FIG. 5) on the basis of the similarity of the marks. Two other ostraca with a very similar sequence, O. Stockholm MM 14130 (FIG. 6) and ONL 6298 (FIG. 7) cannot date far apart from O. WV 3 and OL 6788, yet seem to have been made by different scribes. What is more, the

<sup>129</sup> See below, 2.6.6.

<sup>130</sup> As can be surmised from the total number of identity marks on completely preserved ostraca, see below, 2.6.6.

hand of O. Stockholm MM 14130 is not evidently the same as that of ONL 6298. If these tentative remarks are correct, there would have been at least three more or less contemporaneous individuals who created ostraca with marks during the reign of Amenhotep III.



FIGURE 4. DETAILS OF O. WV 3



FIGURE 5. DETAILS OF OL 6788



FIGURE 6. DETAILS OF O. STOCKHOLM MM 14130

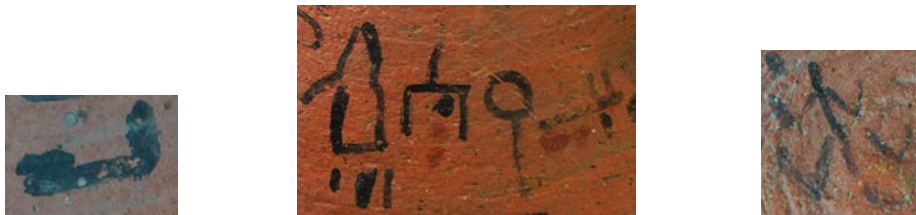


FIGURE 7. DETAILS OF ONL 6298

In support of this view is O. WV 10, which displays two lines of marks that must have been written by two different persons (FIG. 8). The handwriting of the marks in the upper line is very refined. The shapes of the marks borrowed from hieroglyphic script such as  $\text{𓂏}$ ,  $\text{𓂐}$  and  $\text{𓂑}$ , are elegant and well balanced. Although written in a few quick strokes, they display fine details, such as the hand in mark  $\text{𓂐}$  and the horns of the viper in mark  $\text{𓂑}$ . The marks are all approximately of the same height and width, and the strokes were made in a steady hand. The marks are all more or less horizontally aligned. Two flat but broad signs  $\text{𓂒}$  and  $\text{𓂓}$  are written one above the other to create an evenly spaced square, as would have been done by a hieroglyphic scribe. The inscription has all the hallmarks of someone who was trained in drawing hieroglyphs. In contrast, the marks in the second line appear to be the work of a different man who was not professionally trained as a scribe. His marks are larger, written in thicker, sloppier strokes. His lines are not very fluid or straight but rather squiggly. The marks themselves are not all of an even size, and they are less well aligned. The ductus and shape of mark  $\text{𓂔}$  is not evidently hieroglyphic. This contrast demonstrates that two different men had used the ostracon, seemingly to create a single document.<sup>131</sup>

<sup>131</sup> O. MMA 09.184.700 was inscribed by two different individuals as well, perhaps by the same two men who created O. WV 10.



FIGURE 8. DETAILS OF O. WV 10

Hence there are reasons to assume that several contemporaneous individuals occasionally took to writing ostraca with marks. Nevertheless, some men may have done this more often than others. A cursory comparison of the shape of marks on other ostraca to the handwriting of the scribe that authored O. WV 3 and OL 6788 suggests that the same man also made O. WV 1, O. WV 8, the red marks on O. MMA 09.184.700 and perhaps the upper line of marks in O. WV 10. Likewise, it seems probable that the four ostraca found near the tomb of Amenhotep II (O. Cairo JE 24105 – 24108) were created by the same man. O. Cairo JE 96630 and O. Cairo JE 96631, found together as well, also seem to have been made by a single same hand. Additionally it is proposed that O. Cairo JE 72490 and O. Cairo JE 72494 were made by one individual, and it seems likely that O. Strasbourg H 193, ONL 6302 and O. Cairo JE 96285 can be assigned to yet another scribe.

It is very difficult to make any statements about the identity of the persons that created the ostraca with workmen's marks, because we barely have data about any of the individuals that worked in the royal tombs of the 18<sup>th</sup> Dynasty.<sup>132</sup> The evidence does allow us to offer some general remarks. To begin with, there are no indications that scribes trained in hieratic script were involved in the composition of documents with marks. That is suggested by the fact that nothing in the layout, style, and content of the ostraca is reminiscent of hieratic. Whereas ostraca from the Ramesside Period occasionally combine marks with hieratic numerals and other hieratic signs, no hieratic is found in the documents available to us. Similarly, no hieratic ductus is evident in any of the marks on the 18<sup>th</sup> Dynasty ostraca, which stands in contrast to the Ramesside ostraca as well. It is clear that the corpus of 18<sup>th</sup> Dynasty marks includes several specimens that are borrowed from hieroglyphic script, such as 𓂏, 𓂐, 𓂑, 𓂒, 𓂓, 𓂔 and 𓂕. None of these marks occur in a hieratic variant. On the contrary, numerous marks are written in a (cursive) hieroglyphic ductus. The only exception is perhaps mark 𓂖, and its allomorph 𓂗, which may or may not have been a hieratic variant of mark 𓂘, interpreted as Gardiner sign Q3 with the phonetic value *p*.<sup>133</sup> Yet, even the single inscription on a 18<sup>th</sup> Dynasty ostrakon that may be textual has been written predominantly with signs that occur in hieroglyphic script.<sup>134</sup>

If the 18<sup>th</sup> Dynasty ostraca were not made by professional hieratic scribes, the question arises if the individuals that did create them were literate, and if so, to what extent. This is a very complicated issue and there is not enough data to provide a comprehensive answer. It

<sup>132</sup> See chapter 1, 1.3.1; 1.4.1.

<sup>133</sup> See p. 89, ONL 6461 and p. 106, ONL 6465.

<sup>134</sup> O. Cairo JE 96285.

can be pointed out that the layout of several ostraca is of such a disorganised nature that one would not expect them to have been made by someone thoroughly familiar with scribal practices. Ostraca from the 18<sup>th</sup> Dynasty with series of marks appear generally in two different formats. Most frequent are documents with horizontal lines of marks. In the other type marks are not arranged in rows or columns, but are distributed – seemingly – at random over the available surface of the ostrakon. It has also been remarked above that there are several ostraca in which the marks are written along the contours of the ostrakon.<sup>135</sup> In addition there are ostraca which are written in *boustrophedon*.<sup>136</sup> These ways of recording information are far removed from formal Egyptian writing practices. It seems very unlikely that a scribe who was educated as a hieratic scribe, or a draughtsman who was accustomed to drawing columns and registers of hieroglyphic texts on the walls of tombs would have chosen to jot down marks randomly over the surface of an ostrakon. It would also be odd for such individuals to write series of marks in *boustrophedon* or around the contour of an ostrakon. Instead, these are the methods that would have been employed by an individual who was not instructed in the craft of writing and who must have been less familiar with scribal conventions.

An example of such an individual would appear to be the person who created ostraca O. Cairo CG 24105 – 24108. In these four ostraca we discern three different ways of arranging marks: scattered throughout the document; following the contour of the ostrakon; and in lines written in *boustrophedon*. Such heterogeneity is paralleled by the (seemingly) arbitrary usage of dots and strokes as tally marks. Moreover, the many differences in the orientation of marks, as well as the great variability in the exact shape of marks<sup>137</sup> gives the impression that the author of these ostraca had not been instructed in scribal practices. His documents contain so many inconsistencies that it appears that he composed these ostraca without a preconceived strategy, being insufficiently familiar with the conventions of hieroglyphic and hieratic script.




Conversely, the scribe who wrote the upper line on O. WV 10 as well as several other ostraca with marks appears to be far more acquainted with hieroglyphic script. We had already deduced this from his neat handwriting and from the hieroglyphic appearance of his marks. But it follows also from the fact that all of his marks are orientated to one direction. Granted, in OL 6788 the marks are all orientated to the right whereas this document was written from left to right, but we observe a uniformity in the marks, not only in the horizontal but also in the vertical sense. None of the marks are written upside down. This is also noticeable in the upper line of O. WV 10, where the marks all face the right side and none are inverted. In contrast, the lower line of this ostrakon, written by a second person, contains a mark on its side (⊕), an inverted mark (⊞) and a diagonally inscribed mark (×). Returning to the scribe who created OL 6788 and other pieces, we had already noticed that he was in the habit of grouping two broad and flat signs together.<sup>138</sup> This is a strong indication that he was familiar with the visual conventions of hieroglyphic script. He must have possessed a stronger sense of the orientation of the marks, and an affinity for aesthetic grouping of marks. Were one to guess what the occupation this member of the crew of necropolis workmen may have been, then the position of draughtsman seems most probable.

<sup>135</sup> O. Cairo CG 24105; O. Cairo CG 25321; O. Cairo JE 72450; O. Cairo JE 72490 and perhaps ONL 6370.

<sup>136</sup> O. Cairo JE 72490; O. Cairo CG 24105; O. Cairo CG 24107; and O. Stockholm MM 14130.

<sup>137</sup> Well illustrated by the marks discussed above, 2.2.2.



<sup>138</sup> Examining the sequence of marks of OL 6788, it seems plausible that the order was not entirely based on the rank of the workmen referring to it, as suggested below, 2.6.5, but partially on aesthetic grounds too. It is noteworthy that all broad and flat signs are situated in adjacent positions so that the scribe could stack one above the other and form visually appealing squares. Similarly, it may not be a coincidence that the narrow tall signs 𓄿 and 𓄿 are found next to each other.


This man was undoubtedly not the only draughtsman to have created ostraca with marks. We can probably identify the author of O. Cairo JE 72490 and O. Cairo JE 72494 with a draughtsman who was active during the reign of Thutmose III. At any rate that is suggested by the appearance of the marks, which are written in a fine, well balanced hand. The scribe had an eye for detail, and his rendering of mark  with short thin lateral branches is most elegant. He is also the only scribe that added two thin horizontal lines within the contours of the basket in mark . On the other hand, it would appear that O. Cairo JE 72490 was written in *boustrophedon*, despite the scribe's assumed familiarity with hieroglyphic script. Moreover, mark  has been written upside down.<sup>139</sup> We are therefore cautioned not to rely solely on the orientation of marks and their particular arrangement on a document when attempting to evaluate a scribe's background.

An extensive palaeographic analysis may be able to identify more traits of draughtsmen who composed ostraca with marks during the 18<sup>th</sup> Dynasty, but there is no space for such an endeavour in the current work. It will have to suffice that based on considerations described in the previous paragraphs, there are 23 ostraca<sup>140</sup> and perhaps seven more,<sup>141</sup> in which we detect the hand of someone who had been trained to draw hieroglyphs. Out of a total of 138 ostraca this group represents c. 20% of all 18<sup>th</sup> Dynasty ostraca available to us. Of course this figure is merely an estimate, but it suggests that the greater majority of ostraca were made by workmen who were not trained in writing hieroglyphic or hieratic signs.

## 2.5 THE MARKS FROM THE TOMBS OF DEIR EL-MEDINA

As we have seen in the previous chapter, the identity marks of the 18<sup>th</sup> Dynasty workmen are attested in tombs in the Eastern and Western Cemeteries of Deir el-Medina that were dated to the 18<sup>th</sup> Dynasty by Bruyère.<sup>142</sup> While the marks corroborate Bruyère's general date, it is not certain if his more precise attributions agree with the dates assigned to some of the workmen's marks. The hesitation is caused by the fact that the assemblages from the tombs are difficult to interpret. A date for three tombs in the Eastern Cemetery (tombs DM 1370, DM 1379, and DM 1388) in the reign of Hatshepsut or Thutmose III is suggested by amphorae that bear the cartouches of these rulers. But technically these finds only serve as a *terminus post quem*, because the vessels may have been reused. Likewise the sets of marks attested within a single burial are difficult to date because they are not necessarily contemporaneous. The mark on a particular item may have belonged to the owner of the tomb, while the marks on other objects may refer to workmen of one or two generations later who donated gifts to the funerary equipment of the deceased.

Inferring a date from the finds is therefore problematic. Take for example tomb DM 1370, attributed to the reigns of Hatshepsut – Thutmose III (TABLE 17). First of all we have to admit that we have no clear indications of the repertory of marks from the period prior to Thutmose III. It is possible that workmen's marks were in use around that time, but there are no unambiguous indications for us to assume so.<sup>143</sup> Turning to the two attested marks, we encounter , which is securely attested in group A, associated with the reign of Thutmose III. Mark  on the other hand is characteristic for group C and the time of Amenhotep III. It

<sup>139</sup> The mark is not recognisable as a hieroglyph and therefore it is not clear what its top and bottom are, but because the mark is most frequently attested as , it seems that this would be its correct orientation.

<sup>140</sup> O. Ashmolean HO 892; O. Cairo JE 72490; O. Cairo JE 72492; O. Cairo JE 72494; O. Cairo JE 96285; O. MMA 09.184.700; O. MMA 09.184.786; OL 6788; ONL 6194; ONL 6210; ONL 6266; ONL 6302; ONL 6410; ONL 6423; ONL 6461; ONL 6565; ONL 6588; ONL 6601; O. Strasbourg H 193; O. WV 1; O. WV 3; O. WV 8; and O. WV 10.

<sup>141</sup> O. IFAO C 7635; O. KV 10004; ONL 6333; ONL 6335; ONL 6410; ONL 6646; and O. UC 45709.

<sup>142</sup> See chapter 1, 1.5.

<sup>143</sup> Compare preliminary observations in Soliman, 'Workmen's Marks in Pre-Amarna Tombs' (forthcoming), § 4.3.



could be that mark X was in use as a mark at the time of Hatshepsut, but it is also possible that the date of the tomb is incorrectly based on the royal names on the amphorae.

Tomb	Attested names	Date	Marks
1370	<i>mdz(...)</i>	Hatshepsut – Thutmose III	X; †
1379	- <i>nbw</i> - <i>ibnttn {s3}.t</i> <i>nḥm.tw ?</i> - ... <i>s3.t n &lt;ḥ&gt; m ?</i>	Hatshepsut – Thutmose III	ʃ; †
1388	<i>s3.t-r<sup>c</sup></i>	Thutmose III; “year 26”	⊕; ⊖ <sup>144</sup> ; ʃ; ʃ; ⊕; ⊕; ⊖; ⊕ <sup>145</sup>

TABLE 17. MARKS ATTESTED IN TOMBS DM 1370, 1379 AND 1388 IN THE EASTERN CEMETERY

Two other mortuary assemblages from the Eastern Cemetery present similar dilemmas. The five marks from DM 1388 are all attested in group C (taking mark λ as an allomorph of ʃ), while marks ⊕ and λ are not attested in the reign of Thutmose III. Yet, an amphora from the same burial dates to that very reign. The two marks from DM 1379 are both attested in group B, the ostraca related to the reign of Amenhotep II. It is unlikely that the workmen with these marks were already active at the time of Thutmose III.

The situation is not much different in the Western Cemetery. Groups of marks attested in particular burials are securely attested on ostraca from the 18<sup>th</sup> Dynasty.<sup>146</sup> Still we are unable to adequately date the tombs on the basis of their marks exclusively. Some of the burials that contain a relatively large set of marks are perhaps better interpretable. The three different marks (⊕, Ψ and ⊕) in DM 1099 are all attested in group B, and ⊕ in particular is indicative of the ostraca in this group. The pottery assemblage could therefore date to the reign of Amenhotep II. The marks attested in tombs DM 1153-1155 (⊕, ⊖, ⊖, ⊖ and ⊕) are suggestive of the ostraca from groups D and C. The objects could therefore have been marks by individuals who were active in the reign of Amenhotep III, and perhaps Thutmose IV. The set of marks from tomb DM 1169 (⊕, ⊕, ⊕, ⊕, ⊕, ⊕ and ⊕) seem to point to a date around the same period.

## 2.6 CONCLUSIONS

### 2.6.1 The meaning and purpose of the 18<sup>th</sup> Dynasty ostraca with marks

Unfortunately, the exact meaning of the other ostraca remains a mystery. It is clear that the majority of ostraca is of an administrative character because the marks are accompanied by tally strokes or dots. The use of recurring sequences of marks leads to the same conclusion. Numerous ostraca appear to belong to the collective tomb administration, and may record absence or presence of individual workmen, the output of the labour of individual workmen, and perhaps the distribution of rations or the consumption of certain commodities. There are no clear indications that the ostraca were produced as part of private bookkeeping, recording transactions or inventories, but that possibility cannot be excluded either.

<sup>144</sup> Bruyère's publication is unclear regarding this mark, found on an amphora with the cartouches of Hatshepsut and Thutmose III. The same mark may have been attested on a similar mark, but the passage in Bruyère's report could also be dealing with the same vessel, see Bruyère, *Rapport 1934-1935* II, 93 and 194.

<sup>145</sup> See Bruyère's notebooks for the last two marks:

[http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS\\_2004\\_0155\\_003](http://www.ifao.egnet.net/bases/archives/bruyere/?id=MS_2004_0155_003).

<sup>146</sup> Compare preliminary observations in Soliman, 'Workmen's Marks in Pre-Amarna Tombs' (forthcoming), § 3.3.

Despite the highly enigmatic nature of the ostraca from the 18<sup>th</sup> Dynasty, close examination leads to some interesting insights into the organisation of the workforce. First of all, there are three possible instances of an ostrakon that is slightly more explicit about its content. As we have discussed above, O. Cairo JE 96285 might contain a reference to wine. The workmen connected with it could then have been involved in its transport, production, or distribution. On ostraca ONL 6371 and O. UC 45683 a triangular shape is depicted, which is slightly bigger than the marks are. The triangle might represent a chiselling tool, mentioned in Ramesside hieratic tomb records but certainly employed during the 18<sup>th</sup> Dynasty as well. During the 19<sup>th</sup> and 20<sup>th</sup> Dynasties chiselling tools, made from costly metal, were very valuable and therefore the property of the higher authorities. The tools were distributed among the workmen by the tomb administration.<sup>147</sup> The depicted triangle could be the tool called *ḥz* in such documents: a heavy spike without a handle made of copper or bronze. Such spikes were used to break stone by placing the pointed end on the rock and hitting the broad end with a wooden mallet.<sup>148</sup> The two ostraca that depict this presumed spike could be notes about the distribution of such tools among a group of workmen.

A clearly distinguishable category of marked objects are the limestone fragments inscribed with a single mark. They were not necessarily used for administrative practices. Instead they may have served as ex-votos, or they were used to mark the property or living space of an individual.

If the majority of the 18<sup>th</sup> Dynasty ostraca are administrative in nature, what would have been their function? It has been established in the previous chapter that we possess virtually no hieratic documentary texts written on ostraca. The 18<sup>th</sup> Dynasty ostraca with marks do not attest to any influence of hieratic script either. In general, there is very little textual material that dates from this period. While there are 2000 graffiti in the Theban valleys that date to the 19<sup>th</sup> and 20<sup>th</sup> Dynasties, not a single textual graffito can be securely attributed to 18<sup>th</sup> Dynasty.<sup>149</sup> In addition there is remarkably little inscribed material from funerary contexts. The few inscriptions that have survived in tombs of the middle of the 18<sup>th</sup> Dynasty are prone to numerous scribal errors. For instance, the common *ḥtp-dī-n(y)-sw.t* formulae on the coffins from the Eastern Cemetery contain mistakes in the orientation and position of signs, whereas some words and sign groups are erroneously omitted while others are present where they should not be.<sup>150</sup> In the same vein, the texts in the tomb of Amenemhat (TT 340), a grave that dates to the beginning of the 18<sup>th</sup> Dynasty, are teeming with scribal mistakes. The artist of the tomb certainly had some knowledge of script, and evidently he possessed the skills to draw them. Yet, his texts contain many errors. The artists would seem to have had a

<sup>147</sup> Jac. J. Janssen, *Commodity Prices from the Ramessid Period. An Economic Study of the Village of Necropolis Workmen at Thebes* (Leiden 1975), 312.

<sup>148</sup> Janssen, *Commodity Prices*, 313; for examples from the 18<sup>th</sup> Dynasty found in the tomb of Kha, see Schiaparelli, *La tomba*, 83, fig. 50; see O. Fitzwilliam EGA 4324.1943 (obverse) for a drawing of a workman holding a chiselling tool and mallet in Emma Brunner-Traut, *Egyptian Artists' Sketches. Figured Ostraka from the Gayer-Anderson Collection in the Fitzwilliam Museum, Cambridge*. PIHANS 45 (Leiden 1979), pl. XII, 14.

<sup>149</sup> The only hieratic graffito that might be dated to the 18<sup>th</sup> Dynasty is Theban Graffito nr. 1670, which mentions a scribe named Kha. There is a possibility that this Kha is the 18<sup>th</sup> Dynasty Overseer of Work who was buried in TT 8, but that is far from certain, see Alexander J. Peden, *The Graffiti of Pharaonic Egypt. Scope and Roles of Informal Writings (c. 3100-332 B.C.)*. PdÄ 17 (Leiden, Boston and Cologne 2011), 141, n. 43; 243, n. 742; Russo, *Kha (TT 8)*, 57. A number of graffiti from sections D and E of the Valley of the Kings comprise or include names of members of the royal family of the 18<sup>th</sup> Dynasty but are not necessarily contemporaneous, see Peden, *Graffiti*, 144-145. Reportedly a small number of inscriptions in royal tombs of the 18<sup>th</sup> Dynasty are contemporaneous with the construction of these tombs, see Peden, *Graffiti*, 141-144.

<sup>150</sup> Soliman, 'Workmen's Marks in Pre-Amarna Tombs' (forthcoming) [12-13]. For the coffins, see Bruyère, *Rapport 1934-1935* II, 41; Andreu (ed.), *Les artistes*, fig. 32; Miroslav Verner, *Altägyptische Särge in den Museen und Sammlungen der Tschechoslowakei*. Lieferung 1. CAA (Prague 1982), Náprstkovo Muzem 1/322-1/334.

preference for the use of uniliteral signs, and many of his words were improvised phonetically rather than correctly spelled.<sup>151</sup> The evidence thus indicates that necropolis workmen of the 18<sup>th</sup> Dynasty were not particularly well acquainted with hieratic script, and that most of the men were probably not able to produce hieroglyphic texts without making errors.

Their apparent lack of scribal skills suggests most workmen were not trained to write texts in hieratic or in hieroglyphic, but it is exceedingly clear that this did not prevent them from writing texts, incorrect as they may have been. In this group of 18<sup>th</sup> Dynasty necropolis workmen we are witness to quite a strong affinity with the hieroglyphic script, and occasionally the drive to produce textual material. The practice of using series of identity marks to create records on ostraca seems appropriate in this environment, because these marks are no examples of scribal practice in the strict sense either. The method, however, closely approaches the use of script, and as such the ostraca with marks are a parallel for the erroneous hieroglyphic inscriptions from Deir el-Medina: one needs scribal tools to create the marks, the marks have the appearance of script, several marks are even borrowed from script, they function in some way just like script, but just like the incorrectly written hieroglyphic texts, they are part of a non-standardised practise.

The existence of a marking system at Deir el-Medina should not surprise us. Several other 18<sup>th</sup> Dynasty crews of workmen active at various sites appear to have employed identity marks as well.<sup>152</sup> It is harder to determine what inspired the attraction of the men in this particular workmen's community to the hieroglyphic script. The presence of professional and skilful draughtsmen must have contributed to this phenomenon, and we have concluded that some draughtsmen must indeed have been responsible for a small percentage of the ostraca with marks. We can only speculate about other influential factors. Certainly, the workmen's exposure to hieroglyphs and scribal culture must have been greater than that of the average quarryman. The Deir el-Medina crew must have been in contact with important scribes from Thebes, and apart from the fact that they laboured inside tombs decorated with hieroglyphs, there is a possibility that the workmen were actively involved in the royal burial itself. That can be surmised from the identity marks that were found in the embalmers cache of KV 63. Whatever the precise role of the workmen in the burial of the king might have been – carrying the kings' funerary equipment into the tomb; witnessing funerary rituals; participating in the sealing of the tomb – it is conceivable that they came into contact with hieroglyphs in that capacity as well.

Still, there is quite a difference between making use of a marking system to mark one's property on the one hand, and to record series of marks on ostraca on the other. How can we explain the purpose of the ostraca with marks? It seems absolutely unlikely that anyone outside of the community of necropolis workmen would have understood these strange documents, and they were evidently not submitted to the high authorities in Thebes. Although the ostraca with marks were not produced on a daily basis, one could still make a case for the *majority* of the 18<sup>th</sup> Dynasty ostraca with marks as essentially representing the administrative records of the necropolis workmen in the same way as the hieratic ostraca represent the administration of the Ramesside crew. As an argument for this hypothesis one could raise the point that no administrative scribe seems to have been permanently present with the crew of workmen during the 18<sup>th</sup> Dynasty.<sup>153</sup> Yet it would appear extremely odd that administration of such a grand and eminent construction project would have been left in the hands of a group of workmen, most of whom were probably to a great extent illiterate.

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<sup>151</sup> Soliman, 'Workmen's Marks in Pre-Amarna Tombs' (forthcoming) [5]; see the contribution of Jean-Marie Kruchten in Cherpion, *Deux tombes*, 41-55.

<sup>152</sup> See chapter 1, 1.2.

<sup>153</sup> See chapter 1, p. 31-32; p. 40; p. 66-67.

Moreover, scribes are certainly attested in Deir el-Medina during the 18<sup>th</sup> Dynasty,<sup>154</sup> and there are strong indications that they were occasionally present at the worksite in the valleys as well. This follows from the fragment of a hieratic documentary papyrus dating to the middle of the 18<sup>th</sup> Dynasty that was discovered in the Valley of the Queens, but also from a hieratic date line in WV 22, the tomb of Amenhotep III.<sup>155</sup> We may thus advance the hypothesis that work at the royal tomb was monitored and administrated by one or more professional scribes. In contrast to the other contemporary construction sites, this scribe was probably not permanently present with the workmen, and he does not seem to have been an inhabitant of Deir el-Medina. We suppose that the work on the royal tomb was deemed so important that a more notable scribe from Thebes was sent to occasionally check on the progress of the preparation of the tomb. Apparently this scribe has left no traces of his documentation at the Valley of the Kings, with the exception of a single snippet. We may therefore assume that he recorded his texts directly onto a sheet of papyrus, which he took with him to his offices in Thebes. During such audits, the scribe will have demanded a report on the advancement of the work from the Overseer of Work in the Great Place, and he may have also informed about the crew's necessity for supplies, tools, and certain commodities. This transmission of information between the scribe and the directors of the crew will most likely have been an oral exchange. Yet it is conceivable that at such moments the foreman or any other member of the workforce may have relied in part on the ostraca with marks. These documents could have been created as *aide-mémoires* of the matters that concerned the supply to the workforce and/or the progress of the work.

### 2.6.2 Administrative practices

The pluriformity of the layout of ostraca with marks suggests that they were not created according to a particular system. There is no evidence of a standardised format, and the authors of the ostraca seem to have devised different manners of recording information with marks as they went along. In other words, the practice of inscribing ostraca with marks during the 18<sup>th</sup> Dynasty was systemic, but the methods to do so were clearly not. This observation agrees with what had been assumed in the previous chapter on the basis of the variability in the titles of the 18<sup>th</sup> Dynasty: the organisation of work during this period does not appear to have been standardised to a great extent.<sup>156</sup>

In several ostraca<sup>157</sup> traces of the deliberate erasure of marks and of dots and strokes are visible. Some instances may be corrections,<sup>158</sup> which indicate that the ostraca were checked after they were completed. Evidence for the revision of documents can also be found in ostraca in which each mark is accompanied by a small dot. These dots could be check marks left by a scribe who went over his own work or that of someone else. Minor as these features may be, they do give the impression that whatever it was that the ostraca with marks record, their subject was not some frivolous matter and an effort was made to guarantee that the documents were accurate.

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<sup>154</sup> See chapter 1, 1.4.1.

<sup>155</sup> Peden, *Graffiti*, 142; Yoshimura (ed.), *Research in the Western Valley II*, 106, fig. 63; 178; for the location of the graffito see *ibidem*, 102, fig. 57; extremely brief hieratic inscriptions are in fact attested on stone blocks that closed off access to the cache of royal mummies in the tomb of Amenhotep II (KV 35), but these have been attributed to the end of the 20<sup>th</sup> Dynasty, see Charles C. van Siclen, III, 'Appendix II' in: Romer, 'Tuthmosis I and the Bibân el-Molûk', 129-133.

<sup>156</sup> See chapter 1, 1.4.3.

<sup>157</sup> E.g. O. Ashmolean HO 892; O. Cairo CG 24105; O. Cairo CG 24106; O. Cairo CG 24108; O. MMA 09.184.700; ONL 6692; and O. WV 10.

<sup>158</sup> E.g. the erased mark on O. MMA 09.184.700.

Most instances of erasure however are evidence of reuse of the ostraca.<sup>159</sup> Ostraca like O. Cairo CG 24106, O. Cairo CG 24108, O. Stockholm MM 14130 and O. WV 10 are lists of workmen to which dots and strokes were added, which were at some other point erased by a scribe so that he could use the list at another time. It can be surmised that OL 6788 served a similar purpose. The dots that accompany the marks on this ostrakon were added in a much lighter shade of red ink than the marks themselves, in all probability so that the scribe could easily remove them when he needed the ostrakon for a second administrative round.

### 2.6.3 The transference of identity marks

It has been explained in the previous chapter that the marks employed by the necropolis workmen are identity marks, and that each workman possessed his own personal mark. Yet, on the first ostrakon with marks that we have examined, O. Cairo JE 72490, two marks occur twice. We wonder what the meaning of the repeated marks is. If there existed several workmen with the same identity mark one would assume this would defeat the purpose of using identity marks altogether. O. Cairo JE 72490 demonstrates nicely that double marks can be situated next to each other, as are □ and □, but that is not the case for all examples of this phenomenon, and marks ○ and ○ on O. Cairo JE 72490 are not positioned close to each other. Other instances of twin marks that are not situated next to each are found on O. Cairo CG 24106 (𐎢 and 𐎣) and O. Cairo JE 96590 (𐎢). Still, double marks are most frequently written in adjacent positions, like the twin marks ⋆ in the upper line and twin marks 𐎢 in the third line of OL 6788. The couple formed by 𐎢 and 𐎢 is attested on several other ostraca. They are also inscribed next to each other on O. Stockholm MM 14130, ONL 6298, O. WV 3, and almost next to each other on O. WV 1. Twin marks are furthermore found side by side on O. Ashmolean HO 892 (𐎢), ONL 6465 (⊙), O. WV 4 (𐎢), and perhaps ONL 6371 (𐎢).

The double marks 𐎢 and 𐎢 on ostraca that are inscribed in accordance with a sequence, such as OL 6788, are quite informative about the meaning of the twin marks. They demonstrate that, at least in the case of 𐎢, the repetition is purposeful. Their pairing is no coincidence because several lists record them in exactly the same positions. Both marks have their own dots added to them, indicating they represent two different individuals who held adjacent positions in the fixed list of workmen. The twin marks are not only found next to each other in the fixed sequence, but also on other ostraca. The individuals would thus seem to be closely related. Perhaps a family connection existed between the two men represented by the same mark. There is abundant evidence of workmen from the Ramesside Period who transferred their identity mark to their sons.<sup>160</sup> We may be witnessing the same practice on 18<sup>th</sup> Dynasty ostraca with twin marks: they could represent a father and his son or a senior workman and his apprentice, who operated as a duo on a regular basis and were therefore noted down together on ostraca with marks. Indeed, there is evidence of fathers and sons who were both active as necropolis workmen during the 18<sup>th</sup> Dynasty.<sup>161</sup> The interpretation of twin marks as a father and a son would also explain the name stones with a double mark.<sup>162</sup> If the marks on these ostraca would truly refer to two family members or two close colleagues, these could have been placed in a living space that was shared by the two, or near objects that were in their possession.

<sup>159</sup> Compare the discussion of O. Cairo CG 24106 above, p. 150-151.

<sup>160</sup> Haring, 'Decoding the necropolis workmen's funny signs', 51; Aston, 'Theban potmarks', 55; Mark Collier, 'rating Hieratic and Marks Data for the Prosopography of Deir el-Medina Workmen in the early to mid 20<sup>th</sup> Dynasty' in: Haring *et al.* (eds.), *Decoding Signs of Identity* (forthcoming) [16-17 and *passim*]; chapter 6, 6.5.4. Close working relations between fathers and their sons are demonstrated during the 20<sup>th</sup> Dynasty, when fathers and one or two of their sons shared a hut in the Valley of the Kings, see Dorn, *Arbeiterhütten*, 71-72.
















<sup>161</sup> Examples have already been mentioned in the previous chapter: Kha and his son Amenemope; Minhotep and his son Nakhtmin; perhaps also Amenemope and his son Tener; Amenhotep and his son Wadjetshemes.

<sup>162</sup> ONL 6345 (𐎢); ONL 6403 (𐎢); ONL 6363 (𐎢).

#### 2.6.4 The organisation of the workforce

On the basis of our assessment of data from the 18<sup>th</sup> Dynasty in the previous chapter we had pointed out that there is no evidence for a division of the workforce into two halves, as in the Ramesside Period.<sup>163</sup> No such division is reflected in the ostraca with marks from the 18<sup>th</sup> Dynasty either. Ostraca such as OL 6788 and ONL 6298, firmly situated in group C, record around 40 marks each, and this seems to be the entire workforce at a certain point. That is suggested by the ostraca from the area of the tomb of Amenhotep III, the ostraca that constitute core group C. As an assemblage, these 12 ostraca contain 49 different marks. The 40 odd marks on OL 6788 thus cannot represent only one half of the crew, but must be the number of (almost) all active workmen at that time. Certainly there are completely preserved ostraca that record around 20 marks, and they could represent one half of the crew. On the other hands there are numerous other intact ostraca that include higher or smaller numbers, and it can therefore not be assumed that ostraca which record about 50% of the workmen active during a certain period is proof of a division of the crew into two sides.<sup>164</sup>

#### 2.6.5 Hierarchy within the workforce

In a number of ostraca we recognise mark ,<sup>165</sup> the identity mark of Kha, overseer of the work on the royal tomb. His mark could be identified thanks to the objects in his tomb (TT 8).<sup>166</sup> Other marks have been attested in the tomb of Kha as well, and they lead to an interesting hypothesis. The following argumentation is based solely on the marks that have been published, and it is not clear if more marks feature on other objects from the tomb of Kha. Still, the available marks attested in the tomb are all found on the ostraca from group C:  (attested twice), , , ,  and . Strangely enough the latter mark is not found on any of the 18<sup>th</sup> Dynasty ostraca.<sup>167</sup> The other five marks are all present in the sequence recorded on OL 6788: mark  is found in position 43, mark  in position 32, mark  in position 24, mark  in position 3 and  (inscribed twice) in positions 1 and 2. The latter two marks are thus positioned at the beginning of the sequence, and this is perhaps not entirely coincidental. We have seen that , the mark of Kha, is not recorded on OL 6788. It is found on O. Cairo JE 72490, attributed to the reign of Thutmosis III, and on ONL 6298, which is clearly related to group C. On the latter ostrakon, the mark of Kha appears at the beginning of the sequence, probably in the capacity of the foreman of the crew in analogy with ordered name lists from the Ramesside Period. In documents of this period, the captains of the crew always head the list.<sup>168</sup> Because the mark of Kha is absent on OL 6788 this ostrakon could be later than ONL 6298, dating to a time when Kha had retired from his position as foreman. Comparing the first 16 marks in the sequence of OL 6788 to that of ONL 6298 (TABLE 18), we find supporting evidence for that hypothesis: mark  is situated in the seventh slot of the sequence of ONL 6298, but on OL 6788 it has moved upward in the sequence to fill in the position that became available when Kha laid down his office. The workman with mark  may thus have been Kha's successor as foreman of the crew.

<sup>163</sup> See chapter 1, 66.

<sup>164</sup> Nuancing preliminary observations in Soliman, '18<sup>th</sup> Dynasty Marks Ostraca', 165.

<sup>165</sup> O. Cairo JE 72490; ONL 6298; ONL 6330; ONL 6369; and ONL 6424; ONL 6330 and ONL 6369, both discovered at Deir el-Medina, appear to be name stones, here interpreted as objects that may be placed in a particular space to represent its owner or inhabitant. If this assumption is followed, it would seem likely that Kha had lived at the village after all; compare earlier doubts about this question in Haring, 'Scribes and Scribal Activity', 109; Haring, 'Workmen's Marks and the Early History of the Theban Necropolis', 89.

<sup>166</sup> See chapter 1, p. 42-43.

<sup>167</sup> It does appear twice on pottery vessels discovered near KV 63, see Schaden, 'The Amenmesse Project 2006', 231-254, fig. 23, nrs. 7 and 14.

<sup>168</sup> See chapter 4, 4.1, and *passim*.

2. OSTRACA WITH MARKS OF THE 18<sup>TH</sup> DYNASTY

OL 6788															
✱	✱	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ONL 6298															
⊔	⊔	⊔	⊔	⊔	⊔	✱		⊔	⊔	⊔	⊔	⊔			⊔
	4	3	5	6	7	1		12	29	14	15	13			16

TABLE 18. BEGINNING OF THE SEQUENCES ON OL 6788 AND ONL 6298

These observations are important for two reasons. Firstly, it could explain why mark ✱ is attested twice in the tomb of Kha. The two objects with this mark, one of which was a valuable bronze bowl,<sup>169</sup> would appear to be funerary gifts offered by a close colleague and inheritor of Kha's position, and therefore a man of quite some social standing. Secondly, the upward movement of mark ✱ in the sequence of workmen, as recorded on ONL 6298 and OL 6788, indicates that these ostraca are truly ordered and to some extent hierarchical lists. The position of a mark within this list seems to be related to the workman's rank. This ensues from the assumption that when the workman with mark ✱ was promoted, his position in the sequence moved upwards. If mark ✱ in slot 1 on OL 6788 belongs indeed to the foreman of the crew, we may speculate that its twin mark in slot 2 represented a son of the foreman, who perhaps carried out the duties of the deputy of the crew in analogy with the Ramesside administrative model.

Because OL 6788 is an ordered list, mark ⊔ too must have referred to a man of a high social status, because his mark is positioned very close to the head of the list in position 3. His high rank might have made him a close colleague of Kha as well, and therefore he too may have wanted to donate a small gift to the funeral of Kha. Of course none of this proves that the individuals who gifted objects to the funerary equipment of Kha were exclusively workmen of a high social standing. Neither does it follow that high-ranking, senior workmen were listed *only* at the beginning of the list. Still, there are indications that the majority of younger workmen are listed in the second half of the sequence. We may propose that those workmen's marks that occur just in group C and are not attested in groups A, B and D belong to workmen who were new to the crew at the time of the group C ostraca. Our data suggests they joined the crew somewhere in the reign of Amenhotep III and were not active long before that time. The identity marks of these new recruits are all found in the second half of the sequence of OL 6788, with the sole exception of mark ✱ (position 9):

Position in OL 6788									
✱	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔	⊔
9	20	22	27	29	33	34	40	41	43

We can therefore state that in all probability the sequences of marks attested on ostraca such as OL 6788, O. Stockholm MM 14130, ONL 6298, and O. WV 3 are all ordered lists. This particular type of document occurs also in the hieratic administration of the Royal Necropolis during the Ramesside Period, and it will be shown in the next three chapters that such lists were made with workmen's marks as well.<sup>170</sup> Ordered lists of workmen record one half or, as is the case in the 18<sup>th</sup> Dynasty, the entire workforce. Generally, the captains of the work and the most prominent workmen are listed at the beginning of the list, while younger workmen appear further down. Ordered lists played an important role in the collective administration of the work on the tomb and must have been used to keep track of absenteeism, but more

<sup>169</sup> Turin S. 8218 RCGE 19799, see Schiaparelli, *La tomba*, fig. 118, 4.

<sup>170</sup> For an introduction to such lists see chapter 4, 4.1.

importantly to document the rations distributed to the individual members of the crew.<sup>171</sup> The assumption that several ostraca with marks record hierarchical ordered lists agrees with the ascertainment that the 18<sup>th</sup> Dynasty workforce was not a homogenous group of workmen, but included foreman and several specialists.<sup>172</sup>

### 2.6.6 The size of the workforce

Complete and nearly complete ostraca with lists of workmen of the entire crew, such as OL 6788 and ONL 6298 demonstrate that during the reign of Amenhotep III the workforce consisted of about 44 workmen, including a foreman.<sup>173</sup> It would seem that in earlier times the crew was smaller, but that statement is based solely on the surviving archaeological material. It is true that the total number of different marks that is attested in groups A, B and C is smaller than 40, and it is also a fact that we do not possess any ostraca from a time before the reign of Amenhotep III inscribed with a total number of marks that comes close to the figure 40. But, as so very often, we are unable to ascertain if this is a reflection of the actual size of the workforce or whether this view is the result of a bias in the archaeological record. We have to be aware of the possibility that the Amenhotep III material is better preserved because A) it is less old than for example the Thutmose III material, and B) the securely dated ostraca from the time of Amenhotep III were found at the remote site of his tomb in the West Valley, which has seen fewer disturbances than the sites of the tomb of earlier kings.

Fortunately we can somewhat qualify the latter statement when we shift our focus to the village of Deir el-Medina. Here too we may assume that the oldest material has the smallest chance of surviving the test of time, but material from the reign of Amenhotep III is not necessarily better preserved than that of other periods. Yet, ONL 6298, the long list of workmen attributed to group C, was discovered in the village and attests to about 40 workmen. Significantly, no other ostrakon from the village that dates from before the reign of Amenhotep III records an equally large number of workmen.

We will therefore cautiously take the surviving ostraca available to us at face value. Examining the ostraca in the four core groups we detect an increase in the number of workmen's marks over time:

Group A:	Thutmose III	24 different marks
Group B:	Amenhotep II	37 different marks
Group D:	Amenhotep II – Amenhotep III	29 different marks
Group C:	Amenhotep III	49 different marks

These figures would suggest a slight decline in the number of workmen at the time of group D, but as explained above this group is less well defined. The perceived growth in the number of workmen is paralleled by the total number of workmen – not the total number of different marks – recorded on some of the completely preserved ostraca. Such complete ostraca are of course only evidence of the minimum of workmen that was active at a certain point, but the total number of different marks attested in each core group suggests that some documents do indeed record the full crew.

Take for example O. Cairo JE 72490, a completely preserved ostrakon in group A that is inscribed with 22 marks. This figure is close to the total of 24 different marks attested in group A as a whole. Hence the ostrakon could well be a list of the workforce in its entirety.

<sup>171</sup> We will discuss the use and the purpose of name lists in more detail in chapters 3, 4 and 5; see also Koen Donker van Heel, 'Did the Deir el-Medina scribes use drafts' in: Donker van Heel and Haring, *Writing in a Workmen's Village*, 18-27.

<sup>172</sup> See chapter 1, 1.4.1.







<sup>173</sup> Cf. Haring, 'Workmen's Marks and the Early History of the Theban Necropolis', 95.







All necessary reservations aside, the available data suggest that the workforce of the time of Amenhotep III (ca. 44 workmen) had doubled in size compared to the crew of the time of Thutmose III (ca. 22 workmen).

The strength of the workforce from the time of Amenhotep II holds somewhere between these two figures. While 37 different marks are attested in group B, completely preserved ostraca point to a group of 26 (O. Cairo CG 24105; O. Cairo CG 24107) to 30 workmen (O. Cairo CG 24106). The damaged ostrakon O. KV 10004 (24 marks are preserved) supports this estimate. Whether the size of the crew was truly brought back to around 22 workmen during the time of group D is open to debate. The total number of 29 different marks attested in this less well defined group is larger than that of group A but smaller than that of group B. Indeed, ostraca such as O. Cairo JE 96631 (group D; 21 workmen), O. Cairo JE 96590 (attributed to group D; 19 workmen), and O. Cairo JE 96603 (attributed to group D; 22 workmen), all apparently preserved in their entirety, are suggestive of a crew that was of about the same size as that during the time of Thutmose III.

### 2.6.7 The workmen

The scarcity of epigraphic material from the 18<sup>th</sup> Dynasty that mentions workmen by their names prevents us from connecting the majority of the marks with a particular individual. In fact, the only securely identified person is the overseer of work Kha, designated by mark . On account of the occurrence of mark  on ONL 6520 we have very tentatively proposed to connect this mark as well as mark  with a workman named Maaninakhtuef, although no man of that name is attested in the 18<sup>th</sup> Dynasty. Two other careful identifications can be proposed based on finds from the Western Cemetery of Deir el-Medina. In tomb DM 1350 a ceramic jar was discovered that is inscribed with the name of a Heqanakht. On the body of the vessel an allomorph of mark  was incised.<sup>174</sup> Heqanakht is not known from other sources but it is plausible that he was the workman to which mark  refers. Another tomb from the 18<sup>th</sup> Dynasty, DM 1099, was attributed to a man named Nekhunefer. Six ceramic vessel fragments incised with workmen's marks were discovered in the tomb, of which mark  occurred most frequently (three instances). There may therefore be a possibility that this mark referred at some point to this Nekhunefer.

#### *Tentatively identified marks*

TT 8	Kha		attested in groups A and C
DM 1350	Heqanakht		attested in groups D and C
DM 1099	Nekhunefer		attested in groups B, D and C
-	A Maaninakhtuef ?		attested in group B and later?

<sup>174</sup> Bruyère, *Rapport 1933-1934 I*, 112, fig. 48, nr. 7; 121.

## CHAPTER 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I: THE DUTY ROSTERS

### 3.1 INTRODUCTION

After our treatment of the ostraca from the 18<sup>th</sup> Dynasty we take a leap of 150 years through time, for the moment skipping over the 19<sup>th</sup> Dynasty, and land in the 20<sup>th</sup> Dynasty. We now find ourselves in the Ramesside Period, the time that feels most comfortable to egyptologists who specialise in Deir el-Medina Studies, because of its wealth of textual sources. We too shall gladly exploit the numerous mostly documentary texts that are now at our disposal. They provide useful insight into the administrative practices of the 20<sup>th</sup> Dynasty as well as prosopographical data, which will allow us to interpret ostraca inscribed with identity marks from the 20<sup>th</sup> Dynasty. These ostraca will be the focus of this chapter and the next, but Ramesside identity marks are found in many other contexts, some of which we shall consult in our endeavors to understand and contextualise 20<sup>th</sup> Dynasty ostraca with marks. Among the corpus of ostraca with marks from this period we find several useful anchor points that enable us to date and comprehend to a great extent the other ostraca from the same time. For this reason it is no longer necessary to calculate degrees of association for each ostrakon. The current chapter deals with one specific category of ostraca with marks exclusively: ostraca that record the *wrš* duty roster. Translations of these ostraca are found in Appendix III.

### 3.2 CHRONOLOGICAL OVERVIEW

#### 3.2.1 Introduction

One specific category of ostraca inscribed with marks from the 20<sup>th</sup> Dynasty is of paramount importance to this study: the group of ostraca that record *wrš* duty rosters and deliveries. This duty roster happens to be very well known from hieratic sources as well. We shall see that the administration recorded in hieratic overlaps to some extent with the administration kept by means of marks: there are several instances in which ostraca with marks record information for a particular period, often one month, which is also recorded in hieratic documentation. Through comparison of the two types of record, the ostraca with marks are comprehensible to a high degree. Several duty rosters composed with marks are inscribed with dates and provide important chronological data. The earliest duty rosters with marks occur in the second half of the reign of Ramesses III, while the latest ostraca of this type are attributed to the reign of Ramesses V.

#### 3.2.2 The *wrš* duty rosters composed with marks

Numerous hieratic documents from the end of the 19<sup>th</sup> Dynasty,<sup>1</sup> but particularly from the beginning of the 20<sup>th</sup> Dynasty, attest to a duty roster in which the necropolis workmen were enrolled. The workmen were scheduled for duty according to a rotating system, often referred to in egyptological literature as the *turnus*. This schedule listed the participating workmen in a fixed sequence with a different workman for each day. After the last workman in the sequence had performed his duty, the *turnus* would begin anew with the workman at the head of the sequence. The purport of the *wrš*<sup>2</sup> duty roster is alluded to in a few hieratic documents, and

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<sup>1</sup> For the duty roster of the 19<sup>th</sup> Dynasty, see Mark Collier, *Dating Late XIXth Dynasty Ostraca*. EU 28 (Leiden 2004), 95-111; Ben Haring, 'Between Administrative Writing and Work Practice. Marks Ostraca and the Roster of Day Duties of the Royal Necropolis Workmen in the New Kingdom' in: Budka, Kammerzell and Rzepka (eds.), *Non-Textual Marking Systems* (forthcoming) [4]; chapter 5, p. 456-457.

<sup>2</sup> *WB* I, 335.10: *wrš* "den Tag zubringen, wachen", 336.7: *wrš.y* "einer der den Tagesdienst hat".

the task seems to have comprised of awaiting the commodities and supplies brought to the community by members of the *smd.t* personnel, receiving the goods and sending them on.<sup>3</sup> According to a theory of Ben Haring the duty roster of the 20<sup>th</sup> Dynasty existed not solely as a system that organised the transfer of deliveries, but functioned more generally as a mnemonic device. This idea will be explored below in section 3.4.

Hieratic duty rosters from the time of Ramesses III and Ramesses IV are almost exclusively concerned with the *wrš* duties of members of the right side of the crew.<sup>4</sup> During the last years of the reign of Ramesses III the turnus consisted of 19 workmen, while under Ramesses IV the number was increased to include 30 workmen.<sup>5</sup> The duty rosters are rather well understood because of the many 20<sup>th</sup> Dynasty hieratic journal texts that record the turnus. These documents, often covering an entire month, list calendar dates followed by the workmen on duty, and the deliveries made on that particular day. At the end of the reign of Ramesses III and the beginning of the reign of Ramesses IV such documents were regularly composed, perhaps on a monthly basis.<sup>6</sup> Texts that record the duty roster oftentimes include a date line, but even when it is not mentioned they can usually still be dated because a specific combination of day number and a workman, as well as the individuals mentioned in the records provide unambiguous indications of the recorded months.<sup>7</sup>

Thanks to the insight of McDowell<sup>8</sup> and Haring<sup>9</sup> it has become apparent that the duty rosters that record deliveries are not only documented in hieratic, but also on ostraca with marks. A key piece in the first steps towards the decipherment of the duty ostraca composed with marks was ostrakon O. Berlin P 12625.<sup>10</sup> Haring recognised the document as a duty roster in which day numbers were connected with workmen's marks. As the marks connected with day 1 to 6 were repeated for days 20 to 25 respectively, it was realised that the ostrakon represented the 19 days turnus known from the reign of Ramesses III and comparing the marks to the names of workmen of this turnus, Haring proposed four possible dates for the ostrakon. One of the dates was seen as the best fit,<sup>11</sup> and a later study of ostraca with marks that record the 30 days turnus of the reign of Ramesses IV was able to confirm this match.<sup>12</sup>

<sup>3</sup> Jaroslav Černý, 'Datum des Todes Ramses' III. und der Thronbesteigung Ramses' IV' ZÄS 72 (1936), 115 and n. 2; Wolfgang Helck, 'Zur Geschichte der 19. und 20. Dynastie' ZDMG 105 (1955), 31-32; contra Louis-A. Christophe, 'Les enseignements de l'ostrakon 148 de Déir el-Médineh' BIFAO 52 (1953), 113-128, who interpreted the daily deliveries as the personal rations of the workman on duty. Helck, 'Zur Geschichte', 32, noted furthermore that in O. DeM 56, a workman on *wrš* duty is witness to an oath of a doorkeeper. A similar instance is recorded on O. Ashmolean HO 143. The hearing of oaths can hardly be seen as part of the tasks of the men on duty, but appears to be merely a consequence of their presence at the *h̄tm n pꜣ hr*, the office in the vicinity of the village to which the deliveries were brought (see Günter Burkhard, 'Das *h̄tm n pꜣ hr* von Deir el-Medine. Seine Funktion und die Frage seiner Lokalisierung' in: Dorn and Hoffmann (eds.), *Living and Writing in Deir el-Medine*, 35-36), but also the location were many legal events took place, see Andrea G. McDowell, *Jurisdiction in the Workmen's Community of Deir el-Medineh*. EU 5 (Leiden and Leuven 1990), 99.

<sup>4</sup> Manfred Gutgesell, *Die Datierung der Ostraka und Papyri aus Deir el-Medineh und ihre ökonomische Interpretation*. Teil I. *Die 20. Dynastie*. HÄB 18 (Hildesheim 1983), 68-69; contra Helck, 'Zur Geschichte', 32. There are a few ostraca that document the *wrš* duties of the left side of the crew, see Haring, 'Between Administrative Writing and Work Practice', [4]; see also below, 3.2.7.1; 3.3.16.

<sup>5</sup> Černý, 'Todes Ramses' III', 115-116; Gutgesell, *Die Datierung* I, 42.

<sup>6</sup> Janssen, 'Literacy and Letters', 91-94; Donker van Heel, 'Individual handwritings', 72-76.

<sup>7</sup> Cf. e.g. Gutgesell, *Die Datierung* I, 9.

<sup>8</sup> McDowell, *Hieratic Ostraca*, 4-5.

<sup>9</sup> Haring, 'Decoding the necropolis workmen's funny signs', 45-58.

<sup>10</sup> Accessible online via [dem-online.gwi.uni-muenchen.de/fragment.php?id=303](http://dem-online.gwi.uni-muenchen.de/fragment.php?id=303). Examination of unpublished ostraca with marks has resulted in the join between this piece and ONL 300, and further below O. Berlin P 12625 will be referred to together with the adjoining fragment as ONL 300+.

<sup>11</sup> Haring, 'Decoding the necropolis workmen's funny signs', 49-52.

<sup>12</sup> Haring and Soliman, 'Ostraca with workmen's marks', 81-82.

The duty roster ostraca composed with marks of the 20<sup>th</sup> Dynasty combine hieratic day numbers, workmen's marks, marks referring to members of the *smd.t* personnel, and signs for certain commodities in such a way that they can actually be 'read'.<sup>13</sup> For our current purposes the significance of these documents is twofold. First of all, they prove beyond any doubt that during the first half of the 20<sup>th</sup> Dynasty the necropolis workmen made use of identity marks for administrative purposes, just as their predecessors had done in the 18<sup>th</sup> Dynasty. Secondly, and more importantly, because this particular category of ostraca with marks is paralleled by well-known hieratic documents the ostraca with marks can be dated and provide the identity behind several workmen's marks. In fact, it will be shown that hieratic documents and ostraca with marks sometimes partially record the exact same information.

Before we analyse the duty roster ostraca composed with marks in more detail it is necessary to discuss how the messages encrypted in these documents came to be deciphered. In such ostraca each entry opens with the hieroglyphic sign  $\text{𓂏}$  *s*, which is then followed by a hieratic numeral. It was first proposed by Černý that this combination was used to indicate the day number of the month, and as a consequence it seemed logical to interpret the *s* as an abbreviation for the word *sw*, meaning 'day'.<sup>14</sup> Remarkably, the hieratic numerals that are used are the common horizontal ones, and not, as one might expect, the vertical numerals used in dates.<sup>15</sup> A different sign altogether is used for the numeral 30.<sup>16</sup> This day number is designated with the hieratic sign  $\text{𓂏}$  for  $\text{𓂏}$ , the sitting man with a hand to the mouth. Most probably this sign is connected with the word *ʿrq* 'to complete',<sup>17</sup> which is employed in the hieratic administration of Deir el-Medina as a term for the last day of the month. The word is spelled  $\text{𓂏}$ , but a related word *ʿrq*  $\text{𓂏}$   $\text{𓂏}$  'to abjure'<sup>18</sup> is written with the determinative  $\text{𓂏}$ , which may perhaps explain the sign on the ostraca with marks.<sup>19</sup>

After the day number generally follows a mark, and it was McDowell who first published the idea that it referred to the workman on duty.<sup>20</sup> She noticed furthermore that some marks bore similarities to names of some of the workmen of the 20<sup>th</sup> Dynasty. Examining O. Glasgow D. 1925.80, a duty roster composed with marks, she considered the possibility that marks  $\text{𓂏}$  and  $\text{𓂏}$  connected with days 13 and 18 respectively represented the workmen with the names Kasa and Mose. The connection was established because the two identity marks are hieroglyphic signs with phonetic values used to write the names of these two workmen:  $\text{𓂏}$  with phonetic value *kz* for *Kasa* and  $\text{𓂏}$  with phonetic value *ms* for *Mose*. These identifications also made sense because in the hieratic duty rosters of years 25 to 27 of the reign of Ramesses III, both workmen were five slots apart as well.<sup>21</sup> In Haring's first detailed study of duty rosters written with marks, he developed McDowell's theory by

<sup>13</sup> Contra Megally, review of McDowell, *Hieratic Ostraca*, 279.

<sup>14</sup> Private letter send on to Rob Demarée, who kindly provided a copy. The interpretation was followed by McDowell, *Hieratic Ostraca*, 5 and 19 and Megally, review of McDowell, *Hieratic Ostraca*, 277-278 and confirmed by Haring, 'Decoding, *passim*'. Cf. Haring, 'Workmen's Marks on Ostraca', 147; Haring and Soliman, 'Ostraca with workmen's marks', 83.

<sup>15</sup> Cf. Megally, *CdE* 73, 277; Haring, 'Decoding the necropolis workmen's funny signs', 45; Haring and Soliman, 'Ostraca with workmen's marks', 83.

<sup>16</sup> First noted by McDowell, *Hieratic Ostraca*, 19; also Haring, 'Decoding the necropolis workmen's funny signs', 45.

<sup>17</sup> *WB* I, 212.3.

<sup>18</sup> McDowell, *Jurisdiction*, 33-36.

<sup>19</sup> Cf. Haring and Soliman, 'Ostraca with workmen's marks', 83. Megally, review of McDowell, *Hieratic Ostraca*, 277 suggested the same connection between the sign and the word *ʿrq* but explained the sign itself rather as the sign  $\text{𓂏}$  used in that word.

<sup>20</sup> Contra previous objections by Megally, review of McDowell, *Hieratic Ostraca*, 280, who believed the marks referred to groups of persons because of the lack of the determinative  $\text{𓂏}$  used for masculine names.

<sup>21</sup> McDowell, *Hieratic Ostraca*, 19.

scrutinising another roster with marks, the concave side of O. Berlin P 12625. There too the marks attributed to Kasa and Mose were separated by five days, to wit days 19 and 24. Moreover, the fact that Mose's mark was connected with a day 24 but also to a day 5 indicated to Haring that the ostrakon dealt with the 19 days turnus known from the reign of Ramesses III. Going through the known hieratic documents that record this particular turnus, Haring found four possible dates on which Kasa served his *wrš* duty on a day 19 and Mose on a day 24: year 24, I *pr.t.*; year 26, II *pr.t.*; year 29, III *pr.t.*; or year 31, IV *pr.t.* The latter option turned out to be the most plausible. Following McDowell's method Haring searched for connections between the names mentioned in the hieratic rosters and the marks on the Berlin ostrakon, and found convincing matches besides those of Kasa and Mose. The mark on days 2 and 21  $\text{𓆎}$  resembled the hieratic sign for *mnw*, which is an element in the name of the workman *Nakhtmin*, the man who served on exactly those days; mark  $\text{𓆏}$  on days 6 and 25, a sign with the phonetic value *hr*, coincided with the name of *Hori* attested for the same days; and mark  $\text{𓆑}$ , a hieroglyph with phonetic value *wsr*, found on day 26 corresponded to the name of *Weserhat* connected with the same day.

However, dating O. Berlin P 12625 to IV *pr.t.* of year 31 of the reign of Ramesses III meant that mark  $\text{𓆒}$ , the hieroglyph with phonetic value *kz*, was not connected with the workman *Kasa*, but with *Penanuqet*. Haring explained this by suggesting that although mark  $\text{𓆒}$  referred to the identity of *Penanuqet*, the mark itself was related to the name of *Kasa* (v)/(vi), the father of *Penanuqet* (iii). It would thus seem that *Penanuqet* had inherited the mark from him when he took over his slot in the turnus list. Indeed, hieratic administrative documents demonstrate that *Penanuqet* was scheduled for duty a day after *Neferhotep* and a day before *Khaemwaset* from some point in year 30 onwards,<sup>22</sup> while in prior years this exact slot was filled by his father *Kasa*.<sup>23</sup> This theory also explained mark  $\text{𓆓}$  (*mr*) connected with day 18 on O. Berlin P 12625, which according to a date in IV *pr.t.* year 31 referred to a workman called *Neferhotep* (xii). The *mr* sign would then not be related to his name, but to that of his father *Meryre* (v), who had served on *Neferhotep*'s exact position in the turnus before year 24, IV *pr.t.*<sup>24</sup>

With the proposed date of O. Berlin P 12625, Haring had thus tentatively identified workmen and their corresponding marks:<sup>25</sup>

Day 1 and 20	$\text{𓆔}$	<i>Khaemwaset</i>
Day 2 and 21	$\text{𓆎}$	<i>Nakhtmin</i>
Day 3 and 22	$\text{𓆕}$	<i>Reshupeteref</i>
Day 4 and 23	$\text{𓆖}$	<i>Meryre</i>
Day 5 and 24	$\text{𓆗}$	<i>Mose</i>
Day 6 and 25	$\text{𓆏}$	<i>Hori</i>
Day 18, [7] and 26	$\text{𓆑}$	<i>Weserhat</i>
Day 19 [and 8]	$\text{𓆒}$	<i>Minkhau</i>
Day 20 [and 9]	$\text{𓆓}$	<i>Iry-'a</i>
[Day 21 and 10]	- ]	<i>Harshire</i>
Day 22 [and 11]	$\text{𓆔}$	<i>Iyerniutef</i>
Day 23 and 12	$\text{𓆕}$	<i>Anynakht</i>
Day 24 and 13	$\text{𓆖}$	<i>Neferher</i>
Day 14	$\text{𓆗}$	<i>Amenemope</i>

<sup>22</sup> First attested in IV *šmw* of year 31 in O. DeM 145.

<sup>23</sup> Haring, 'Decoding the necropolis workmen's funny signs', 49-51.

<sup>24</sup> See below 3.2.3.1, discussion of O. Ashmolean HO 1247 and O. Fitzwilliam EGA 6120.1943.

<sup>25</sup> Haring, 'Decoding the necropolis workmen's funny signs', table 1.

Day 15	⊗	Nesamun
Day 16	AA	Nakhemmut
Day 17	⤵	Khaemnun
Day 18	⤴	Neferhotep
Day 19	⌊	Penanuqet

All these identifications were confirmed in a later study in which previously unknown ostraca with marks recording the 30 days turnus of the reign of Ramesses IV were brought into the picture.<sup>26</sup> In this longer turnus, each workman was on duty on the same day of the month throughout the year. The ostraca that record the 30 days turnus with marks are often rather fragmentary, but together<sup>27</sup> they allowed a reconstruction of the sequence of marks that reflected the duty roster of Ramesses IV, well known from the hieratic documents. These hieratic documents inform us that in the month of III *ꜥḥ.t* of the first year of the reign of Ramesses IV the longer turnus was introduced, as 11 new workmen of the right side of the crew were added. Apart from the increase in the number of workmen, hieratic ostraca demonstrate that a few changes took place in the order of the duty roster (see overview below). Firstly, the workman Nakhemmut was no longer included in the turnus of the reign of Ramesses IV, as he was promoted to foreman of the right side of the crew.<sup>28</sup> Secondly, workman Hori moved down in the sequence because his original slot was now occupied by a newly introduced workman called Pamedunakht, nicknamed Pasen. Hori's new position became the slot between that of Khaemnun and Neferhotep. The exact same changes are also observed in the reconstructed sequence of the 30 days turnus, as can be seen in the table below, which displays the duty roster of year 1 of Ramesses IV in the right column and the duty roster of O. Berlin P 12625 in the left column. The facts that the changes in the written turnus are reflected in the turnus with marks, and that not a single identification proposed for the 19 days turnus of year 31 is contradicted by the identifications of the 30 days turnus, prove that Haring's date for O. Berlin P 12625 was correct, and therefore his identifications as well.

<u>Roster in O. Berlin 12625</u>			<u>Roster year 1 Ramesses IV</u>		
Day 1 and 20	⤴	Khaemwaset	Day 30	Khaemwaset	⤴
Day 2 and 21	⌊	Nakhtmin	Day 1	Nakhtmin	⌊
Day 3 and 22	±	Reshupeteref	Day 2	Reshupeteref	±
Day 4 and 23	⌊	Meryre	Day 3	Meryre	⌊
Day 5 and 24	⤴	Mose	Day 4	Mose	⤴
Day 6 and 25	⤴	Hori	Day 5	Pamedunakht	AA
Day 18, [7] and 26	⤴	Weserhat	Day 6	Weserhat	⤴
Day 19 [and 8]	♀	Minkhau	Day 7	Minkhau	♀
Day 20 [and 9]	⤴	Iry-'a	Day 8	Iry-'a	⤴
[Day 21 and 10]	- ]	Harshire	Day 9	Amennakht	⤴
Day 22 [and 11]	⤴	Iyerniutef	Day 10	Harshire	⤴
Day 23 and 12	⌊	Anynakht	Day 11	Iyerniutef	⤴
Day 24 and 13	⌊	Neferher	Day 12	Nebnakht	⌊
Day 14	⌊	Amenemope	Day 13	Wesekhnetet	⤴
Day 15	⊗	Nesamun	Day 14	Pentaweret	⊗

<sup>26</sup> Haring and Soliman, 'Ostraca with workmen's marks', 81-82.

<sup>27</sup> The ostraca used for the reconstruction are O. Ashmolean HO 1249, O. Turin N. 57393, O. Varille 425 and O. Ashmolean HO 1250. Together they cover all 30 days of the turnus and the workmen's marks connected with them. For these ostraca see below, 3.2.5.

<sup>28</sup> Collier, 'The right side', 6; 8.

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

Day 16	AA	Nakhemmut	Day 15	Nakhemmut	𐀓
Day 17	𐀓	Khaemnun	Day 16	Amennakht	𐀓
Day 18	𐀓	Neferhotep	Day 17	Amennakht	𐀓
Day 19	𐀓	Penanuqet	Day 18	Tasheri	𐀓𐀓
			Day 19	Maaninakhtuf	𐀓
			Day 20	Amenhotep	𐀓
			Day 21	Bakenamun	𐀓
			Day 22	Anynakht	𐀓
			Day 23	Neferher	𐀓
			Day 24	Amenemope	𐀓
			Day 25	Nesamun	𐀓
			Day 26	Khaemnun	𐀓
			Day 27	Hori	𐀓
			Day 28	Neferhotep	𐀓
			Day 29	Penanuqet	𐀓

The right half of the overview above shows that the turnus of the reign of Ramesses IV contains three workmen with the name Amennakht. Several other names of the duty roster are rather common at Deir el-Medina, so a more precise identification is warranted. Conveniently, the filiations of the 30 workmen of the right side of the crew known from the turnus of the years of Ramesses IV were identified in a recent prosopographical study by Mark Collier. This was accomplished by analysing a number of hieratic sources<sup>29</sup> with ordered name lists of the workmen of the right side in which the fathers of the workmen are mentioned.<sup>30</sup> As a result, Collier was able to assign each workman in the turnus a unique identification number according to the system of Benedict Davies' seminal prospographical work.<sup>31</sup>

𐀓	Khaemwaset (iii)
𐀓	Nakhtmin (vi)
𐀓	Reshupeteref (i)
𐀓	Meryre (vi)
𐀓	Mose (iv)
AA	Pamedu(netjer)nakht (i), nicknamed "Pasen"
𐀓	Weserhat (ii)
𐀓	Minkhau (i) <sup>32</sup>
𐀓	Iry-'a, son of Khaemnun (i) <sup>33</sup>
𐀓	Amennakht (xxv)
𐀓	Harshire (i)
𐀓	Iyerniutef (iii)
𐀓	Nebnakht (iv)
𐀓	Wesekhnemtet (i)
𐀓	Pentaweret (iv)
𐀓	Nakhemmut (ii)
𐀓	Amennakht (xxvi), nicknamed "Sedet"

<sup>29</sup> Most importantly P. Turin Cat. 1891 rto. 6-13; P. Turin Cat. 2065 vso. II.1-12; O. DeM 41.

<sup>30</sup> Collier, 'The right side', 1-20.

<sup>31</sup> Davies, *Who's who*.

<sup>32</sup> The identification of Minkhau is uncertain and based on monumental inscriptions from Deir el-Medina, see Collier, 'The right side', 14.

<sup>33</sup> This individual is not mentioned in Davies, *Who's who*. Collier, 'The right side', 14-15 tentatively identified Iry-'a as the son of Khaemnun of the duty roster, i.e. Khaemnun (i); see below, p. 173, n. 36.

𓄏	Amennakht (ix), nicknamed “Kar”
𓄏𓄏	Ta (i), also called Tasherī
𓄏	Maaninakhtuf (iii)
𓄏	Amenhotep (vi)
𓄏	Bakenamun (i) <sup>34</sup>
𓄏	Anynakht (i)
𓄏	Neferher (vi)
𓄏	Amenemope (x)
𓄏	Nesamun (III) <sup>35</sup>
𓄏	Khaemnun (i) <sup>36</sup>
𓄏	Hori (ii) = (iii) <sup>37</sup>
𓄏	Neferhotep (xii)
𓄏	Penanuqet (iii)

With one exception, these prosopographic data from the turnus of the reign of Ramesses IV aid in identifying the workmen on O. Berlin P 12625. The confirmed identifications prove that the suspicions of McDowell and Haring that some identity marks are connected with their proper names are correct. Moreover, Haring’s suggestion that the Penanuqet of the turnus with mark 𓄏 had inherited his mark from his father is now supported by the evidence that his father was Kasa (vi).<sup>38</sup> The connection between Neferhotep (xii) and his mark 𓄏 seems to be more complicated and will be discussed below.<sup>39</sup>

The only unidentified workman on O. Berlin P 12625 is the Nakhemmut attested for day 16, who is not to be confused with Nakhemmut (ii) of the 30 days turnus of the reign of Ramesses IV. The Nakhemmut who is still listed on O. Berlin P 12625 must be Nakhemmut (vi), a workman who disappears in the 30 days turnus, as he was promoted to the position of chief workman of the right side, apparently in II *ꜥh.t* of the first year of the reign of Ramesses IV.<sup>40</sup> This leads to the following observations: firstly, Nakhemmut (vi) was designated by the mark 𓄏. Secondly, when Nakhemmut (vi) left his slot in the turnus between Nesamun (III) and Khaemnun (i), his mark was taken over by another workman: Pamedunakht (i). This workman did not have any family ties to Nakhemmut (vi), and the sole reason that he received Nakhemmut (vi)’s mark seems to be that the mark had become available with his

<sup>34</sup> Tentatively identified, see Collier, ‘The right side’, 18.

<sup>35</sup> Not in Davies, *Who’s who*; see Collier, ‘The right side’, 9.

<sup>36</sup> The existence of several different individuals named Khaemnun has led to quite some discussion as to their precise identification, see Davies, *Who’s who*, 250-252. Davies was of the opinion that the ‘Khaemnun, son of Amennakht’ recorded in P. Turin Cat. 1891 was a grandson of Khaemnun (i), husband of Naunakhte (i), see Davies, *Who’s who*, 251 and n. 615. However, Collier, ‘The right side’, 10 correctly pointed out that this is impossible: the Khaemnun recorded in the ordered list of the papyrus certainly is the same Khaemnun who is recorded for *wrš* duty on the right side of the crew throughout the reign of Ramesses III. He cannot be, as Davies assumed, a son of Amennakht (xxvi) because the latter workman was introduced to the right side of the crew at the beginning of the reign of Ramesses IV, i.e. several years after Khaemnun’s introduction. Regarding the identification of the Khaemnun in the duty roster, Collier was hesitant to identify him as Khaemnun (i), husband of Naunakhte (i). Yet, we have strong indications that it was indeed this Khaemnun (i) who was represented by mark 𓄏 and who served on the right side under Ramesses III and Ramesses IV. For one this is suggested by O. MMA 09.184.785, an ostrakon discussed in Appendix I, § 12, which appears to record Khaemnun (i), his contemporary colleagues from the right side, his son Maaninakhtuf (iii) as well as his daughter Wasetnakht (i). Another clue is provided by O. Schaden 1 and O. BM 5634, discussed in the chapter 5, see p. 407.

<sup>37</sup> This man is probably identical with Hori (iii), see Collier, ‘Integrating Hieratic and Marks Data’, [9].

<sup>38</sup> Collier, ‘The right side’, 11-12.

<sup>39</sup> Below, p. 186; see also chapter 6, 6.5.4.3.

<sup>40</sup> Davies, *Who’s who*, 50 is correct in stating that the first attestation of Nakhemmut (vi) with his new title dates to year 2 of Ramesses IV, but his promotion certainly must have taken place a year earlier, see Collier, ‘The right side’, 6; 8.



advancement in rank and subsequent exit from the turnus. Pamedunakht in turn was the first of the group of new workmen to be added to the new duty roster. Indeed, of all new workmen Pamedunakht's position is the highest, being scheduled for duty on day 5. We will later return to the question why Nakhemmut (vi) did not keep his own identity mark.<sup>41</sup>

Currently, some 15 years after Haring's initial study, a great number of unpublished duty rosters composed with marks have come to light, which confirm the original ideas of McDowell and Haring and further elucidate the practice of composing duty rosters with marks. Moreover, it is now clear that several ostraca fragments join together. In addition we shall see that some of these newly accessed ostraca are inscribed with a year number, rendering the task of dating the roster considerably easier. It is because of these ostraca with year numbers as well as the fact that the ostraca with marks are so akin to hieratic duty rosters that we find ourselves in the comfortable position of observing that duty rosters composed with marks can often be dated down to the month. Even when a year number is absent that is in many cases possible on account of the combination of specific day numbers and specific workmen's marks. Prior to a discussion of the exact date of duty rosters composed with marks, the sections below present an overview of the different elements found in such documents. It will be seen later on that the interpretation of these elements is often based on close comparison to hieratic accounts that record the same information.

### 3.2.2.1 Regnal year numbers

In about a dozen cases, the hieratic or rather cursive hieroglyphic sign  $\text{𓂏}$  or group  $\text{𓂏𓂏}$  for *rnp.t* and *rnp.t-sp*, accompanied by a hieratic numeral is inscribed above the duty roster. The number obviously refers to the regnal year to which the duty roster dates. It is always added just above or before the first day of the month. This day is not always preserved, so it is well possible that more ostraca were originally headed by a year number. On the other hand, there are several ostraca where a day 1 is preserved and a year number was not added.<sup>42</sup> A regnal year number is attested from the reign of Ramesses III, year 20 to the reign of Ramesses IV, year 4, but most instances date to the end of the reign of Ramesses III, as can be seen in the overview below.<sup>43</sup>

O. Fitzwilliam EGA 6120.1943	Year 20
O. Strasbourg H 45	Year 27
ONL 322+	Year 28, II <i>šmw</i>
ONL 320	Year [29], III <i>ꜥh.t</i> <sup>44</sup>
ONL 337	Year 29, I <i>pr.t</i>
ONL 297	Year 30
ONL 6222	Year 30, IV <i>šmw</i>
ONL 333+	Year 30, I <i>pr.t</i>
ONL 336+	Year 30, III <i>ꜥh.t</i>
ONL 325	Year 32, II <i>šmw</i>
O. Ashmolean HO 1249	Year [2] <sup>45</sup>
ONL 310	Year 2

<sup>41</sup> See below, p. 198; 3.2.7.4; also chapter 6, p. 518.








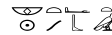

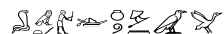








<sup>42</sup> O. Ashmolean HO 1081; O. Ashmolean HO 1082; O. Ashmolean HO 1088; ONL 298; ONL 300; ONL 317; ONL 321; ONL 340; ONL 6236; ONL 6237; O. Glasgow D. 1925.80; and O. Strasbourg H 10. Also in ONL 338, which records the first day of a new year. Perhaps also ONL 341, but the top of the ostrakon is damaged.



<sup>43</sup> A year date seems to have been inscribed at the top of O. Glasgow 1925.80, which is here attributed to the reign of Ramesses V. Unfortunately the year number has not been preserved.

<sup>44</sup> The ostrakon is damaged at the spot where the numeral should have been added, but the document can be attributed to regnal year 29.

### 3.2.2.2 Month designations

In about two dozens of the duty rosters composed with marks, a sign is added that seems to denote the specific month of which the documents speaks. A month designation frequently occurs together with a regnal year number,<sup>46</sup> but not necessarily so. The sign is in most cases written in connection with the first day of the month, but on O. Glasgow D. 1925.67 and O. UC 31967 the marks are clearly added to other days as a means to prevent ambiguity about the date of specific entries. The following month signs are well identifiable:

 47		<i>dhwty</i>	I <i>zh.t</i>
 48		<i>hw.t-hr</i>	III <i>zh.t</i>
 49		<i>k3-hr-k3</i>	IV <i>zh.t</i>
 50		<i>t3-b.t</i>	I <i>pr.t</i>
 51		<i>p3 hn.w mw.t</i>	I <i>pr.t</i>
 52		<i>p3-n(y)-imn-htp</i>	III <i>pr.t</i>
 53	idem		
 54		<i>(p3-n(y)-)rnnw.t.t</i>	IV <i>pr.t</i>
 55		<i>p3-n(y)-in.t</i>	II <i>šmw</i>
 56	idem		

Most designations are in fact references to the festivals of gods and processions that took place during these months. Perhaps the most straightforward example of a sign denoting a festival is  in O. Ashmolean HO 1247, which most probably refers to the “beautiful feast of the valley”. The sign is inscribed after day 24 and marks the beginning of the festival, since in year 6 of the reign of Seti II, the second day of the festival took place on II *šmw*, day 25.<sup>57</sup> In this light, the sign  in the designation of IV *zh.t* may be interpreted as actual vessels that were delivered to the workmen on occasion of festivals. Indeed, administrative documents make reference to so-called “*k3-hr-k3*-vessels” that were supposedly used in rituals.<sup>58</sup> Similarly, the jar-shaped sign that appears to be a month designator in ONL 297 and ONL

<sup>45</sup> The ostrakon is damaged at the spot where the numeral should have been added, but the document can be attributed to regnal year 2.

<sup>46</sup> ONL 297; ONL 310; ONL 320 (?); ONL 324 (month designation very uncertain); ONL 325; ONL 333; ONL 336; ONL 337; O. Fitzwilliam EGA 6120.1943.

<sup>47</sup> ONL 338.

<sup>48</sup> ONL 336; O. Ashmolean H 1091; O. Cairo JE 96328; O. Fitzwilliam EGA 6120.1943 (?); ONL 320 (?).

<sup>49</sup> ONL 298; ONL 321; O. Ashmolean HO 1082.

<sup>50</sup> ONL 333, ONL 337; O. Glasgow D. 1925.67.

<sup>51</sup> O. Ashmolean H 1082. The identification seems plausible but is not corroborated by other sources.

<sup>52</sup> O. Ashmolean HO 1088. The identification seems plausible but is not corroborated by other sources.

<sup>53</sup> O. UC 31967. The identification seems plausible but is not corroborated by other sources.


<sup>54</sup> ONL 316; ONL 340; O. Cairo SR 12165.


<sup>55</sup> ONL 325; O. Strasbourg H 10.


<sup>56</sup> O. Ashmolean HO 1247.

<sup>57</sup> Heidi Jauhiainen, “Do not celebrate your feast without your neighbours”. *A study of references to feasts and festivals in non-literary documents from Ramesside Period Deir el-Medina*. PIAAS 10 (Helsinki 2009), 151.

<sup>58</sup> Jauhiainen, “Do not celebrate”, 116-117.













310, both recording the month *ipip* , the third month of *šmw*, could be related to the distribution of goods during a festival of this month.<sup>59</sup>

We briefly mention here an unexplained sign at the top of ONL 322+ adjacent to the year date. It is in this position that one would expect a sign referring to a month or festival, but the odd combination of lines on this ostrakon is difficult to explain as such. The ostrakon records II *šmw*, for which sign  was employed, but the sign or rather drawing on ONL 322+ does not resemble this bark and remains therefore enigmatic.




ONL 6523 could be referring to the epagomenal days, the *hr.y.w rnp.t*,<sup>60</sup> but the document is difficult to interpret. The ostrakon cannot be accurately dated as it does not display any workmen's marks. We do encounter other marks and signs that are common on duty rosters composed with marks, such as  for day 30. Above that sign, the hieratic signs *h* and *rnp.t* could be an abbreviation for the *hr.y.w rnp.t*. If the signs do indeed refer to the epagomenal days on that ostrakon, the duty roster below it most probably refers to the first month of the year, I *šh.t*, which in turn would date the ostrakon in year 24 of Ramesses III.

### 3.2.2.3 Designations for commodities

Like their hieratic counterparts, the duty rosters composed with marks record for each day the deliveries transferred by the *smd.t* personnel to the community of workmen. These provisions are conveyed by marks and their quantities in hieratic numerals. Whereas a small amount of infrequently attested marks for commodities remain difficult to explain, the most important commodities are readily identifiable through comparison with duty rosters recorded in hieratic. The following products are designated by marks:

Sign	Origin	Meaning
	resembles a jar	<i>ds</i> 'ds beer jar'
	resembles a date	<i>bnr</i> 'date'
	resembles a plant	<i>sm.w</i> 'vegetables'
	hieratic sign  <i>pr</i> used in spelling of 'psn bread'	<i>psn</i> 'psn bread'
 or 	resembles hieratic sign  <i>b</i>	<i>bi.t</i> 'bi.t bread'
	resembles hieratic sign  <i>ht</i>	<i>ht</i> '(fire)wood'
	resembles hieratic sign  <i>rm</i>	<i>rm.w</i> 'fish'

Besides these products, the duty rosters composed with marks commonly employ other signs to further specify the accounts in a manner that is well known from hieratic administration. Most frequently are two marks that indicate whether a specific delivery was destined for the right or for the left side of the crew. A third sign was used to document deficits of commodities.

Sign	Origin	Meaning
	hieratic sign used in spelling of <i>wnmy</i> 'right'	<i>wnmy</i> 'right side'
	unknown <sup>61</sup>	<i>smhy</i> 'left side'
	hieratic sign <i>d3</i>	<i>wd3.t</i> 'deficit'

<sup>59</sup> Perhaps the festival of Taweret, at the occasion of which commodities were distributed to the workmen, see Jauhiainen, "Do not celebrate", 154-155.

<sup>60</sup> WB II, 430, 3.

<sup>61</sup> See chapter 6, 6.5.4.7.

### 3.2.2.4 Identity marks for members of the *smd.t* personnel

The duty rosters composed with marks are similar to hieratic duty rosters in yet another respect. In both types of documents, individuals responsible for the delivery of a certain commodity are often recorded. In ostraca with marks this was achieved by the notation of an identity mark that referred to the member of the *smd.t* personnel in question, almost always either a woodcutter or a fisherman. Aside from a few still problematic marks which may or may not refer to members of the *smd.t* crew, the following men are securely identified:

Ptahmose, woodcutter	𓆎 <sup>62</sup>
Pades, woodcutter	𓆎𓆎 <sup>63</sup> and 𓆎 <sup>64</sup>
Amenhotep, woodcutter	± <sup>65</sup>
Bakenkhonsu, woodcutter	𓆎 and 𓆎 <sup>66</sup>
Wesermaat(re)nakht, woodcutter	𓆎 <sup>67</sup>
Hatnefer (son of Penpakhenty), fisherman	𓆎 <sup>68</sup> and 𓆎 <sup>69</sup>

Three instances of Amenkha<sup>70</sup> are attested. In two of these, a filiation seems to have been added, most likely in order to distinguish between two contemporaneous men with the name Amenkha:

Amenkha (son of Amenemone), fisherman	𓆎𓆎 <sup>71</sup>
Amenkha (son of Khonsumose), fisherman	𓆎𓆎𓆎 <sup>72</sup>
Amenkha	𓆎 <sup>73</sup>

There are in fact more signs that could refer to members of the *smd.t* personnel. Some of them are identifiable even though evidence is lacking, while others remain unclear.

𓆎 <sup>74</sup>	sign <i>s</i> , perhaps voor Sary (woodcutter)
𓆎𓆎 <sup>75</sup>	hieratic signs <i>p</i> and <i>h</i> , perhaps for Penpakhenty (fisherman)
𓆎 <sup>76</sup>	sign <i>hr</i> , apparently for a deliverer of wood, perhaps also of fish

<sup>62</sup> Very frequently attested. Earliest dated attestation in the reign of Ramesses III, year 30, III *sh.t* (ONL 336+). Latest attestation in the reign of Ramesses V or later.

<sup>63</sup> O. Turin N. 57393; perhaps also ONL 340; O. Ashmolean HO 1083.

<sup>64</sup> ONL 316; ONL 310; O. Varille 425; O. UC 31967; O. Ashmolean HO 1088; O. Ashmolean HO 1082; O. Ashmolean HO 1083.

<sup>65</sup> O. Leiden F. 2000 / 1.5.

<sup>66</sup> Very frequently attested. Earliest dated attestation probably reign of Ramesses III, year 25, IV *pr.t* (ONL 332). Latest attestation in the reign of Ramesses V or later.

<sup>67</sup> ONL 297; ONL 325; O. Strasbourg H 13.

<sup>68</sup> O. Fitzwilliam EGA 6120.1943; ONL 298.

<sup>69</sup> O. Ashmolean HO 1247.

<sup>70</sup> Kathrin Gabler, who is currently completing a dissertation on the topic of the *smd.t* personnel, kindly informs us of the existence of a fisherman named Amenkha, son of Khonsumose; another fisherman is Amenkha, son of Amenemope, while a third contemporaneous Amenkha is the woodcutter who might have been a son of water-carrier Qenna. According to Gabler, the fisherman Amenkha and the woodcutter Amenkha cannot be the same person.

<sup>71</sup> O. Fitzwilliam EGA 6120.1943.

<sup>72</sup> ONL 317.

<sup>73</sup> ONL 316; perhaps O. Ashmolean HO 1247.

<sup>74</sup> The sign appears only on ONL 336+, assumedly for a woodcutter, making Sary a plausible candidate.

<sup>75</sup> At least on ONL 300+ securely attested with a delivery of fish. Also attested on O. Glasgow D. 1925.67; ONL 6236+; ONL 318 and perhaps on O. Ashmolean HO 1088 and O. Fitzwilliam EGA 6120.1943.

Ⲙ <sup>77</sup>	perhaps sign <i>šs</i> , apparently for a deliverer of fish, perhaps also wood
Ⲑ <sup>78</sup>	sign <i>nfr</i> , perhaps for a deliverer of several commodities
Ⲓ <sup>79</sup>	sign <i>h</i> , apparently for a deliverer of wood

### 3.2.2.5 Dating duty rosters composed with marks

Since duty rosters written with workmen's marks are relatively well datable, they constitute important anchor points in regard to other ostraca with workmen's marks. In the following sections we will examine the duty rosters with marks solely with the purpose of dating them.<sup>80</sup> The hieratic administration in which the turnus is preserved will be essential in this process. Although the information concerning the turnus obtained from the available hieratic documents does not cover every single month from year 24 of Ramesses III onwards, the turnus has been reconstructed to a large extent, most recently and completely in an online publication by Rob Demarée (hereafter referred to as 'the reconstructed turnus'),<sup>81</sup> in which the workmen on duty are presented in tables for each month from year 24 of Ramesses III to year 2 of Ramesses IV. It will become apparent that the ostraca with marks will often confirm the reconstruction, while at other points they offer evidence for changes in the turnus that are not recorded in the hieratic material.

### 3.2.3 Duty rosters composed with marks dating to the reign of Ramesses III

It has already been established that ONL 300+ records months III and IV of *pr.t* in year 31. A regnal year 32 is recorded on ONL 318+, a very large ostrakon which seems to have covered at least three months. Let us begin reading at a well legible part of the ostrakon below the year number. For days 20, 21, 22, 23, 24, 25, 27, 28 and 29 we encounter the marks Ⲡ, ⲡ, Ⲣ, ⲣ, Ⲥ, ⲥ, Ⲧ, ⲧ, Ⲩ, ⲩ, Ⲫ and ⲫ, which we had identified on ONL 300+ as the workmen Meryre, Mose, Hori, Weserhat, Minkhau, Iry-'a, Iyerniutef, Anynakht and Neferher respectively. We recognise mark Ⲭ on day 26 as the mark for Harshire, found in the 30-days turnus of Ramesses IV. Clearly these identity marks appear in the same consecutive order as in ONL 300+. It can thus be concluded that according to ONL 318+, Meryre was on duty on a day 20 somewhere in year 32 of Ramesses III. Looking at the reconstructed turnus of the same year, we observe that this happened either in II *šmw* or in I *zḥ.t*. Deliveries for the former month are listed in hieratic ostrakon O. DeM 38. Comparing this ostrakon to ONL 318+ we immediately realise that the very same information is recorded in both documents: the entries for day 22 (with Hori on duty) and day 26 (with Harshire on duty) are almost perfect matches:

	O. DeM 38	ONL 318+
Day 22: Hori	dates: 1 right; <b><i>ds</i> jars: 2; vegetables: 4</b>	<b><i>ds</i> jars: 2; vegetables: 4</b>
Day 26: Harshire	<b><i>psn</i> bread: 20; <i>bl.t</i> bread 12; <i>ds</i> jars: 2; vegetables: 10</b>	<b><i>psn</i> bread: 20; <i>bl.t</i> bread 12; <i>ds</i> jars: 2; vegetables: 6</b>

Apart from a discrepancy in the number of units of vegetables for day 26, the ostraca mention the same figures and therefore suggest that like O. DeM 36, ONL 318+ documents II *šmw* of

<sup>76</sup> O. Fitzwilliam EGA 6120.1943; ONL 6237+. Attested four times.




<sup>77</sup> O. Ashmolean HO 1247; O. Fitzwilliam EGA 6120.1943, both predating year 24 of Ramesses III.


<sup>78</sup> O. Ashmolean HO 1093; O. Ashmolean HO 1082; ONL 317+; O. Ashmolean HO 1247. Perhaps this sign is rather a quality marker, although indications of quality of dates, bread, beer, wood and fish are not known from hieratic delivery texts.

<sup>79</sup> ONL 337.




<sup>80</sup> The content of duty rosters composed with marks shall be discussed below, 3.3.



<sup>81</sup> Accessible in the *Deir el-Medina Database*. Partially based on Helck, 'Zur Geschichte'.

year 32. There is more evidence for this assumption when we examine the section on ONL 318+ just above the year number, where the entries for a day 19 and 20 are inscribed. Logic would demand that these entries belong to the previous month, I *šmw*, and this is confirmed by the identity mark connected with day 19. It is , the mark of Iyerniutef, who according to the reconstructed turnus would have been on duty on exactly this day in I *šmw*. No workman's mark seems to have been added for day 20, but the deliveries of the day are well discernable: mark  in this entry refers to the woodcutter Ptahmose and the numeral 550 to the amount of firewood delivered by him on this day. The entry then continues with the woodcutter Wesermaatrenakht represented by mark , who delivered 870 units of wood. As it happens, the deliveries of I *šmw*, day 20 are also recorded in hieratic ostracon O. DeM 153, and the very same wood deliveries are mentioned there. The correspondence with O. DeM 153 proves that ONL 318+ is datable to I and II *šmw* of year 32 in the reign of Ramesses III.

ONL 322+ is inscribed with regnal year 28. On this ostracon days 1 and 2 do not seem to have been recorded, but for day 3 the mark  is listed. We now know this mark to refer to Neferher, and a quick glance at the reconstructed turnus informs us that in year 28 of Ramesses III Neferher was scheduled for duty on day 3 of II *šmw*. Therefore ONL 322+ can straightforwardly be dated to this month, even though we do not possess a hieratic parallel of the duty roster of this period.<sup>82</sup> That cannot be said for O Strasbourg H 45, where regnal year 27 is preserved. The first line is badly damaged, but the next lines clearly list the marks of Kasa, Khaemwaset, Nakhtmin and Reshupeteref for days 2 – 6. According to the reconstructed turnus, these workmen were on duty on these days in III *šmw* and II *ḫ.t.* Unfortunately, no hieratic duty roster is preserved for the former month. Hieratic ostraca O. Alan Gardiner 102, O. DeM 633 and O. DeM 167 record deliveries attributed to II *ḫ.t.*,<sup>83</sup> but both this group of hieratic ostraca and O. Strasbourg H 45 are not well enough preserved to allow for a sufficient comparison, and there seem to be no matching entries. Therefore O. Strasbourg H 45 is securely dated in year 27, but it remains uncertain whether the deliveries of which it speaks are those of III *šmw* or II *ḫ.t.*

Through the dating of ONL 322+ and O. Strasbourg H 45 we have come to know three new marks:

-  (O. Strasbourg H 45, day 8; ONL 322+, day 15)
-  (O. Strasbourg H 45, day 11; ONL 322+, day 18)
-  (O. Strasbourg H 11, day 13)

With the help of the hieratic turnus lists we can identify these marks as respectively the workmen Menna, Pentaweret and Qenna. Menna is most likely identifiable as the workmen and/or draughtsman Menna (i).<sup>84</sup> The Pentaweret referred to in these documents through mark  is to be distinguished from Pentaweret (iv) with mark  in the 30 days turnus of Ramesses IV. Several other individuals of the same name are attested at Deir el-Medina, so the identification of this person is not uncomplicated. Very little is known about the

<sup>82</sup> No hieratic sources recording deliveries for this particular month seem to be available. O IFAO 1306 was attributed to this month in Wolfgang Helck, *Die datierten und datierbaren Ostraka, Papyri und Graffiti von Deir el-Medineh. Bearbeitet von A. Schlott.* ÄA 63 (Wiesbaden 2002), 291-292, but none of the deliveries listed in that piece conform to ONL 322+. Therefore it is probable that the II *šmw* mentioned in O. IFAO 1306 should date to a year other than 28.

<sup>83</sup> Helck, *Die datierten und datierbaren Ostraka*, 285.

<sup>84</sup> Davies, *Who's who*, 163-164. The correspondence between Menna and this mark had already been proposed by Haring, 'Decoding the necropolis workmen's funny signs', 53.

draughtsman Pentaweret (vi).<sup>85</sup> The Pentaweret (viii) identified by Davies is not likely to have been active in the reign of Ramesses III.<sup>86</sup> That is also true for his Pentaweret (x)<sup>87</sup> and Pentaweret (xi).<sup>88</sup> Skipping over the Pentawerets who are attested as scribes, the most plausible candidates for the identification of the Pentaweret in the turnus of Ramesses III are Pentaweret (i),<sup>89</sup> Pentaweret (vii)<sup>90</sup> and Pentaweret (ix).<sup>91</sup> As will be demonstrated later, Pentaweret (vii), son of Nebnefer (vii) is the most probable identification.<sup>92</sup> The Qenna with mark  $\overline{\text{L}}$  is most likely Qenna (i), and it is not difficult to imagine that he had inherited his mark  $\overline{\text{L}}$  from his father *Iniherkhau* (ii).

O. Strasbourg H 45 (day 6) and ONL 322+ (day 12) furthermore indicate that Reshupeteref, whose mark  $\pm$  we had already identified, is also represented in a more elaborate way by the mark  $\pm\ddagger$ .<sup>93</sup> Moreover, we see that in years 27 and 28 the marks  $\times$  (ONL 322+, day 5),  $\ddagger$  (ONL 322+, day 6) and  $\text{L}$  (ONL 322+, day 9; O. Strasbourg H 45, day 2) were not used for Nesamun, Minkhau and Penanuqet, but for the workmen who previously filled their positions in the turnus: Irsu,<sup>94</sup> Huynefer<sup>95</sup> and Kasa.<sup>96</sup> As discussed above, the latter workman is Kasa (v)/(vi), the father of Penanuqet (iii).

Not much is known about the workman Irsu, who is not discussed in Davies' *Who's who*.<sup>97</sup> The workman Huynefer is in all likelihood Huynefer (xi) = (v).<sup>98</sup>

Another ostrakon, ONL 337, is inscribed with regnal year 29 and displays mark  $\Leftarrow$  of Khaemnun. As the reconstructed turnus lists indicate, in year 29 of Ramesses III Khaemnun only served his *wrs* duty on a day 1 in *I pr.t*. With a single exception, all other marks in ONL 337 are in accord with the reconstructed turnus for that month, and so it can be safely dated to that time. The only mark that disagrees is that of Harshire, who is listed for day 30 in ONL 337, while the reconstructed turnus proposes this position had been assumed by Iyerniutef. In the reconstructed turnus it was assumed that Iyerniutef was replaced by Harshire in IV *šmw* of year 30, and that he remained absent until he returned again in *I pr.t* of the same year. This scenario seems somewhat odd, and the duty rosters written with marks demonstrate that the

<sup>85</sup> Davies, *Who's who*, 169. A contemporaneous draughtsman with the same name is Pentaweret (iv). Could they be identical?

<sup>86</sup> Davies, *Who's who*, 241-242.

<sup>87</sup> Davies, *Who's who*, 54.

<sup>88</sup> Davies, *Who's who*, 111.

<sup>89</sup> Davies, *Who's who*, 70; 111.

<sup>90</sup> Davies, *Who's who*, 228.

<sup>91</sup> Davies, *Who's who*, 214.

<sup>92</sup> See chapter 4, 4.2.11. Note that in the opinion of Collier, none of the workmen called Pentaweret distinguished by Davies fits the description of the man of that name who is recorded in the hieratic duty rosters. Collier therefore proposed to existence of a Pentaweret (XII), see Collier, 'Integrating Hieratic and Marks Data', [13 and n. 44].

<sup>93</sup> Reshupeteref (i) was tentatively identified as the son of Hesysunebef (i) by Davies, *Who's who*, 248. If this identification is correct, it would seem plausible that Reshupeteref (i)'s mark is connected with the name of Hesysunebef (i)'s father Neferhotep (ii).

<sup>94</sup> Not in Davies, *Who's who*. The first attestation of Nesamun in the slot of Irsu seems to be on IV *šmw*, year 28 according to O. DeM 138, but compare O. DeM 156. See also Collier, 'Integrating Hieratic and Marks Data', [3 and n. 9, 4 and n. 10].

<sup>95</sup> Based on hieratic documents alone, the reconstructed turnus lists in the *Deir el-Medina Database* give the impression that Minkhau took over the slot of Nakhemmut, but it will be shown below that it was the slot of Huynefer that was later occupied by Minkhau. The first secure attestation of Minkhau in the turnus is II *šmw*, year 31 according to O. DeM 154. Apart from Huynefer's slot, Minkhau apparently also took over Huynefer's identity mark. The two men may well have been related, see chapter 5, Excursus IV.

<sup>96</sup> The first attestation of Penanuqet in the slot of Kasa is I *šmw*, year 29 according to P. Turin Cat. 1880 rto. IV, cf. Collier, 'Integrating Hieratic and Marks Data', [4 and n. 16].

<sup>97</sup> Compare Collier, 'Integrating Hieratic and Marks Data', [4] and n. 12.

<sup>98</sup> Davies, *Who's who*, 18-19; Collier, 'Integrating Hieratic and Marks Data', [8-9; 17]. Huynefer (xi) may be the same man as Huynefer (v), see chapter 5, Excursus IV.

changes that did indeed take place in the turnus need to be reconstructed somewhat differently. Although Harshire did fill in the position of Iyerniutef as indicated by ONL 337, Iyerniutef did not depart from the turnus.

The alterations that took place in the turnus can be observed in ONL 297+. This informative ostrakon carries a regnal year 30 on the reverse and records Nakhemmut for day 1 just below it. In the reconstructed turnus lists for year 30 we find Nakhemmut on day 1 in III *šmw* and II *šh.t*, but we can securely date the reverse of the ostrakon to the former month through comparison with hieratic ostrakon O. DeM 646. Although this account does not contain a duty roster, it does document deliveries of III *šmw*. The amounts mentioned in the hieratic records correspond to a great extent to those in ONL 297+, as shown in the table below.

Ramesses III, year 30, III <i>šmw</i> – ONL 297+ and O. DeM 646													
	Workman	Wood	Delivered by	Deficit	Fish	Delivered by	Deficit	Dates	<i>ds / qb</i> jars	<i>bt.t</i> bread	<i>psn</i> bread	vegetables	Additional
Day 1	Nakhemmut	-	-	-	-	-	-	-	2	-	-	2	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
Day 2	Harshire	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
Day 3	Iyerniutef	-	-	-	-	-	-	-	2	6	10	-	-
<u>Day 3</u> <sup>99</sup>	-	<u>440</u> <u>480</u>	●   ●	-	-	-	-	-	-	<u>6</u>	<u>10</u>	-	-
Day 4	Hori	160	-	-	-	-	-	-	-	-	-	-	-
<u>Day 4</u>	-	<u>150</u>	●	-	-	-	-	-	-	-	-	-	-
Day 5	Pentaweret	160	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
Day 6	Anynakht	160	●	-	-	-	-	-	8	-	-	-	-
Day 6	-	160	●	-	-	-	-	-	-	-	-	-	-

TABLE 19. COMPARISON OF ENTRIES ON ONL 297+ (TOP ROWS) AND O. DEM 646 (BOTTOM ROWS)

Examining the marks on ONL 297+, we notice that after the day of Nakhemmut it is not the mark of Iyerniutef that follows on day 2, as the reconstructed turnus suggests, but that of Harshire. This sequence is in accordance with that of the duty roster of the previous year as recorded in ONL 337. After the mark of Harshire, we find for days 3 to 6 the marks of Iyerniutef, Hori, Pentaweret and Qenna respectively. The same sequence is partially preserved on the obverse of ONL 297+ for days 13, 14 and 15, which pertain to the duty roster of the previous month II *šmw*. Hence, the ostrakon informs us that instead of Iyerniutef it was Qenna who left the turnus. In the reconstructed turnus list it was assumed that this Qenna lastly performed his *wrš* duty in III *šh.t* of year 31, but the duty rosters composed with marks reveal that his exit took place at least 16 months earlier.<sup>100</sup> The following amendments can thus be made for the duty roster of III *šmw*, year 30:<sup>101</sup>

	Reconstructed turnus	ONL 297+
Day 1	Nakhemmut	Nakhemmut
Day 2	Iyerniutef	<b>Harshire</b>
Day 3	Pentaweret	<b>Iyerniutef</b>

<sup>99</sup> In this and in other tables, underlining represents sections of an ostrakon that were inscribed in red ink.

<sup>100</sup> Cf. Collier, 'Integrating Hieratic and Marks Data', [5].

<sup>101</sup> Cf. Collier, 'Integrating Hieratic and Marks Data', [6].



3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

Day 4	Hori	Hori
Day 5	Qenna	<b>Pentaweret</b>
Day 6	Anynakht	Anynakht
Day 7	Neferher	Neferher
Day 8	Meryre	Meryre
Day 9	Nesamun	Nesamun
Day 10	Huynefer	Huynefer
Day 11	Khaemnun	Khaemnun
Day 12	Neferhotep	[Neferhotep]
Day 13	Penanuqet	Penanuqet
Day 14	Khaemwaset	Khaemwaset
Day 15	Nakhtmin	Nakhtmin

TABLE 20. FIRST 15 DAYS OF THE DUTY ROSTER OF YEAR 30, III *šmw*

The date of this new sequence is confirmed by a very small ostrakon, ONL 6222, inscribed with regnal year 30. It records only days 29 and 30 and lists as the workmen on duty Harshire and Iyerniutef respectively. Harshire was on duty on a day 29 in the year 30 in IV *šmw* as well as III *šh.t*, but ONL 6222 most likely dates to the former month. We are able to determine this on account of another ostrakon with marks, ONL 336+, which is inscribed with a year 30 as well, it covers days 29 and 30, which must date to III *šh.t* of that year. This is suggested by sign  $\square$  written in front of the regnal year, which can only be an allusion to Hathor, the name of that month. Almost all days of this month are preserved on the ostrakon, and the document indicates that several shifts had taken place in the turnus. Amenemope and Meryre had changed positions, while Hori had moved up three slots to take the position of Nakhemmut, who moved down in the sequence to the position of Huynefer, who in turn had ascended to the slot of Hori.<sup>102</sup> However, we shall see below that there are indications that by this time Huynefer had been replaced in the turnus by Minkhau.<sup>103</sup> In summary, the duty roster for III *šh.t* of year 30 thus looked like this:

	<b>Reconstructed turnus</b>	<b>ONL 336+</b>
Day 1	Neferhotep	Neferhotep
Day 2	Penanuqet	Penanuqet
Day 3	Khaemwaset	Khaemwaset
Day 4	Nakhtmin	Nakhtmin
Day 5	Reshupeteref	Reshupeteref
Day 6	Amenemope	<b>Meryre</b>
Day 7	Mose	Mose
Day 8	Menna	Menna
Day 9	Nakhemmut	<b>Hori</b>
Day 10	Harshire	Harshire
Day 11	Pentaweret	<b>Iyerniutef</b>
Day 12	Hori	<b>Huynefer / Minkhau</b>
Day 13	Qenna	<b>[Pentaweret]</b>
Day 14	Anynakht	[Anynakht]
Day 15	Neferher	[Neferher]
Day 16	Meryre	<b>Amenemope</b>
Day 17	Nesamun	Nesamun

<sup>102</sup> Cf. Collier, 'Integrating Hieratic and Marks Data', [9].<sup>103</sup> See below, p. 192.

Day 18	Huynfer	<b>Nakhemmut</b>
Day 19	Khaemnun	Khaemnun
Day 20	Neferhotep	Neferhotep
Day 21	Penanuqet	Penanuqet
Day 22	Khaemwaset	Khaemwaset
Day 23	Nakhtmin	Nakhtmin
Day 24	Reshupeteref	Reshupeteref
Day 25	Amenemope	<b>Meryre</b>
Day 26	Mose	Mose
Day 27	Menna	Menna
Day 28	Nakhemmut	<b>Hori</b>
Day 29	Harshire	Harshire
Day 30	Pentaweret	<b>Iyerniutef</b>

TABLE 21. DUTY ROSTER OF YEAR 30, III *ꜥh.t*

It appears that the 30<sup>th</sup> year of the reign of Ramesses III was an eventful one in regard to the duty rosters. A few individuals were excluded from the *wrš* duty system to be replaced by others,<sup>104</sup> and several remaining workmen changed their relative position in the turnus. Among other ostraca, to be discussed below, this is demonstrated by ONL 331+. The duty roster on the obverse is conveniently headed by a regnal year 30. The workmen's marks for days 1 to 5 below it are  $\text{𓆎}$ ,  $\text{𓆏}$ ,  $\text{𓆐}$ ,  $\text{𓆑}$  and  $\text{𓆒}$ , belonging to Nakhtmin, Reshupeteref, Meryre, Mose, and Menna. A glance at the reconstructed turnus lists of year 30 informs us that Nakhtmin's duty only fell on a day 1 in I *pr.t*, but lists for the first five days of the month Nakhtmin, Reshupeteref, *Amenemope*, Mose, and Menna. The discrepancy for day 3 is of course to be explained in the light of the change in the turnus we had just highlighted on ONL 336+: Amenemope and Meryre changed their positions. We can thus securely attribute ONL 331+ to I *pr.t* of year 30. A first change that took place in respect to the roster of III *ꜥh.t* of year 30 concerns the slot after Menna. No longer do we find  $\text{𓆓}$ , the mark of Hori in this position, but the mark  $\text{𓆔}$  belonging to Huynfer or his later substitute Minkhau. In turn, the mark of Hori is found on day 9, in the previous position of either Huynfer or Minkhau,<sup>105</sup> indicating that they swapped their places in the turnus. Continuing down to day 10 we encounter  $\text{𓆕}$ , the mark of Khaemnun, in the position occupied by Pentaweret in III *ꜥh.t* according to ONL 336+. This Pentaweret seems to have been excluded from the turnus from this moment onwards. In his stead, Khaemnun performed his duties, but Khaemnun did not change his original position. In fact, the mark of Khaemnun reoccurs only 6 days later for day 16! It would thus seem that he substituted for Pentaweret only on this particular day. We will return to this replacement at a later point.<sup>106</sup> For now, an amended presentation of the turnus of year 30, I *pr.t* will suffice:

	<b>Reconstructed turnus</b>	<b>ONL 331+</b>
Day 1	Nakhtmin	Nakhtmin
Day 2	Reshupeteref	Reshupeteref
Day 3	Amenemope	<b>Meryre</b>
Day 4	Mose	Mose
Day 5	Menna	Menna
Day 6	Nakhemmut	<b>Huynfer / Minkhau</b>

<sup>104</sup> On this matter see Collier, 'Integrating Hieratic and Marks Data'.

<sup>105</sup> It is likely that at this time Huynfer had already been replaced by Minkhau, see below, p. 192.

<sup>106</sup> See the discussion of ONL 340, below, p. 194-195.

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

Day 7	Harshire	Harshire
Day 8	Iyerniutef	Iyerniutef
Day 9	Hori	Hori
Day 10	Qenna	<b>Khaemnun [SIC]</b>
Day 11	Anynakht	Anynakht
Day 12	Neferher	Neferher
Day 13	Meryre	<b>Amenemope</b>
Day 14	Nesamun	Nesamun
Day 15	Huynefer	<b>Nakhemmut</b>
Day 16	Khaemnun	Khaemnun
Day 17	Neferhotep	[Neferhotep]
Day 18	Penanuqet	[Penanuqet]
Day 19	Khaemwaset	Khaemwaset
Day 20	Nakhtmin	Nakhtmin
Day 21	Reshupeteref	Reshupeteref
Day 22	Amenemope	<b>Meryre</b>
Day 23	Mose	Mose
Day 24	Menna	Menna
Day 25	Nakhemmut	<b>[Huynefer / Minkhau]</b>
Day 26	Harshire	[Harshire]
Day 27	Iyerniutef	[Iyerniutef]
Day 28	Hori	[Hori]
Day 29	Qenna	<b>[Khaemnun / Iry-‘a]</b>
Day 30	Anynakht	[Anynakht]






TABLE 22. DUTY ROSTER OF YEAR 30, I *pr.t*





## 3.2.3.1 Duty rosters of years 20, 24 and 25

Also inscribed with a regnal year number is O. Fitzwilliam EGA 6120.1943. Interestingly, the ostrakon appears to deal with year 20<sup>107</sup> of the reign of Ramesses III and dates therefore to the period from which we possess very few duty rosters.<sup>108</sup> Significantly, marks  $\text{C}$ , AA, and  $\text{C}\wedge$

<sup>107</sup> The regnal year is written in red ink and left of the numeral 20 a red smudge is visible. It is therefore conceivable that an additional sign, perhaps even a numeral was originally inscribed, but it seems that the scribe intentionally erased it afterwards.

<sup>108</sup> The only published example of a 20<sup>th</sup> Dynasty hieratic duty roster that might predate year 24 of Ramesses III appears to be O. DeM 253, reportedly dating to III *pr.t* of year 15 (discovered like so many other duty rosters from the 20<sup>th</sup> Dynasty in the Kom Sud). The sign group for ‘year’ and the numeral immediately following it are, however, damaged and Černý noted that the year number could also be ‘25’, see Černý, *Ostraca hiératiques* IV, pl. 4. Helck, ‘Zur Geschichte’, 33, argued that the ostrakon records a duty roster of year 15, because the names of Qenymin (incorrectly read as Qenamun) and Hay on the reverse are not attested in duty rosters from later periods. Yet, it is not at all clear if the ostrakon is a duty roster in the first place. The obverse of this fragmentary ostrakon records some days of work and inactivity, and mention is made of the *wrš* duty, whereas the reverse seems to contain names exclusively. Helck’s statement that Qenymin and Hay do not appear in duty rosters is valid, and the reason for this is that they almost certainly belonged to the left side of the crew: Qenymin, probably Qenymin (i) (perhaps identical to Qenymin (ii), see Davies, *Who’s who*, 186) is securely attested on the left side in a list from the beginning of the reign of Ramesses IV on O. DeM 831. The Hay in O. DeM 253 may well be one of the two Hays in the same list – Hay (iii) = (v) and Hay (xi) – who are both already attested on the left side in year 23 on O. Turin N. 57026. Although it is uncertain if the reverse of O. DeM 253 records a duty roster, there is some merit to this interpretation if one situates it in III *pr.t* of year 25 instead of year 15. The first mentioned day on the obverse is day 12, which corresponds to the *wrš* duty in that month of Kasa, the first recorded name on the reverse. The following name Kha-[...] may be reconstructed as Khaemwaset, the man on duty after Kasa in the turnus of year 25. The damaged bit after his name, followed by that of Reshupeteref would then agree with the *wrš* of days 14 and 15. Compare similar objections against a date in year 15 presented by

listed on the obverse of this ostrakon for days 1, 2 and 6 are repeated on the reverse for days 19, 20 and 24 (TABLE 23). This means that the duty roster presented here follows a turnus of 18 days. This shorter turnus is also preserved in O. Ashmolean HO 1247, which does not have a year date.<sup>109</sup> Both this duty roster and the one preserved in O. Fitzwilliam EGA 6120.1943 are only partially preserved, but they each fill in gaps left in the other documents. Indeed the sequences of identity marks preserved in the two ostraca agree, except for day 11 in O. Ashmolean HO 1247, which displays a pentagram-shaped mark , whereas O. Fitzwilliam EGA 6120.1943 seems to list the mark  of Iry-‘a for this slot. The interpretation of the later mark is not secured, and the sign could also be the mark  of Khaemnun. It is conceivable that the confusion between these two marks – rather similar in shape – was in fact experienced by the Egyptian scribe. We may speculate that the scribe failed to distinguish between the mark of Iry-‘a and Khaemnun because in at least two occasions Iry-‘a substituted for Khaemnun.<sup>110</sup> Moreover, it has been suggested by Mark Collier that Iry-‘a was a son of Khaemnun.<sup>111</sup> In any case, the star  is not likely to be a variant form of  as both marks are attested within the same document elsewhere.<sup>112</sup> This discrepancy in the duty roster of O. Ashmolean HO 1247 and O. Fitzwilliam EGA 6120.1943 thus indicates that a change in the turnus must have taken place in the period between these two documents. Without any hieratic administration to rely on it is very difficult to date O. Ashmolean HO 1247 any more precisely than to the time before year 24 of Ramesses III.

Additionally, we cannot be completely certain if we can identify the workmen with the marks we have already associated with workmen known later from hieratic duty rosters. Apart from two marks, all identity marks in O. Ashmolean HO 1247 and O. Fitzwilliam EGA 6120.1943 are known from later duty rosters composed with marks. The different marks are  recorded for day 4 on O. Fitzwilliam EGA 6120.1943 and  recorded for day 22 on O. Ashmolean HO 1247. The former mark is an allomorph of mark  which we have already associated with Pentaweret. This will become clear later on, when other securely dated ostraca from the time of year 24 onwards will be discussed. In contrast, the pentagram  is not attested in the 19 days turnus.

The hieratic duty rosters of years 24 and 25, which record this turnus are informative also in another way. Month III *pr.t* of year 24 is recorded on O. DeM 173, and lists a Meryre on day 15 in a slot preceding that of Kasa. Five months later, in IV *šmw* of year 25, a

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Gutgesell, *Die Datierung* I, 55-57. Helck, ‘Zur Geschichte’, 32-33, proposed furthermore that O. DeM 339 contains an early reference to a *wrš* duty but the date of this ostrakon is unknown. Helck dated the record in year 22, but his calculations were based on a turnus of 19 days, while we shall see in this section that there is evidence of an 18 days turnus before year 24. Helck’s interpretation of O. Varille 36 as a duty roster in year 18 for the right and left side (Helck, *Die datierten und datierbaren Ostraka*, 237) is likewise dubious. This document does not make any mention of the *wrš* duty, and the division into a right and left side is probably incorrect. The continuous lines are perhaps better read as Huynefer *son of* Hori and Amenhotep *son of* Pentaweret. These men are Huynefer (x) and Amenhotep (vii) who were active in the second half of the 20<sup>th</sup> Dynasty, indicating the ostrakon should date to reign of Ramesses IX or less likely the reign of Ramesses XI.

<sup>109</sup> Cf. Haring and Soliman, ‘Ostraca with workmen’s marks’, 78-80.

<sup>110</sup> As pointed in Collier, ‘The right side’, 14-15; Haring and Soliman, ‘Ostraca with workmen’s marks’, 79. The first supposed substitution is recorded on O. DeM 180 and concerns day 9 of IV *šh.t*. The ostrakon is undated, but for day 10 of the same month Meryre is listed on duty. Meryre only served on IV *šh.t*, day 10 in regnal year 24 and year 31 of Ramesses III. O. DeM 180 was attributed to year 24 by Helck, *Die datierten und datierbaren Ostraka*, 259, a date which must be correct as a date in year 31 is difficult. In that year, the slot of Meryre was preceded by that of Reshupeteref, as is attested in hieratic documents as well as in ONL 321+, a duty roster composed with marks, to be discussed below, p. 195. The second attested substitution took place on IV *šmw* of year 28 and is securely dated through O. DeM 138.

<sup>111</sup> Collier, ‘The right side’, 14-15.

<sup>112</sup> On ostraca which date to periods earlier and later than the period covered by the turnus lists: O. Berlin P 14231, O. IFAO C 7638, ONL 6226, ONL 6232, ONL 6275, ONL 6290, and ONL 6585. Contra Haring and Soliman, ‘Ostraca with workmen’s marks’, 79.

Neferhotep is attested for this slot on day 30. This must be the Neferhotep (xii) we have identified as the workman behind mark  $\lambda$ , and whom we have seen in the position preceding that of Kasa in e.g. ONL 322+. Neferhotep (xii) therefore replaced a Meryre in the duty roster somewhere between year 24 III *pr.t* (O. DeM 173) and year 25 IV *šmw* (O. DeM 32). This Meryre, attested in the duty rosters of year 24 III *pr.t* and earlier months, could well be the grandfather of Neferhotep (xii), Meryre (v). That would explain the origin of  $\lambda$ , the mark formed by the hieroglyphic sign for *mr* used to designate Neferhotep (xii). Since O. Ashmolean HO 1247 and O. Fitzwilliam EGA 6120.1943 predate year 24, mark  $\lambda$ , found preceding that of Kasa, refers on both pieces most likely to Meryre (v) rather than to Neferhotep (xii). The mark preceding  $\lambda$  in O. Ashmolean HO 1247 and O. Fitzwilliam EGA 6120.1943 is  $\square$ , which we have attributed to another workman by the name of Meryre, Meryre (vi). However, it is unlikely that this Meryre (vi) is recorded in the 18 days turnus, because he was not included in the duty roster system yet. Hieratic sources indicate that Meryre (vi) entered the duty roster in II *šh.t* of year 27, where he is recorded in the slot between Neferher and Irsu,<sup>113</sup> and not earlier. To make things a bit confusing, this slot between Neferher and Irsu was originally occupied by another workman named Neferhotep. He cannot be Neferhotep (xii), the owner of mark  $\lambda$ , because both Neferhotep (xii) and the Neferhotep who was replaced by Meryre (vi) are attested together in the hieratic duty roster of II *pr.t*, year 25.<sup>114</sup> Instead, this Neferhotep is probably Neferhotep (xi), which would mean that he was replaced by his son Meryre (vi), who then took over his mark  $\square$ . Although it would perhaps have been more logical for Meryre (vi) to take on the mark  $\lambda$ , he was apparently not able to do so because his brother, Neferhotep (xii), had already taken on this identity mark. In conclusion, it is this Neferhotep (xi) who is referred to by mark  $\square$  in O. Ashmolean HO 1247 and O. Fitzwilliam EGA 6120.1943.

The only workman in the duty rosters of year 24 whom we have not identified in ostraca with identity marks is Khaemope. This Khaemope is only attested in the duty roster of year 24, III *pr.t*<sup>115</sup> and his slot in the turnus, just before that of Reshupeteref, was taken over by Nakhtmin no later than IV *šmw* of the same year.<sup>116</sup> In O. Ashmolean HO 1247, the slot just before that of Reshupeteref is on day 9, where we find the mark  $\uparrow$  assigned to Nakhtmin. Since the latter workman is not yet listed in the duty rosters of year 24, mark  $\uparrow$  on O. Ashmolean HO 1247 probably refers to Khaemope, suggesting that at some point after year 24, III *pr.t* Nakhtmin appropriated both Khaemope's slot in the turnus as well as his identity mark. Collier problematised such a reconstruction by pointing out that Nakhtmin is already recorded as a member of the right side before this time in years 22 and 24 of the reign of Ramesses III.<sup>117</sup> One would be inclined to counter this argument by postulating that Nakhtmin may indeed have already been a workman of that side, but did not yet participate in the turnus of *wrš* duties. This would however mean that the total number of workmen on the left side was greater than the number of men recorded in the duty roster, which is impossible because two distribution texts from year 24 allude to a total of exactly 19 men for each side.<sup>118</sup> Perhaps Nakhtmin was by this time associated with the right side, but as a young man and not a full workman.<sup>119</sup> In this capacity he may have been recorded in the ostraca from year 22 and 24, but not in the distribution ostraca that recorded only the full members of the crew. Even more puzzling is Collier's observation that Khaemope seems to be attested on the left side

<sup>113</sup> O. DeM 167.

<sup>114</sup> O. Glasgow D.1925.67.

<sup>115</sup> O. DeM 173, day 18.

<sup>116</sup> O. DeM 32, day 20.

<sup>117</sup> O. Turin N. 57047 and O. Turin N. 57026. See Collier, 'Integrating Hieratic and Marks Data', [14-15, n. 51].

<sup>118</sup> O. DeM 647 and O. Ashmolean HO 291. See Gutgesell, *Die Datierung* I, 71.

<sup>119</sup> He is not yet recorded at the end of the 19<sup>th</sup> Dynasty, see Collier, *Dating Late XIXth Dynasty Ostraca*, 138.

during years 20 and 24 of Ramesses III.<sup>120</sup> Both Collier and Davies struggled with the identification of this man.<sup>121</sup> We may hypothesise that he was a homonymous colleague of the Khaemope who worked on the right side. Alternatively the ostraca from year 20 and 24 may refer to the woodcutter Khaemope (viii).<sup>122</sup> Some support for the idea that the Khaemope on the left side is another man than the Khaemope on *wrš* duty in year 24, III *pr.t* comes in the form of the attestation of a Khaemope on the right side of the crew from the end of the 19<sup>th</sup> Dynasty. This man was either Khaemope (iii) or Khaemope (iv).<sup>123</sup> The latter candidate is very interesting, because this Khaemope was a son of a man named Nakhtmin.<sup>124</sup> This Nakhtmin could have been Nakhtmin (iv), grandfather of Nakhtmin (vi), and we may propose that he too possessed the identity mark  $\overline{\text{P}}$ ,<sup>125</sup> which was first transferred to his son Khaemope (iv), as is suggested by the duty roster composed with marks on O. Ashmolean HO 1247 and the hieratic duty roster on O. DeM 173. In turn, Khaemope was replaced in the turnus by the grandson of Nakhtmin (iv), Nakhtmin (vi), who continued to be represented by mark  $\overline{\text{P}}$ .

Khaemwaset is not securely identified in the turnus until year 25, IV *šmw*, day 19.<sup>126</sup> It is therefore theoretically possible that before that time, his position in the turnus was filled by someone else. This could have been his father, Penamun (iii) = (iv),<sup>127</sup> as is suggested by hieratic ostrakon O. DeM 406, securely dated to year 15 of Ramesses III. The document is an account of the distribution of wicks to workmen, all of whom appear to belong to the right side of the crew. Importantly, the workmen seem to be listed in an ordered sequence<sup>128</sup> that is headed by the foreman of the right side, Khonsu. Not every workman mentioned in this account is clearly related to the duty rosters of year 24. For example, the men Amenkha and Khnummose are not attested in the hieratic turnus documents, and they may have disappeared from the right side or from the entire crew somewhere before year 24. Still, the sequence of workmen recorded in O. DeM 406 is informative for our purposes. We find that the fourth workman listed there is Neferhotep, who is then followed by Meryre, Kasa and Penamun. In O. Ashmolean HO 1247, we find the marks assigned to the first three workmen in exactly the same relative positions, followed by the mark of Khaemwaset. Even though hard evidence is lacking, it is very plausible that, in analogy to O. DeM 406, the mark  $\overline{\text{P}}$  in O. Ashmolean HO 1247 does not represent Khaemwaset (iii), as it would in later documents, but his father Penamun (iv) = (iii). O. DeM 406 might hold a clue as to the identity of the workmen represented by mark  $\overline{\text{X}}$  in O. Ashmolean HO 1247 as well. On this hieratic ostrakon, the workmen Huynefer and Telmontu are listed before Neferhotep. On O. Ashmolean HO 1247 the slot just before Neferhotep is connected with the pentagram  $\overline{\text{X}}$ . The position just before that mark is preserved in O. Fitzwilliam EGA 6120.1943, which displays the mark  $\overline{\text{P}}$  of Huynefer. If O. Ashmolean HO 1247 originally listed the mark of Huynefer for the same

<sup>120</sup> O. Turin N. 57432, O. Turin N. 57047 and O. Turin N. 57026. See Collier, 'Integrating Hieratic and Marks Data', [14-15, n. 51].

<sup>121</sup> Davies, *Who's who*, 249-250; Collier, 'Integrating Hieratic and Marks Data', [14-15, n. 51].

<sup>122</sup> Davies, *Who's who*, 250; the woodcutter Khaemope (viii) is attested in year 24 of Ramesses III in O. DeM 146. See also Jac. J. Janssen, 'The Woodcutters' in: Jac. J. Janssen, Elizabeth Frood and Maren Goecke-Bauer, *Woodcutters, Potters and Doorkeepers. Service Personnel of the Deir el-Medina Workmen*. EU 17 (Leiden 2003), 22.

<sup>123</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 136.

<sup>124</sup> Davies, *Who's who*, 249, n. 594.

<sup>125</sup> This assumption will be confirmed by evidence from the 19<sup>th</sup> Dynasty, see chapter 5, p. 404; chapter 6, 6.5.4.2 and CHART 10.

<sup>126</sup> O. DeM 32.

<sup>127</sup> For the equivalency of Penamun (iii) and Penamun (iv), see Collier, *Dating Late XIXth Dynasty Ostraca*, 142 and *passim*.

<sup>128</sup> For lists of this kind see chapter 4, 4.1.

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relative position, then mark  $\text{𓂏}$  could well refer to Telmontu.<sup>129</sup> However, as there is no way of determining to what extent O. DeM 406 and O. Ashmolean HO 1247 record the same workmen, the identification remains highly tentative. Moreover, it remains uncertain whether Telmontu actually belongs to the right side, since he is associated with the left side as early as year 23.<sup>130</sup> The table below summarises the information contained in O. Fitzwilliam EGA 6120.1943, O. Ashmolean HO 1247 and O. DeM 406.

Year 20 O. Fitzwilliam EGA 6120.1943			O. Ashmolean HO 1247			Year 15 O. DeM 406
Days 1, 19	𓂏	Menna				
Days 2, 20	AA	Nakhemmut				
Day 3	𓂏	Iyerniutef				
Day 4	𓂏	Pentaweret				
Day 5	𓂏	Hori	Day 17	𓂏	Hori	
Days 6, 24	𓂏	Anynakht	Day 18	𓂏	Anynakht	
Day 7	𓂏	Neferher				
Day 8	𓂏	Irsu				
Day 9	𓂏	Huynefer				Huynefer
Day 10	𓂏/𓂏	Khaemnun / Iry-‘a	Day 11	𓂏	?	Telmontu
Day 29	𓂏	Neferhotep	Day 23	𓂏	Neferhotep	Neferhotep
Day 30	𓂏	Meryre	Days 6, 24	𓂏	Meryre	Meryre
			Days 7, 25	𓂏	Kasa	Kasa
			Day 8	𓂏	Penamun / Khaemwaset	Penamun
			Day 9	𓂏	Khaemope ?	
			Day 10	𓂏	Reshupeteref	Reshupeteref
		[Amenemope]			[Amenemope]	Amenemope
Day 18	𓂏	Mose				Mose

TABLE 23. COMPARISON OF ORDERED LISTS FROM RAMESSES III YEAR 15 – YEAR 20

The position in the turnus preceding that of Mose is probably attributable to Amenemope. This is suggested by the list of year 15 preserved in O. DeM 406, as well as by the list of O. Turin N. 57432, a document attributed to year 20 where Amenemope is mentioned as belonging to the right side.<sup>131</sup> This would be in accord with the first secured

<sup>129</sup> This man may be Telmontu (i) who appears to have been active during the late 19<sup>th</sup> Dynasty and the reign of Ramesses III, see Davies, *Who's who*, 276-277. Indeed, this man served on the right side of the crew during the last years of the reign of Siptah, see Collier, *Dating Late XIXth Dynasty Ostraca*, 145. It is perhaps noteworthy that in O. IFAO 384 a Telmontu appears to be on *wrš* duty on a day 16 in I *zḥ.t*. Černý tentatively read the regnal year at the beginning of the ostrakon as “year 1”, and the piece has therefore been attributed to the reign of Ramesses V by Helck, *Die datierten und datierbaren Ostraka*, 426, 427. If the year number is in fact much greater than 1, a date before year 24 of Ramesses III may be considered.

<sup>130</sup> In year 23 (O. Turin N. 57026) and 24 (O. Turin N. 57039; O. Turin N. 57056).

<sup>131</sup> According to Helck's interpretation of another piece, O. Varille 36, Amenemope was scheduled for *wrš* duty for the left side in year 18, see Helck, *Die datierten und datierbaren Ostraka*, 237; but no mention of either a right or left side is made in the hieratic text, see KRI VII, 287. Likewise, Helck, *Die datierten und datierbaren Ostraka*, 249 read an Amenemope for the left side in O. Turin N. 57026, which dates to year 23, but in the transcription of the piece the name is given as Amenemone (although in the facsimile his name is severely damaged), see López, *Ostraca Ieratici N. 57001-57092*, pl. 15-15a. The reading of Amenemone is the more probable one, as this individual is well attested as a workman of the left side in year 24, see O. Turin N. 57046, O. Turin N. 57056 and O. Turin N. 57028.

attestation of Amenemope in a duty roster, O. DeM 654,<sup>132</sup> which positions Amenemope in the slot before that of Mose, as in O. DeM 406.

We are thus able to interpret the duty roster of O. Ashmolean HO 1247 quite well, but it is still difficult to attribute a date to it. Apart from O. DeM 406 there are no hieratic documents which provide useful information about the workmen in O. Ashmolean HO 1247. Hieratic sources from year 20 onwards do not offer enough insights either. Khaemnun, Khaemope and Menna are all recorded as workmen of the left side in the list O. Turin N. 57432, attributed to II *pr.t* of year 20 by Helck.<sup>133</sup> No regnal year number is mentioned, however, so this hieratic account might actually be older than O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247, in which the three workmen are most likely members of the right side. One of these workmen, Khaemope, is still – or rather, again – attested on the left side in regnal year 23 or 24,<sup>134</sup> but Nakhtmin had already joined the right side in this document. If Khaemope and Nakhtmin were indeed represented by the same identity mark in the turnus, we are not able to detect the entry of Nakhtmin and the exit of Khaemope in the duty rosters composed with marks and so this hieratic document does not aid us in dating O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247. The position of Khaemnun on either the right or the left side throughout the reign of Ramesses III is not very informative either for dating purposes. O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247 appear to list Khaemnun in the turnus of the right side of the crew. This assumption is only corroborated by hieratic accounts of absence, such as O. Turin N. 57432 (year 20 or earlier), O. Turin N. 57026 (year 23 or 24), O. Turin N. 57039 (year 24), O. Turin N. 57029 (year 24) in which this workman is mentioned as a member of the right side.<sup>135</sup> In summary, the sequence of the workmen in O. Ashmolean HO 1247 is clearly associated with that found in O. Fitzwilliam EGA 6120.1943 and O. DeM 406, but it cannot be dated any more precisely than to a time before year 24 of Ramesses III.

Circumstances are much more favourable in regard to duty rosters composed with marks that contain the 19 days turnus. So far we have dated such pieces by means of the regnal year that headed the documents, but when a year number is lacking, we are oftentimes able to attribute a date. A clear example is O. Glasgow D. 1925.67, which is also inscribed with lines of hieratic. Both McDowell and Haring already proposed that the information concealed in the marks corresponds to the hieratic account in the same document dealing with II *pr.t* of year 25.<sup>136</sup> Indeed, we can now confirm that, as McDowell and Haring suspected, marks  $\text{𓆎}$  and  $\text{𓆏}$  connected with days 9 and 10 do belong to Mose and Menna. According to the reconstructed turnus lists, these two workmen were on *wrš* duty on days 9 and 10 in year 27, I *šmw* and III *pr.t*, year 28, III *pr.t*, year 30, IV *pr.t*, but also in year 25, II *pr.t*. Two lines above day 9, a day 20 is mentioned, but no identity mark is connected with it. Immediately above this entry, the sign that refers to the month I *pr.t* is inscribed. It is thus plausible that the entry for day 20 belongs to that very month, and that the following days 9 and 10 belong to the subsequent month of II *pr.t*. The fact that it is again Mose who served his *wrš* duty on day 20 of I *pr.t* supports such an interpretation. If, in turn, days 9 and 10 belong to II *pr.t*, the duty roster can only be that of year 25, exactly the year of which the hieratic account speaks.

The duty roster of ONL 312 must date to II *šh.t* of the same year. This is suggested by the sequence of identity marks, and by the match between this document and hieratic ostrakon

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<sup>132</sup> Undated but most likely attributable to III *šmw* year 24, cf. Demarée in the *Deir el-Medina Database*.

<sup>133</sup> Helck, *Die datierten und datierbaren Ostraka*, 241-242.

<sup>134</sup> O. Turin N. 57026.




<sup>135</sup> Helck, *Die datierten und datierbaren Ostraka*, 253, observed the name of Khaemnun on the left side in year 24 in O. Turin N. 57046, but this must be an incorrect reading of Khaemope, cf. *Ostraca Ieratici N. 57001-57092*, pls. 29-29a and *KRI V*, 491.

<sup>136</sup> McDowell, *Hieratic Ostraca*, 5; Haring, ‘Decoding the necropolis workmen’s funny signs’, 53.



O. UC 39626. In both ostraca, a delivery is recorded for day 28 of 20 units of *psn* bread and 16 units of *bl.t* bread. ONL 332 contains a duty roster for IV *pr.t* of year 25 and I *šmw* of year 26. This can be determined by the sequence of workmen's marks, as well as matching entries in hieratic ostrakon O. DeM 169+ for days 22, 16, 17 and 18.

### 3.2.3.2 Duty rosters of years 26 and 27

We can date three other ostraca to year 26 of Ramesses III. The first one is ONL 447+. The particular sequence of workmen in this ostrakon corresponds to the duty rosters of III *šmw* and II *šh.t* of year 24 and IV *šmw* and III *šh.t* of year 26. It is to the latter year that we should attribute ONL 447+, on the basis of corresponding figures in the deliveries for day 19 and day 21 in hieratic ostrakon O. DeM 654, which dates to that exact month. In this duty roster composed with marks we come across another version of the mark of Pentaweret connected with day 4. Other than  and , mark  refers to this workman as well. The last two allomorphs are also attested for Pentaweret in the other two ostraca with marks that date to year 26. The first one, ONL 317+, is securely associated with IV *šh.t* of that year on the basis of the sequence of workmen, as well as hieratic parallels for the deliveries of days 4, 6 – 8, 12 – 13 and 22 in O. DeM 142 and O. Berlin P 12629. The second ostrakon is O. Ashmolean HO 1086, which is dated to IV *pr.t* of year 26 on account of corresponding entries for days 20 and 30 in hieratic ostrakon O. Turin N. 57153 that mentions the very same month.

As discussed on p. 179, O. Strasbourg H 45 dates to III *šmw* or II *šh.t* of year 27.

### 3.2.3.3 Duty rosters of year 28

Moving on to regnal year 28, there are two duty rosters composed with marks, which we can safely place on our timeline. ONL 338+ records the end of IV *šmw* and the beginning of I *šh.t* of year 28 as the hieratic parallels for the fourth and fifth epagomenal days preserved in O. DeM 427+ demonstrate. The reverse of ONL 333+ is not straightforwardly datable, but can be attributed to a specific month if we suggest some more adjustments to the reconstructed turnus lists. This is necessary because the sequence of identity marks preserved in ONL 333+ rev., presented in the right column of the table below, is nowhere attested in (reconstructed) turnus lists or in the two ostraca with marks that predate year 24 of Ramesses III. The sequence of ONL 333+ rev. is very similar to that of the partially preserved duty rosters of year 25, III *pr.t*, year 27, IV *pr.t* and year 28, IV *pr.t*, presented here in the left column of the table below. But there are differences as well. In this sequence, the position of Qenna follows immediately after that of Hori, whereas in ONL 333+ rev., this slot is filled by Anynakht. In contrast, it is this very same Anynakht who in the turnus of years 25, 27 and 28 follows after Qenna. Frustratingly, the position after Anynakht is not preserved in ONL 333+ rev. In this piece, we can assume, however, that Qenna had disappeared from the duty roster. As indicated by ONL 297+, discussed above, Qenna was indeed no longer listed in the duty rosters from III *šmw* of year 30 onwards. ONL 333+ rev. would then indicate that his exclusion from the duty rosters took place at an even earlier point. Qenna is still securely dated in hieratic ostrakon O. DeM 156 for day 2 of IV *šmw* of year 28.<sup>137</sup> Therefore, we can only attribute ONL 333+ rev. to IV *pr.t* of year 28.

	Turnus as preserved and reconstructed for year 25, III <i>pr.t</i> , year 27, IV <i>pr.t</i> and year 28, IV <i>pr.t</i>	ONL 333+ rev.
Day 19	Nakhemmut	Nakhemmut

<sup>137</sup> Cf. Collier, 'Integrating Hieratic and Marks Data', [5].

Day 20	Iyerniutef	Iyerniutef
Day 21	Pentaweret	Pentaweret
Day 22	Hori	Hori
Day 23	Qenna	<b>Anynakht</b>
Day 24	Anynakht	?
Day 25	Neferher	Neferher
Day 26	Neferhotep / Meryre	Meryre
Day 27	Nesamun	Nesamun
Day 28	Huynefer	Huynefer

TABLE 24. DUTY ROSTER OF ONL 333+

### 3.2.3.4 Duty rosters of year 29

Apart from ONL 337 (see 3.2.3) and ONL 320 (see 3.2.2.1) another ostrakon, ONL 330+, dates to year 29. The sequence of workmen's marks does not completely correspond to any of the duty rosters in the reconstructed turnus, but it is very close to that of year 24, II *ʒh.t.*, year 26, III *ʒh.t.*, year 27, I *ʒh.t.* and year 29, IV *ʒh.t.* The difference between the order of workmen in these reconstructed lists is the mention of Iyerniutef on day 22 immediately after the position of Nakhemmut, while in ONL 330+ the mark of Harshire is listed for this particular slot. It has already been demonstrated above that in year 30 Harshire took over the position of Iyerniutef in the turnus.<sup>138</sup> Yet, Iyerniutef is still attested in the position after that of Nakhemmut in year 27, IV *pr.t.*<sup>139</sup> as well as in year 28, IV *pr.t.*<sup>140</sup> It follows that ONL 330+ can only date to year 29, IV *ʒh.t.*, and that the reconstructed turnus needs to be amended:

	<b>Reconstructed turnus</b>	<b>ONL 330+</b>
Day 9	Meryre	Meryre
Day 10	Nesamun	Nesamun
Day 11	Huynefer	Huynefer
Day 12	Khaemnun	Khaemnun
Day 13	Neferhotep	Neferhotep
Day 14	Kasa	Kasa
Day 15	Khaemwaset	Khaemwaset
Day 16	Nakhtmin	[Nakhtmin]
Day 17	Reshupeteref	Reshupeteref
Day 18	Amenemope	Amenemope
Day 19	Mose	Mose
Day 20	Menna	Menna
Day 21	Nakhemmut	Nakhemmut
Day 22	Iyerniutef	<b>Harshire</b>

TABLE 25. DUTY ROSTER OF YEAR 29, IV *ʒh.t.*

### 3.2.3.5 Duty rosters of year 30

Several duty rosters composed with workmen's marks are to be placed in year 30. We have already seen that ONL 333+ obv. and ONL 6222 date to the year.<sup>141</sup> O. Ashmolean HO 1084 records IV *šmw* of the same year, and its duty roster is thus one month later than that of ONL 297+. As we deduced from the latter piece (TABLE 20) as well as from ONL 336+ (TABLE 21), during year 30 numerous shifts took place in the turnus that are not recorded in the surviving

<sup>138</sup> According to ONL 297+.

<sup>139</sup> Hieratic ostrakon O. DeM 34.

<sup>140</sup> ONL 333+, a duty roster composed with marks discussed above, 3.2.3.2.

<sup>141</sup> See above, p. 174-175 and n. 50; p. 182.

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hieratic documentation. O. Ashmolean HO 1084 is situated between these two records, and reflects the same changes. In this ostrakon we are able to observe that on day 18 of IV *šmw*, year 30 Nakhemmut took over the position of Huynefer for the first time. As a consequence, Nakhemmut is listed once on day 18, in his new position, as well as on day 9, in his old position.<sup>142</sup> Collier has interpreted this change as probable evidence for Huynefer's exit from the turnus and the introduction of Minkhau.<sup>143</sup> Although this cannot be proven, such a reconstruction would make sense. This would mean that from year 30, IV *šmw* onwards, mark 𓆎 referred in the turnus to Minkhau.

	<b>Reconstructed turnus</b>	<b>O. Ashmolean HO 1084</b>
Day 1	Neferhotep	[Neferhotep]
Day 2	Penanuqet	[Penanuqet]
Day 3	Khaemwaset	Khaemwaset
Day 4	Nakhtmin	Nakhtmin
Day 5	Reshupeteref	Reshupeteref
Day 6	Amenemope	Amenemope
Day 7	Mose	Mose
Day 8	Menna	Menna
Day 9	Nakhemmut	Nakhemmut
Day 10	Harshire	Harshire
Day 11	Pentaweret	<b>Iyerniutef</b>
Day 12	Hori	Hori
Day 13	Qenna	<b>[Pentaweret]</b>
Day 14	Anynakht	Anynakht
Day 15	Neferher	Neferher
Day 16	Meryre	Meryre
Day 17	Nesamun	Nesamun
Day 18	Huynefer	<b>Nakhemmut</b>
Day 19	Khaemnun	Khaemnun
Day 20	Neferhotep	Neferhotep
Day 21	Penanuqet	[Penanuqet]
Day 22	Khaemwaset	[Khaemwaset]
Day 23	Nakhtmin	Nakhtmin
Day 24	Reshupeteref	[Reshupeteref]
Day 25	Amenemope	[Amenemope]
Day 26	Mose	[Mose]
Day 27	Menna	[Menna]
Day 28	Nakhemmut	<b>[Huynefer / Minkhau]</b>
Day 29	Harshire	Harshire
Day 30	Pentaweret	<b>Iyerniutef</b>

TABLE 26. DUTY ROSTER OF YEAR 30, IV *šmw*

Once again, the date of the duty roster with marks is confirmed by information conserved in a hieratic ostrakon. The corresponding hieratic text for O. Ashmolean HO 1084 is O. DeM 145, which records wood deliveries for days 5, 10 and 11 of IV *šmw*, year 30, that perfectly match those of O. Ashmolean HO 1084.

<sup>142</sup> Cf. Collier, 'Integrating Hieratic and Marks Data', [6-7].

<sup>143</sup> Collier, 'Integrating Hieratic and Marks Data', [7, n. 29; 9].

The duty roster of the following month, I *ʒh.t* of year 30, is recorded with marks on ostrakon ONL 299. This document must be later than IV *šmw* of year 30, because Nakhemmut is already found in the position of Huynefer.<sup>144</sup> The order of workmen therefore only fits to I *ʒh.t*. Hieratic ostrakon O. DeM 145 offers some support for this postulation, albeit meagerly so. The amount of wood delivered on day 30 coincides with the figures in ONL 299, and that of day 21 (316), approaches that of ONL 299 (314).

ONL 298+ can only be the duty roster of IV *ʒh.t*, three months later than the previous document. The sequence of marks reflects the exact same shifts in the turnus that took place some time earlier as evidenced by ONL 336+, which records the turnus of III *ʒh.t* of the same year. ONL 298+ must therefore be later than that month, and the only month that would fit its sequence of marks is IV *ʒh.t* of year 30. The sequence of workmen differs quite a lot from the reconstructed turnus, so the changes are indicated in the table below. Remarkably, the scribe of ONL 298+ was confused by the new duty roster himself. It appears that he automatically noted the mark of Hori down for day 20, after the entry for Iyerniutef on day 19. Four months earlier, Iyerniutef was indeed still followed by Hori, but in the new sequence his slot was occupied by either Huynefer or Minkhau, both represented by the mark  $\text{𓆎}$ . The scribe must have realised his mistake, since he erased the mark of which now only traces are visible.

	<b>Reconstructed turnus</b>	<b>ONL 298+</b>
Day 1	Hori	<b>Huynefer / Minkau</b>
Day 2	Qenna	<b>Pentaweret</b>
Day 3	Anynakht	Anynakht
Day 4	Neferher	Neferher
Day 5	Meryre	<b>Amenemope</b>
Day 6	Nesamun	Nesamun
Day 7	Huynefer	<b>[Nakhemmut]</b>
Day 8	Khaemnun	[Khaemnun]
Day 9	Neferhotep	Neferhotep
Day 10	Penanuget	Penanuget
Day 11	Khaemwaset	Khaemwaset
Day 12	Nakhtmin	Nakhtmin
Day 13	Reshupeteref	Reshupeteref
Day 14	Amenemope	<b>Meryre</b>
Day 15	Mose	Mose
Day 16	Menna	Menna
Day 17	Nakhemmut	<b>Hori</b>
Day 18	Harshire	Harshire
Day 19	Pentaweret	<b>Iyerniutef</b>
Day 20	Hori	{Hori} erased
Day 21	Qenna	<b>Pentaweret</b>
Day 22	Anynakht	Anynakht
Day 23	Neferher	Neferher
Day 24	Meryre	<b>Amenemope</b>
Day 25	Nesamun	Nesamun
Day 26	Huynefer	<b>Nakhemmut</b>
Day 27	Khaemnun	Khaemnun
Day 28	Neferhotep	[Neferhotep]

<sup>144</sup> Cf. Collier, ‘Integrating Hieratic and Marks Data’, [7-8].

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Day 29	Penanuqet	Penanuqet
Day 30	Khaemwaset	Khaemwaset

TABLE 27. DUTY ROSTER OF YEAR 30, IV *ꜥh.t*

A date in IV *ꜥh.t* year 30 seems to be confirmed by hieratic ostrakon O. DeM 144, provided the scribe of the latter document made a minor mistake. The hieratic ostrakon is an account of wood deliveries, including those made during IV *ꜥh.t* year 30. On the obverse of this document, the entry for day 20 is recorded both in line 11 and 12. Oddly, the entire date line of the day is repeated in line 12, including the season and the month number. If we assume that this is in fact the entry for the following day, day 21, then the amount of 1400 units of wood would coincide with the entry on ONL 298+.

A final piece that dates to year 30 is the well preserved ostrakon ONL 340. The sequence of marks on the obverse of this document is best paralleled by ONL 331+, recording the roster of I *pr.t* of year 30. As in this ostrakon, ONL 340 does no longer list Qenna or Pentaweret. ONL 340 must therefore date to a month after I *pr.t* of year 30. It lists Harshire and Iyerniutef on days 4 and 5, and going through the reconstructed turnus the best fit for the roster of ONL 340 is III *pr.t* of year 30. This date is supported by the cobra-shaped sign  $\mathcal{U}$  just after the mention of day 1 preserved on the reverse of the ostrakon, which must be a reference to *p3-n(y)-rnn.w.t.t.*, the name of the next month, IV *pr.t*. Further evidence that ONL 340 records III and IV *pr.t* is provided by hieratic ostrakon O. DeM 35, which lists deliveries for months II, III and IV *pr.t*. Although this piece was attributed to year 28 of Ramesses III by Helck,<sup>145</sup> entries for days 11 – 14, 16, 19 – 21, 27 and 29 of III *pr.t* as well as day 1 of IV *pr.t* correspond almost perfectly to the information recorded in ONL 340. Hieratic ostrakon O. DeM 35 must as a consequence date to year 30. ONL 340 demonstrates that in, or just before III *pr.t* of this year, another change took place in the turnus compared to the sequence of marks in the duty roster of I *pr.t* of year 30, preserved in ONL 331+, as a new workman entered the turnus. This novice seems to have entered the *wrš* duty system as a replacement for Pentaweret, who, as we have observed in ONL 298+, is no longer included in the turnus after IV *ꜥh.t* of year 30.<sup>146</sup> During the next month, I *pr.t*, his *wrš* tasks were temporarily fulfilled by Khaemnun on day 10, as ONL 331+ indicates. Khaemnun however remained in his original position and served his own duty on day 16 as well. Two months later, ONL 340 informs us that Khaemnun kept to his own slot between Nakhemmut and Neferhotep, and that Iry-‘a had been added to the turnus in the position previously occupied by Pentaweret, as his permanent substitute. Hence, Iry-‘a is now attested nine months earlier than his first appearance in the turnus in hieratic sources.<sup>147</sup> It should be noted however, that Iry-‘a was not entirely new to the *wrš* system. As mentioned above, Iry-‘a substituted for the *wrš* duty of Khaemnun on at least two occasions. Furthermore, Collier suggested that Iry-‘a was a son of Khaemnun. We may therefore speculate that Khaemnun ‘returned the favour’ by substituting for his son Iry-‘a in the place of Pentaweret in I *pr.t*, even though Iry-‘a was not yet officially introduced in the turnus.<sup>148</sup> In sum, ONL 340 presents quite some information on the turnus of III *pr.t*:

	Reconstructed turnus	ONL 340
Day 1	Mose	Mose
Day 2	Menna	Menna

<sup>145</sup> Helck, *Die datierten und datierbaren Ostraka*, 299-300.

<sup>146</sup> Compare Collier, ‘Integrating Hieratic and Marks Data’, [12].

<sup>147</sup> O. DeM 157.

<sup>148</sup> See above, 3.2.3.1. Compare also Collier, ‘Integrating Hieratic and Marks Data’, [11-13].

Day 3	Nakhemmut	<b>[Huynefer / Minkhau]</b>
Day 4	Harshire	Harshire
Day 5	Iyerniutef	Iyerniutef
Day 6	Hori	Hori
Day 7	Qenna	<b>Iry-‘a</b>
Day 8	Anynakht	Anynakht
Day 9	Neferher	Neferher
Day 10	Meryre	<b>Amenemope</b>
Day 11	Nesamun	Nesamun
Day 12	Huynefer	<b>Nakhemmut</b>
Day 13	Khaemnun	Khaemnun
Day 14	Neferhotep	Neferhotep
Day 15	Penanuqet	Penanuqet
Day 16	Khaemwaset	Khaemwaset
Day 17	Nakhtmin	Nakhtmin
Day 18	Reshupeteref	Reshupeteref
Day 19	Amenemope	<b>Meryre</b>
Day 20	Mose	Mose
Day 21	Menna	Menna
Day 22	Nakhemmut	<b>Huynefer / Minkhau</b>
Day 23	Harshire	Harshire
Day 24	Iyerniutef	Iyerniutef
Day 25	Hori	Hori
Day 26	Qenna	<b>Iry-‘a</b>
Day 27	Anynakht	Anynakht
Day 28	Neferher	Neferher
Day 29	Meryre	<b>Amenemope</b>
Day 30	Nesamun	Nesamun

TABLE 28. DUTY ROSTER OF YEAR 30, III *pr.t*

### 3.2.3.6 Duty rosters of years 31 and 32

The following year 31 is of course the year to which key piece O. Berlin P 12625 dates. As discussed, the convex side displays the duty roster for IV *pr.t* of that year. In the meanwhile it has become apparent that ONL 300 joins to O. Berlin P 12625, elucidating the concave side of the Berlin fragment. Together, the convex side of ONL 300+ records the duty roster for III *pr.t*. This is evident from the sequence of workmen’s marks, with Iry-‘a on duty on day 1 as in hieratic ostracon O. DeM 37 that contains the duty roster for III *pr.t* of year 31. More importantly, the deliveries recorded there for days 1 – 15 are exactly the same as those mentioned on the convex side of ONL 300+ and thus provide a secure date for the piece.

The short sequence of the workmen’s marks preserved in O. Ashmolean HO 1092 can only be that of year 31, II *sh.t*. A hieratic account of the deliveries of that month is recorded in O. DeM 155, and mentions the delivery of two *ds* jars of beer and one unit of dates on day 12. This entry corresponds to the deliveries recorded on O. Ashmolean HO 1092 for that very same day. Ostracon ONL 321+ contains a sequence of workmen’s marks that is the same as in O. Ashmolean HO 1092 and ONL 300+. With the marks of Meryre, Mose and Hori on days 10, 11 and 12 it can only date to month IV *sh.t* of year 31. This date is supported by sign **𓆎** at the head of the document, which probably refers to *k3-ḥr-k3*, the name of that month. Moreover, hieratic ostracon O. DeM 157 records deliveries for days 6, 10, 24 of that month, which match with the corresponding entries for these days in ONL 321+. Oddly enough, this

duty roster with marks records for day 1 the mark of Nakhtmin, instead of that of Amenemope who should have been on duty on that day. This can hardly be an indication of a shift of Nakhtmin within the roster, as he is still attested in his original slot on days 8 and 27 of IV *ꜣḫ.t*. His mention on day 1 is hard to explain, and we can only guess that Nakhtmin must have substituted for Amenemope for some reason.

Finally, ONL 6236+ records the duty roster of I and II *pr.t* of year 31. There is very little support for such a date in the hieratic documentation, because the ostraca that record the deliveries for these months, O. DeM 159 and O. DeM 36, are damaged at relevant entries. O. DeM 36 does mention a delivery of two *ds* jars of beer for day 2 of II *pr.t*, also recorded in ONL 6236+, but this correspondence is in itself not enough evidence to date ONL 6236+. The order of the workmen on this ostrakon however offers an unequivocal indication of its date. In the sequence, we find mark † for Weserhat on days 21 and 10, while mark Ⓒ for Menna does not feature on the ostrakon. Hieratic ostrakon O. Prague H 14 reports that in III *ꜣḫ.t* of year 31, the workman Menna was transferred to the left side of the crew, and that in his stead Weserhat joined the right side. Indeed, in the following month Menna's slot, immediately after that of Mose, was taken by Hori as evidenced by hieratic documents<sup>149</sup> and by ostraca with marks.<sup>150</sup> We may therefore expect Weserhat in the turnus lists from IV *ꜣḫ.t* of year 31 onwards, and as a consequence the duty roster of ONL 6236+ can only be that of III *ꜣḫ.t* of year 31 or a later month. The reconstructed turnus lists indicate that Weserhat served his duty on a day 21 only in I *pr.t* of year 31, and thus we have a fixed date for ONL 6236+.

On p. 178-179 it was demonstrated that ONL 318+ records the duty roster of months I and II *šmw* of year 32.

### 3.2.3.7 Overview of duty rosters composed with marks dated to the reign of Ramesses III

O. Ashmolean HO 1247	R. III, before year 24
O. Fitzwilliam EGA 6120.1943	R. III, before year 24 (perhaps year 20 ?)
ONL 312	R. III, year 25, II <i>ꜣḫ.t</i>
O. Glasgow D. 1925.67	R. III, year 25, II <i>pr.t</i>
ONL 332	R. III, year 25, IV <i>pr.t</i> – year 26, I <i>šmw</i>
ONL 447+	R. III, year 26, III – IV <i>šmw</i>
ONL 317+	R. III, year 26, IV <i>ꜣḫ.t</i>
O. Ashmolean HO 1086	R. III, year 26, IV <i>pr.t</i>
O. Strasbourg H 45	R. III, year 27, III <i>šmw</i> or II <i>ꜣḫ.t</i>
ONL 322+	R. III, year 28, II <i>šmw</i>
ONL 338+	R. III, year 28, IV <i>šmw</i> – I <i>ꜣḫ.t</i>
ONL 333+	R. III, year 28, IV <i>pr.t</i>
ONL 320	R. III, year 29, III <i>ꜣḫ.t</i>
ONL 330+	R. III, year 29, IV <i>ꜣḫ.t</i>
ONL 337	R. III, year 29, I <i>pr.t</i>
ONL 297+	R. III, year 30, II – III <i>šmw</i>
ONL 6222	R. III, year 30, III <i>šmw</i>
O. Ashmolean HO 1084	R. III, year 30, IV <i>šmw</i>
ONL 299	R. III, year 30, I <i>ꜣḫ.t</i>
ONL 336+	R. III, year 30, III <i>ꜣḫ.t</i>
ONL 298+	R. III, year 30, IV <i>ꜣḫ.t</i>

<sup>149</sup> O. DeM 157.

<sup>150</sup> ONL 321+; cf. Collier, 'Integrating Hieratic and Marks Data', [13].

ONL 333+ obverse	R. III, year 30, I <i>pr.t</i>
ONL 340	R. III, year 30, III – IV <i>pr.t</i>
O. Ashmolean HO 1092	R. III, year 31, II <i>ḏḥ.t</i>
ONL 321+	R. III, year 31, IV <i>ḏḥ.t</i>
ONL 6236+	R. III, year 31, I – II <i>pr.t</i>
ONL 300+	R. III, year 31, III-IV <i>pr.t</i>
ONL 318+	R. III, year 32 / R. IV year 1, I-III <i>šmw</i>

### 3.2.4 Ostraca with marks attributable to the reign of Ramesses III

Three additional ostraca are inscribed with marks of workmen of the right side and can be attributed to the reign of Ramesses III on the basis of the previous examination of duty rosters composed with marks. They do not provide important details for our chronological overview and are discussed in more detail in Appendix I, § 4. For ostraca with identity marks of workmen of the right side of the crew from a time before year 24, see chapter 4, 4.2.2.

### 3.2.5 Duty rosters composed with marks dating to the reign of Ramesses IV

Ramesses III died in month III *šmw* of the 32<sup>nd</sup> year of his reign, and his son Ramesses IV then ascended the throne.<sup>151</sup> Not long thereafter several changes took place in the community of Deir el-Medina. In or just before II *ḏḥ.t*, three months later, Nakhemmut (vi) was appointed as the foreman of the right side of the crew.<sup>152</sup> In this capacity he did no longer participate in the *wrš* duty system, and therefore he was not mentioned in the turnus lists anymore. II *ḏḥ.t* is also the month in which the group of men on *wrš* duty was augmented with 11 workmen, creating a turnus of 30 days.<sup>153</sup> Since the number of workmen in the *wrš* system now equated the number of days of a month, each workman served on the same day of the month throughout a period of 12 months. Once a year, a workman's *wrš* day would shift five days back due to the five epagomenal days appended to the last month of the calendar year. For example, Weserhat would serve his *wrš* duty in regnal year 1 of Ramesses IV as well as in III and IV *šmw* of year 2 on day 11, but on day 6 from I *ḏḥ.t* of the same year onwards, until I *ḏḥ.t* of regnal year 3, when another five days shift backwards would occur.

We are able to follow the first cycles of this 30 days turnus quite well thanks to several hieratic sources. Yet, it is remarkable that we do not possess a single securely dated duty roster for years 3 and 4 of the reign of Ramesses IV, even though there are (fragmentary) records of deliveries to the village. Similarly, there are no unambiguous records of the duty roster for the last years of the reign of Ramesses IV. O. Cairo CG 25658 might be the only exception. Despite the absence of a date the piece was attributed to year 5 of Ramesses IV by Helck<sup>154</sup> on the basis of the workmen who are mentioned in it. Indeed four workmen are recorded to be on duty, but at least three of them, Merysekhmet, Aanakhtu and Seti, are known to have belonged to the left side of the crew.<sup>155</sup> Thus, not only is the date of the ostrakon uncertain, we also have to question why these workmen are recorded on *wrš* duty. Were they transferred to the right side, or does this ostrakon document *wrš* duties for the left side? Virtually no duty rosters of the left side of the crew are known from the time of the later reign of Ramesses III and the reign of Ramesses IV. It is generally thought that they did not

<sup>151</sup> O. DeM 39, cf. Černý, 'Todes Ramses' III', 109-115.

<sup>152</sup> Collier, 'The right side', 6; 8.

<sup>153</sup> Apparently this increase of men on *wrš* duty is not directly related to an increase of the total number of workmen. The well attested expansion of the workforce by order of Ramesses IV would take place 13 months later in III *ḏḥ.t* of year 2 according to P. Turin Cat. 1891 rto.

<sup>154</sup> Helck, *Die datierten und datierbaren Ostraka*, 397. Gutgesell, *Die Datierung I*, 79-80, situated the document in the period of year 5 Ramesses IV – year 1 Ramesses V.

<sup>155</sup> See e.g. O. DeM 831, which probably dates to year 2 of Ramesses IV.



exist, but Janssen rightly pointed out<sup>156</sup> that O. Ashmolean HO 127, which mentions year 29 of Ramesses III, does list workmen of the left side responsible for daily deliveries. He suggested therefore that a turnus for the left side must have existed. In his opinion duty rosters for the left side must thus have been created simultaneously with those of the right side, but have simply not survived. O. Cairo CG 25658 does support this hypothesis of Janssen.<sup>157</sup> In fact, we will see further below that in the reigns of Ramesses V and perhaps later kings duty rosters for the left side are attested indeed.<sup>158</sup>

O. Cairo CG 25658 is thus not informative of the duty roster of the right side of the crew. Thankfully, ostraca composed with marks shed some light on the situation. There are several ostraca that record *wrš* duties with marks in the same manner as those of the reign of Ramesses III. Some of these documents can be securely dated while others can be attributed to a specific year in the reign of Ramesses IV with a fair degree of certainty. O. Leiden F. 2000 / 1.5 can be dated to year 1 of his reign on the basis of the sequence of marks alone, with marks  $\mathfrak{m}$ ,  $\mathfrak{A}\mathfrak{A}$  and  $\mathfrak{t}$  for respectively Mose, Pamedunakht called Pasen and Weserhat, on days 10, 11 and 12. The record can be dated even more precisely to II *šh.t* of year 1 because the deliveries it mentions for day 10-12 are paralleled by hieratic ostrakon DeM 41, which covers this exact month.<sup>159</sup> Together, O. DeM 41 and O. Leiden F. 2000 / 1.5 demonstrate that in year 1 II *šh.t* of Ramesses IV mark  $\mathfrak{A}\mathfrak{A}$  no longer designated Nakhemmut (vi), but a novice in the turnus, Pamedunakht (i). Nakhemmut (vi) in turn had taken on a new mark that was connected to his new role as foreman of the right side, as will be shown below.<sup>160</sup>

The hieratic sources indicate that from the next month, III *pr.t*, onwards, Mose would serve his *wrš* duty on day 9 during year 1. In the duty roster of ONL 310 the mark of this Mose is connected with day 4, five days earlier and therefore a year later. A date in regnal year 2 of Ramesses IV is also suggested by the partially preserved year number at the head of the document. No information from hieratic documents overlaps with the deliveries recorded in this ostrakon, so the piece cannot be attributed to a specific month of Ramesses IV's year 2. Hieratic parallels do exist for O. Turin N. 57393 and ONL 316. The former is datable to II *pr.t* of year 2 thanks to hieratic ostrakon O. Ashmolean HO 131 which duplicates the same wood deliveries for days 29 and 30. The sequence of workmen's marks on ONL 316 dates that piece securely in year 2 of Ramesses IV as well. The sign  $\mathfrak{u}$  just above day 1 on this piece is a reference to month IV *pr.t*, suggesting that the other days belong to III *pr.t*. That is confirmed by hieratic ostrakon O. Prague H 25, attributed to the same month in year 2 of Ramesses IV, which records the same wood deliveries for day 23 as ONL 316 does. O. Cairo SR 12165 is very fragmentary but might date to the next month. The only preserved entry records Harshire on day 10, with in the line above once again sign  $\mathfrak{u}$  for IV *pr.t*. Harshire had also served on day 10 of IV *pr.t* in year 31 of the reign of Ramesses III. However, this month is already covered by ONL 300+. It is therefore plausible that O. Cairo SR 12165 deals with year 2 of Ramesses IV, when Harshire's duty was also scheduled for day 10. Ostraca ONL 309 and ONL 329 are brief records too, but the day numbers and the workmen connected with them allow for a date in the period of I *šh.t* – IV *pr.t* of year 2 or the first four months of year 3. There are no signs for months or hieratic parallels that suggest a month in particular. Likewise, O. Varille 425 and O. Ashmolean HO 1249 must date to year 2 I *šh.t* –

<sup>156</sup> Janssen, 'Literacy and Letters', 85.

<sup>157</sup> See also Haring, 'Between Administrative Writing and Work Practice', [4-5].

<sup>158</sup> See below, 3.2.7.1.

<sup>159</sup> Cf. Haring and Soliman, 'Ostraca with Workmen's Marks', 86-88.

<sup>160</sup> See below, 3.2.7.4.

IV *pr.t* or I – IV *šmw* of year 3 on the basis of the sequence of marks, but no or not enough data from hieratic documents are available to provide further evidence.<sup>161</sup>

Collectively the duty rosters documented with marks, which are dated to year 2, cover almost all 30 days of the turnus of that calendar year. This is demonstrated in the TABLE 29. Several specific days are recorded in more than one ostracon, and each ostracon records the same mark for that day. We can therefore be fairly certain that no changes took place in the turnus of year 2.

	Turin N 57393	ONL 316	Cairo SR 12165	Ashmolean HO 1249	ONL 309	ONL 310	ONL 329	Varille 425
1						ⲙ		
2				±		±		
3				Ⲡ		Ⲡ		
4				ⲓ		ⲓ		
5				AA		AA		
6				ⲧ				
7				♀				
8				ⲕ				
9								
10	ⲙ		ⲙ					
11	ⲛ							ⲛ
12	ⲛ							ⲛ
13	ⲛ							ⲛ
14	ⲛ							ⲛ
15	ⲛ							ⲛ
16								
17								
18								
19				ⲛ	ⲛ			
20				ⲛ				
21							ⲛ	
22								
23							ⲛ	
24		ⲛ		ⲛ				
25		ⲛ		ⲛ				
26		ⲛ						
27		ⲛ			ⲛ			
28		ⲛ						
29	ⲛ	ⲛ						
30	ⲛ	ⲛ						

Year 2 and 3	
ⲙ	Nakhtmin
±	Reshupeteref
Ⲡ	Meryre
ⲓ	Mose
AA	Pamedunakht
ⲧ	Weserhat
♀	Minkhau
ⲕ	Iry-‘a
	[Amennakht]
ⲙ	Harshire
ⲛ	Iyerniutef
ⲛ	Nebnakht
ⲛ	Wesekhnemtet
ⲛ	Pentaweret
ⲛ	Nakhemmut
	[Amennakht]
	[Amennakht]
ⲛ	Tasheri
ⲛ	Maaninakhtuf
ⲛ	Amenhotep
ⲛ	Bakenamun
	[Anynakht]
ⲛ	Neferher
ⲛ	Amenemope
ⲛ	Nesamun
ⲛ	Khaemnun
ⲛ	Hori
ⲛ	Neferhotep
ⲛ	Penanuget
ⲛ	Khaemwaset

TABLE 29. OSTRACA WITH MARKS RECORDING THE DUTY ROSTER OF RAMESSES IV YEAR 2 AND 3

<sup>161</sup> Day 14 on Varille 425 contains a fragmentary entry of the delivery of two *ds* jars of beer. This corresponds to the delivery on day 14, I *pr.t* of year 2 documented by Ashmolean HO 113. This parallel is nevertheless too insignificant to use it as the basis for a date of Varille 425.

As mentioned above, we do not possess any clear hieratic documentation about the turnus of the remaining years of the reign of Ramesses IV. Remarkably, ostraca with marks do appear to record the turnus during this period. This is best illustrated by O. Ashmolean HO 1250. The document is headed by a regnal year 4, indubitably of Ramesses IV. The ostrakon records days 1 to 28 and the sequence of workmen is precisely that of years 1 and 2. It lists  $\hat{\text{C}}\Delta$ , the mark of Iyerniutef on day 1, which is 10 days earlier than his position in year 2 when his slot was on day 11. After year 2, the turnus had thus gone through two cycles of epagomenal days causing Iyerniutef's position to shift 10 days backwards. O. Ashmolean HO 1250 must therefore record a month in regnal year 4 of Ramesses IV. This means that throughout years 3 and 4 the length as well as the sequence of workmen within the turnus remained unaltered.

Indeed, there are three ostraca which we can place in year 3 of Ramesses IV on the basis of the sequence of marks. The first one is O. UC 31967, which covers some days of the month III *pr.t*, as the month signs  $\pm^{\text{I}}$  and  $\pm^{\text{III}}$  indicate. This document may in fact cover at least partially two other months of the same year, because day 25 with mark  $\text{K}$  for Khaemwaset is mentioned three times. This observation supports the supposition that the turnus of I *ḫ.t* – IV *pr.t* of year 3 and I – IV *šmw* of year 4 remained 30 days long. O. Ashmolean HO 1088 was probably produced around the same time, as the sequence of marks fits to the turnus of year 3. The ostrakon is provided with month sign  $\pm^{\text{I}}$  as well, and seems to have been dedicated in its entirety to III *pr.t* of year 3. The sequence of workmen's marks on ONL 313 is also datable to year 3. Together, the three ostraca dated in the period of I *ḫ.t* – IV *pr.t* of year 3 and I – IV *šmw* of year 4 record all 30 days of the month, and the turnus can thus be reconstructed as follows:

	ONL 313	Ashmolean HO 1088	UC 31967
1		𐎏	
2		𐎎	𐎎
3		𐎏	
4		𐎏	𐎏
5		𐎏	𐎏
6		𐎏	
7		𐎏	
8		𐎏	
9		𐎏	
10			𐎏
11			𐎏
12			𐎏
13		𐎏	
14		𐎏	
15		𐎏	
16		𐎏	
17	𐎏	𐎏	
18	𐎏	𐎏	
19	𐎏		
20	𐎏		
21	𐎏	𐎏	
22	𐎏	𐎏	
23	𐎏	𐎏	𐎏
24		𐎏	𐎏
25			𐎏
26			𐎏
27	𐎏		𐎏
28	𐎏		𐎏
29	𐎏	𐎏	𐎏
30		AA	AA

Year 3 and 4	
𐎏	Weserhat
𐎎	Minkhau
𐎏	Iry-'a
𐎏	Amennakht
𐎏	Harshire
𐎏	Iyerniutef
𐎏	Nebnakht
𐎏	Wesekhnemtet
𐎏	Pentaweret
𐎏	Nakhemmut
𐎏	Amennakht
𐎏	Amennakht
𐎏	Tasheri
𐎏	Maaninakhtuf
𐎏	Amenhotep
𐎏	Bakenamun
𐎏	Anynakht
𐎏	Neferher
𐎏	Amenemope
𐎏	Nesamun
𐎏	Khaemnun
𐎏	Hori
𐎏	Neferhotep
𐎏	Penanuqet
𐎏	Khaemwaset
𐎏	Nakhtmin
𐎏	Reshupeteref
𐎏	Meryre
𐎏	Mose
AA	Pamedunakht

TABLE 30. OSTRACA WITH MARKS RECORDING THE DUTY ROSTER OF RAMESSES IV YEAR 3 AND 4

### 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

The turnus of year 4 is most completely preserved in O. Ashmolean HO 1250, but five more ostraca date somewhere in the period of I *ꜣh.t* – IV *pr.t* of year 4 and I – IV *šmw* of year 5, because the preserved sequence of workmen's matches that of O. Ashmolean HO 1250. These ostraca are ONL 341, O. Ashmolean HO 1093, O. Ashmolean HO 1094, O. Ashmolean HO 1080 and O. Ashmolean HO 1082. The latter contains a month sign for IV *ꜣh.t* and can thus be attributed to that month in year 4 of Ramesses IV. The other ostraca cannot be dated with more precision. However, it is once more possible to reconstruct the entire turnus for I *ꜣh.t* – IV *pr.t* of year 4 and I – IV *šmw* of year 5 as all 30 days of the month are covered by these six ostraca. The table below demonstrates that the turnus remained unchanged throughout the period. The only entry that is out of the ordinary is day 25 on O. Ashmolean HO 1094, where the mark of Weserhat has been inscribed instead of that of Pamedunakht. Weserhat's duty was, according to the other ostraca, to be performed one day later on day 26. Remarkably, no identity mark is connected with day 26 on O. Ashmolean HO 1094. We can only speculate as to why this is so. The simplest explanation would be to suppose that Weserhat substituted for Pamedunakht on this particular occasion. Indeed, we shall see below that Pamedunakht reappears in later duty rosters in his original position between Mose and Weserhat.

	Ashmolean HO 1250	Ashmolean HO 1093	Ashmolean HO 1094	Ashmolean HO 1080	Ashmolean HO 1082	ONL 314
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26			-			
27						
28						
29						
30						

Year 4 and 5	
	Iyerniutef
	Nebnakht
	Wesekhnemtet
	Pentaweret
	Nakhemmut
	Amennakht
	Amennakht
	Tasheri
	Maaninakhtuf
	Amenhotep
	Bakenamun
	Anynakht
	Neferher
	Amenemope
	Nesamun
	Khaemnun
	Hori
	Neferhotep
	Penanuqet
	Khaemwaset
	Nakhtmin
	Reshupeteref
	Meryre
	Mose
	Pamedunakht
	Weserhat
	Minkhau
	Iry-'a
	Amennakht
	Harshire

TABLE 31. OSTRACA WITH MARKS RECORDING THE DUTY ROSTER OF RAMESSES IV YEAR 4 AND 5

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

A single ostracon, ONL 314, can be attributed to the period of I *ꜥḥ.t* – IV *pr.t* of year 5 and I – IV *šmw* of year 6. No regnal year number is preserved on this document and there is no hieratic source which parallels the record, but the sequence of workmen's marks is the same as found in year 4. In ONL 314 however, every slot is five days earlier, and therefore the turnus is that of a year later. Similarly, O. UC 31959 must be attributed to a month in the period of I *ꜥḥ.t* – IV *pr.t* of year 6 and I – IV *šmw* of year 7. The partially preserved sequence of workmen is that of year 4, but each workman has moved 10 days backwards in the turnus. It is therefore reasonable to date the ostracon in the last eight months of year 6 or in the first four months of year 7.

UC 31959		Year 6 and 7	
1			
2			
3			
4			
5	⊗	⊗	Nesamun
6	⊗	⊗	Khaemnun
7	⊗	⊗	Hori
8	⊗	⊗	Neferhotep
9			[Penanuqet]
10			[Khaemwaset]
11			[Nakhtmin]
12	±	±	Reshupeteref
13	⊗	⊗	Meryre
14			[Mose]
15	AA	AA	Pamedunakht
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

TABLE 32. OSTRACA WITH MARKS RECORDING THE DUTY ROSTER OF RAMESSES IV YEAR 6 AND 7

### *Overview of duty rosters composed with marks dated to the reign of Ramesses IV*

O. Leiden F. 2000 / 1.5	R. IV, year 1, II <i>šh.t</i>
O. Turin N. 57393	R. IV, year 2, II <i>pr.t</i>
ONL 316	R. IV, year 2, III <i>pr.t</i>
O. Cairo SR 12165	R. IV, year 2, IV <i>pr.t</i> (?)
O. Ashmolean HO 1249	R. IV, year 2 or 3
ONL 309	R. IV, year 2 or 3
ONL 310	R. IV, year 2 or 3
O. Varille 425	R. IV, year 2 or 3
ONL 329	R. IV, year 2 or 3 ?
O. Ashmolean HO 1088	R. IV, year 3, III <i>pr.t</i>
O. UC 31967	R. IV, year 3, III <i>pr.t</i>
ONL 313	R. IV, year 3 or 4
O. Ashmolean HO 1082	R. IV, year 4, I <i>šh.t</i>
O. Ashmolean HO 1250	R. IV, year 4
O. Ashmolean HO 1093	R. IV, year 4 or 5
O. Ashmolean HO 1094	R. IV, year 4 or 5
O. Ashmolean HO 1080	R. IV, year 4 or 5
ONL 341	R. IV, year 4 or 5
ONL 314	R. IV, year 5 or 6
O. UC 31959	R. IV, year 6 or 7

#### **3.2.6 Ostraca with marks attributable to the reign of Ramesses IV**

A small number of ostraca inscribed with identity marks of workmen of the right side are probably attributable to the reign of Ramesses IV on account of adherence to the roster sequence of that time. For a discussion of their date, see Appendix I, § 5; for their meaning, see chapter 4, 4.3.

#### **3.2.7 Duty rosters composed with marks dating to the reign of Ramesses V or later**

##### **3.2.7.1 The hieratic sources**

As in the greater part of the reign of Ramesses IV, there are very few available hieratic records that contain turnus lists for the period of the reign of Ramesses V and subsequent kings that are straightforwardly interpreted as such. That is unfortunate, because we possess a modest corpus of duty rosters composed with marks that must date to the very end of the reign of Ramesses IV, or, as we shall see, the reign of Ramesses V or later. In order to interpret this group of ostraca, it is imperative to briefly examine the small number of hieratic texts that do seem to document duty rosters dating to the time of Ramesses V or later. Among these ostraca is O. Cairo CG 25609,<sup>162</sup> discussed below in more detail, which will be of great importance for our current purposes. The other ostraca are very interesting, but it will be shown that they do not constitute written parallels to the duty rosters composed with marks.

Hieratic duty rosters from the period after the reign of Ramesses IV were examined by Gutgesell.<sup>163</sup> Leaving O. Cairo CG 25609 aside for now, Gutgesell listed 10 hieratic ostraca that are concerned with *wrš* duties, dated to the reign of Ramesses V onwards:

<sup>162</sup> Attributed to year 1 of Ramesses V by Gutgesell, *Die Datierung I*, 74-75 and Helck, *Die datierten und datierbaren Ostraka*, 419.

<sup>163</sup> Gutgesell, *Die Datierung I*, 73-89. Mention of the *wrš* duties *an sich* is made in O. Turin N. 57441, O. Cairo CG 25305, P. Turin Cat. 1898+, P. Turin Cat. 1900+ and P. Turin Cat. 2072, attributed to the period of the reigns of Ramesses V – Ramesses IX. These documents do however not contain actual duty rosters. A double *wrš* duty



### 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

O. DeM 196	IV <i>šmw</i> , year 3, attributed to R. VII <sup>164</sup> or R. IX <sup>165</sup>
O. Ashmolean HO 143	year 2, attributed to R. IX <sup>166</sup>
O. Ashmolean HO 302+	II <i>šmw</i> , year 2, attributed to R. VI <sup>167</sup>
O. Ashmolean HO 145	year 1, attributed to R. V or R. VI <sup>168</sup>
O. Ashmolean HO 160	year 2, attributed to R. V or R. VI <sup>169</sup>
O. IFAO 384	perhaps a year 1, attributed to R. V <sup>170</sup>
Weight Gardiner 10	day 28 in the <i>pr.t</i> season, attributed to R. V or R. VI <sup>171</sup>
O. Cairo CG 25658	attributed to period of year 5 R. IV – year 1 R. V <sup>172</sup>
O. UC 39624	year 2, attributed to R. V or R. VI <sup>173</sup>
O. Ashmolean HO 16	attributed to R. V or R. VI <sup>174</sup>

To this list we can now add P. Milan RAN E 0.9.40126+, a journal text that records several events including deliveries, attributed to the reign of Ramesses IX.<sup>175</sup> Column II of the verso of this papyrus mentions *wrš* duties that took place during II *ḏh.t* of year 9. On day 10 and perhaps day 15, the text explicitly mentions that the *wrš* duty performed on these days were related to “the right side of the gang”. There are convincing arguments to assume that the *wrš* duty performed on days 12-14 were also the responsibilities of members of the right side. The men on duty on days 12-14 were an Amennakht, a Pentaweret and a Pa[...]hotep. These three names are mentioned in exactly the same sequence in an ordered list of workmen of the right side dated to year 17 of Ramesses IX.<sup>176</sup> The *wrš* duties in column II are therefore clearly entrusted to members of the right side.<sup>177</sup>

Although a duty roster of such a late date is rather unique and thus very interesting, it is here of little use to us because we will see that the duty rosters composed with marks date to the first half of the 20<sup>th</sup> Dynasty exclusively. We therefore return to the sources mentioned by Gutgesell. The first two ostraca contain very little information about the actual turnus and

(for the right and the left side) is mentioned in P. Turin PN 109 vso. I (see Černý NB 152.20), an account of deliveries and distribution on different days in year 7 of the reign of Ramesses IV or Ramesses V. The reference to this document as well as the approximate date were kindly provided by Kathrin Gabler, personal communication, 2014.

<sup>164</sup> Helck, *Die datierten und datierbaren Ostraka*, 456.

<sup>165</sup> Gutgesell, *Die datierung I*, 76.

<sup>166</sup> Gutgesell, *Die datierung I*, 76; Helck, *Die datierten und datierbaren Ostraka*, 472.

<sup>167</sup> Gutgesell, *Die datierung I*, 76-77; Helck, *Die datierten und datierbaren Ostraka*, 445.

<sup>168</sup> Gutgesell, *Die datierung I*, 77-78; Helck, *Die datierten und datierbaren Ostraka*, 441.

<sup>169</sup> Gutgesell, *Die datierung I*, 78; Helck, *Die datierten und datierbaren Ostraka*, 442.

<sup>170</sup> Gutgesell, *Die datierung I*, 79; Helck, *Die datierten und datierbaren Ostraka*, 426, 427.

<sup>171</sup> Gutgesell, *Die datierung I*, 79.

<sup>172</sup> Gutgesell, *Die datierung I*, 79-80; Helck, *Die datierten und datierbaren Ostraka*, 397; 399.

<sup>173</sup> Gutgesell, *Die datierung I*, 80; Helck, *Die datierten und datierbaren Ostraka*, 443; 445; but thought to date to the end of the reign of Ramesses III by Haring, ‘Between Administrative Writing and Work Practice’, [4, n. 11].

<sup>174</sup> Gutgesell, *Die datierung I*, 81; Helck, *Die datierten und datierbaren Ostraka*, 429-430; but compare Haring, ‘Between Administrative Writing and Work Practice’, [4, n. 11].

<sup>175</sup> Rob J. Demarée, ‘Ramesside administrative papyri in the Civiche Raccolte Archeologiche e Numismatiche di Milano’ *JEOL* 42 (2010), 55-79.

<sup>176</sup> P. Turin Cat. 2001+ rto. III – IV. This list conveniently records the filiation of these three men, identifying them as Amennakht (ix), Pentaweret (iv) and Prehotep (ii).

<sup>177</sup> In column III of the same document, a damaged entry informs us that on day 24 of the same month a [...]hotep, son of Amennakht stood on watch. He is most likely the draughtsman Amenhotep (vi). In the list of P. Turin Cat. 2001+ he is mentioned among the workmen of the left side, but this does necessarily mean that he was associated with this side. Amenhotep (vi) is in this period referred to as the chief draughtsman (see Davies, *Who’s who*, 112-113), and like the senior necropolis scribe he may have supervised the entire crew. Additionally, Amenhotep (vi)’s mark is recorded among workmen of the right side in ostraca with ordered lists of workmen’s marks from the period of Ramesses VI – Ramesses IX such as O. IFAO C 7638, see chapter 4, 4.2.1.

date to the later period of the 20<sup>th</sup> Dynasty, and we will not focus on them much in this context. The other ostraca were analysed in some detail by Gutgesell. He theorised that within this group of ostraca, O. UC 39624 and O. Ashmolean HO 16 indicate a 19 days turnus,<sup>178</sup> and that perhaps O. DeM 196, O. Ashmolean HO 302+, O. Ashmolean HO 145, O. Ashmolean HO 160 and O. IFAO 384 record fragments of a turnus of the same length.<sup>179</sup> Furthermore, Gutgesell attempted to determine to which side of the crew the workmen listed in these documents belonged, and remarked rightfully that in order to answer that question one is forced to rely on documents that predate the reign of Ramesses V.<sup>180</sup> Basing himself on O. Ashmolean HO 127, the account from year 29 of Ramesses III we have already mentioned above,<sup>181</sup> he suggested that the majority of individuals on duty in O. DeM 196, O. Ashmolean HO 16, O. UC 39624 and O. IFAO 384 were members of the left side.<sup>182</sup> Gutgesell did remark that while Weserhat is listed among the left side in O. Ashmolean HO 127, he was transferred to the right side in year 31 of Ramesses III, where we find him in hieratic documents as well as in the duty rosters composed with marks. Concerning the other ostraca, Gutgesell suggested the workmen in O. Cairo CG 25609, O. Ashmolean HO 143, Weight Gardiner 10 and O. Cairo CG 25658 belonged to the left side too.<sup>183</sup> As a matter of fact, we have already discussed the latter piece above,<sup>184</sup> and came to the same conclusion. The other ostraca were interpreted as duty rosters for the right side. Gutgesell based his argument essentially on his date of some of the seven duty rosters recording workmen of the left side, which would overlap with his date of O. Ashmolean HO 145. Since the workmen in the latter document were different from those in the duty rosters of the left side, O. Ashmolean HO 145 and, by association, O. Ashmolean HO 302+ and O. Ashmolean HO 160 could only record workmen of the right side.<sup>185</sup>

Gutgesell's observation that many workmen on the abovementioned ostraca belong to the left side is correct. In fact, we can make a case for all of these ostraca dealing merely with workmen of the left side. For one, none of the workmen they mention, with the exception of the common names Hori and Amenhotep, are known from the hieratic duty rosters or from those composed with marks from the reign of Ramesses IV. Moreover, the majority of these workmen were associated with the left side of the crew under the reigns of Ramesses III and Ramesses IV. We find their names in hieratic ostraca O. Turin N. 57030 and O. Turin N. 57046 (both probably year 24 of Ramesses III), O. MMA 09.184.702 (attributed to year 1 of Ramesses IV) and O. DeM 831, an ordered list of workmen of the left side (attributable to the beginning of the reign of Ramesses IV). The attestations are given in the table below. Admittedly, all these sources are presumably older than the duty rosters under discussion here, and not every single workman is securely attested on the left side. It is however still plausible that some of the workmen who cannot be demonstrated to have served on the left side did indeed belong to that part of the crew. For example, the Diamunkhopshef mentioned in O. Ashmolean HO 160 – if that is indeed how we should read this name – can only be Diamunkhopshef (i), son of Qedhirakhetef (ii) mentioned in O. Ashmolean HO 16. The latter is securely associated with the left side and even co-directed this side as the deputy. More importantly, it is hard to imagine that all of the workmen in the duty rosters mentioned by Gutgesell would have shifted to the right side over the course of the years of the end of the reign of Ramesses IV and the reign of Ramesses V. The conclusion can therefore only be that

<sup>178</sup> Gutgesell, *Die datierung* I, 82-83.

<sup>179</sup> Gutgesell, *Die datierung* I, 84-87.

<sup>180</sup> Gutgesell, *Die datierung* I, 83.

<sup>181</sup> See above, 3.2.5.

<sup>182</sup> Gutgesell, *Die datierung* I, 83-84.

<sup>183</sup> Gutgesell, *Die datierung* I, 89.

<sup>184</sup> See above, p. 197-198.

<sup>185</sup> Gutgesell, *Die datierung* I, 88-89.

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*wrš* duties of workmen of the left side are attested in hieratic on ostraca that probably date to the first half of the 20<sup>th</sup> Dynasty.<sup>186</sup>

<b>Workman</b>	<b>Attested in</b>	<b>Attested on the left side in</b>
Nebnefer	O. Ashm. 145 O. UC 39624	O. DeM 831
Buqentuef	O. Ashm. 145 O. Ashm. 160 O. Ashm. 302+	O. MMA 09.184.702
Parahotep	O. Ashm. 145 O. Ashm. 160	
Hormin	O. Ashm. 145	O. DeM 831
Huynefer	O. Ashm. 145 O. Ashm. 160	
Amenherkhopshef / Diamunkhopshef	O. Ashm. 160	Diamunkhopshef is a son of Qedhirakhetef; <sup>187</sup> served perhaps on the same side
Sem	O. Ashm. 160	
Penniut	O. Ashm. 160	O. DeM 831
Horinefer	O. Ashm. 160 O. Ashm. 302+	O. DeM 831
Wennefer	Weight Gardiner 10 O. Ashm. 16	
Aanakhtu	O. Cairo CG 25658 O. UC 39624 O. Ashm. 16	O. DeM 831
Merysekhmet	O. Cairo CG 25658	O. DeM 831
Amenhotep	O. Cairo CG 25658	
Seti	O. Cairo CG 25658	O. DeM 831 O. MMA 09.184.702
Ruta	O. UC 39624 O. Ashm. 16	O. Turin N. 57046
Seba	O. UC 39624	
Bakenwerel	O. UC 39624 O. Ashm. 16	O. DeM 831 O. MMA 09.184.702
Telmontu	O. UC 39624 Weight Gardiner 10	O. MMA 09.184.702 O. Turin N. 57030
Amenemone	O. UC 39624 O. Ashm. 16	
Hay	O. UC 39624 O. Ashm. 16	O. DeM 831
Weserhat	O. UC 39624	
Qenna	O. UC 39624	O. DeM 831
Khnummose	O. Ashm. 16	O. Turin N. 57030
Hori	O. Ashm. 16	
Qedhirakhetef	O. Ashm. 16	O. DeM 831 O. MMA 09.184.702

<sup>186</sup> Cf. Haring, 'Between Administrative Writing and Work Practice', [4].

<sup>187</sup> Davies, *Who's who*, 56.

### 3.2.7.2 O. Cairo CG 25609: A hieratic duty roster of the right side of the crew

There is, however, one hieratic document that records a duty roster for the right side, which must date to the reign of Ramesses V. This key piece is the aforementioned O. Cairo CG 25609, presented in the table below. The ostrakon records *wrš* duties for III and IV *šmw* of a year 1 and was attributed to the reign of Ramesses V by several authors.<sup>188</sup> This attribution can indeed be defended, since the turnus it records is not that of the time of Ramesses III or Ramesses IV, even though it still contains many workmen who are included in the turnus of the reign of the latter king. Moreover, several workmen in O. Cairo CG 25609 appear in the same sequence of the turnus of Ramesses IV, such as Nebnakht, who is followed by Wesekhnemtet (compare the rightmost column of TABLE 33). O. Cairo CG 25609 is however a problematic piece because it seems to demonstrate that on several days, including the weekends and the first days of the month, no *wrš* duties were performed at all. The sequence of workmen sometimes continues after these free days in accordance with the turnus. For example, the *wrš* duty of Mose is given on day 28. Skipping over days 29, 30, 1 and 2, which are recorded as free days, the next *wrš* duty is performed by Pamedunakht on what must be day 3 and Weserhat on day 4.<sup>189</sup> The sequence Mose – Pamedunakht – Weserhat is exactly the same in the turnus from the reign of Ramesses IV. A similar situation is documented for preceding slots. We observe that Hori is recorded on *wrš* duty on a day that can only be day 18. Days 19, 20 and 21 are days off, and Neferhotep is listed as the workman on *wrš* duty for what can only be day 22.<sup>190</sup> It thus appears that no workman is listed for days 19 – 21, because we know from the turnus of the reign of Ramesses IV that Neferhotep followed the slot of Hori.

The observation that the duty roster was interrupted by inactive days for which no *wrš* duty was scheduled is rather disconcerting. This constitutes an important break from the usage of the turnus of the preceding period, during which the duty roster would continue to wander throughout the calendar regardless of free days. This change would mean that when the actual records are not available, the duty roster can no longer be reconstructed. Moreover, it renders the task of reconstructing the exact sequence of the turnus a very precarious one. For now, we come to a sequence that, largely based on the turnus of the reign of Ramesses IV, must have looked like that presented in the middle column of the following table.

O. Cairo CG 25609: III – IV <i>šmw</i> , year 1 Ramesses V		Reconstructed sequence of turnus year 1 Ramesses V	Turnus Ramesses IV
[18]	Hori	Hori	Hori
19	Free [no duty]	Nefer[hotep]	Neferhotep
20	Free [no duty]	[Penanuqet ?]	Penanuqet
21	Free [no duty]	[Khaemwaset ?]	Khaemwaset
2{1}<2>	Nefer[hotep]	[Nakhtmin ?]	Nakhtmin
[23]	[...]	[Reshupeteref ?]	Reshupeteref
[24]	[...]	[Meryre ?]	Meryre
[25]	[...]	Mose	Mose

<sup>188</sup> KRI VI, 245-246; Gutgesell, *Die datierung I*, 74-75; Helck, *Die datierten und datierbaren Ostraka*, 419; Haring and Soliman, 'Ostraca with workmen's marks', 76.

<sup>189</sup> Contra Černý, *Ostraca hiératiques. Nos. 25501-25832*, pl. 60\*, who amends day 5 for Weserhat. However, as the days preceding that of Pamedunakht are days 1 and 2, it seems most logical to continue enumerating with days 3 and 4 for Pamedunakht and Weserhat. Obverse II 8-9 must consequently have contained days 5 and 6, so that reverse I 1 neatly adjoins day 7.

<sup>190</sup> The part of the ostrakon that contains the day number is damaged, but was tentatively transcribed by Černý as 'day 21'.

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[26]	[...]	Pamedunakht	Pamedunakht
[27]	[...]	Weserhat	Weserhat
28	{Pa-}Mose	[Minkhau ?]	Minkhau
29	Free [no duty]	[Iry-‘a ?]	Iry-‘a
30	Free [no duty]	Amennakht	Amennakht
1	Free [no duty]	Khonsu	Harshire
2	Free [no duty]	?	Iyerniutef
[3]	Pamedunakht	?	Nebnakht
{5} <4>	Weserhat	Bakenamun	Wesekhnemtet
[5]	[...]	Amenwa	Pentaweret
[6]	[...]	Nebnakht	Nakhemmut
7	{Pa-}Amennakht	Wesekhnemtet	Amennakht
8	Khonsu	Maaninakhtuf	Amennakht
9	- [omitted]	Nakhemmut	Tasheri
10	- [omitted]	Amennakht	Maaninakhtuf
11	Bakenamun	Amennakht	Amenhotep
12	Amenwa	Ta[sheri]	Bakenamun
13	Nebnakht	Pa[shedu]	Anynakht
14	Wesekhnemtet	Pahemnetjer	Neferher
-	- [omitted]	Penmennefer	Amenemope
16	Maaninakhtuf	Pen[niut]	Nesamun
17	Nakhemmut	...	Khaemnun
18	Amennakht son of Khaemnun		
19	Free [no duty]		
20	Free [no duty]		
21	Amennakht		
22	Ta[sheri]		
23	Pa[shedu]		
24	Pahemnetjer		
25	Penmennefer		
26	Pen[niut]		

TABLE 33. O. CAIRO CG 25609 COMPARED TO THE TURNUS OF RAMESSES IV

Despite the fact that we can only tentatively recreate the exact sequence of workmen in the turnus of O. Cairo CG 25609 it is certain that a duty roster of the right side existed after the reign of Ramesses IV. Our reconstruction indicates that at the time of O. Cairo CG 25609, at least five new workmen were introduced in the turnus: Amenwa, Pashedu, Pahemnetjer, Penmennefer, and Penniut. Since the document breaks off after day 26 we are at this point unable to determine the total number of workmen included in the turnus, but it may well have been more than 30.

### 3.2.7.3 The hypothetical 45 days turnus

That is also suggested by a number of duty rosters composed with marks, which record sequences of workmen's marks which do not match the turnus of the time of Ramesses III or Ramesses IV. There are several of such pieces, but it is challenging to date them because of their fragmentary state. Not a single ostrakon clearly contains an entire cycle of the duty roster. Moreover, it appears that several changes took place in the sequence of the workmen within the turnus because not many duty rosters contain the same order of workmen's marks. Among these duty rosters is O. Glasgow D. 1925.80, which has been discussed elsewhere on

several occasions,<sup>191</sup> but still could not be dated any more precisely than to the period after the reign of Ramesses IV. As we shall see, we will not succeed in finding an exact date for the piece either. The duty roster begins on the obverse of the ostracon with day 1. Tantalisingly, a *rnp.t* sign is visible just in front of the day 1, but the year number has broken off or was never added. The ostracon records the days of an entire month – although the workmen’s marks for days 13, 16 and 17 have not survived – and at least the first five days of the next month. Not a single workman’s mark is repeated and therefore it represents a turnus that is longer than 30 days. The workmen’s marks on this piece are evidently related to the duty roster ostraca composed with marks during the time of Ramesses IV, because it displays many of the same marks and several of them are given in the same relative position of the 30 days turnus. O. Glasgow D. 1925.80 can therefore not be far removed from it in time, and a date at the very end of the reign of Ramesses IV or some time later seems most plausible.

Presumably, ONL 6219 is closely related to the Glasgow piece. It is less well preserved but it lists the same marks on days 4 – 10 and 18 and 19. In contrast to O. Glasgow D. 1925.80, day 17 is still visible and records the mark of Meryre. A third ostracon, O. Cairo JE 96328, contains only a single entry for day 15, but it might be related.<sup>192</sup> Days 3 – 5 of the second month on O. Glasgow D. 1925.80 display marks  $\text{𓆎}$ ,  $\text{𓆏}$ , and  $\text{𓆐}$ . The exact same marks are also recorded for these days on O. Ashmolean HO 1095. Interestingly, this ostracon continues with several marks that are not recorded on O. Glasgow D. 1925.80, until it reaches day 16, for which mark  $\text{𓆑}$  is inscribed. From that point onwards, the partially preserved sequence of marks adheres once more to the roster of O. Glasgow D. 1925.80. The only discrepancy is the position of mark  $\text{𓆒}$  of Bakenamun, situated between  $\text{𓆓}$  and  $\text{𓆔}$  on O. Glasgow D. 1925.80, but between  $\text{𓆕}$  and  $\text{𓆖}$  on O. Ashmolean HO 1095. Apart from this discrepancy, O. Ashmolean HO 1095 seems to fill most of the gaps in the turnus that is partially preserved on O. Glasgow D. 1925.80: after mark  $\text{𓆗}$  on O. Ashmolean HO 1095 follow marks  $\text{𓆘}$  to  $\text{𓆙}$ , after which comes  $\text{𓆚}$ , the first mark recorded on O. Glasgow D. 1925.80. If we are correct in assuming that O. Glasgow D. 1925.80 and O. Ashmolean HO 1095 date to the same period, both ostraca thus demonstrate that after mark  $\text{𓆗}$  follow another 10 different marks. This means that the turnus included at this time 45 different workmen, a figure that is unparalleled by hieratic documentation.

Ostraca O. Ashmolean HO 1090 and O. Ashmolean HO 1078 are probably related to this group of ostraca as well. They display only a small number of workmen’s marks, but their sequence matches the one attested in O. Glasgow D. 1925.80. However, O. Ashmolean HO 1090 and O. Ashmolean HO 1078 differ from that piece in that the workmen are recorded 10 days later in the former ostracon, and, provided that the sequence of O. Ashmolean HO 1095 complements that of O. Glasgow D. 1925.80, 15 days later in the latter. Both ostraca thus support the reconstruction of a turnus of 45 days: theoretically speaking O. Ashmolean HO 1078 could record the turnus cycle just before that of O. Glasgow D. 1925.80, while O. Ashmolean HO 1090 could record the duty roster for a time after a five days shift backwards caused by the five epagomenal days at the end of the calendar year. Collectively these ostraca allow the construction of the following hypothetical turnus of 45 days:

<sup>191</sup> Most importantly by McDowell, *Hieratic ostraca*, 19-20; Haring, ‘Decoding the Necropolis Workmen’s Funny Signs’, 46, 52-53; Haring and Soliman, ‘Ostraca with Workmen’s Marks’, 74-78.

<sup>192</sup> That is suggested by the list of workmen’s marks on the obverse of the same ostracon, see below, 3.2.7.4.

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

	Glasgow D 1925.80	ONL 6219	Cairo JE 96328	Ashmolean HO 1095	Ashmolean HO 1090	Ashmolean HO 1078
1	𐎏					
2	𐎏					
3	𐎏			𐎏		
4	𐎏	𐎏		𐎏		
5	𐎏	𐎏		𐎏		
6	𐎏	𐎏		𐎏		
7	𐎏	𐎏				
8	𐎏	𐎏		𐎏		
9	𐎏	𐎏		𐎏		
10	𐎏	𐎏		𐎏		
11	𐎏			𐎏		
12	𐎏			𐎏		
13				𐎏	𐎏	
14	𐎏				𐎏	
15	𐎏		𐎏	𐎏		
16				𐎏		
17		𐎏		𐎏		
18	𐎏	𐎏		𐎏		
19	𐎏	𐎏		𐎏		
20	𐎏			𐎏		
21	𐎏				𐎏	
22	𐎏			𐎏	𐎏	
23	𐎏			𐎏	𐎏	
24	𐎏			𐎏	𐎏	
25	𐎏			𐎏	𐎏	𐎏
26	𐎏					
27	𐎏					
28	𐎏			𐎏		
29	𐎏			𐎏		
30	𐎏			𐎏		
1	𐎏			𐎏		
2	𐎏					
3	𐎏					
4	𐎏					
5	𐎏					
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

	Turnus Ramesses V
𐎏	
𐎏	
𐎏	
𐎏	
𐎏	
𐎏	Anynakht
𐎏	Neferher
𐎏	Amenemope
𐎏	Nesamun
𐎏	Khaemnun
𐎏	Hori
𐎏	Neferhotep
𐎏	Penanuqet
𐎏	Khaemwaset
𐎏	Nakhtmin
𐎏	Meryre
𐎏	Mose
𐎏	Pamedunakht
𐎏	Weserhat
𐎏	Minkhau
𐎏	Iry-'a
𐎏	Amennakht
𐎏	Iyerniutef
𐎏	Amenhotep
𐎏	Pentaweret
𐎏 ?	Bakenamun
𐎏	
𐎏	Nebnakht
𐎏	Wesekhneftet
𐎏	Maaninakhtuf
𐎏	Nakhemmut
𐎏	Amennakht
𐎏	Amennakht
𐎏	
𐎏	
𐎏	
?	?
𐎏	
𐎏	
𐎏	
𐎏	
𐎏	
𐎏	
𐎏	

TABLE 34. OSTRACA WITH MARKS RECORDING THE DUTY ROSTER OF C. RAMESSES V, YEAR 2

Indeed, the question if the duty roster of O. Ashmolean HO 1095 can be taken to fill in the gap present in the duty roster of O. Glasgow D. 1925.80 is crucial, but cannot be answered with any certainty. There are nevertheless indications – no hard evidence – that the sequence of O. Glasgow D. 1925.80 continued after the slot of  $\text{Ⲛ}$  when we look at a few ostraca with lists of marks. These lists, often only partially preserved, are no duty rosters but are comparable because they are inscribed according to the same sequence of workmen. One of such documents with a list is O. BTdK 541. On the obverse fragments of three columns of workmen's marks are preserved in an order that overlaps with the sequence of O. Glasgow D. 1925.80, although marks  $\text{Ⲛ}$  and  $\text{ⲛ}$  are situated in different positions on this ostrakon. Relevant information is found in the third column of O. BTdK 541, where marks  $\text{ⲛ}$ ,  $\text{ⲛ}$  and  $\text{Ⲛ}$  are followed by  $\text{ⲛ}$  and  $\text{ⲛ}$ . That is interesting, because in O. Glasgow D. 1925.80 and O. Ashmolean HO 1095 marks  $\text{ⲛ}$ ,  $\text{ⲛ}$  and  $\text{Ⲛ}$  are followed by  $\text{ⲛ}$  as well. Similarly, the much effaced O. Cairo SR 12218 contains three columns of workmen's marks in a sequence that in part corresponds to the hypothetical turnus. The bottom of the first column and the second column are inscribed with workmen's marks in the same order as on O. Glasgow D. 1925.80 and ONL 6219. After an illegible bit, we can pick up the sequence in the middle of the third column with mark  $\text{ⲛ}$ , doubtlessly a variant of  $\text{ⲛ}$ . The succeeding marks  $\text{ⲛ}$  to  $\text{ⲛ}$  fit perfectly to the hypothetical turnus proposed above in the right column of TABLE 34. The last bit of the sequence is inscribed in the beginning of the leftmost column and differs somewhat from the order of marks in O. Ashmolean HO 1095 and O. Glasgow D. 1925.80, but is nevertheless quite similar to it (TABLE 35). One last indication that more than 30 workmen were included in the turnus of O. Glasgow D. 1925.80 and ONL 6219 is provided by the latter ostrakon, where a section is added just above the duty roster inscribed on the obverse. In this section a number of marks are inscribed in black ink referring to workmen securely attested in the duty rosters of the right side. Among these marks are  $\text{ⲛ}$  (line 1) and  $\text{ⲛ}$  (line 2), both present in the part of the turnus preserved on O. Ashmolean HO 1095.

If we assume that it is possible to adjoin the sequence of marks  $\text{Ⲛ}$  –  $\text{ⲛ}$  on O. Ashmolean HO 1095 to the turnus of O. Glasgow D. 1925.80, the two ostraca indicate that the turnus was 45 days long. While there is no evidence against a turnus of 45 days long, there is not a single ostrakon that records it in its entirety. O. Cairo SR 12218 might have contained all 45 workmen, but is not preserved well enough to prove the hypothetical turnus.<sup>193</sup> Yet, as there is no contradicting evidence, we will continue to consider a turnus of 45 days as plausible.

The hypothetical turnus is presented in the table below. When we compare the hypothetical 45 days turnus to the 30 days turnus of the reign of Ramesses IV, it becomes clear that several changes took place. The marks of workmen Harshire and Tasherī are no longer present, and 17 slots became available in the new turnus:

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<sup>193</sup> With our knowledge of the sequence of the turnus from other marks we can estimate with reason that two marks were originally inscribed above mark  $\text{ⲛ}$ , two marks below mark  $\text{ⲛ}$ , three marks below mark  $\text{ⲛ}$ , two marks below mark  $\text{ⲛ}$ , and two marks below mark  $\text{ⲛ}$ . If O. Cairo SR 12218 was indeed originally inscribed with 45 different workmen's marks, this would mean that seven more marks were inscribed above mark  $\text{ⲛ}$ , which is a bit tight but not impossible considering the available space between mark  $\text{ⲛ}$  and what must have been the top of the ostrakon.



3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

	Hypo- thetical Turnus	BM 50716	BTDK 541	Ashmolean HO 891	Cairo SR 12218
1	⦏	⦏	⦏		⦏
2	⦁	⦁	⦁		⦁
3	⦂	⦂	⦂		
4	⦃	⦃	⦃		
5	⦄	⦄	⦄		⦄
6	⦅	⦅	⦅		⦅
7	⦆	⦆	⦆		⦆
8	⦇	⦇			⦇
9	⦈	⦈			
10		⦉			
11	⦊	⦊			
12	⦋	⦋			⦋
13	⦌	⦌			⦌
14	⦍	⦍			⦍
15	⦎	⦎			⦎
16	⦏	⦏	⦏		⦏
17	⦐	⦐	⦐		
18	⦑	⦑	⦑	⦑	
19	⦒	⦒	⦒	⦒	
20	⦓	⦒	⦒	⦓	
21	⦔	⦓		⦔	
22	⦕	⦔			
23	⦖	⦖			
24	⦗	⦗		⦗	
25	⦘	⦘		⦘	
26	⦙	⦙		⦙	⦙
27	⦚	⦚	⦚	⦚?	⦚
28	⦛	⦛	⦛	⦛	⦛
29	⦜	⦜	⦜	⦜	⦜
30	⦝		⦝		⦝
1			⦞	⦞	⦞
2	⦟				⦟
3	⦠				⦠
4	⦡				⦡
5	⦢				
6	⦣				
7	⦤				
8					
9	⦥				⦥
10	⦦				⦦
11	⦧				⦧
12	⦨				?
13	⦩			⦩	⦩
14	⦪			⦪	⦪
15	⦫			⦫	⦫

	Turnus Ramesses V	Turnus Ramesses IV
⦏	Neferher	Neferher
⦁	Amenemope	Amenemope
⦂	Nesamun	Nesamun
⦃	Khaemnun	Khaemnun
⦄	Hori	Hori
⦅	Neferhotep	Neferhotep
⦆	Penanuqet	Penanuqet
⦇	Khaemwaset	Khaemwaset
⦈	Nakhtmin	Nakhtmin
⦉	Reshupeteref	Reshupeteref
⦊	Meryre	Meryre
⦋	Mose	Mose
⦌	Pamedunakht	Pamedunakht
⦍	Weserhat	Weserhat
⦎	Minkhau	Minkhau
⦏	Iry- 'a	Iry- 'a
⦐	Amennakht	Amennakht
⦑	Iyerniutef	<b>Harshire</b>
⦒	Amenhotep	<b>Iyerniutef</b>
⦓	Pentaweret	<b>Nebnakht</b>
⦔	Bakenamun	<b>Wesekhnemtet</b>
⦕	Amenwa	<b>Pentaweret</b>
⦖	Nebnakht	<b>Nakhemmut</b>
⦗	Wesekhnemtet	<b>Amennakht</b>
⦘	Maaninakhtuf	<b>Amennakht</b>
⦙	Nakhemmut	<b>Tasheri</b>
⦚	Amennakht	<b>Maaninakhtuf</b>
⦛	Amennakht	<b>Amenhotep</b>
⦜		<b>Bakenamun</b>
⦝		<b>Anynakht</b>
⦞		
⦟		
⦠		
⦡		
⦢		
⦣		
⦤		
⦥		
⦦		
⦧		
⦨		
⦩		
⦪		
⦫	Anynakht	

TABLE 35. THE HYPOTHETICAL 45 DAYS TURNUS OF THE TIME OF RAMESSES V

### 3.2.7.4 The list of workmen's marks on O. Cairo JE 96328

Now that an attempt has been made to reconstruct the turnus, it becomes necessary to date the ostraca as precisely as possible and identify the workmen's marks. We expect the turnus to date somewhere in the reign of Ramesses V. Such a date is supported by O. Cairo JE 96328. We have already seen that the reverse of this piece merely records a day 15, but the obverse is highly interesting because it contains an ordered list of workmen's marks. Unfortunately the list is rather fragmentary and it does not provide new insights into the turnus. Indeed, it is only because of the fact that  $\text{𓂏}$  follows mark  $\text{𓂏}$  that we can link the sequence to the duty rosters ensuing year 4 the reign of Ramesses IV. The more important information is concealed at the beginning of the list, which begins with  $\text{𓂏}$  followed by  $\text{𓂏}$  and  $\text{𓂏}$ . The second mark is the hieratic form of the sign for the scribal set,  $\text{sš}$ , and its situation in the second position of an ordered list of workmen is of course reminiscent of hieratic lists that are headed by the foreman, scribe and deputy.<sup>194</sup> This suspicion is confirmed by the fact that the third mark is that of Anynakht (i), who was indeed the deputy of the right side.<sup>195</sup> Consequently, mark  $\text{𓂏}$  must refer to the foreman of the right side. From the beginning of the reign of Ramesses IV to the end of the reign of Ramesses IX this position was held by Nakhemmut (vi). We had already noticed that Nakhemmut's mark  $\text{𓂏}$  was used to designate Pamedunakht in turnus lists once he had taken over Nakhemmut's position in the duty roster at the moment of the latter's promotion to the position of chief workman.<sup>196</sup> It is therefore very well plausible that Nakhemmut, in his new capacity of foreman, used mark  $\text{𓂏}$  instead.

Nakhemmut served as the foreman of the right side for a long period of time and over the course of his career he was assisted by several subsequent deputies. Anynakht is thought to have been active as a deputy in or after year 2 of Ramesses V.<sup>197</sup> We thus have an approximate *terminus post quem* for the duty roster on the reverse of O. Cairo JE 96328, assuming that the list of workmen's marks on the reverse is contemporaneous. Ideally, we expect the associated duty rosters O. Glasgow D. 1925.80, ONL 6219, O. Ashmolean HO 1095, O. Ashmolean HO 1090 and O. Ashmolean HO 1078 to date to about the same period. These duty rosters therefore do not seem to date to the very beginning of the reign of Ramesses V. They cannot record the exact same turnus as preserved in O. Cairo CG 25609, dated – tentatively – to III – IV *šmw*, year 1 of Ramesses V. In that hieratic document Tasherī is still listed on *wrš* duty, but his mark has disappeared from duty roster O. Glasgow D. 1925.80 and associated pieces. These must therefore date to a later time.

### 3.2.7.5 The list of workmen's marks on O. BM 50716

That these duty rosters are not situated in the first year of the reign of Ramesses V is also suggested by the ordered list of workmen's marks recorded on the obverse of O. BM 50716 (TABLE 35), which must be dated somewhere between the duty rosters of year 4 of Ramesses IV and the ostraca of the hypothetical 45 days turnus. As in the list of O. Cairo JE 96328, the workmen's marks on O. BM 50716 are given in an ordered sequence headed by marks  $\text{𓂏}$  and  $\text{𓂏}$  for respectively the foreman Nakhemmut and the scribe of the tomb. Mark  $\text{𓂏}$  for the deputy Anynakht (i) is positioned in the fourth slot. In position three we find  $\text{𓂏}$ , the mark of Harshire. Hieratic sources indicate that Harshire acted as a scribe alongside his father Amennakht (v), scribe of the tomb, as early as year 2 of Ramesses V.<sup>198</sup> There are however indications that Harshire had assumed the status of assistant scribe already at the end of the

<sup>194</sup> For such lists see chapter 4, 4.1.

<sup>195</sup> Davies, *Who's who*, 74.

<sup>196</sup> See above, 3.2.5.

<sup>197</sup> Davies, *Who's who*, 74.

<sup>198</sup> O. Berlin P 12654, cf. Davies, *Who's who*, 114.

reign of Ramesses IV.<sup>199</sup> His role as assistant to the scribe might explain why Harshire was apparently exempted from *wrš* duties in e.g. O. Glasgow D. 1925.80, and why he is listed on O. BM 50716 immediately after the scribe of the tomb Amennakht (v). Even though O. BM 50716 must be earlier than the group of duty rosters to which O. Glasgow D 1925.80 belongs, we see that some changes in the order of workmen had already taken place. We encounter the mark  $\perp$  of a newcomer, and  $\hat{\cup}$  already follows after  $\hat{\cup}$ . On the other hand, the mark of Tasherī,  $\overline{\text{ttt}}$ , is still present in the list. Based on the fact that Anynakht is mentioned as deputy, the list should date to the beginning of the reign of Ramesses V, but it must be older than O. Glasgow D. 1925.80 and associated duty rosters, because of the presence of Tasherī.

O. BM 50716 is furthermore important because it demonstrates beyond any doubt that mark  $\text{A}$ , situated in the slot of Pamedunakht between marks  $\text{m}$  and  $\text{f}$ , is an allomorph of  $\text{AA}$ , the mark that is more frequently attested for this man.

### 3.2.7.6 O. Cairo CG 25609 and its relation to duty rosters composed with marks

Because ostraca such as O. Glasgow D. 1925.80, recording the hypothetical 45 days turnus, are probably later than year 1 of Ramesses V, hieratic ostrakon Cairo CG 25609 is only of limited use in our attempt to identify the workmen behind the new workmen's marks we have come across. Nevertheless, O. Cairo CG 25609 provides important information concerning the workmen on duty. For example, it records the *wrš* duty of Amennakht (xxv) on day 7 and on day 8 that of a workman named Khonsu, whom we have not encountered in duty rosters composed with marks before. In contrast, the hypothetical 45 days turnus does not list an unknown workmen's mark for the slot following that of Amennakht (xxv). After his mark  $\hat{\cup}$  we find mark  $\hat{\cup}$  that we have attributed to Iyerniutef (iii). Since O. Cairo CG 25609 must be older than the ostraca recording the hypothetical 45 days turnus, it is plausible that in these documents mark  $\hat{\cup}$  did no longer refer to Iyerniutef (iii) but to Khonsu. Interestingly, Iyerniutef (iii) probably had a son called Khonsu, Davies' Khonsu (iv).<sup>200</sup> It is therefore reasonable to suggest that the latter had taken over his father's place in the duty rosters somewhere around year 1 of Ramesses V, and that he had inherited his father's mark as well.

Besides Khonsu, O. Cairo CG 25609 mentions several other novices in the duty roster. On day 12 an Amenwa is mentioned, who could be Amenwa (i) son of Hay (vii) or Amenwa (ii) son of an Amenpahapi. The Amenwa in O. Cairo CG 25609 does not occur in the turnus lists of the time of Ramesses III and Ramesses IV, but on O. Cairo CG 25609 his slot is situated between that of Bakenamun and Nebnakht. It is therefore possible that he is listed on O. Glasgow D. 1925.80 through mark  $\perp$  on day 28, after the mark of Bakenamun and before that of Nebnakht. Four other new workmen in the duty roster of O. Cairo CG 25609 are listed after the two Amennakhts and Tasherī: Pashedu, Pahemnetjer, Penmennefer and Penniut. This sequence of new workmen is significant, because in the hypothetical 45 days turnus we find 14 previously unattested marks after the slot of the two Amennakhts (TABLE 36). The sequence Pashedu – Pahemnetjer – Penmennefer – Penniut is attested in other hieratic sources as well. These documents do not contain duty rosters, but list workmen – more or less – according to the sequence of the turnus. For example, we find these four workmen in exactly that order in O. BTdK 621 and O. IFAO 1323. The first document is an account of the distribution of grain, attributed by Dorn to the reign of Ramesses IV,<sup>201</sup> and O. IFAO 1323 is a hieratic list of present and absent workmen, attributed to the same reign by Helck.<sup>202</sup> On each ostrakon, the deputy of the right side Amenkha (i) is mentioned. He seems to have held








<sup>199</sup> Davies, *Who's who*, 115-116.

<sup>200</sup> Davies, *Who's who*, 55, 185.

<sup>201</sup> Dorn, *Arbeiterhütten*, 395.

<sup>202</sup> Helck, *Die datierten und datierbaren Ostraka*, 407-408.

this status at least until year 7 of Ramesses IV,<sup>203</sup> and he must have been succeeded by Heqamaatre-anerhat-Amun (i) sometime before or in year 2 of Ramesses V.<sup>204</sup> Both documents list several workmen in the exact same order of the turnus recorded in O. Cairo CG 25609, as can be seen in the table below. Tasherī is still mentioned in O. Cairo CG 25609 and in O. BTdK 621, which might be an indication that these accounts are older than the ostraca of the hypothetical 45 days turnus. However, when the lists of workmen in O. IFAO 1323, O. BTdK 621 and O. Cairo CG 25609 are juxtaposed, it becomes evident that they partially record the same sequence, a sequence which corresponds to the order of workmen's marks in our hypothetical 45 days turnus. They corroborate the length of the 45 days turnus, and do not provide evidence for a shorter or a longer turnus.

The correspondence with the workmen's marks is confirmed to a fair amount of certainty due to the fact that several newly attested marks are 'readable': workmen's mark ∞ resembles the hieroglyph  šd and must refer to Pashedu; mark  reads hm-ntr for the workman Pahemnetjer; mark , or even  in O. Cairo SR 12218, must be the pyramid (optionally with added nfr-sign), the determinative in the element mn-nfr, 'Memphis', in the name of Penmennefer; and mark  must be interpreted as a cobra, for the workman Penrennut. The mark that might have belonged to Penniut is unfortunately not preserved in any of the 45 days duty rosters.<sup>205</sup> According to O. IFAO 1323, Itefnefer and Hori were represented by marks  and  respectively, but these identity marks are not evidently related to their names.

<sup>203</sup> O. DeM 207, cf. Davies, *Who's who*, 49.

<sup>204</sup> Theban Graffito nr. 1696, Jaroslav Černý and Abdel Aziz Sadek, *Graffiti de la Montagne Thébaine III.1. Fac-similés. Nos. 1578-1980*. CEDAE (Cairo 1970), pl. X; Jaroslav Černý and Abdel Aziz Sadek, *Graffiti de la Montagne Thébaine IV.1. Transcriptions et indices. Nos. 1578-2566*. CEDAE (Cairo 1970), 10, 74; cf. Davies, *Who's who*, 49.

<sup>205</sup> Coincidentally, the hypothetical 45 days turnus suggests that in O. Cairo CG 25609, the turnus continued after Khonsu on days 29 and 30 with workmen Amenhotep and Pentaweret, even though these days are recorded as inactive days.



### 3.2.7.7 O. Cairo CG 25651 and the name list of O. IFAO 1323

More information about the two workmen Itefnefer and Hori is provided by another duty roster composed with marks, O. Cairo CG 25651. This fragmentary and enigmatic duty roster records days 12 to 22 of what we can assume is month I *šmw* of a year 1, thanks to a short hieratic inscription on the same piece. The inscription contains a date line that reads “Year 1, I *šmw*, day 12” and a note about the right side of the crew. It was previously attributed to the reign of Ramesses IV,<sup>206</sup> but such a date would not agree with the duty roster composed with marks on the same ostrakon. It is likely that the hieratic text and the duty roster composed with marks belong to the same month, because a day 12 is mentioned in both inscriptions. Several of the workmen’s marks in the roster are not attested in the turnus of Ramesses IV, but do occur in duty rosters such as O. Glasgow D. 1925.80 and O. Ashmolean HO 1095. Yet, the series of workmen’s marks on O. Cairo CG 25651 is not fully in agreement with the sequence of the hypothetical turnus of 45 days. Instead, they correspond better to the hieratic list preserved in O. IFAO 1323. This becomes clear when the marks and the names in the two ostraca are placed side by side, as in the table below.

	Hypothetical turnus	Cairo CG 25651	IFAO 1323
...	...		
𓆎	Amennakht		
𓆏	Amennakht		
𓆐			
𓆑			Pashedu
𓆒			Pahemnetjer
𓆓			Penmennefer
?			Penniut
𓆔		𓆔	Itefnefer
𓆕		𓆕	Hori
𓆖		𓆖	Penrennut
𓆗			Montusankh
			Nakhtamun
𓆘		𓆘	Nebamun
𓆙		𓆙	Nebnefer son of Mose
𓆚		𓆚	Pakhyamun
𓆛		𓆛	Qes
𓆜			
𓆝			
𓆞			

TABLE 37. O. CAIRO CG 25651 COMPARED TO O. IFAO 1323

As a point of departure we can take mark 𓆔, which according to a comparison of the hypothetical turnus and O. IFAO 1323 represents Itefnefer. Aligning the two lists at his mark offers interesting insights. The next mark in O. Cairo CG 25651 is 𓆕, which we know to have belonged to Hori. Indeed, it is a workman named Hori who is listed in O. IFAO 1323 after Itefnefer. Mark 𓆖 corresponds again to the name of Penrennut. Unfortunately, the next two marks in O. Cairo CG 25651 are not clear. The facsimile seems to present a single mark for days 15 and 16, which would not be very logical. Whatever the reason for this, we might be able to pick up the sequence on day 17. Identifying the mark for this day is not without its

<sup>206</sup> KRI VI, 104-105; Helck, *Die datierten und datierbaren Ostraka*, 363.

own problems, because days 16 and 17 are written so close to each other that it is not clear which marks are connected with which days. It would seem that after day 17 a mark follows that consists of two elements:  $\text{𓂏}$ . Such a reading is controversial because the facsimile of the ostrakon does not clearly display a mark for day 16. At a first glance one may therefore be inclined to take sign  $\text{𓂏}$  as the mark for day 16 and  $\text{𓂏}$  as the mark for day 17. Alternatively, we may propose that what is rendered as sign  $\text{𓂏}$  in Černý's drawing consists in fact of two separate marks for days 15 and 16. Indeed, this mark is not attested elsewhere.<sup>207</sup> We may thus be correct in interpreting the signs following day 17 as a single mark. This workmen's mark seems to be a construct of the mark  $\text{𓂏}$  for Wesekhnetet and something that looks like a plant. According to the list of O. IFAO 1323, this is the workman Nebamun. Because of the element  $\text{𓂏}$  in the mark, it is well possible that this Nebamun is Davies' Nebamun (iv), son of Wesekhnetet (i). The next mark on day 18 also consists of two elements, of which the sign  $\text{𓂏}$  is the most evident: it is the mark we have come to know as that of Mose (iv). The element  $\text{𓂏}$  left of  $\text{𓂏}$  resembles the hieratic sign for  $\text{𓂏}$  (Gardiner G 37).<sup>208</sup> Significantly, O. IFAO 1323 lists a workman Nebnefer for this slot, who is mentioned with the filiation "son of Mose". This workman can only be Davies' Nebnefer (xviii). Both Nebamun and Nebnefer appear to have inherited their father's mark but added an extra element to it, perhaps for better distinction. Alternatively it may have been the scribe of the ostrakon who added these elements to the identity marks in order to denote Nebamun and Nebnefer. In the case of  $\text{𓂏}$ , the added element could be interpreted as an abbreviated form of the word *šri*, which can be used to describe one's (younger) son.<sup>209</sup>

The identity of the workman behind the next mark is not determinable as straightforwardly. It is mark  $\text{𓂏}$  connected with day 19 on O. Cairo CG 25651, which corresponds to Pakhayamun according to O. IFAO 1323. Davies discerned two individuals by this name, although it transpires from his comments that the possibility exists that they are one and the same person.<sup>210</sup> The distinction between Pakhayamun (i) and Pakhayamun (ii) depends on the interpretation of Theban Graffito 3744, which mentions a Pakhayamun as the brother (*sn*) of scribe Paneferemdjedu. This Paneferemdjedu in turn could be Paneferemdjedu (i), son of Amennakht (v), although the graffito can be read in such a way that Paneferemdjedu is another scribe, Paneferemdjedu (ii) son of Menna (i). In the latter case, Pakhayamun would be a son of Menna (i) as well, while in the former case he would be a son of Amennakht (v). The mark  $\text{𓂏}$  that presumably refers to Pakhayamun resembles that of Amennakht (xxv),  $\text{𓂏}$ , but there are no reasons to believe that Amennakht (xxv) and Amennakht (v) are one and the same person.

The mark connected with day 20 is  $\text{𓂏}$ , and the corresponding entry in O. IFAO 1323 is that of the rather obscure workman Qes.<sup>211</sup> Although it cannot be proven, it is perhaps more logical to connect this workmen not with mark  $\text{𓂏}$  on O. Cairo CG 25651 but with the mark that follows it in the hypothetical turnus, mark  $\text{𓂏}$ , which represents  $\text{𓂏}$  (Gardiner sign T 19) with

<sup>207</sup> We will encounter a similar mark on O. ARTP 99/27 used for a workman of the left side in the reign of Ramesses IV, but this mark is of a different shape: whereas the drawing on O. Cairo CG 25651 displays what seems to be a jar with a handle on the upper part of the vessel, the jar-shaped mark on O. ARTP 99/27 might display a handle at the lower part. Whether this is a handle at all is not clear. The author of this ostrakon evidently had difficulties drawing some of his marks (see chapter 4, 4.4) and the stroke of ink interpreted as a handle may in fact be a second attempt to draw a rounded jar body.

<sup>208</sup> Georg Möller, *Hieratische Paläographie. Die ägyptische Buchschrift in ihrer Entwicklung von der fünften Dynastie bis zur römischen Kaiserzeit*. Zweiter Band. *Von der Zeit Thutmosis' III bis zum Ende der Einundzwanzigsten Dynastie. Zweite verbesserte Auflage* (Osnabrück 1927), 17, nr. 197.

<sup>209</sup> E.g. O. Ashmolean HO 1945.39, obverse 20-21; P. Turin Cat. 1945, rto., col. IV, 4, as kindly suggested by Kathrin Gabler, personal communication, 2014. See also O. Ashmolean HO 207.

<sup>210</sup> Davies, *Who's who*, 109, n. 346.

<sup>211</sup> Cf. Dorn, *Arbeiterhütten*, 407.

the phonetic value *qs*. The workman Qes is not discussed in Davies' *Who's who*, but he occurs on a small number of ostraca from the first half of the 20<sup>th</sup> Dynasty.<sup>212</sup> Coincidentally, he is mentioned on O. Brussels E 301 as the son of an Amennakht as well, making it tempting to see Qes as a brother of Pakhayamun.

In summary, the sequence of workmen on O. Cairo CG 25651 is to some extent similar to that of O. IFAO 1323. We may place O. Cairo CG 25651 in year 1 of Ramesses V based on its relation to O. IFAO 1323, which through the mention of the deputy Amenkha cannot be later than year 2 of Ramesses V. Since Harshire is still mentioned among the workmen of the right side in O. IFAO 1323, he might have been listed in the duty roster of O. Cairo CG 25651, but he seems to have been exempted from duty as early as IV *šmw* of year 1, as he is no longer mentioned in his slot following that of Amennakht.

This observation has little influence on the date of O. Cairo CG 25651, but we are unable to determine if the duty roster recorded in the ostrakon is part of a turnus of 45 days, of 30 days, or of an unattested turnus of a completely different length. It has already been established that the sequence of marks on O. Cairo CG 25651 is not exactly the same as that of the hypothetical 45 days turnus. We discover another discrepancy with this turnus when we examine the position of workman Penniut. In to the hypothetical turnus of 45 days the slot of Penniut is followed by that of Itefnefer. The latter is attested in O. Cairo CG 25651 on day 12 of I *šmw*, meaning that, if the duty roster of O. Cairo CG 25651 is also governed by the hypothetical 45 days turnus, Penniut would have served his *wrš* duty on day 11 of that month (see the table below). Subsequently Penniut would have been on duty on day 26 of II *šmw* and on day 11 in IV *šmw*.

However, hieratic ostrakon O. Cairo CG 25609 records not Penniut but Bakenamun on duty on IV *šmw*, day 11, while Penniut is listed on day 26 of this month (see the table below). Hence, no evidence for a turnus of 45 days comes directly to the fore. On the other hand, it has already been pointed out that in the hieratic journal text of O. Cairo CG 25609 several days of the duty roster are passed over, as there was apparently no one on duty (III *šmw*, days 19-21, 29-30; IV *šmw*, days 1-2, 15, 19-20). On a total of nine days no *wrš* tasks were performed, meaning that theoretically Penniut's *wrš* duty should have been not on day 26 but 17 of IV *šmw*. But that is still six days later than what the hypothetical 45 days turnus indicates. We may counter this discrepancy by proposing that in the period preceding the roster of O. Cairo CG 25609 six additional days in the duty roster were skipped, but that would be mere speculation. Alternatively, the duty roster attested on O. Cairo CG 25651 may not have been 45 days long.

	<b>I <i>šmw</i> as recorded by CG 25651 (marks)</b>	<b>II <i>šmw</i></b>	<b>III <i>šmw</i> as recorded by CG 25609 (hieratic)</b>	<b>IV <i>šmw</i> as recorded by CG 25609 (hieratic)</b>
Day 1				-
Day 2				-
Day 3				Pamedunakht
Day 4				Weserhat
Day 5				[Minkhau]
Day 6				[Iry- 'a]
Day 7				{Pa- }Amennakht
Day 8				Khonsu
Day 9				[Amenhotep]

<sup>212</sup> Dorn, *Arbeiterhütten*, 407, n. 869.



3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

Day 10				[Pentaweret]
Day 11	[Penniut ?]			Bakenamun
Day 12	Itefnefer			Amenwa
Day 13	Hori			Nebnakht
Day 14	Penrennut			Wesekhnemtet
Day 15	?			-
Day 16	?			Maaninakhtuf
Day 17	Nebamun			Nakhemmut
Day 18	Nebnefer son of Mose		Hori	Amennakht
Day 19	Pakhyamun		-	-
Day 20	?		-	-
Day 21			-	Amennakht
Day 22			Nefer[hotep]	Ta[sheri]
Day 23			[Penanuqet]	Pa[shedu]
Day 24			[Khaemwaset]	Pahemnetjer
Day 25			[Nakhtmin]	Penmennefer
Day 26			[Reshupeteref]	Pen[niut]
Day 27			[Meryre]	
Day 28			{Pa-}Mose	
Day 29			-	
Day 30			-	

TABLE 38. I-IV *Smw* OF YEAR 1, RAMESSES V RECONSTRUCTED THROUGH O. CAIRO CG 25651 AND CG 25609

Another issue concerns the position of mark  $\mathcal{A}$  for Hori in O. Cairo CG 25651. It is not clear who exactly this Hori is. The most straightforward answer to that question would be to suggest that it is our Hori (ii) = (iii) who was represented by this mark in the duty rosters of the reigns of Ramesses III and Ramesses IV. The mark for the following slot belongs to Itefnefer (I), who is attested as the son of a Hori, but it is not exactly clear which workman of that name.<sup>213</sup> Strangely enough, both in the duty roster of year 6 of Ramesses IV,<sup>214</sup> which assumingly predates O. Cairo CG 25651, and in the reconstructed 45 days turnus,<sup>215</sup> which, as we have argued, must date to a period after O. Cairo CG 25651, the slot of Hori (ii) = (iii) is situated between that of Khaemnun and Neferhotep. Dating O. Cairo CG 25651 to year 1 of Ramesses V would thus imply that Hori's position in the turnus moved down to the lower ranks of the sequence of the turnus in year 1 of Ramesses V, only to move back some years later to his original slot. Alternatively, we may see in mark  $\mathcal{A}$  another workman named Hori, but in this scenario two workmen of the same name would be represented by the very same mark in the duty rosters. Moreover, this suggestion would mean that the new Hori would have entered the turnus no earlier than year 4, and probably after year 6 of Ramesses IV, to stay a mere year or two and to disappear at the time of the hypothetical 45 days turnus. The same would be true for the workmen represented by  $\mathcal{L}$ ,  $\mathcal{M}$  and  $\mathcal{N}$ , who are no longer present in the reconstructed 45 days turnus either.

One may suggest that it is therefore more sensible to date O. Cairo CG 25651 to a time after the 45 days turnus had been abandoned, but that would be in conflict with our argumentation concerning the date recorded on this piece. The only other explanation is that the ostraca of the hypothetical 45 days turnus are in fact later than the duty roster composed

<sup>213</sup> Itefnefer is not mentioned in Davies, *Who's who*, but see Gutgesell, *Die Datierung I*, 281; Dorn, *Arbeiterhütter*, 434-435, O. BTdK 703 and O. BTdK 704.

<sup>214</sup> O. UC 31939.

<sup>215</sup> E.g. O. Glasgow D. 1925.80.

with marks on O. Cairo CG 25651 because Harshire is still present in O. IFAO 1323, which overlaps well with O. Cairo CG 25651 and which mentions the deputy Amenkha (i). In contrast, the ostraca of the hypothetical 45 days turnus no longer include the mark of Harshire. They are also well in agreement with the sequence of marks on O. BM 50716. This piece does not list Harshire in his original position between Amennakht and Iyerniutef either, and it mentions the deputy Anynakht, a succesor of Amenkha. The conclusion must thus be that we need to accept the odd position of the mark of Hori in I *šmw* of year 1 of Ramesses V, and that several new workmen only served in the duty rosters for a rather short period. The turnus recorded by O. Cairo CG 25651 could then well have been shorter than 45 days.

### 3.2.7.8 O. OIM 19125, O. Cairo CG 25651 and related duty rosters

The attribution of O. Cairo CG 25651 to a time before the introduction of the 45 days turnus known from O. Glasgow D. 1925.80 and associated ostraca is supported by O. OIM 19125. On the reverse of this ostrakon we encounter a mark that is very similar to  $\text{𓆎}$  and  $\text{𓆏}$  on O. Cairo CG 25651: the mark  $\text{𓆏}$ , which consists of mark  $\text{𓆏}$  for Wesekhnetet to which the (assumed) hieratic sign for  $\text{𓆏}$  has been added, probably as a variant for  $\text{𓆎}$ , which we have interpreted as designation of Nebamun (iv), son of Wesekhnetet (i). Because this mark, and hence the workman Nebamun, seems to be absent in the duty roster of O. Glasgow D. 1925.80 and associated pieces, O. OIM 19125 should date close to O. Cairo CG 25651. Interestingly, the mark of Harshire is listed on the obverse of O. OIM 19125 on day 11. According to hieratic ostrakon O. Cairo CG 25609, Harshire was no longer listed in the duty roster of IV *šmw* in year 1 of the reign of Ramesses V. It follows that O. OIM 19125 must date to a time prior to this month and, by association, O. Cairo CG 25651 as well. Still, the sequence of the marks in the duty roster of O. OIM 25651 is rather different from that of O. Cairo CG 25651. The turnus of the end of the reign of Ramesses IV and the very first months of the reign of Ramesses V thus must have seen quite some shifts. We can argue however that already in O. OIM 19125 the hypothetical turnus of 45 days is recognisable. Above the entry of day 11, the mark  $\text{𓆏}$  of Iyerniutef or rather his son Khonsu is visible, and we may assume it was connected with day 10. This mark immediately precedes that of Amenhotep,  $\text{𓆏}$ , in the hypothetical 45 days turnus, while it is connected with day 12 in O. OIM 19125. It thus seems that the sequence Iyerniutef – Amenhotep in the hypothetical turnus of 45 days is the result of the disappearance of Harshire, originally situated in between the two. In the 45 days turnus, the difference between mark  $\text{𓆏}$  and  $\text{𓆏}$  is 21 days. The latter mark is recorded on the reverse of O. OIM 19125 on day 11. If we now speculate that the month in which  $\text{𓆏}$  is recorded on day 10 was followed by five epagomenal days, then the reverse, with  $\text{𓆏}$  on day 11 would be exactly one cycle of 45 days later. As a consequence, the obverse of O. OIM 19125 should date to IV *šmw* of a year preceding the first regnal year of Ramesses V. Years 7 and perhaps 6 of the reign of Ramesses IV are most plausible.

Apart from O. OIM 19125 and O. Cairo CG 25651, ostrakon ONL 323 contains a fragmentary duty roster that most likely predates O. Glasgow D. 1925.80 and associated ostraca. Only four marks are preserved on this ostrakon, which represent new workmen who were added to the bottom of the turnus lists either at the end of the reign of Ramesses IV or the beginning of the reign of Ramesses V. For what must be day 27 we encounter mark  $\text{𓆏}$ , which we have assigned to Itefnefer, and for day 28 the mark  $\text{𓆏}$ . The same sequence is recorded in O. Ashmolean HO 1095, but in that document the marks are connected with days 10 and 11. The duty roster of ONL 323 thus is not evidently related to the hypothetical 45 days turnus that seems to be attested in O. Ashmolean HO 1095. ONL 323 continues with days 29 and 30, with which the marks  $\text{𓆎}$  and  $\text{𓆏}$  are connected. We recognise these marks from O. Cairo CG 25651, where mark  $\text{𓆏}$  is situated between these two identity marks. We may thus propose that ONL 323 is to be dated in a period after O. Cairo CG 25651, which still

includes  $\text{𓂏}$ , but before the hypothetical 45 days turnus, where  $\text{𓂏}$  but also  $\text{𓂏}$  and  $\text{𓂏}$  are no longer listed.

O. OIM 19125 and O. Cairo CG 25651 can thus be pinpointed to the very end of the reign of Ramesses IV and the beginning of the reign of Ramesses V respectively. Unfortunately there are six other ostraca that record duty rosters from some time after year 4 of Ramesses IV which are much more difficult to date (TABLE 39). The first one is O. Ashmolean HO 1081. It conforms rather well to the hypothetical 45 days turnus until day 15. On days 13 and 14 the identity marks  $\text{𓂏}$  of Amennakht (xxvi) and  $\text{𓂏}$  of Amennakht (ix) are listed. The difference between the duty roster of O. Ashmolean HO 1081 and that of O. Glasgow D. 1925.80 is thus 10 days. Therefore at least one cycle of epagomenal days must have taken place in the period of time between both ostraca, provided that both duty rosters adhere to the hypothetical 45 days turnus. After day 14 we expect mark  $\text{𓂏}$  on day 15 on O. Ashmolean HO 1081, but instead the space after day 15 was left empty. It seems that day 15 was passed over, because the mark  $\text{𓂏}$  does appear on day 16, and traces indicate that mark  $\text{𓂏}$  could have been added to day 17. To make matters worse, the reverse of O. Ashmolean HO 1081 records marks  $\text{𓂏}$  and  $\text{𓂏}$  on days 29 and 30, although we would expect them on days 22 and 23 according to the hypothetical 45 days turnus. It would thus seem that after day 17 more days were passed over. As in hieratic ostrakon Cairo CG 25609, *wrš* duties were apparently no longer performed on every day of the month at the time of O. Ashmolean HO 1081.

A duty roster similar to that of O. Ashmolean HO 1081 is O. Ashmolean HO 1091. The latter ostrakon records marks  $\text{𓂏}$ ,  $\text{𓂏}$ ,  $\text{𓂏}$  and  $\text{𓂏}$  on days 25-28. The difference between this duty roster and that of O. Glasgow D. 1925.80 is thus 25 days, or at least one cycle of epagomenal days plus one month. However, the preceding days 1-7 are not in accord with the hypothetical 45 days turnus. The mark of Neferher  $\text{𓂏}$  for example is listed on day 7 in O. Glasgow D. 1925.80. In the 45 days turnus his mark can therefore only appear on days 2, 7, 12, 17, 22 or 27. Yet, in O. Ashmolean HO 1091 his mark is recorded on a day 1. On this ostrakon the difference between the position of Neferher and that of Wesekhmetet is 24 days, while it should be 23 days according to the 45 days turnus. Another change could thus have taken place in the turnus, but O. Ashmolean HO 1091 is too fragmentary to indicate what had happened exactly. We encounter comparable difficulties in the duty roster of O. Ashmolean HO 1083. On the reverse we find mark  $\text{𓂏}$  of Nesamun for day 10, and for days 15 and 16 the marks  $\text{𓂏}$  and  $\text{𓂏}$  of Khaemwaset and Nakhtmin are given. All three workmen are thus scheduled one day later than in the duty roster of O. Glasgow D. 1925.80 but occur in the same relative position, which means that either on one particular day of the month no *wrš* duty had been scheduled, or that O. Ashmolean HO 1083 does not record a 45 days turnus at all. The latter option can be countered by looking at day 14 on the obverse, which is connected with the mark  $\text{𓂏}$ , presumably of Amenwa. According to the hypothetical 45 days turnus Nakhtmin and Amenwa are 13 days removed from each other. This means that if the duty roster of O. Ashmolean HO 1083 is governed by the same turnus of 45 days, the day 14 that mentions Amenwa is either one cycle of 45 days earlier than that of the day 16 with Nakhtmin, or two cycles of 45 days later. The position of Amenwa thus fits perfectly into the hypothetical 45 days turnus, but those of Pahemnetjer on day 15 and of Penanuqet on day 27 do not match at all. In the duty roster of O. Ashmolean HO 1083 Pahemnetjer immediately follows Amenwa, while they are nine days apart in the hypothetical 45 days turnus. Some alternations must have occurred in the duty roster, but we cannot be sure what changed exactly.

The downward movement of mark  $\text{𓂏}$  in the sequence of the turnus may already be visible in the duty roster of O. Ashmolean HO 891. The obverse of this ostrakon displays two columns of workmen in which the sequence of the hypothetical 45 days turnus can be recognised. It is therefore very plausible that the duty roster on the reverse dates somewhere

after year 4 of Ramesses IV. That is also suggested by the presence of mark  $\text{␣}$ , belonging to the workman who appears to have replaced Tasherri some time in or after year 1 of Ramesses V. Yet, the duty roster of O. Ashmolean HO 891 contains a sequence of workmen that is different from the 45 days turnus. The only legible entries concern days 14, 16, 18, 20, 22 and 24. Day 14 is occupied by the mark of Weserhat, who is listed in O. Glasgow D. 1925.80 on day 20. The difference between the position of Weserhat in these two documents is thus six days, meaning that O. Ashmolean HO 891 follows a turnus that does not coincide with the 45 days turnus of O. Glasgow D. 1925.80 and associated pieces, unless of course four days were somehow passed over. The relative sequence of the marks mentioned on days 12-20 of O. Ashmolean HO 891 are however in accordance with that of the 45 days turnus, but on day 22 it records mark  $\text{␣}$ . We would expect the mark  $\text{␣}$  of Amenwa in this position, but apparently mark  $\text{␣}$ , presumably of Penanuqet, had shifted downwards from its original slot. The mark on day 24 appears to be  $\text{␣}$ , the mark of Nebnakht, who, according to the 45 days turnus, was on duty one day earlier.

The reverse of O. BM 50731 is likewise difficult to interpret, and may in fact be a great deal later than the ostraca of the 45 days turnus. It should date no earlier than year 7 of Ramesses IV, based in the ordered list of the entire right side of the crew written on the obverse of the piece.<sup>216</sup> In the third slot of this list, which is the position of the deputy we observe  $\text{␣}$ , the mark of Anynakht. The duty roster on the reverse is very fragmentary. It appears to record marks  $\text{␣}$  and  $\text{␣}$  on day 22 and perhaps 23. This sequence conforms to the 45 days turnus, but the following mark  $\text{␣}$  does not. Moreover, marks  $\text{␣}$  and  $\text{␣}$  should have been listed on days 15 and 16 in O. Glasgow D. 1925.80, so their presence on days 22 and 23 in O. BM 50731 does not agree with the order of the 45 days turnus. The divergence from the 45 days turnus is probably explained by the fact that the document dates to a different period. As will be demonstrated below, the list of workmen on the obverse is attributed to a period after year four of Ramesses VI.<sup>217</sup> It may thus be one of the latest duty rosters of the right side composed with marks.

Similarly, the fragmentary duty roster of ONL 6320 does not correspond perfectly to the hypothetical 45 days turnus. The obverse lists marks  $\text{␣}$ ,  $\text{␣}$  and  $\text{␣}$  in a sequence that corresponds with the 45 days turnus, but the marks are connected with days 17, 18 and 19, which are not (multiples of) five days removed from the day numbers recorded for these marks in O. Glasgow D. 1925.80 and associated ostraca. The reverse of ONL 6320 records  $\text{␣}$  on day 29 and probably mark  $\text{␣}$  on day 30. According to the 45 days turnus,  $\text{␣}$  and  $\text{␣}$  immediately follow after marks  $\text{␣}$ ,  $\text{␣}$  and  $\text{␣}$ , which would mean that in ONL 6320 we would expect  $\text{␣}$  on day 20, and one cycle of 45 days later on day 5. We may propose that a cycle of five epagomenal days need to be appended to the month in which  $\text{␣}$ ,  $\text{␣}$  and  $\text{␣}$  are recorded, in which case mark  $\text{␣}$  should have appeared on day 30. Yet, it is entered for day 29, one day earlier, and we cannot explain why this is so or to what period ONL 6320 dates exactly.

<sup>216</sup> For the list on the obverse see chapter 4, 4.2.1.

<sup>217</sup> Ibidem.



*Overview of duty rosters composed with marks dated to the very end of the reign of Ramesses IV, the reign of Ramesses V or later*

O. OIM 19125	IV <i>šmw</i> , year 7 or 6, Ramesses IV
O. Cairo CG 25651	I <i>šmw</i> , year 1, Ramesses V
ONL 323	c. year 1 – 2 Ramesses V
O. Glasgow D. 1925.80	c. year 2, Ramesses V or later
O. Cairo JE 96328	c. year 2, Ramesses V or later
ONL 6219	c. year 2, Ramesses V or later
O. Ashmolean HO 1095	c. year 2, Ramesses V or later
O. Ashmolean HO 1090	c. year 2, Ramesses V or later
O. Ashmolean HO 1078	c. year 2, Ramesses V or later
O. Ashmolean HO 1081	probably after year 2, Ramesses V
O. Ashmolean HO 1091	probably after year 2, Ramesses V
O. Ashmolean HO 1083	probably after year 2, Ramesses V
O. Ashmolean HO 891	probably after year 2, Ramesses V
O. BM EA 50731	probably after year 2, Ramesses V
ONL 6320	probably after year 2, Ramesses V

*Overview of duty roster composed with marks which cannot be accurately dated*

O. Ashmolean HO 941	R. III, year 28, II-III <i>šmw</i> ; year 29, II-III <i>šmw</i> ; I-II <i>ḏh.t</i> ; year 31, III-IV <i>šmw</i> ; II-III <i>ḏh.t</i> ; or Ramesses V
O. IFAO 876	unclear, very fragmentary
ONL 303	unclear, very fragmentary
ONL 304	unclear, very fragmentary
ONL 306+	R. III, year 24, II <i>šmw</i> ; I <i>ḏh.t</i> ; year 26, III <i>šmw</i> ; II <i>ḏh.t</i> ; year 29, IV <i>šmw</i> ; III <i>ḏh.t</i>
ONL 308	unclear, very fragmentary
ONL 613	unclear, very fragmentary
ONL 1066	no workmen's marks preserved
ONL 1639	unclear, very fragmentary <sup>218</sup>
ONL 6267	unclear, very fragmentary
ONL 6284	R. III, year 25, IV <i>šmw</i> ; III <i>ḏh.t</i> ; or perhaps R. IV or later?
ONL 6523	unclear, very fragmentary
ONL 6729	no day number, nor workmen's marks
ONL 6730	unclear, very fragmentary
O. Strasbourg H 13 <sup>219</sup>	R. III, year 26, I <i>šmw</i> ; year 28, II <i>šmw</i> ; year 29, II <i>šmw</i> ; I <i>ḏh.t</i>
O. Turin N. 57302	R. III, year 26, I <i>šmw</i> ; year 29, II <i>šmw</i> ; I <i>ḏh.t</i> ; year 31, II <i>ḏh.t</i> ; R. IV, year 6

*Overview of identified workmen's marks*

☐	Amenemope (x)
4	Amenhotep (vi)
𓆎	Amennakht (ix) "Kar"
𓆏	Amennakht (xxv)

<sup>218</sup> Possible related to ONL 325.

<sup>219</sup> Perhaps originally part of ONL 322+.

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

𓂏	Amennakht (xxvi) “Sedet”
𓂏	Anynakht (i)
𓂏	Bakenamun (i)
𓂏	Harshire (i)
𓂏	Hori (ii) = (iii)
𓂏	Huynefer (xi) = (v) <sup>220</sup>
𓂏	Iniherkhau (ii) ?
𓂏	Irsu <sup>221</sup>
𓂏	Iry-‘a (i)
𓂏	Itefnefer (I) son of Hori (ii) = (iii) <sup>222</sup>
𓂏	Iyerniutef (iii)
𓂏	Kasa (v)/(vi)
𓂏	Khaemnun (i)
𓂏	Khaemope (iv) ?
𓂏	Khaemwaset (iii)
𓂏	Khonsu (iv)
𓂏	Maaninakhtuf (iii)
𓂏	Menna (i)
𓂏	Meryre (v)
𓂏	Meryre (vi)
𓂏	Minkhau (i)
𓂏	Mose (iv)
𓂏	Nakhemmut (ii)
AA, A	Nakhemmut (vi)
𓂏	Nakhemmut (vi) as foreman of the right side
𓂏	Nakhtmin (vi)
𓂏 and 𓂏	Nebamun (iv)
𓂏	Nebnakht (viii)
𓂏	Nebnefer (xviii)
𓂏	Neferher (vi)
𓂏	Neferhotep (ii) ?
𓂏	Neferhotep (xi)
𓂏	Neferhotep (xii)
𓂏	Nesamun (III)
𓂏	Pahemnetjer (ii)
𓂏	Pakhiamun (i) ?
AA, A	Pamedu(netjer)nakht (i) “Pasen”
𓂏	Pashedu <sup>223</sup>
𓂏	Penamun (iv) = (iii)
𓂏	Penanuqet (iii)
𓂏 and A	Penmennefer (II) <sup>224</sup>
𓂏	Penrennut (i)
𓂏	Pentaweret (iv)
𓂏, 𓂏, 𓂏	Pentaweret (vii) ?

<sup>220</sup> Perhaps identical to Huynefer (v), see chapter 5, Excursus IV.

<sup>221</sup> Not in Davies, *Who's who*; see Collier, ‘Integrating Hieratic and Marks Data’, [3; 4].

<sup>222</sup> Not mentioned in Davies, *Who's who*, but see Dorn, *Arbeiterhütten*, 435.

<sup>223</sup> A very common name. Dorn, *Arbeiterhütten*, 396 lists three plausible identifications, of which Pashedu (xvi) might be the most probable one, cf. O. BTdK 622.

<sup>224</sup> Not mentioned in Davies, *Who's who*, but see Dorn, *Arbeiterhütten*, 196.

𓆎	Qenna (i)
𓆏	Qes (I) <sup>225</sup>
𓆐	Reshupeteref (i)
𓆑	Scribe of the Tomb (Amennakht (v) ?)
𓆒	Tasheri = Ta (i)
𓆓	Wesekhnetet (i)
𓆔	Weserhat (ii)

### 3.2.8 Ostraca with marks attributable to the reign of Ramesses V

The analysis of the duty rosters from the time of Ramesses V provide sufficient information to interpret other ostraca with marks as documents that record the right side of the crew during this period. They are discussed in Appendix I, § 9.

### 3.3 DUTY AND DELIVERY RECORDS COMPOSED WITH MARKS AND THEIR RELATION TO HIERATIC DUTY AND DELIVERY TEXTS

In this section we will spend ample time on an examination of the duty and delivery texts composed with marks. Their sheer number indicates that such ostraca constitute an important type of documents that was relatively frequently created during the reigns of Ramesses III – Ramesses V. More importantly, the existence of hieratic documents that record very similar data provides a unique opportunity for extensive research on the purpose of such ostraca with marks and of the role played by the author of these documents.

#### 3.3.1 Introduction

Our corpus of documents composed with workmen's marks recording deliveries and the *wrš* duty roster contains 80 ostraca, ranging from large pieces to very small fragments. Generally, duty rosters composed with marks are lists of entries for each day of the month. As mentioned above, a regnal year or a month designation is mostly added near the first entry of a specific month. This day is not always preserved in the ostraca of our current corpus, so it is well possible that more ostraca were originally headed by a year number. There are 42 instances where the first entry of the month is preserved.<sup>226</sup> In two instances it is unclear whether a year number or a month designation was inscribed because of damage to the ostrakon. In nine instances<sup>227</sup> (21.4%) both a year number and a month designation are preserved. In three more instances (7.1%) a year number was recorded on the ostrakon and a month sign might have been added, but is no longer preserved because of damage or weathering of the ostrakon. In two cases (4.7%) only a year number is added to the document. There are 16 instances<sup>228</sup> (38.1%) in which only a month designation is recorded. In 10 cases<sup>229</sup> (23.8%) the year or month is not specified.

The duty rosters composed with marks record for each day the deliveries transferred by the *smd.t* personnel to the community of workmen. These provisions are recorded using signs that are sometimes borrowed from or inspired by hieroglyphic or hieratic script. The quantities of these commodities are always given in hieratic numerals. Additionally, the duty rosters feature signs that indicate a particular side of the crew, † and ♁, as well as marks that refer to *smd.t* agents. The marks for *smd.t* members are almost exclusively attested for deliveries of quantities of wood and fish. Within the available corpus of duty rosters

<sup>225</sup> Not mentioned in Daives, *Who's who*, but see Dorn, *Arbeiterhütten*, 407, n. 869.

<sup>226</sup> This includes ostraca recording deliveries of a single day only, as well as ostraca recording deliveries on days other than day 1, such as ONL 316, which begins with day 23.

<sup>227</sup> Three instances are not entirely certain.

<sup>228</sup> Two instances are not entirely certain.

<sup>229</sup> Four instances are not entirely certain.



composed with marks, 208 wood deliveries are well enough preserved to determine whether a *smd.t* member is recorded or not. Of this total, 161 deliveries (77.4%) mention the *smd.t* member responsible for the delivery, and perhaps seven more deliveries; no individual is connected with the remaining 40 deliveries. Woodcutters are thus recorded in more than three quarters of all wood deliveries. In contrast, fishermen are rather infrequently connected with quantities of fish in the duty rosters composed with marks. Of a total of 56 fish deliveries that are well enough preserved to ascertain whether a fisherman is recorded or not, such an individual is mentioned in only 17 instances (30.4%) and perhaps in one more entry; for 37, perhaps 38 deliveries of fish no mention is made of a *smd.t* member. It is not clear why, relatively speaking, woodcutters are more frequently recorded than fishermen, but an explanation might be that woodcutters were closer related to the community of Deir el-Medina than fishermen.<sup>230</sup>

The ostraca inscribed with marks under discussion here are all duty and delivery texts: they record the delivery of goods as well as the workmen who were on *wrš* duty. With a few exceptions, which are at this point still poorly understood, the ostraca do not record any other information. In contrast to the hieratic documentation, there are no ostraca with marks from the first half of the 20<sup>th</sup> Dynasty that record the deliveries and/or deficits of a single *smd.t* member or a single commodity in the format of a journal text.<sup>231</sup>

The hieratic sign  $\perp$ ,  $d\bar{z}$  for *wḏz.t*, is used in delivery texts with marks to note down deficits. Deficits are recorded in 14 different ostraca with marks,<sup>232</sup> dating from year 20 of Ramesses III to year 1 of Ramesses V. Documentation of deficits of wood deliveries is well known from hieratic records, and once again we notice how closely related the delivery texts written with marks are to those written in hieratic.

The inclusion of the duty roster is a characteristic of ostraca from the first half of the 20<sup>th</sup> Dynasty with marks that record deliveries, and this indicates that these documents must have been made first and foremost for members of the workmen's community and those of the right side of the crew in particular. No other institution would have been as concerned with the duty roster as the workmen themselves. First of all it seems improbable that the members of the *smd.t* personnel, supposing for a moment that they would have kept records of their deliveries in the first place, would have been bothered with keeping track of the identity of the workmen to which they had handed over their deliveries. We can also rule out that the ostraca with workmen's marks would have been understood by the scribes of the vizier. Even if they could have been able to decipher ostraca with marks, it is unlikely these scribes were concerned with such documents. That is suggested by hieratic P. Turin Cat. 1946 + 1949 vso. I, a document of deliveries, labour, and lamps from the beginning of the reign of Ramesses IV. It has been argued – with reason – that the data contained in the papyrus were compiled from different hieratic ostraca, one of which (O. DeM 39+) records the duty roster for III *šmw*. The papyrus, or a copy or extract of it, in turn was destined to be sent to higher officials at Thebes.<sup>233</sup> Interestingly, the duty roster that must have been available to the scribe of P. Turin Cat. 1946 + 1949 vso. I was omitted from the papyrus, probably because “nobody in the central administration would have been interested in this particular information”.<sup>234</sup> The

<sup>230</sup> Another possible explanation is that the scribe was more concerned with deficits of wood deliveries. See below, p. 231.

<sup>231</sup> Examples of such records from the domain of the hieratic administration are O. Strasbourg H 26 (exclusively pottery), O. DeM 152 (exclusively firewood) and O. Leipzig Inv. No. 1903 (exclusively fish).

<sup>232</sup> O. Fitzwilliam EGA 6120.1943; ONL 332 obverse; ONL 317+; O. Ashmolean HO 1086; ONL 322+; ONL 337; ONL 340; ONL 318+; O. Cairo SR 12165; O. Ashmolean HO 1093; O. Glasgow D. 1925.80; ONL 6267; ONL 6523; O. Strasbourg H 13.

<sup>233</sup> Summarised and elucidated by Donker van Heel, ‘Drafts’, 35-37.

<sup>234</sup> Donker van Heel, ‘Drafts’, 36.

duty rosters with marks are therefore evidently part of the administration of the Deir el-Medina community, and were the creations of some of its inhabitants.

As noted, documents with a year and/or a month designation are more frequent than those without. Such dates are quite remarkable considering the seemingly informal character of ostraca composed with marks. Yet, the addition of a date appears to have been recorded on a regular basis and must have had some importance. We may interpret such dates as indications that the ostraca were kept and perhaps reviewed over a longer period of time, rather than being discarded after having been composed. The addition of regnal year numbers would suggest that such ostraca were kept for several months.

We may expect ostraca with marks that record deliveries to have been written for and most probably also by a member of the community of necropolis workmen. Not only would it be mostly in the interest of the Deir el-Medina inhabitants to record deficits of deliveries, one would also expect the individual responsible for recording deficits to have access to earlier administration of deliveries. In most cases no commodity is given for the deficit, but when it is, it most frequently concerns wood. As mentioned above, signs for woodcutters occur much more frequently than signs for fishermen. One of the reasons to keep track of the deliveries of different woodcutters could have been the possibility to calculate their deficits at a later point.

### 3.3.2 Attestations

We have established that the earliest duty rosters composed with marks date to a period before year 24 of the reign of Ramesses III, and might be as early as year 20.<sup>235</sup> The last securely dated duty roster with marks dates to year 1 of Ramesses V, although there are several duty rosters that must date to a later point in his reign. The documents record deliveries for parts of a month, an entire month, or multiple successive months. Notably, we do not possess two different ostraca with marks that record deliveries for one and the same day. We do know of two pairs of ostraca that deal with the same month. Ostraca Ashmolean HO 1084 and ONL 6222 both document deliveries for IV *šmw* of year 30 in the reign of Ramesses III. The former ostrakon however records entries for days 3 – 22 of this month, and perhaps a few more days now lost. The latter ostrakon, ONL 6222, exclusively records deliveries of the last weekend<sup>236</sup> of the same month, and therefore seems to merely complement O. Ashmolean HO 1084. We observe the same phenomenon examining the pair O. Ashmolean HO 1088 and O. UC 31967 (TABLE 40). The latter ostrakon appears to record day entries for two, perhaps three different months. These entries are written in different sections, separated from each other by dividing lines and by different orientations of writing. In order to distinguish the months, a month designation has been added to two of the sections. As such, the entries on the obverse for days 2 – 5, days 10 – 12 and 23 – 28 are those of III *pr.t* of year 3 of Ramesses IV. Days 25 and 26 are repeated on the obverse, but belong to a perpendicularly written section, and no deliveries are recorded for these days. It is therefore uncertain whether they belong to III *pr.t* as well but were left blank because they were added at another point in time, or whether they are entries for another month. The other ostrakon, O. Ashmolean HO 1088, is also dated to year 3, III *pr.t* by a month designation. It records a few of the same days, but as illustrated in the overview below, no information is duplicated. For example, days 2 – 5 are recorded in both ostraca, but the deliveries for these days are only mentioned on O. Ashmolean HO 1088 and not on O. UC 31967. The two ostraca thus seem to complement each other. That is true for

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<sup>235</sup> It is possible that O. Florence 2631, tentatively attributed to year 18 of Ramesses III, is inscribed with some sort of duty roster, see Appendix I, § 4. If this interpretation is correct, it would be the earliest 20<sup>th</sup> Dynasty duty roster composed with marks.

<sup>236</sup> The Egyptian week consisted of 10 days. In general no work on the royal tomb undertaken during the ‘weekend’, the last two days of the week, see e.g. Jac. J. Janssen, *Village Varia. Ten Studies on the History and Administration of Deir el-Medina*. EU 11 (Leiden 1997), 88 and n. 11.

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some of the day numbers as well. O. Ashmolean HO 1088 lists days 1 to 9, and then continues with day 13. We find the missing days 10 – 12 on O. UC 31967.

O. UC 31967		O. Ashmolean HO 1088	
-	-	Day 1	[...] 48 [...]
Day 2	-	Day 2	fish 300 Bakenkhonsu (?); wood 750 Ptahmose and Bakenkhonsu
Day 3	-	Day 3	<i>psn</i> bread 16
Day [4]	-	Day 4	dates 2; <i>bi.t</i> bread 8; 200 Pades and Bakenkhonsu
Day 5	-	Day 5	fish 170 (?); 200 Bakenkhonsu
-	-	Day 6	-
-	-	Day 7	wood 100 Bakenkhonsu
-	-	Day 8	<i>ds</i> jars 2; Ptahmose [...]
-	-	Day 9	-
Day 10	-	-	-
Day 11	wood 300 Pades (?)	-	-
Day 12	[wood] 300; Ptahmose	-	-
-	-	[Day 13]	-
-	-	Day 14	<i>psn</i> bread [...] 2; <i>bi.t</i> bread 16; vegetables 5
-	-	Day 15	<i>ds</i> jars 2; dates [1] left side
-	-	Day 16	-
-	-	Day 17	-
-	-	Day 18	-
-	-	Day 19	8,000
-	-	Day 20	vegetables 6; dates (?) [1]; wood 300
-	-	Day 21	<i>ds</i> jars 4; vegetables [...]
-	-	Day 22	-
Day 23	fish 360; <i>psn</i> bread 12; <i>bi.t</i> bread 12	Day 23	-
-	-	-	-
Day 25	Pades (?) wood 100 [+ x?]	-	-
Day 26	-	-	-
Day 27	Bakenkhonsu wood 346	-	-
Day 28	-	-	-
-	-	Day 29	<i>psn</i> bread 20; 166
-	-	Day 30	-

TABLE 40. ENTRIES FOR O. UC 31967 AND O. ASHMOLEAN HO 1088

The fact that no information is duplicated on different ostraca composed with marks suggests that a single duty roster was composed for the records of a certain period – often one month – although apparently not necessarily on a single ostrakon.

However, the length of the period recorded per ostrakon may vary. It is often no longer possible to assess how long the recorded period was, as several ostraca are not preserved in their entirety. Regardless, examining every single recorded entry on securely dated ostraca, we observe that in the period of Ramesses III, year 20 – Ramesses V, year 1, 60 different months are attested – although most of them not in their entirety (TABLE 41). By counting the number of hieratic journal texts known from the reign of Ramesses III years 24 through 31 and dividing that total by the number of months in that period Janssen calculated the percentage of ostraca that had survived during this timeframe: c. 40%.<sup>237</sup> Supposing that duty

<sup>237</sup> These hieratic journal texts appear to be – with one exception – concerned with the right side of the crew only. See Janssen, ‘Literacy and letters’, 85. This percentage is in reality somewhat higher as new journal texts have come to light since Janssen’s study.

rosters composed with marks were regularly produced from year 25 of Ramesses III to year 5 of Ramesses IV, we arrive at a similar percentage: c. 35%.

Year	<i>šmw</i> I	<i>šmw</i> II	<i>šmw</i> III	<i>šmw</i> IV	<i>šh.t</i> I	<i>šh.t</i> II	<i>šh.t</i> III	<i>šh.t</i> IV	<i>pr.t</i> I	<i>pr.t</i> II	<i>pr.t</i> III	<i>pr.t</i> IV	Total
Pre 24	•												1
20	•												1
24													0
25						•				•		•	3
26	•	•	•	•				•				•	5
27			•?					•?					2?
28		•		•	•							•	4
29							•?	•	•				3?
30		•	•	••	•		•	•	•		•	•	9
31						•		•	•	•	•	•	6
32	•	•	•										3
1						•							1
2										•	•	••	
2 add.	•••••												8
3											••	•	
3 add.	•												4
4	••••••												6
5	•												1
6	•												1
7				•?									1?
1	•												1

TABLE 41. MONTHS RECORDED BY DUTY AND DELIVERY TEXTS COMPOSED WITH MARKS

### 3.3.3 Material and provenance

A total of 29 ostraca recording duty rosters with marks are securely dated to the reign of Ramesses III. For eight of these ostraca a provenance is unknown as they come from museum collections and do not join excavated ostraca (Ashmolean: four ostraca; Fitzwilliam: one ostrakon; Glasgow: one ostrakon; Strasbourg: two ostraca). The pieces from the Strasbourg collection may have been found at the village, as several other Strasbourg ostraca join ostraca discovered by Bruyère's excavations at the Kom Sud. The other 21 ostraca must have come from the village. That is suggested in seven cases by the fact that they were discovered by the French excavations at Deir el-Medina, while for the remaining 14 ostraca an exact findspot is recorded. Two were discovered in the Grand Puits and 11 came from the Kom Sud. The recorded provenances of the shards that constitute ONL 305 + ONL 333 + ONL 6208 (South Wadi and probably a trench south of the village) indicate that this ostrakon must have come from the Kom Sud as well. The majority of these ostraca, 20 pieces, are written on large pieces of pottery. They originate predominantly from the village (18 ostraca; two of unknown provenance). In addition, nine ostraca are inscribed on chips of limestone. Three of these were discovered at the village, while six are of unknown provenance.

From the reign of Ramesses IV we know of 21 duty rosters composed with workmen's marks. One was found in the Valley of the Kings and eight were discovered in the village. Four of these came from the Kom Sud, but an exact findspot is not available for the other four ostraca. The findspot of the remaining 12 ostraca is not known either. The ostraca are now kept in different museums (Ashmolean: seven ostraca; Leiden: one ostrakon; Louvre: one ostrakon; Oriental Institute Museum: one ostrakon; University College Museum: two ostraca). Regarding the material of the ostraca only two were written on pieces of pottery, whereas the other 19 were written on limestone. Six of the limestone ostraca and two of the ceramic ostraca were discovered at Deir el-Medina, and one ceramic ostrakon was found in the Valley of the Kings.

### 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

We can date 14 duty rosters written with marks to the reign of Ramesses V or a later king. Only three ostraca were found at Deir el-Medina, all from another findspot than the Kom Sud: two were discovered in the Grand Puits, and one in the *kom* south of the temple. For two ostraca a provenance in the Valley of the Kings is secured. One of these, O. Cairo JE 96328, was found in the area of the workmen's huts near KV 18. The provenance of the remaining nine ostraca, all kept in museum collections (one in the British Museum, one in Glasgow, seven in the Ashmolean Museum), is unknown. Only a single ostrakon (from the workmen's huts in the Valley of the Kings) is inscribed on pottery, while the other ostraca are all written on limestone pieces.

The image that emerges is that of a development in which pottery, the favourite medium for composing duty rosters with marks in the reign of Ramesses III, is replaced by limestone during the reigns of Ramesses IV and Ramesses V (CHART 1). Simultaneously, Deir el-Medina ceases to be the most common findspot for duty rosters with marks from the time of Ramesses IV onwards, and the number of ostraca of an unknown provenance increases. Likewise, the only three secured instances of the Valley of the Kings as the findspot for ostraca date to a time after the reign of Ramesses III (CHART 2). Although we cannot be certain whether both trends are related, it would not be surprising that when the location of discarding and therefore probably also the location of production of duty rosters shifted from the village to the Valley of the Kings, limestone became the preferred medium for such documents. Indeed, two out of a total of three ostraca for which a provenance in the Valley of the Kings is recorded are written on limestone chips.

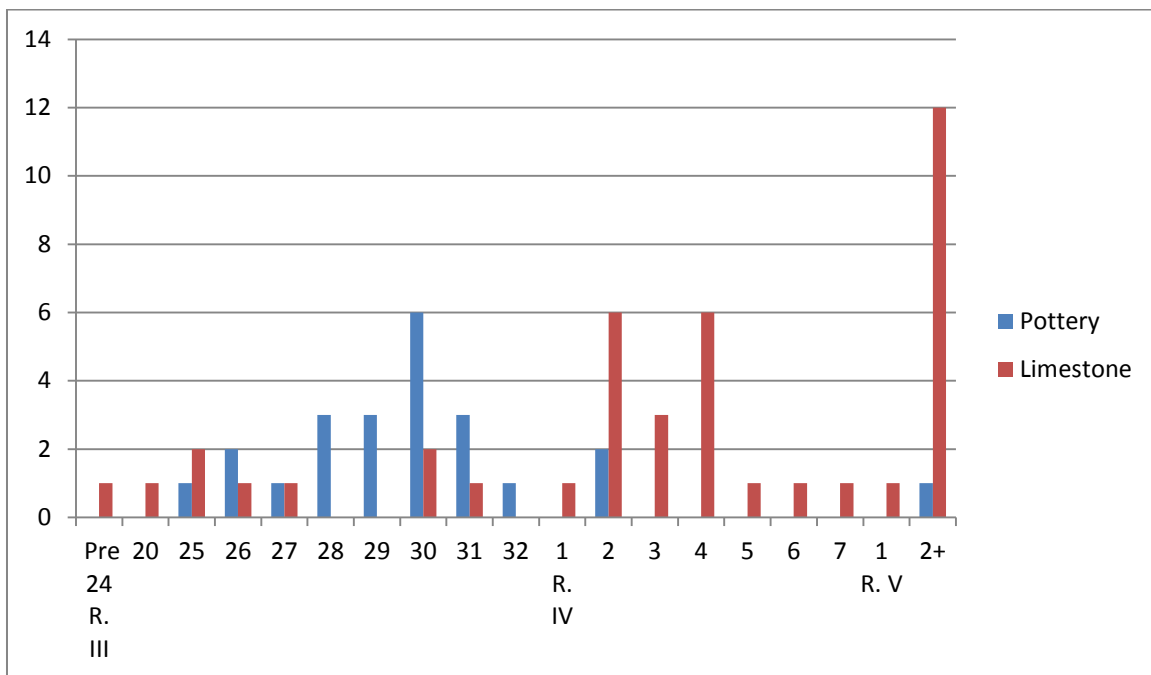


CHART 1. CHRONOLOGICAL DISTRIBUTION OF MATERIAL

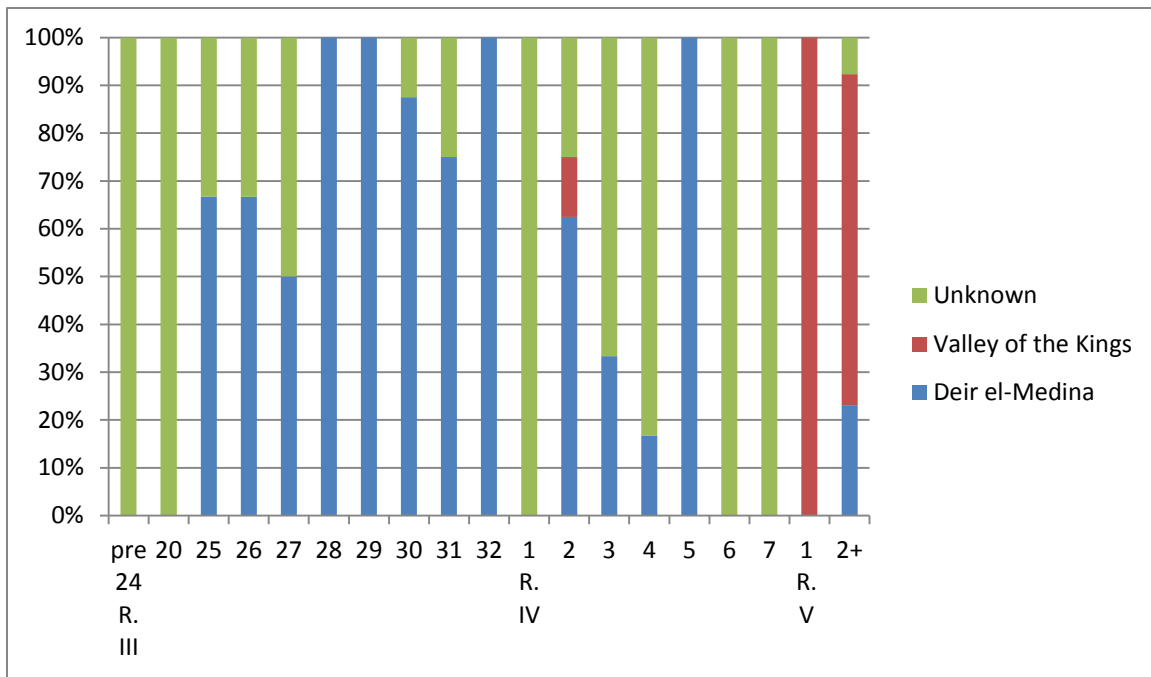


CHART 2. CHRONOLOGICAL DISTRIBUTION OF PROVENANCE

### 3.3.4 Periods covered by ostraca with marks

Despite the incomplete state of the majority of ostraca we can often estimate the length of the period that is recorded by a document thanks to the enumeration of the days of the month. Taking the obverse and reverse of ONL 331+ as representing two separate documents, there are 80 duty rosters composed with marks. In 29 cases we can hardly reconstruct the length of the original document, but there are good indications for the remaining 51 documents. A relatively small number of ostraca cover a period of less than 30 days. In just three cases, an ostrakon records deliveries for only a single day. There are three ostraca that record only a few days, two ostraca that record the end of one month and the beginning of the next, and one ostrakon that covers the second half of a month and the beginning of the next month.

The majority of the ostraca, however, seems to have covered the duty roster and deliveries of a single month. This is certainly the case in a single well preserved ostrakon, whereas another completely preserved ostrakon records days 1 to 28 and leaves out the final weekend of the month. Then we know of 28 more ostraca which are not preserved in their entirety, but in all likelihood recorded deliveries for a single month as well. In addition, there are five ostraca which document the duty roster of one entire month as well as the first few days of the next month. All of this can be inferred from surviving entries recording day 1 and day 30, but also from damaged sections of an ostrakon where one would expect day 1 or day 30 based on the preceding or succeeding entries on the document.

In five instances (almost) two entire months are recorded. That can be deduced despite the lacunae in the inscriptions from the surviving entries. In two of these cases<sup>238</sup> the obverse is used for one month, and the reverse for the succeeding month. There are even examples of ostraca (three instances) that contain entries for three different months. Ostraca that record deliveries of two or three months would probably have to be kept by the scribe for a longer period of time, and might in part explain the occasional need for month designations and regnal year numbers.

<sup>238</sup> ONL 297+ and ONL 6236+.

### 3.3.5 ‘Scribal’ mistakes

In the delivery texts composed with marks we occasionally observe mistakes made by the author. There are several instances in which he appears to have initially forgotten to add the workman’s mark after the day number, and therefore later added it at a different spot. In some cases, the workman’s mark follows after the commodities.<sup>239</sup> In other instances, the workman’s mark precedes the day number.<sup>240</sup> On ONL 331+ obverse as well as on ONL 306+ reverse the workman’s mark is inscribed between the sign for day and the day number. Other mistakes concern the writing of hieratic numerals. Such errors occur in the earliest duty rosters prior to year 24 of Ramesses III, and well into the reign of Ramesses V or an even later king. In three instances the scribe omitted the sign for a decade in compound numerals or wrote down the wrong one.<sup>241</sup>

These mistakes are not common in contemporary hieratic duty rosters,<sup>242</sup> but they are not necessarily a testimony to the incompetence of the scribe who authored the duty rosters with marks. Instead, such minor errors may have been made when the scribe was in a hurry or absentmindedly wrote down a series of entries. There are, however, mistakes that do inform us about the extent to which he was acquainted with hieratic script and hieratic scribal practice. For instance, in eight different ostraca the scribe noted down a compound numeral using hieratic signs but wrote the units to the right of the tens, while hieratic is written from right to left exclusively.<sup>243</sup> In two instances, entries are (partially) written from left to right, which would not be possible in hieratic script.<sup>244</sup> Even more remarkable are two cases in which an entire number is mistakenly mirrored.<sup>245</sup> Similarly, the signs for ‘day’ and for *bi.t* bread are mirrored in three instances.<sup>246</sup> Finally, in O. Glasgow D. 1925.80 we observe that the numeral 90 for the quantity of wood on day 11 is a mixture of the hieratic numeral ‘80’ and ‘90’. This list of mistakes is rather short considering a time span of at least 21 years, but they were made by someone using a system that employed a very limited set of signs.

### 3.3.6 Corrections

On several occasions the scribe noticed that he had made a mistake in his work, and corrected it. Most of his corrected errors concern the identity marks for the workmen that are recorded in the duty roster. The scribe erased the incorrect mark and added the right one in its place.<sup>247</sup> On O. Ashmolean HO 1093 the correct workmen’s marks were written over the incorrect ones,<sup>248</sup> while on ONL 314 incorrect workmen’s marks were simply covered by a blob of

<sup>239</sup> ONL 317+: day 12; ONL 298+ obverse: day 13; ONL 298+ reverse: day 18; O. Ashmolean HO 1249 obverse: day 8; O. UC 31967 reverse: day 23; O. Ashmolean HO 1080 obverse: day 1; ONL 314 reverse: day 14.

<sup>240</sup> ONL 336+: day 20; ONL 331+ obverse: day 24.

<sup>241</sup> O. Ashmolean HO 1084 obverse: the numerals 21 and 22 for day numbers 11 and 12; O. Ashmolean HO 1083 obverse: numerals 14, 15 and 16 for day numbers 24, 25 and 26; O. Ashmolean HO 1095 obverse: numerals 5, 6 and 7 for day numbers 15, 16 and 17.

<sup>242</sup> The author knows of only a single example: O. DeM 45 reverse, l. 3: “day 15” for “day 25”; compare Jac. J. Janssen, ‘Accountancy at Deir el-Medīna: How accurate are the administrative ostraca?’ *SAK* 33 (2005), 150.

<sup>243</sup> O. Ashmolean HO 1247 reverse: a column containing five instances of the numeral 16; ONL 312 obverse: numeral 25 in “day 25”; ONL 300+ reverse: the numeral 12 for the quantity of *bi.t* bread for day 23; ONL 329 obverse: the numeral 22 in “day 22”; O. Ashmolean HO 1093 reverse: numeral 18 in “day 18”; ONL 314 reverse: numerals 14, 15 and 16 for “day 14”, “day 15” and “day 16”; O. OIM 19125 obverse: numeral 11 for “day 11”; O. Ashmolean HO 1078 obverse: numeral 69 for a quantity of fish.

<sup>244</sup> O. Ashmolean HO 1084 reverse: entries for days 15 to 20; O. UC 31967 obverse: entry recording the delivery of wood for day 27.

<sup>245</sup> O. Fitzwilliam EGA 6120.1943 reverse: numeral 20 in “day 24”; ONL 297+ reverse: numeral 20 in “428”.

<sup>246</sup> ONL 6237+ obverse: sign for ‘day’ in “day 28”; ONL 6236+ obverse: sign for ‘day’ in “day 14”; O. Ashmolean HO 1095 obverse: sign for *bi.t* bread.

<sup>247</sup> ONL 340, days 25-27; O. Ashmolean HO 1249, day 7; ONL 298+, day 20.

<sup>248</sup> Days 27 and 28.

ink.<sup>249</sup> In two instances, the scribe corrected mistakes he made when writing down the day numbers.<sup>250</sup>

### 3.3.7 Palimpsests

In seven ostraca, traces of a palimpsest<sup>251</sup> are visible.<sup>252</sup> The older inscriptions do not appear to have been hieratic texts, but were also duty rosters with marks – in some cases demonstrably so. In addition, there is the case of ONL 331+. The reverse of this ostrakon inscribed with marks records days 19 – 28 of IV *pr.t*, year 28, while the obverse records I *pr.t*, year 30. The obverse and reverse are therefore almost two years apart from each other. This document thus proves that at least on this occasion, a duty and delivery text composed with marks was still accessible 20 months after it was composed, after which the ostrakon was used for the same purpose: to inscribe a duty roster using marks. The ostraca with traces of palimpsest point in the same direction. This suggests that the duty rosters with marks were kept for quite some time after they were written, but also demonstrates that the records eventually lost their value and could be erased for writing new documents.

### 3.3.8 Check marks

Check marks have been added to 12 duty and delivery texts composed with marks. One very fragmentary ostrakon with check marks cannot be dated with any precision.<sup>253</sup> Two ostraca date to the reign of Ramesses III,<sup>254</sup> while five date to the reign of Ramesses IV<sup>255</sup> and four to the reign of Ramesses V.<sup>256</sup> The check marks are small dots that are added to various elements in the duty rosters, usually a workman's mark (19 instances), but also day numbers (four instances), deficits (three instances), numerals written in the margin of the document that probably relate to totals of certain commodities (three instances), but also to commodities (beer: four instances; fish: three instances; wood: three instances; bread: three instances; dates: one instances; unknown: three instances). There are some cases in which the entries and the check marks are in the same colour,<sup>257</sup> but the majority of the check marks are in a different colour than the colour of the entries to which they are added.<sup>258</sup> Interestingly, several of the red check marks on ONL 341 were also incised with a sharp object at a later point.

The fact that the majority of check marks were done in a different colour could indicate that they were added at a later point as well. We can at least surmise that it was the scribe's intention to distinguish the check marks from the day entries in order to draw attention to them, which suggests the duty rosters were reviewed some time after they were completed.

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<sup>249</sup> Days 28 and 29.

<sup>250</sup> ONL 299, day 28; ONL 298+, days 24 and 25. See also the correction of the numeral '30' into 𐎗 for the last day of the month on the obverse of O. Fitzwilliam EGA 6120.1943.

<sup>251</sup> Palimpsest ostraca are not uncommon practice in the Theban necropolis. The current version of the Deir el-Medina Database lists 201 examples of ostraca that are known to be palimpsests.

<sup>252</sup> Four ostraca date to the very end of the reign of Ramesses III (ONL 336+; ONL 298+; O. Ashmolean HO 1092; ONL 6236+), one to the reign of Ramesses IV (ONL 313), and three from the reign of Ramesses V (O. Ashmolean HO 1081; O. Ashmolean HO 1095; O. Glasgow D. 1925.80).

<sup>253</sup> ONL 6523.

<sup>254</sup> ONL 317+; O. Ashmolean HO 1092; for both ostraca a hieratic parallel exists.

<sup>255</sup> Year 2: O. Ashmolean HO 1249; ONL 310; year 4: ONL 341; O. Ashmolean HO 1080; year 5: ONL 314.

<sup>256</sup> O. OIM 19125; O. Ashmolean HO 891; O. Ashmolean HO 1091; O. Ashmolean HO 1095.

<sup>257</sup> Black ink: O. Ashmolean HO 1249; O. OIM 19125; red ink: ONL 310; ONL 341.

<sup>258</sup> Red check marks for entries written in black: ONL 317+; O. Ashmolean HO 1092; ONL 341; O. Ashmolean HO 1080; O. Ashmolean HO 891; O. Ashmolean HO 1091; O. Ashmolean HO 1095; ONL 6523.



### 3.3.9 Colour use

It is difficult to analyse the use of red and black ink on the ostraca in our corpus, as many ostraca are not preserved in their entirety. In their current state, there are 31 ostraca that are entirely inscribed in black ink.<sup>259</sup> Three additional ostraca are also completely written in black ink but contain red check marks,<sup>260</sup> and there are 10 ostraca that were written predominantly with black ink, but contain several numerals or deliveries in red ink.<sup>261</sup> Just a single duty roster is written entirely in red ink.<sup>262</sup> Although black ink thus seems to be the preferred colour for ostraca with marks, there are 32 other ostraca in which some day entries have been written in black ink, and others in red.<sup>263</sup>

It is not immediately evident what the meaning of these entries in red ink is. Regarding hieratic documentary texts it has often been stated that red is used to highlight important sections and headings of a text.<sup>264</sup> Four instances of red entries in duty rosters with marks could perhaps be interpreted in the same way. First of all, there is an enigmatic entry in red on ONL 6236+ which can only be partly deciphered:

Day 16                      Nakhtmin  
Wesekhnemetet – jar (?) – cobra (?)

It is unclear what the meaning is of the jar-shaped sign and of the cobra-shaped sign. One is reminded of the month designation of IV *pr.t* and the jar-shaped signs that are sometimes inscribed next to them, but the entry in question here dates to I *pr.t*, and concerns a day in the middle of the month. The entry is in itself highly unusual, which might explain why it is in red ink. The second instance concerns an entry recording a wood delivery recorded in red ink, which is situated above the year number on ONL 310. The significance of this entry escapes us as no day number was added in front of it. Since the entry precedes the first entry of the month, one could propose that the entry belonged to the previous month and was inscribed as a reminder in red ink to highlight it. However, the workman's mark that accompanies the entry suggests that it is connected with the first day of the month, for which the same workman's mark is recorded. Next, there is the month designation on ONL 337, done in red ink. The year number above it however is inscribed in black. Moreover, most other dates are inscribed in black ink. The final case is in ONL 332, where two instances of the sign for 'deficit' are inscribed in red ink, and we might infer that such details were important entries that deserved to be highlighted. Yet, another instance of this sign on the same ostrakon is inscribed in black ink. It thus seems that, except perhaps for the first example, the other three instances are not convincing cases of important sections or headings that needed to be

<sup>259</sup> O. Ashmolean HO 1247; ONL 312; O. Strasbourg H 45; ONL 6284; ONL 322+; ONL 338+; ONL 305+; ONL 6222; O. Leiden F. 2000 / 1.5; ONL 316; O. Ashmolean HO 1249; ONL 309; O. Varille 425; ONL 329; O. Cairo SR 12165; O. Ashmolean HO 1094; O. Turin N. 57302; O. OIM 19125; O. Ashmolean HO 1078; O. Ashmolean HO 1081; O. Ashmolean HO 1083; O. Cairo CG 25651; O. Cairo JE 96328; ONL 323; ONL 303; ONL 6267; ONL 613; ONL 1639; ONL 6729; ONL 876; O. Strasbourg H 13.

<sup>260</sup> O. Ashmolean HO 891; ONL 6523; O. Ashmolean HO 1080.

<sup>261</sup> ONL 332; O. Ashmolean HO 1086; O. Turin N. 57393; ONL 313; O. Ashmolean HO 1093; O. Ashmolean HO 1090; O. Ashmolean HO 1250; ONL 6237+; O. Ashmolean HO 1091; O. Ashmolean HO 941.

<sup>262</sup> ONL 6219.

<sup>263</sup> O. Fitzwilliam EGA 6120.1943; O. Glasgow D. 1925.67; ONL 317+; ONL 331+ reverse; ONL 337; ONL 297+; O. Ashmolean HO 1084; ONL 299; ONL 336+; ONL 298+; ONL 331+ obverse; ONL 340; O. Ashmolean HO 1092; ONL 296+; ONL 6236+; ONL 300+; ONL 318+; O. Ashmolean HO 1082; ONL 310; O. UC 31967; O. Ashmolean HO 1088; ONL 341; ONL 314; O. UC 31959; O. Ashmolean HO 1095; O. BM 50731; O. Glasgow D. 1925.80; ONL 6320; ONL 304; ONL 306+; ONL 308; ONL 320; ONL 6730.

<sup>264</sup> E.g. Georges Posener, 'Sur l'Emploi de l'Encre Rouge dans les Manuscrits Égyptiens' *JEA* 37 (1951), 77-80; Manfred Weber in: *LÄ* V, 313-314, 'Rubrum'; Donker van Heel, 'Individual handwritings', 77, n. 142.

highlighted. What is more, the majority of the red parts in duty rosters composed with marks concern common day entries. They do not seem to differ in importance from other day entries.

When we take a closer look at red elements that are part of a day entry written in black ink, we notice that they are often situated at the end of a line. An example is found on the obverse of ONL 318+. Three day entries on the obverse are written entirely in red ink, while all remaining day entries are inscribed in black ink. The exception is the entry for day 3, which ends with a delivery in red ink:

Penpakhenty, Year 32, II *šmw*

[Day] 1	Meryre	fish; 4; 80
-		
Day 3	Hori	<u>ds jars 4; dates [1] right side</u>
Day 4	Weserhat	vegetables 4; dates [1] left side
Day 5	Minkhau	dates 3 right side
Day 6	Iry-‘a	
Day 7	Harshire	<i>psn</i> bread 16; <i>bi.t</i> bread 12; vegetables [...]
Day 8	Iyerniutef	[...]

In total there are 15, perhaps 17 instances of day entries written in black ink, with red signs at the end.<sup>265</sup> In contrast, there are no instances of red elements that are found in the middle of a black day entry. In all probability, the red elements were added at a later point, after the initial entry in black ink had been inscribed. This would suggest that the scribe favoured red ink for later additions.<sup>266</sup>

And there are more indications that red ink was used at a later point, perhaps after the ostrakon had been revised. Firstly, as we have seen, the majority of the check marks – probably evidence of revision – were done in red ink. Additionally, there are entries which were originally written in black ink and were subsequently traced in red ink. This is well illustrated by ONL 317+. This ostrakon records deliveries for year 26, IV *šh.t*, days 1 – 23. For now, we limit ourselves to days 4 – 9 and 21 – 22:

[...]				
Day 4	• Khaemwaset	fish • 360 right side; 360 left side		
Day 5	Nakhtmin			
Day 6	Reshupeteref	<u>ds jars [1] right side; dates [1] left side; fish 600 left side</u>		
Day 7	• Amenemope	<u>ds jars [1]; vegetables 8; dates [1] right side; fish 950</u>		
		Amenkha son of Khonsumose		
Day 8	• Mose	fish <u>450</u> ; • 400 left side		
Day 9	Menna	<i>psn</i> bread 12; <i>bi.t</i> bread 12 •		
[...]				
Day 21	<u>ds jars [1] left side; dates [1] right side</u>		Neferhotep	[sic]
Day 22	fish <u>230</u> •			

The underlined sections represent elements in red ink, and the double underlined parts are elements that were first written in black ink, but were then redone in red at a later moment. That point may well have been when the scribe was revising the document with red ink on his

<sup>265</sup> ONL 6237+ reverse, day 17; ONL 317+, day 6, 19 and 20; ONL 337 days 3 and 5; ONL 6236+, day 2; ONL 318 obverse, day 3; ONL 310, day 3; ONL 313, day 23; O. Ashmolean HO 1088, day 29; O. Ashmolean HO 1082, day 9; O. Ashmolean HO 1093, day 28; O. Ashmolean HO 1250, day 27; ONL 308, l. 2; perhaps also O. Ashmolean HO 1086 reverse, final entry, and O. Ashmolean HO 1090, day 20 (?).

<sup>266</sup> Note that red ink was also used for additions in the administrative text of P. Wilbour, see Ben J.J. Haring, *Divine Households. Administrative and economic aspects of the New Kingdom Royal memorial temples in Western Thebes*. EU 12 (Leiden 1997), 317 and n. 1; 319.

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pen, adding check marks for day entries 4, 7, 8, 9 and 22, and when a delivery of fish was added to day 6. In total there are three instances of such entries that were redone in red ink.<sup>267</sup>

Without any doubt, red ink was used at a later point to add the numeral '40' to the numeral '400' that was written in black ink, as was the rest of a day entry on the reverse of O. Ashmolean HO 1082:

Day 28            Iry-'a                            wood 336; 440

Finally, there is an instance concerning entries in black ink that were corrected in red ink. These corrections are found on the reverse of O. Ashmolean HO 1093:

Day 27            Minkhau [inscribed over the black mark of Weserhat ]  
Day 28            Iry-'a [inscribed over the black mark of Minkhau];    *psn* bread 18; dates 1 left side

The marks of Minkhau (day 27) and of Iry-'a (day 28) were inscribed over older marks that belonged to the original inscription in black ink. Once again we get the impression that red ink was used after the original inscription was finished, to make corrections and to add a delivery of dates to day 28.

All these examples indicate that red ink was used to make additions to entries written in black ink, but the opposite also seems to have happened. That is well illustrated by the reverse of ONL 340, which records the duty roster and deliveries for days 3 – 18 of III *pr.t.*, year 30 and is inscribed almost entirely in red ink. The entries for days 8 – 12 read:

<u>[Day] 8</u>	<u>Anynakht</u>	
<u>[Day] 9</u>	<u>Neferher</u>	<u>wood 150 Bakenkhonsu</u>
<u>Day 10</u>	<u>Amenemope</u>	<u>wood 750 Ptahmose; 145 Bakenkhonsu; 240 deficit wood</u>
<u>Day 11</u>	<u>Nesamun</u>	<u>ds jars 3; wood 150 Bakenkhonsu</u>
<u>Day 12</u>	<u>Nakhemmut</u>	<u>ds jars 2</u>
<u>Day 13</u>	<u>Khaemnun</u>	<u>dates [1]; ds jars 2</u>

Here we see the exact opposite of what we noticed earlier: a black delivery has been added at the end of a day entry written in red ink, a day entry that is part of an entire section written in red. There are more instances of such black components, and all of them occur at the end of a day entry written in red ink.<sup>268</sup> Similarly, there are instances where black ink was used to re-inscribe entries that were originally written in red.<sup>269</sup> We can therefore infer that the choice for either red or black ink is in most cases connected with revisions, corrections, and additions. Hence, sections in which the scribe of the ostrakon switched to a different colour are evidence of subsequent stages in the composition of the ostrakon.

We could well be dealing with the same phenomenon when we examine some of the ostraca with marks that contain both subsequent entries written entirely in black ink, and subsequent entries entirely done in red. This is best illustrated by the obverse of ONL 336+, a duty roster composed with marks recording the deliveries for year 30, III *ꜥh.t.* We begin reading at the entry for day 13:

Day 1[3][...]  
[...]  
[Day] 16            Amenemope  
Day 17            Nesamun            ds jars 1; dates [1] left side

<sup>267</sup> ONL 6237+ reverse, day 17; ONL 317+, day 8 and 22; ONL 337, month designation.

<sup>268</sup> ONL 336+, days 10 and 11; ONL 340, day 27; ONL 296+, day 24; O. Ashmolean HO 1088, day 5; ONL 341, day 9.

<sup>269</sup> ONL 297+ obverse, days 10-15; reverse, days 8-11; O. Ashmolean HO 1088, day 5; ONL 341, day 9.

<u>Day 18</u>	<u>Nakhemmut</u>	
<u>Day 19</u>	Khaemnun	<i>psn</i> bread 8; <i>bi.t</i> bread 4
Neferhotep	Day 20 [sic]	Bakenkhonsu: wood 320; Ptahmose 350; dates 2 left side

Let us assume that, since the entry for day 13 is written in black ink, the lost entries for days 14 and 15 were black as well. The successive entries for days 16 to 18 were written in red ink, and it seems that the scribe continued in red ink for the entry of day 19: both the sign for ‘day’ and the numeral ‘19’ are written in red ink. The remainder of the day entry however, consisting of a workman’s mark and two deliveries of bread, was written in black ink. This switch to another colour can hardly be connected with the content of the entry, as there does not appear to be anything significant about the workman Khaemnun and the delivery of two types of bread. The most straightforward way to explain the change in the colour of ink is that the lines in black ink were added at a later point. The scribe seems to have finished the entry for day 18, inscribed ‘day 19’ in the same colour, and then put down his ostrakon for a while. We may suppose that all this happened before the actual delivery of day 19 had taken place, and that the elements in black ink were noted down at a point after the goods had actually been delivered. The entry for day 20, and for that matter, the next entries as well, were written in black ink, and could therefore all have been written at the same moment.

A similar case is the duty roster for year 30, IV *šmw*, recorded with marks on O. Ashmolean HO 1084 obverse:

[...]	[...]	[...] 300; 200 Bakenkhonsu; [...] 20 [...]
<u>Day 3</u>	<u>Khaemwaset</u>	<i>ds</i> jars 2; dates 2
Day 4	Nakhtmin	<i>ds</i> jars 2
Day 5	Reshupeteref	dates 3; 160 Bakenkhonsu wood
Day 6	Amenemope	dates 3; <i>psn</i> bread 7; <i>bi.t</i> bread 8
Day 7	Mose	<u>6</u> [...]
[ <u>Day 8</u> ]	<u>Menna</u>	dates 2; <i>ds</i> jars 2
<u>Day 9</u>	<u>Nakhemmut</u>	<i>psn</i> bread 11; <i>bi.t</i> bread 6; wood 300
Day 10	Harshire	<i>ds</i> jars 2; vegetables 2; wood 250 Bakenkhonsu
Day 21 [sic]	Iyerniutef	<i>ds</i> jars 2; wood 200 Bakenkhonsu
Day 22 [sic]	Hori	[...]

The top of the ostrakon is damaged but contains traces of deliveries written in red ink. The first complete entry concerns day 3. The day number and workmen’s mark are written in red ink. Together with the top entry, this part of the ostrakon could have been inscribed at the first stage of the ostrakon. The deliveries for day 3 are written in black ink, as are the entries for days 4 – 6 and the day number and workmen’s mark for day 7. This section of the ostrakon appears to have been written during a second phase. In turn, the following phase was written in red ink, and includes the deliveries for day 7, the entry for day 8, and the day number and workmen’s mark for day 9. Subsequently, the deliveries for day 9 are part of a later section in black ink. According to this reconstruction, O. Ashmolean HO 1084 would have been written in several phases over the course of a longer period. That is not to say that a single section, let us say the first entry of the ostrakon up to the workman’s mark of day 3, were all written in one go, because we cannot exclude the possibility that the different entries within a single section were written at different points in time as well. There are however two indications that a section written in one specific colour was indeed written at a single moment in time. It concerns two ostraca in which mistakes were corrected by the scribe. In ONL 340 and ONL 314, the scribe incorrectly noted down several identity marks for workmen on *wrš* duty for subsequent days. These faulty marks were all inscribed in the same colour of ink. It is most plausible that the scribe noted down these incorrect identity marks at one go. Otherwise he would have noticed his initial mistake, instead of making one or two more at a later moment.

### 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

In summary, it seems plausible that separate sections of duty rosters composed with marks were written at different moments, and that the author of these documents often chose a different colour of ink to reflect this. There are two more documents with sections of successive day entries in one colour that end with a delivery in another colour, after which a section follows in the same colour in which the previous one ended.<sup>270</sup>

We may explain ostraca that consist of subsequent sections of entries inscribed in different colours in the same way: different colours were not applied to highlight important sections, but indicate – intentionally or unintentionally – successive moments during which they were entered. In five ostraca, the shift to another colour seems to have taken place in, or just before or after the weekend, and the individual sections have the length of about one week or of two weeks. These seem logical units for individual sections, but they are not the rule, and sections of shorter or longer durations occur more frequently:

ONL 299	1-20; <u>21-30</u>
ONL 336+	1-9; <u>9-19</u> ; 19-30
ONL 298+	1-10; <u>10-30</u>
ONL 331+	<u>1-11</u> ; <u>12-22</u> ; <u>23-30</u>
ONL 341	2-8; <u>9-10</u> ; 11-29

ONL 340	<u>3-14</u> ; 14-16; <u>17-28</u> ; 29-30, 1-4
ONL 296+	1-22; <u>23-27</u>
ONL 300+	1-15; <u>16-30</u> ; 21-30, 1-25 (additionally: <u>24-26</u> )
ONL 318+	<u>18</u> ; 19-30, 1-8; <u>10-11</u> ; 22-30, 2-27
O. Ashmolean HO 1088	<u>1</u> ; 2-4; <u>5-6</u> ; 7-20; <u>21</u> ; 22; <u>22-24</u> ; 29-30, 1
O. Ashmolean HO 1082	4-10; <u>11</u> ; 11-15; <u>16-18</u> ; 19-30, 1-3
ONL 314	<u>8-27</u> ; 28-29
O. UC 31959	<u>5-8</u> ; <u>8-15</u>
O. Ashmolean HO 1095	<u>3</u> ; 4-8; <u>9-16</u> ; <u>17-20</u> ; <u>21-22</u> ; <u>23-30</u>
ONL 306+	<u>25-27</u> ; 28-30

TABLE 42. ENTRIES IN RED AND IN BLACK, NOT TAKING INTO ACCOUNT SOME OF THE LOST DAYS WITHIN A SECTION

#### 3.3.10 Lay-out

In the majority of duty rosters composed with marks a day entry consists of a single line of marks and numerals. These lines are written one below the other, to form a column of entries.<sup>271</sup> There are however instances of entries which are not part of a larger column, and which were written in a different direction. In most cases, such as in ONL 300+, a few additional entries were added at an angle of 90 or 270 degrees next to the main column(s) of entries, because there was not enough space at the bottom of the ostrakon to continue a column (15 instances).<sup>272</sup> In seven other cases it is unclear if lack of space was the reason that some entries were written perpendicular to the main inscription,<sup>273</sup> but there are four ostraca in which there certainly was enough blank space left.<sup>274</sup>

The obverse of one of these ostraca, ONL 318+, is altogether a rather disorganised document. The ostrakon is of considerable size and the obverse originally probably recorded the duty roster for two entire months. Some of its day entries are not inscribed in logical positions (day 30 follows after day 20), and there are entries that are so haphazardly inscribed that it is very difficult to determine to which days they belong. There are three other

<sup>270</sup> ONL 337; ONL 340.

<sup>271</sup> Cf. Haring, 'Workmen's Marks on Ostraca', 146-147.

<sup>272</sup> ONL 337; O. Ashmolean HO 1084; ONL 299; ONL 298+; ONL 340; O. Ashmolean HO 1092; ONL 300+; O. Ashmolean HO 1082; O. Ashmolean HO 1088; ONL 341; O. Ashmolean HO 1080; O. Ashmolean HO 1093; O. Ashmolean HO 1250; ONL 314; O. UC 31959.

<sup>273</sup> ONL 297+; ONL 310; O. Cairo SR 12165; O. Cairo JE 96328; ONL 306+; ONL 308; ONL 6730.

<sup>274</sup> O. UC 31967; ONL 331; ONL 318+; O. Turin N. 57393. Compare also the disorganised order of entries on O. Fitzwilliam EGA 6120.1943.

ostraca,<sup>275</sup> which, together with the ostraca with entries written at different angles, have a rather disorganised lay-out.

These observations about the lay-out are noteworthy. First of all, they underline once more the informal character of ostraca with marks. These records are at any rate atypical compared to contemporary hieratic delivery texts, which are generally written in lines and columns exclusively. Furthermore, we can conclude that the scribe of duty rosters with marks made an effort to include as many day entries on a single ostrakon as possible. We are reminded of the Deir el-Medina scribe who was the author of many of hieratic delivery texts which date to the same period as the ostraca with marks under discussion here. The ostraca with marks are similar to his documents, because this scribe also seems to have been in the habit of inscribing ostraca with as many entries as he could, preferably for at least a single month.<sup>276</sup> In some instances<sup>277</sup> he too must have run out of space and could not accommodate all day entries onto a single document, yet he refrained from turning his ostrakon 90 degrees to squeeze in another entry or two. On the contrary, in the majority of his documents he did manage to fit rows of day entries of an entire month onto a single ostrakon. This could mean that the hieratic scribe had a better eye for estimating how much space he would need for one document than the scribe of the ostraca of marks did. But another explanation is that the scribe of the delivery texts composed with marks had no clear indication of how long his document would become, because he inscribed his ostrakon over the course of a longer period. As we discussed above, the use of red and black ink within a single ostrakon seems to indicate that the scribe did not write many of his documents in one go. Therefore, we may imagine that the scribe of the duty rosters with marks noted down some day entries at several different moments in the month, perhaps sometimes even on a daily basis. The scribe, not knowing how much space he would need for the entries of an entire month, then occasionally produced less organised ostraca, in some instances documents with entries written at various angles even though blank space was available.

### **3.3.11 The identity of the scribe of the ostraca with marks**

Without going into palaeographic details, we may venture a guess that at least the greater majority of the delivery texts written with marks were produced by a single scribe. To prove this point would require a proper palaeographic study, which lies outside the scope of the current work. Still, it can be reported that at a first glance there is, in terms of the shapes and ductus of the workmen's marks and the hieratic numerals, nothing that contradicts the suggestion that a single individual was responsible for the delivery texts with marks, save for four exceptions discussed below.

One may not be convinced by this generalising statement on the palaeography of the marks. There are however other indications that the ostraca in our current corpus were made by one man. The fact that during a period of c. 20 years we do not detect any distinct changes in the lay-out of the ostraca, in the ways in which they were produced, in the content they record, or in the usage of specific signs or marks, points in the same direction. Conversely, we do not encounter the signs for commodities or for a specific side of the crew – apart perhaps from the jar-shaped sign and the sign of the right side – on ostraca with marks other than those recording deliveries, neither on earlier nor on later ostraca, nor on other contemporary pieces. This would suggest that during the last third of the reign of Ramesses III to the beginning of the reign of Ramesses V it was the habit of someone in or around the community of necropolis workmen to record duty rosters and daily deliveries using workmen's marks and a self-invented system of additional signs for commodities and such.

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<sup>275</sup> ONL 317+; O. Ashmolean HO 1084; O. Ashmolean HO 1094.

<sup>276</sup> Donker van Heel, 'Individual handwritings', 74-76.

<sup>277</sup> E.g. O. DeM 37, O. DeM 42 and O. DeM 43, see Donker van Heel, 'Individual handwritings', 75-76.

If this assumption is correct, we find another parallel in the domain of hieratic documents. On palaeographic grounds it is clear that most of the hieratic journal ostraca recording deliveries during the last years of the reign of Ramesses III and the first two years of the reign of Ramesses IV were the work of a single scribe as well. Donker van Heel has proposed that this man was the famous scribe called Hori.<sup>278</sup> We may likewise attempt to identify the scribe who created the duty and delivery ostraca composed with marks. This is a very risky endeavour because on none of these ostraca did the scribe leave his signature. There is nevertheless one man whom we may consider a plausible candidate: Pentaweret (iii). This man has been described by Davies<sup>279</sup> as a so-called ‘*smd.t* scribe’, a man tasked with the administration and coordination of the delivery of supplies and commodities by the external service personnel.<sup>280</sup> Pentaweret (iii)’s activities in the reign of Siptah up to at least year 2 of Ramesses IV<sup>281</sup> correspond partially with the period during which delivery ostraca with marks were produced. In addition, the ‘*smd.t* scribe’ Pentaweret (iii) was connected with the right side of the crew, and all ostraca recording deliveries and duty rosters with marks deal with workmen from precisely that side. Moreover, these ostraca record exactly those topics with which one would expect a ‘*smd.t* scribe’ to have been concerned with: the organisation and administration of the daily deliveries made by *smd.t* agents, of the men on the receiving end who stood on watch, and of deficits of particular *smd.t* agents.

As reasonable as this identification may seem, it is merely a hypothetical one, because it would mean that Pentaweret (iii) was a ‘scribe’ with very limited knowledge of hieratic script. This observation stands in contrast with that of Donker van Heel, who pointed out that there are two hieratic ostraca that can be identified as hieratic texts written by Pentaweret (iii):<sup>282</sup> O. Michaelides 3, a donkey hire attributed to the middle of the 20<sup>th</sup> Dynasty<sup>283</sup>, and O. Ashmolean HO 104, a record of an oath about a donkey dated to year 31 of Ramesses III.<sup>284</sup> If it is true that the ‘*smd.t* scribe’ Pentaweret (iii) is the author of both texts, then he cannot have been the author of the delivery texts composed with marks. Hieratic ostraca O. Michaelides 3 and O. Ashmolean HO 104 display the hand of an experienced scribe, which the scribe of the ostraca with marks evidently was not. It is however not at all certain if the scribe Pentaweret mentioned as the author of O. Michaelides 3 and O. Ashmolean HO 104 was the same man as the ‘*smd.t* scribe’ called Pentaweret. The number of contemporaneous scribes called Pentaweret during the first half of the 20<sup>th</sup> Dynasty makes for a complicated situation.<sup>285</sup> The scribe Pentaweret of the two hieratic documents cannot have been the scribe Pentaweret (v),

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<sup>278</sup> Donker van Heel, ‘Individual handwritings’, 72-78; 81-82. There is no concrete evidence for this identification yet, but the on-going palaeographic study of Maren Goecke-Bauer may change this situation. She kindly informs us (personal communication, 2015) that preliminary results indicate that scribes Wennefer (v) and Amennakht (v) can be excluded as the authors of the hieratic journal ostraca, rendering the possibility that this scribe was indeed Hori more plausible.

<sup>279</sup> Davies, *Who’s who*, 126-127.

<sup>280</sup> Although the individuals occupied with these matters are attested with the title ‘scribe’, very little is known about their exact roles within the village and about their scribal capabilities. Only in two instances is the title connected with the external service personnel (see below), and the label ‘*smd.t* scribe’ is therefore an egyptological one. For this reason the title is written between quotation marks. There would seem to have been two simultaneous ‘*smd.t* scribes’, one for the right side and one for the left. For an important overview of ‘*smd.t* scribes’, see Davies, *Who’s who*, 123-142.

<sup>281</sup> Davies, *Who’s who*, 126-127.

<sup>282</sup> Donker van Heel, ‘Individual handwritings’, 81.

<sup>283</sup> Gutgesell, *Die Datierung* II, 439; Janssen, *Donkeys at Deir el-Medīna*. EU 19 (Leiden 2005), 15. The text ends with the phrase “made by scribe Pentaweret”.

<sup>284</sup> Janssen, *Donkeys at Deir el-Medīna*, 24. The text ends with the phrase “made by him”, which seems to refer to the last mentioned witness, the scribe Pentaweret.

<sup>285</sup> For a discussion see Davies, *Who’s who*, 126-129.

as two sources record this man's demise in year 29 of Ramesses III.<sup>286</sup> We may however identify the author of O. Michaelides 3 and O. Ashmolean HO 104 as Pentaweret (iv) son of Amennakht (v). Although this Pentaweret (iv) was a draughtsman, there is an abundance of instances in which this man is mentioned with the title 'scribe'.<sup>287</sup> As the son of another well-known scribe, Amennakht (v), we should not be surprised that he was in actuality a trained scribe. He may therefore have been the individual who composed the brief texts about donkey hires during the first half of the 20<sup>th</sup> Dynasty.

It follows that there is *no concrete evidence* that 'smd.t scribe' Pentaweret (iii) was a trained scribe, which supports our theory that he was the one who produced the duty and delivery texts composed with marks. Pentaweret (iii)'s last attestation as a 'smd.t scribe' would seem to occur between year 2 of Ramesses IV and year 2 of Ramesses V.<sup>288</sup> The fact that he is not often attested after year 2 of Ramesses IV is of course due to the relatively small number of hieratic delivery texts from that period. Pentaweret (iii)'s disappearance after year 2 of Ramesses V would coincide with the arrest in the production of duty and delivery ostraca with marks around the same time.<sup>289</sup> Identifying the 'smd.t scribe' Pentaweret (iii) as the author of these ostraca composed with marks would furthermore solve Davies' problem as to why at some moments during the end of the reign of Ramesses III the scribe Hori and the 'scribe' Pentaweret seem to have been contemporaneous 'smd.t scribes' of the right side.<sup>290</sup> The answer to the question would be simple: they were indeed contemporaneous, and they were indeed tasked with the same administrative assignments, but one employed a system of marks to this end, while the other wrote hieratic texts.

Unfortunately, very little is known about the exact nature of the tasks of the 'smd.t scribe'. Not much is known about Pentaweret (iii) either. We have no details of his parentage, and we are not sure where he lived. His contemporaneous colleague Paser (iii), 'smd.t scribe' of the left side, might have had a house in the village according to an ambiguous ostrakon O. Berlin P 1268.<sup>291</sup> If the 'smd.t scribe' Pentaweret (iii) indeed is the man who created the journal ostraca composed with marks, he must have been a member of the community of Deir el-Medina because he was well acquainted with the identity marks that were used by the necropolis workmen.

That is also suggested by the fact that the scribe of the ostraca with marks seems to have collaborated closely with a hieratic scribe, presumably a scribe from the village. Virtually all duty and delivery ostraca with marks were written in a single hand, but there are four, perhaps five exceptions, one of which seems to corroborate the rule. On these four or five ostraca we can clearly detect a second, different hand, a hand that wrote a few entries or added to older ones with very neatly inscribed marks, signs and numerals, a hand which

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<sup>286</sup> Theban Graffito 18 B, see Spiegelberg, *Graffiti*, 4 and for correct reading *KRI* V, 531; P. Turin Cat. 1880.

<sup>287</sup> Davies, *Who's who*, 109 and n. 348; 128; cf. Morris L. Bierbrier, *The Late New Kingdom in Egypt (c. 1300-664 B.C.) A Genealogical and Chronological Investigation* (Warminster 1975), 40-41.

<sup>288</sup> As suggested by O. DeM 149, see Janssen, *Village Varia*, 135-136; cf. Davies, *Who's who*, 129.

<sup>289</sup> As pointed out in section 3.2.7.8, ostraca O. Ashmolean HO 1081, O. Ashmolean HO 1091, O. Ashmolean HO 1083, O. Ashmolean HO 891, ONL 6320 and O. BM 50731 are dated after year 2 of Ramesses V but nothing suggests that they are much later than that year, with the exception of the latter ostrakon. If the duty roster on the reverse of O. BM 50731 is contemporaneous with the list of workmen on the obverse it should date to the second half of the 20<sup>th</sup> Dynasty. In that case, it cannot have been created by the same scribe who composed all other duty and delivery ostraca with marks.

<sup>290</sup> Davies, *Who's who*, 128-129.

<sup>291</sup> Davies, *Who's who*, 127. Indeed, Paser may well have been at some point a full member of the crew of necropolis workmen because there are reasons to believe that he possessed his own identity mark, see below, chapter 4, 4.2.12.



cannot have been responsible for the production of the other ostraca with marks.<sup>292</sup> This different hand evidently displays a hieratic ductus, most clearly visible in the shape of hieratic numerals and the workmen's marks. On one of these four ostraca, ONL 300+, that observation is not merely a matter of palaeography, because the same hand added brief hieratic notes behind a few of the entries composed with marks, recording details about the distribution of goods and a special delivery of fruits and flowers. This observation is significant. In one of the few instances where we are almost certainly dealing with a different scribe, we see that the content of ostraca composed with marks changes. The document no longer simply records the duty rosters and the daily deliveries, but additional details as well. This variation in subject matter strengthens the idea that the other ostraca, all concerned with the duty roster and the deliveries exclusively, were made by a single individual.

It is worthwhile to dwell some more on ONL 300+. Entries for days 1 to 10 were clearly made by the hand that betrays a hieratic ductus, while all other entries on the obverse and reverse of this ostrakon seem to be the product of the individual responsible for all other duty rosters composed with marks. This extraordinary ostrakon thus indicates that at least on this occasion, the scribe of the ostraca with marks was assisted by a hieratic scribe. This could perhaps explain why the ostraca with marks are in many ways so similar to the hieratic duty rosters.

More evidence for collaboration between the scribe of the ostraca with marks and a professional hieratic scribe may be found on ONL 322+. The obverse of this piece is a duty and delivery text composed with marks, while the reverse contains a brief note written in hieratic about the *bꜣk.w* quota of two water-carriers. It is of course possible that the two sides of the ostrakon are not contemporaneous, but the note may also be taken as another indication of a hieratic scribe adding to the documentation of the assumed '*smd.t* scribe'.

A connection between a hieratic scribe and the scribe who authored the duty and delivery texts composed with marks is also suggested by four hieratic ostraca. One of them is O. Glasgow D. 1925.67, which is here counted as a duty and delivery text composed with marks (reverse, upside down, lines 1-5), but which is essentially a hieratic journal text recording the duty roster and deliveries for the first two weeks of II *pr.t*, year 25 (obverse, lines 1-7; reverse, lines 1-8). The other three ostraca, O. DeM 32, O. DeM 34+ and O. DeM 150+, are also hieratic documents that record deliveries. Interestingly, these four ostraca are not only similar in their content, they also seem to have been written by a single scribe.<sup>293</sup> Like the Glasgow ostrakon, ostraca DeM 32, DeM 34+ and DeM 150+ display in the margins identity marks of workmen of the right side of the crew who were included in the duty roster. Hieratic numerals are inscribed in juxtaposition to these marks. The position of the workmen's marks in the margins of these documents suggests that they were written at a later point. They were most likely added by the same scribe who was responsible for the duty and delivery ostraca composed with marks, as one would expect the original scribe of these three ostraca to add complementary notes in hieratic.

### 3.3.12 Comparison of ostraca with marks and hieratic delivery texts: coverage

We are very well informed about the deliveries that were brought to the community of Deir el-Medina during the reigns of Ramesses III and Ramesses IV thanks to a great number of hieratic records. As mentioned, many of these texts were written by a single Deir el-Medina scribe, probably the scribe Hori.<sup>294</sup> The earliest known hieratic document from the 20<sup>th</sup>

<sup>292</sup> ONL 300+ (entries for days 1-10); O. UC 31967 (entry for day 23); O. Ashmolean HO 1082 (part of the entry for days 25; entry for day 3); O. Ashmolean HO 1250 (part of entry for day 27); perhaps also fragmentary ostrakon ONL 6730 (in its entirety?).

<sup>293</sup> Donker van Heel, 'Individual handwriting', 74, n. 134 and 135.

<sup>294</sup> Donker van Heel, 'Individual handwriting', 72-76.

Dynasty recording daily deliveries of commodities is O. DeM 164, which covers I and II *ʒh.t* of year 24 of Ramesses III. During the reign of Ramesses IV, numerous hieratic delivery texts that include the duty roster for the right side of the crew are known from years 1 and 2,<sup>295</sup> but we currently do not know of any such texts from later years of his reign. The latest attested hieratic text that records a duty roster of the right side of the crew was made during the reign of Ramesses V, and this ostrakon is the only known document of this category from his reign.<sup>296</sup> The delivery records composed with marks thus cover a longer period of time. Two ostraca with marks date to a time before year 24 of Ramesses III, and there are 19 ostraca with marks from the reign of Ramesses IV that postdate the latest known hieratic delivery text from his reign. In contrast to the single hieratic duty roster from the reign of Ramesses V, there are 15 duty rosters recording deliveries with marks from the same reign. We cannot be certain if the absence of hieratic delivery texts from the period preceding year 24 and the period following year 2 signifies that they were never written, or if they have not survived. Yet it is remarkable that we know of such a great number of ostraca with marks from the reigns of Ramesses IV and Ramesses V, while we possess such a relatively small number of hieratic records of deliveries from that time. One is inclined to interpret the great difference between the number of hieratic documents and the number of ostraca with marks after year 2 of Ramesses IV as an indication that the Deir el-Medina scribe who occupied himself with writing hieratic delivery texts abandoned this practice for some reason.

### 3.3.13 Comparison of ostraca with marks and hieratic delivery texts: overlap

As was ascertained previously, there are instances of deliveries that are recorded both in hieratic texts and ostraca composed with marks.<sup>297</sup> A very good example of this is an ostrakon inscribed with marks, ONL 300+. It records the duty roster for III and IV *pr.t* of year 31 of the reign of Ramesses III. The duty roster and deliveries for the first 19 days of III *pr.t* are also recorded by hieratic ostrakon O. DeM 37. Both ostraca are in agreement with each other to a large extent, as demonstrated for example by a comparison of the first four days:<sup>298</sup>

		Workman	Wood	Delivered by	Deficit	Fish	Delivered by	Deficit	Dates	<i>ds / qb</i> jars	<i>bt.t</i> bread	<i>psn</i> bread	vegetables
ONL 300+	Day 1	●	200	●	-	-	-	-	1 L	2	-	-	-
O. DeM 37	Day 1	●	200	●	-	-	-	-	1 L	2	-	-	-
ONL 300+	Day 2	●	300	●	-	-	-	-	-	-	-	-	-
O. DeM 37	Day 2	●	300	●	-	-	-	-	-	-	-	-	-
ONL 300+	Day 3	●	-	-	-	-	-	-	-	-	-	-	-
O. DeM 37	Day 3	●	-	-	-	-	-	-	-	-	-	-	-
ONL 300+	Day 4	●	300	●	-	-	-	-	2	2	10	16	-
O. DeM 37	Day 4	●	300	●	-	-	-	-	2	2	10	16	-

TABLE 43. COMPARISON OF ONL 300+ (MARKS) AND O. DEM 37 (HIERATIC)

In total there are 22 delivery texts composed with workmen's marks that cover a period for which deliveries are also recorded in hieratic sources: for these 22 ostraca with marks there are 33 hieratic sources which partially cover the same period. These hieratic documents are

<sup>295</sup> O. DeM 39 – 43; 47+; O. DeM 160 – 162; O. DeM 44 – 46; O. Michaelides 33; O. Ashmolean HO 133; O. DeM 401.

<sup>296</sup> O. Cairo CG 25609, year 1, III – IV *šmw*; discussed above, see 3.2.7.1; 3.2.7.2.

<sup>297</sup> Haring and Soliman, 'Ostraca with Workmen's Marks', 85-93.

<sup>298</sup> In this and other overviews below, a dot ● indicates that a certain detail is present in a document; letters R and L denote a delivery for or a workman of respectively the right and the left side of the crew.

not all journal texts but also include accounts of exclusively wood deliveries, or the deliveries of one or several members by the external *smd.t* personnel.

### 3.3.14 Comparison of ostraca with marks and hieratic delivery texts: material and provenance

If we compare the material and provenance of these 33 hieratic texts that correspond to 22 of our ostraca with marks (see the overview below), we find many similarities. The majority of the 33 hieratic texts are written on ceramic ostraca (28 documents) and were found at the Kom Sud (18 documents). The provenance of the documents is unknown in five instances. In five other instances the texts were discovered somewhere at the village of Deir el-Medina, and in four cases at the Grand Puits. Only five of these hieratic ostraca are written on limestone flakes, and one text is written on papyrus.

Ostraca with marks and their corresponding hieratic records are most frequently written on the same medium (23 instances), but there are plenty of examples (11 instances) of corresponding documents written on different media (pottery; limestone; papyrus). Similarly, corresponding hieratic records and records with marks are not always found at the same location. In nine instances and possibly in nine more, both the ostrakon with marks and the hieratic document were discovered at the same spot, but in six other instances the ostrakon with marks and the corresponding hieratic record have different provenances. In 10 other instances no information about the provenance of one of the documents is available.

Remarkably, ostraca that were found at the same location are not always well-matching parallels. Most corresponding documents that have a common provenance come from the Kom Sud, but ONL 6237+, an ostrakon with marks, and its corresponding hieratic record O. DeM 654 were both found in the Grand Puits. Unfortunately both ostraca are poorly preserved and there are very few entries to compare. The entries that do survive do not agree to a large extent. ONL 6236+, a ceramic ostrakon composed with marks from the Grand Puits, records the duty roster of two months. Hieratic ostrakon O. DeM 159 records the duty roster for the first month. This document was discovered at the Kom Sud. The state of preservation of both pieces allows only for the comparison of a single day, for which the ostrakon with marks records a delivery not mentioned in the hieratic document. One might interpret this discrepancy as an indication that different content is related to a different findspot. Yet, O. DeM 36, a hieratic duty roster for the other month, corresponds very well to the information preserved on ONL 6236+, despite the fact that it was also found at the Kom Sud. Similarly, ONL 297+ records the duty roster for III *šmw* with marks. The ceramic ostrakon comes from the Kom Sud. Two hieratic ostraca record deliveries for the same month. The first, O. DeM 147, is an account of the deliveries and deficits of two woodcutters. It is also written on pottery and it was found at the Kom Sud as well, but regarding the exact content of the document there is no overlap with the information recorded in ONL 297+. In contrast, O. DeM 646, a hieratic journal text found at the Grand Puits recording mostly wood deliveries contains several of the same entries included in ONL 297+.

Ostrakon	Date	Provenance	Material
ONL 312	R. III year 25, II <i>šh.t</i>	Deir el-Medina ?	Limestone
O. UC 39626	R. III year 25, II <i>šh.t</i>	Unknown	Pottery
ONL 332	R. III year 25, IV <i>pr.t</i> – 26, I <i>šmw</i>	Deir el-Medina ?	Pottery
O. Berlin P 12633+	R. III year 25, IV <i>pr.t</i> – 26, I <i>šmw</i>	Deir el-Medina ?	Pottery
ONL 6237+	R. III year 26, II – IV <i>šmw</i>	Grand Puits	Pottery
O. DeM 654	R. III year 26, III – IV <i>šmw</i> ?	Grand Puits	Pottery
ONL 317+	R. III year 26, IV <i>šh.t</i>	Kom Sud	Pottery
O. Berlin P 12629	R. III year 26, IV <i>šh.t</i>	Deir el-Medina ?	Pottery
O. DeM 142	R. III year 26, IV <i>šh.t</i>	Kom Sud	Pottery
O. IFAO 284+	R. III year 26, IV <i>šh.t</i>	Kom Sud ?	Pottery
O. Ashm. 1086	R. III year 26, IV <i>pr.t</i>	Unknown	Limestone

O. Turin N. 57153	R. III year 26, IV <i>pr.t</i> – 27, I <i>šmw</i>	Deir el-Medina ?	Pottery
ONL 338+	R. III year 28, IV <i>šmw</i> – I <i>šh.t</i>	Deir el-Medina ?	Pottery
O. DeM 427	R. III year 28, III <i>šmw</i> – I <i>šh.t</i>	Grand Puits	Limestone
O. DeM 156+	R. III year 28, IV <i>šmw</i> – epag. days	Kom Sud	Pottery
ONL 305+	R. III year 29, IV <i>šh.t</i>	South Wadi = Kom Sud ?	Pottery
O. Ashm. 127	R. III year 29, IV <i>šh.t</i>	Unknown	Limestone
ONL 337	R. III year 29, I <i>pr.t</i>	Deir el-Medina ?	Pottery
O. DeM 152	R. III year 29, III <i>šh.t</i> – 30, III <i>šh.t</i>	Kom Sud	Pottery
O. DeM 147	R. III year 29, IV <i>šh.t</i> – 30, IV <i>šmw</i>	Kom Sud	Pottery
O. Turin N. 57007	R. III year 29, I – II <i>pr.t</i>	Deir el-Medina ?	Limestone
ONL 297+	R. III year 30, III <i>šmw</i>	Kom Sud	Pottery
O. DeM 646	R. III year 28, IV <i>pr.t</i> , 30, II – IV <i>šmw</i>	Grand Puits	Pottery
O. DeM 658	R. III year 30, II – IV <i>šmw</i> , III <i>šh.t</i>	Grand Puits	Pottery
O. DeM 147	R. III year 30, IV <i>šh.t</i> – IV <i>šmw</i>	Kom Sud	Pottery
O. Ashm. 1084	R. III year 30, IV <i>šmw</i>	Unknown	Limestone
O. DeM 145	R. III year 30, IV <i>šmw</i> – II <i>šh.t</i>	Kom Sud	Pottery
O. DeM 658	R. III year 30, II – IV <i>šmw</i> , III <i>šh.t</i>	Grand Puits	Pottery
ONL 6222	R. III year 30, IV <i>šmw</i>	Kom Sud	Pottery
O. DeM 147	R. III year 29, IV <i>šh.t</i> – 30, IV <i>šmw</i>	Kom Sud	Pottery
ONL 299	R. III year 30, I <i>šh.t</i>	Kom Sud	Pottery
O. DeM 145	R. III year 30, IV <i>šmw</i> – II <i>šh.t</i>	Kom Sud	Pottery
ONL 298+	R. III year 30, IV <i>šh.t</i>	Deir el-Medina ?	Pottery
O. DeM 144	R. III year 30, II – IV <i>šh.t</i> , II, IV <i>pr.t</i> (?)	Kom Sud	Pottery
ONL 340	R. III year 30, III – IV <i>pr.t</i>	Deir el-Medina ?	Limestone
O. DeM 35	R. III year 30, III – IV <i>pr.t</i>	Kom Sud	Pottery
O. Ashm. 1092	R. III year 31, II <i>šh.t</i>	Unknown	Limestone
O. DeM 155	R. III year 31, II <i>šh.t</i>	Deir el-Medina ?	Pottery
ONL 296+	R. III year 31, IV <i>šh.t</i>	Kom Sud	Pottery
O. DeM 157	R. III year 31, IV <i>šh.t</i>	Kom Sud	Pottery
ONL 6236+	R. III year 31, I – II <i>pr.t</i>	Grand Puits	Pottery
O. DeM 159	R. III year 31, I <i>pr.t</i>	Kom Sud	Pottery
O. DeM 36	R. III year 31, II <i>pr.t</i>	Kom Sud	Pottery
ONL 300+	R. III year 31, III – IV <i>pr.t</i>	Kom Sud	Pottery
O. DeM 37	R. III year 31, III <i>pr.t</i>	Unknown	Pottery
ONL 318+	R. III year 32, I – III <i>šmw</i>	Kom Sud	Pottery
O. DeM 153	R. III year 31 – 32, I <i>šmw</i>	Kom Sud	Pottery
O. DeM 38	R. III year 31 – 32, II <i>šmw</i>	Kom Sud	Pottery
O. DeM 39+	R. III year 32, III <i>šmw</i>	Kom Sud	Pottery
P. Turin Cat. 1949+	R. III year 32, III <i>šmw</i> etc.	Unknown	Papyrus
O. Leiden F. 2000 / 1.5	R. IV year 1, II <i>šh.t</i>	Unknown	Limestone
O. DeM 41	R. IV year 1, II <i>šh.t</i>	Kom Sud	Pottery
O. Turin N. 57393	R. IV year 2, II <i>pr.t</i>	Deir el-Medina ?	Limestone
O. Ashm. 131	R. IV year 2, II <i>pr.t</i>	Unknown	Limestone
ONL 316	R. IV year 2, III – IV <i>pr.t</i>	Kom Sud	Limestone
O. Prague H 25	R. IV year 2, III <i>pr.t</i> , day 23	Unknown	Limestone

TABLE 44. DUTY AND DELIVERY TEXTS COMPOSED WITH MARKS AND THEIR HIERATIC PARALLELS

### 3.3.15 Comparison of ostraca with marks and hieratic delivery texts: colour use

Most hieratic ostraca written by the Deir el-Medina administrators from the reigns of Ramesses III and Ramesses IV are written exclusively in black ink, although texts containing sections inscribed in red ink are occasionally attested as well.<sup>299</sup> Since duty and delivery records composed with marks are often inscribed in both black and red ink, one wonders if the same colour was used for corresponding hieratic entries. Analysis indicates however that in the majority of cases, there is no evident relation between the use of red ink on ostraca with marks and their corresponding hieratic ostraca. For example, the deliveries for day 6 of IV *šh.t* are recorded with marks on ONL 317+ and in hieratic on O. Berlin P 12629. Both records agree to a great extent, but the delivery of fish to the left side of the crew is inscribed in red ink on the ostrakon with marks and in black ink on the hieratic ostrakon. Conversely, part of

<sup>299</sup> As far as the author is aware, no thorough study has been conducted as to the meaning of these red sections.

an entry concerning one unit of dates for the right side of the crew is recorded in black ink on the ostrakon with marks, but in red ink on the hieratic Berlin ostrakon. Comparing the records for year 30, III *šmw*, we observe that some of the entries on ONL 297+, composed with marks, and hieratic ostrakon O. DeM 646 are (partially) in the same colour, but they record mostly different commodities. Perhaps the only exception is O. Glasgow D. 1925.67, which is inscribed with marks as well as in hieratic. The entry for day 9 of II *pr.t* is written in red in the hieratic account as well as in the section written with marks. Similarly, both the marks and the hieratic text recording day 10 are written in black ink. This single exception aside, there is by and large no apparent relation between the use of red and black ink in corresponding entries on ostraca with marks and hieratic documents. This supports the idea that the use of black and red ink on ostraca with marks is not meaningful but that different colours were, at least in several cases, used at different stages of the documentation.

### 3.3.16 The right and the left side of the crew

It is clear that hieratic delivery texts from the end of the reign of Ramesses III and the beginning of the reign of Ramesses IV record the duty roster for the workmen of the right side of the crew.<sup>300</sup> As there is evidence that at earlier and later times the service of the *wrš* duty was performed both by a member of the right side and a member of the left side on the same day,<sup>301</sup> it has been theorised that records of the left side of the crew from the period of year 24 of Ramesses III to year 2 of Ramesses IV did exist but had never been found.<sup>302</sup> There is however one exception, preserved on O. Ashmolean HO 127, a hieratic journal text recording the duty roster and deliveries for the first half of a month in year 29. The workmen that are recorded on duty in this text certainly belong to the left side of the crew.<sup>303</sup> The ostrakon is not very precisely dated. The number of the month in the date line is IV, but the season has not survived.<sup>304</sup> It was reconstructed to “IV *pr.t*” by Helck,<sup>305</sup> but it is now much more plausible that the document dates instead to IV *ḥ.t*. That is suggested by ONL 330+, a duty and delivery text composed with marks. This ostrakon definitely records year 29, IV *ḥ.t*, and the entries for days 9 – 22 are more or less completely preserved. When we compare the deliveries for days 10 to 15 in ONL 330+ with those recorded by O. Ashmolean HO 127 we see that the documents are in agreement to a large extent:

		Workman	Wood	Delivered by	Deficit	Fish	Delivered by	Deficit	Dates	<i>ds / qb</i> jars	<i>bt.t</i> bread	<i>psw</i> bread	vegetables	Additional
ONL 330+	Day 10	● R	-	-	-	-	-	-	-	-	∞	∞	-	-
O. Ashm. 127	Day 10	● L	-	-	-	-	-	-	-	-	∞	∞	-	-
ONL 330+	Day 11	● R	-	-	-	-	-	-	-	1	-	-	-	-
O. Ashm. 127	-	● L	-	-	-	-	-	-	-	-	-	-	-	-
ONL 330+	Day 12	● R	-	-	-	-	-	-	1 R	2	-	-	-	-
O. Ashm. 127	Day 12	● L	-	-	-	-	-	-	1 R	2	-	-	-	-
ONL 330+	Day 13	● R	-	-	-	-	-	-	-	-	-	-	-	-
O. Ashm. 127	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ONL 330+	Day 14	● R	-	-	-	-	-	-	1+x L	-	-	-	-	-

<sup>300</sup> Gutgesell, *Die Datierung* I, 67-73; Janssen, ‘Literacy and letters’, 85.

<sup>301</sup> During the reign of Siptah, see Gutgesell, *Die Datierung* I, 67; during the second half of the 20<sup>th</sup> Dynasty, see above, 3.2.7.1.

<sup>302</sup> Gutgesell, *Die Datierung* I, 73; Janssen, ‘Literacy and letters’, 85.

<sup>303</sup> Gutgesell, *Die Datierung* I, 71-72; Haring, ‘Between Administrative Writing and Work Practice’, [4].

<sup>304</sup> *KRI* VII, 299.

<sup>305</sup> Helck, *Die datierten und datierbaren Ostraka*, 312.

O. Ashm. 127	Day 14	● L	-	-	-	-	-	-	1+x L	1 L	-	-	-	-
ONL 330+	Day 15	● R	...	...	...	...	...	...	...	...	...	11	...	...
O. Ashm. 127	Day 15	● L	-	-	-	-	-	-	-	-	10	11	-	-

TABLE 45. COMPARISON OF ONL 330+ (MARKS) AND O. ASHMOLEAN 127 (HIERATIC)

The fact that both these documents largely record the same deliveries would suggest that O. Ashmolean HO 127 dates to year 29, IV *ꜥh.t* as well. Yet, the corresponding entries are remarkable, because O. Ashmolean HO 127 records the duty roster of the left side while ONL 330+ contains the duty roster of the right side of the crew. This seems to indicate that even during the last years of the reign of Ramesses III and the first years of the reign of Ramesses IV, members of the left side of the crew were – at least on one occasion and perhaps more frequently – on *wrš* duty alongside their colleagues of the right side. For some obscure reason it might have been superfluous for hieratic scribes and the scribe of ostraca with marks to record the duty roster for the members of the left side, and it is completely unclear why this was done in the case of O. Ashmolean HO 127. Perhaps there was something special about their participation in the *wrš* duty during this month, because a trace of it seems to permeate in the ostrakon with marks as well. In the entry for day 11 we read on ONL 330+:

𐎓𐎠    𐎠    𐎠    𐎠𐎠

The entry is almost perfectly comprehensible: “day 11, Huynefer [on *wrš* duty], 1 *ds* jar of beer”, but then mark 𐎓𐎠 follows. This mark is not a reference to a member of the *smd.t* personnel. Instead, we know this sign to be a workmen’s identity mark that is well attested in the 19<sup>th</sup> as well as in the 20<sup>th</sup> Dynasty. The same mark is attested on O. ARTP 99/27,<sup>306</sup> which records a list of members of the left side of the crew datable to the reign of Ramesses IV. Through different channels, mark 𐎓𐎠 on this ostrakon is identifiable as Bakenwerel (vii), a workman of the left side of the crew. It could well be that it is this workman who is recorded for *wrš* duty on year 29, IV *ꜥh.t* day 11 on ONL 330+, together with Huynefer of the right side. Regrettably we cannot verify this, because day 11 is not recorded on O. Ashmolean HO 127, and after the entry for day 10 it continues with day 12.

### 3.3.17 Comparison of ostraca with marks and hieratic delivery texts: corresponding entries and discrepancies

It has been demonstrated above that, apart from corresponding entries, there are also discrepancies between ostraca with marks and their corresponding hieratic texts. Although deliveries were recorded both with marks and in hieratic documents during the reigns of Ramesses III and Ramesses IV, these two branches of administration often record different data for the exact same day.<sup>307</sup> Take for example ONL 318+, which registers the duty roster and deliveries for II *šmw* of year 32 with marks. It overlaps to a great extent with hieratic ostrakon O. DeM 38, which is a journal text recording the duty roster, deliveries, grain rations, events and labour activities for year 32 II *šmw*. However, if we only examine the first five days of the month (overview below), we notice several differences. There are deliveries (day 3, vegetables; day 5, *ds* beer jars and vegetables) and details (day 1, *smd.t* agent delivering fish; entire entry for day 2) that are not recorded in the ostrakon with marks. Vice versa there are deliveries (day 5, dates) and details (day 5, workman on *wrš* duty) that are not mentioned in the hieratic text.

<sup>306</sup> To be discussed below, see chapter 4, 4.2.8.

<sup>307</sup> Cf. Haring and Soliman, ‘Ostraca with marks’, 88-89.

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

		Workman	Wood	Delivered by	Deficit	Fish	Delivered by	Deficit	Dates	<i>ds / qb</i> jars	<i>bt.t</i> bread	<i>psn</i> bread	vegetables	Additional
ONL 318+	Day 1	●	-	-	-	80	-	-	-	-	-	-	4	-
O. DeM 38	Day 1	●	-	-	-	80	●	-	-	-	-	-	4	●
ONL 318+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O. DeM 38	Day 2	●	-	-	-	-	-	-	-	-	-	-	-	●
ONL 318+	Day 3	●	-	-	-	-	-	-	<u>1 R</u>	4	-	-	-	-
O. DeM 38	Day 3	●	-	-	-	-	-	-	1 R	4	-	-	6	●
ONL 318+	Day 4	●	-	-	-	-	-	-	1 L	-	-	-	4	-
O. DeM 38	Day 4	●	-	-	-	-	-	-	1 L	-	-	-	4	-
ONL 318+	Day 5	●	-	-	-	-	-	-	3 R	-	-	-	-	-
O. DeM 38	Day 5	-	-	-	-	-	-	-	-	3 R	-	-	4	-

TABLE 46. COMPARISON OF ONL 318+ (MARKS) AND O. DEM 38 (HIERATIC)

In other instances, hieratic documents and ostraca with marks record the same commodities, but in different amounts. For example, if we compare ONL 338+, an ostracon with marks that records the duty roster and deliveries for the last days of IV *šmw* and the first days of I *ʒh.t* of year 28, to O. DeM 427, a hieratic journal text containing deliveries, labour activity and inactivity and events for III and IV *šmw* and the beginning of I *ʒh.t* of the same year, we notice different quantities of *bt.t* bread and *psn* bread for IV *šmw* day 30 and I *ʒh.t* day 4:

		Workman	Wood	Delivered by	Deficit	Fish	Delivered by	Deficit	Dates	<i>ds / qb</i> jars	<i>bt.t</i> bread	<i>psn</i> bread	vegetables	Additional
ONL 338+	Day 30	●	-	-	-	-	-	-	-	2	10	12	-	-
O. DeM 427	[Day 30]	...	...	...	...	...	...	...	1	2	7	8	...	...
...														
ONL 338+	Day 4	●	-	-	-	-	-	-	-	-	2	8	-	-
O. DeM 427	Day 4	●	...	...	...	...	...	...	...	...	4	[...]	...	●

TABLE 47. COMPARISON OF ONL 338+ (MARKS) AND O. DEM 427 (HIERATIC)

Still, a detailed comparison of hieratic documents and ostraca with marks indicates that a slight majority of entries is in agreement with each other. As mentioned above, our corpus includes 22 ostraca with marks that record deliveries for periods that are also covered by hieratic documents, 33 in total. Together, these 55 texts contain 249 day entries that are completely preserved in the hieratic document as well as in the corresponding document with marks, which are therefore appropriate for our comparison. These 249 day entries allow us to compare individual recorded elements: the quantities or deficits of a certain commodity. In the remainder of this chapter we shall refer to these elements as ‘quantities’. The term ‘day entry’ will be used to describe the string of elements containing a day number, its accompanying workmen’s mark, and – in most cases – the accompanying quantities. In order to account for those days during which not a single delivery was made, we shall count the day entries that are fully preserved in both the hieratic documents as well as in the ostraca with marks and for which not a single delivery is mentioned in both types of record as a single corresponding quantity. In cases where a hieratic document records deliveries of one category of commodities exclusively, e.g. fish deliveries, we shall only look at deliveries of that commodity on the corresponding ostracon with marks.

Comparing the 249 corresponding day entries in this manner, we find that there are 193 instances (for 142 day entries) in which the same quantity is mentioned both in the document with marks as well as in the hieratic record. There are 60 instances of a quantity

(for 45 day entries) that is recorded in the hieratic document, but not in the corresponding ostracon with marks, while there are 57 quantities (for 44 day entries) that are recorded in ostraca with marks but not in the corresponding hieratic document. In eight cases, (for eight day entries) the same commodity is mentioned in the hieratic document as well as in the document with marks, but the hieratic document records a higher quantity. The opposite, where a specific delivery is mentioned in both types of records, but with a higher amount in the document with marks, is attested in 11 instances (for 10 day entries).

In summary, of all comparable day entries c. 60% of the quantities is in perfect agreement, while there is a discrepancy for c. 40% of the quantities (CHART 3). This great percentage of disagreeing deliveries and deficits is difficult to explain. Our comparison also demonstrates that neither of the two branches of administration systematically records greater quantities of commodities. The relation between the hieratic records and the ostraca with marks is therefore still unclear. We will return to this matter at a later point.<sup>308</sup>

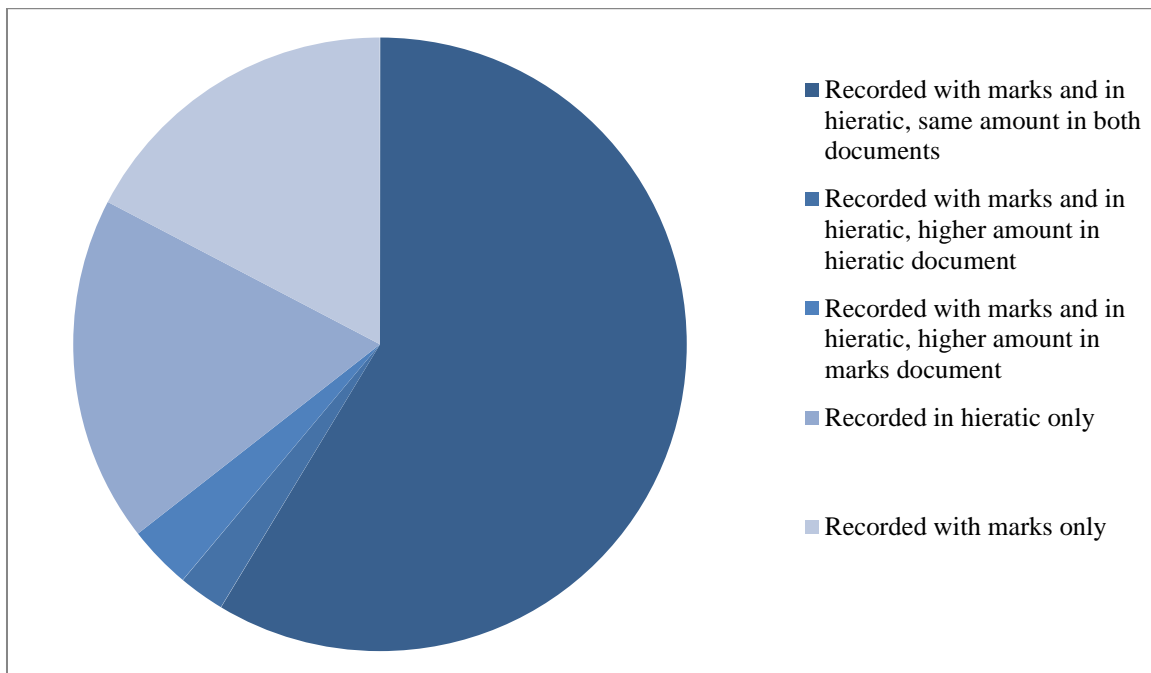


CHART 3. RATIO OF CORRESPONDING AND DISAGREEING QUANTITIES (DELIVERIES AND DEFICITS)

### 3.3.18 Comparison of ostraca with marks and hieratic delivery texts: degrees of detail

In the previous section we have investigated to what extent the quantities of a certain commodity recorded in ostraca with marks agree with the quantities recorded in hieratic documents. Another aspect that is worth comparing is to what degree each administrative branch records additional details about the deliveries. In order to do so, we focus here only on quantities of *ds* jars of beer, dates, wood and fish, because these deliveries sometimes include supplementary information: the identity of the *smd.t* member responsible for the deliveries is oftentimes recorded, the side of the gang for which the commodity is destined is sometimes mentioned, and in the case of wood deliveries we occasionally read about *sʕz.w.t.*<sup>309</sup>

There are 104 deliveries that are completely preserved and that correspond perfectly in both the hieratic documentation and in the administration kept with marks. Comparison of the details recorded for these corresponding elements leads to the following figures:

<sup>308</sup> See below, 3.3.19.

<sup>309</sup> Perhaps a *sʕz.t* 'board' according to Janssen, 'The woodcutters', 17.



### 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

#### Details regarding the delivery of *ds* jars

Both records are in agreement:	27 instances
Marks record details not mentioned in hieratic	0 instances
Hieratic records details not mentioned in documents with marks	3 instances:
O. Berlin P 12629, day 7: mentions the side of the gang	
O. DeM 35, day 16: mentions the side of the gang	
O. DeM 39, day 2: mentions the side of the gang	

#### Details regarding the delivery of dates

Both records are in agreement:	17 instances
Marks record details not mentioned in hieratic	1 instance:
ONL 318+, day 14: mentions the side of the gang	
Hieratic records details not mentioned in documents with marks	3 instances:
O. DeM 35, day 13: mentions the side of the gang	
O. DeM 155, day 12: mentions the side of the gang	
O. DeM 157, day 24: mentions the side of the gang	

#### Details regarding the delivery of wood

Both records are in agreement:	31 instances
Marks record details not mentioned in hieratic	0 instances
Hieratic records details not mentioned in documents with marks	13 instances:
O. Turin N. 57153, day 30: mentions the side of the gang	
O. DeM 646, day 11: mentions the name of <i>smd.t</i> member	
O. DeM 145, day 5: mentions two <i>stz.w.t</i>	
O. DeM 145, day 19: mentions the name of <i>smd.t</i> member	
O. DeM 145, day 21: mentions six <i>stz.w.t</i>	
O. DeM 35, day 19: mentions name of <i>smd.t</i> member	
O. DeM 37, day 11: mentions name of <i>smd.t</i> member	
O. DeM 153, day 30: mentions name of <i>smd.t</i> member	
O. DeM 39+, day 10: mentions name of <i>smd.t</i> member	
O. DeM 39+, day 11: mentions name of <i>smd.t</i> member	
O. DeM 39+, day 15: mentions name of <i>smd.t</i> member	
O. Ashmolean HO 131: mentions name of <i>smd.t</i> member	
O. Prague H 25: mentions 2 <i>stz.w.t</i>	

#### Details regarding the delivery of fish

Both records are in agreement:	2 instances
Marks record details not mentioned in hieratic	1 instance
ONL 317+, day 7: mentions name of <i>smd.t</i> member	
Hieratic records details not mentioned in documents with marks:	6 instances:
O. Berlin P 12629, day 6: mentions name of <i>smd.t</i> member	
O. DeM 142, day 4: mentions name of <i>smd.t</i> member	
O. DeM 142, day 6: mentions name of <i>smd.t</i> member	
O. DeM 142, day 7: mentions side of the crew	
O. DeM 142, day 22: mentions name of <i>smd.t</i> member and side of the gang	
O. DeM 38, day 1: mentions name of <i>smd.t</i> member	

We find that of these 104 deliveries, 77 corresponding deliveries (74.0%) display an equal amount of detail. In only two instances (1.9%) a delivery recorded in an ostrakon with marks contains more details than the corresponding entry in a hieratic source, whereas in 25 instances (24.0%) the hieratic record is more elaborate than the corresponding entry in an ostrakon composed with marks. The scribe of such documents with marks was thus, generally speaking, less concerned with the destination of goods and with the individuals responsible for their delivery, but focused instead more on the duty roster and the quantity of the deliveries.

Both this comparison of details as well as our previous analysis of agreeing and disagreeing quantities in corresponding documents indicate that there are several differences

between hieratic ostraca and ostraca with marks that both record deliveries for a specific number of days. Hence, one record is never a full reproduction of the other.

To explain this one could say that, even though duty and delivery records composed with marks and in hieratic have a common subject matter, they were written completely separately from each other, and as a consequence differ from each other in several instances. Yet, this is unlikely for a number of reasons. Many of the records of deliveries from the late reign of Ramesses III and the early reign of Ramesses IV, both composed with marks and written in hieratic, were found at the same location: the dump site of the Kom Sud. This could well mean that they were at one point kept together at an administrative office in the village. Furthermore, we have ascertained that an accomplished hieratic hand is sometimes interspersed among ostraca composed with marks, suggesting that a Deir el-Medina scribe involved in the administration of deliveries understood, read, and edited ostraca with marks. What is more, marks connected with hieratic numerals are found in the margins of a small number of hieratic delivery texts, and were possibly added by the scribe of duty and delivery texts composed with marks. It is thus extremely unlikely that both branches of administration existed entirely independently from each other.

A much more plausible explanation would be that hieratic ostraca were written after consultation of ostraca with workmen's marks. Hieratic records, mostly journal texts, are generally more complete documents than records composed with marks, as they mention the destination of a delivery and the identity of *smd.t* members more often, and frequently record details about activity at the work site and other events. The scribe of these documents may therefore have made use of the ostraca with marks to complete his journal texts. In doing so, he may have amplified, or perhaps improved, the records with information obtained from other channels, perhaps transmitted orally. Other details, such as the side of the crew to which a commodity was to be sent, may not yet have been determined at the moment the commodities were entered in the record with marks, but could have been available to the hieratic scribe when he composed his journal text.

The hypothesis that the hieratic journal texts were copied from other documents stands in complete opposition to the ideas of Christopher Eyre. He believed that the separate entries in journal texts had been added to a document on a daily basis, and stated that it was unlikely such texts were composed from drafts for a number of reasons.<sup>310</sup> Firstly, he argued, the day entries usually do not each start on a new line but were written in continuous lines. Unfortunately Eyre did not refer to any specific documents, but a quick glance at some of the hieratic journal texts reveals that there are plenty of ostraca in which a new day entry was begun on a new line.<sup>311</sup> Additionally it may be disputed whether a composition in continuous lines would have been an inconvenient format, as Eyre put it, for a text composed from a draft. As a second point Eyre drew attention to the fact that the internal ordering of commodities listed per day entry differs from entry to entry, suggesting the journal texts were not composed from separate documents with records of one specific commodity.<sup>312</sup> This may be true, but it would not rule out the possibility that journal texts were copied from ostraca with marks since these records too note all deliveries collectively. Finally, Eyre remarked that mistakes in the hieratic journal texts occur mostly at the beginning of the entries. Here the name of the workman on duty was sometimes forgotten or corrected, explained as "carelessness in making the day's first entry". Eyre pointed out that on the other hand, no errors were made in the notation of the deliveries further down the entry, mistakes that in his

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<sup>310</sup> Eyre, *Employment and Labour Relations*, 36.

<sup>311</sup> To name a few examples: O. DeM 33; O. DeM 34; O. DeM 35 (partially); O. DeM 36; O. DeM 37; O. DeM 39 (partially); O. DeM 40 (partially); O. DeM 41; O. DeM 42 (partially); O. DeM 43 (partially); O. DeM 45; O. DeM 46 (partially).

<sup>312</sup> Eyre, *Employment and Labour Relations*, 36.

opinion would have been made if the texts were copied from drafts.<sup>313</sup> This view seems too narrow. Mistakes in the notation of the workman on *wrš* duty may also be explained as errors in the draft that were consequently copied onto the journal ostraca and then needed to be corrected once the scribe noticed the inaccuracies. Indeed, the ostraca composed with marks similarly contain mistaken and corrected marks for the men on duty. Furthermore, there may well be mistakes in the deliveries recorded in hieratic journal texts, but Eyre could not detect them because he did not possess the drafts: some of the discrepancies between the hieratic records and the records composed with marks could be mistakes that occurred in the process of copying one document onto the other.

### 3.3.19 Copying and duplication

In order to explore the question if data recorded on ostraca composed with marks were copied onto hieratic documents, we may consider the case of ONL 317+, a duty and delivery text composed with marks for year 26, IV *šh.t*, and O. DeM 142, a hieratic journal text recording fish deliveries and deficits for several days in year 26, IV *šh.t* and the beginning of I *pr.t*. In terms of the delivery of fish for the days 4 to 8 of IV *šh.t* both documents are largely in agreement:

		Workman	Wood	Delivered by	Deficit	Fish	Delivered by	Deficit	Dates	<i>ds / qb</i> jars	<i>bt.t</i> bread	<i>psn</i> bread	vegetables
ONL 317+	Day 4	●	-	-	-	360 R 360 L	-	-	-	-	-	-	-
O. DeM 142	Day 4	-	-	-	-	360 R 360 L	●	-	-	-	-	-	-
ONL 317+	Day 5	●	-	-	-	-	-	-	-	-	-	-	-
O. DeM 142	-	-	-	-	-	-	-	-	-	-	-	-	-
ONL 317+	Day 6	●	-	-	-	<u>600</u> L	-	-	1 L	1 R	-	-	-
O. DeM 142	Day 6	-	-	-	-	600 L	●	-	-	-	-	-	-
ONL 317+	Day 7	●	-	-	-	950	●	-	1 R	1	-	-	8
O. DeM 142	Day 7	-	-	-	-	950 R	●	-	-	-	-	-	-
ONL 317+	Day 8	●	-	-	-	<u>450</u> 400 L	-	-	-	-	-	-	-
O. DeM 142	Day 8	-	-	-	-	400 R 400 L	●	-	-	-	-	-	-

TABLE 48. COMPARISON OF ONL 317+ (MARKS) AND O. DEM 142 (HIERATIC)

One remarkable discrepancy is found on day 8. The hieratic account of fish deliveries clearly records on this day 400 units of fish for the right side of the crew and 400 units for the left side.<sup>314</sup> ONL 317+ records the same amount of fish for the left side, but for the right side the amount of 450 is mentioned. Scrutinising this entry (FIG. 9) we find that a red check mark was added below the numeral 400, and that the numeral '50' was redone in red ink. The retracing with red ink was probably done because the initial black numeral was not particularly well executed. In fact, this poorly written numeral may explain the difference between the marks ostrakon and the hieratic document, if we assume that O. DeM 142 was written by a hieratic scribe who consulted ONL 317+, and copied the fish deliveries from it. The numeral for '50' would then have been mistaken by the hieratic scribe for †, the sign of right side of the crew. Admittedly, this numeral does not look much like the hieratic sign for † in the hand of the scribe of O. DeM 142, but it definitely does not resemble his numeral '50' either (FIG. 10 B

<sup>313</sup> Eyre, *Employment and Labour Relations*, 36-37.

<sup>314</sup> <http://www.ifao.egnet.net/bases/archives/ostraca/?id=5907>.

and C). Indeed it is plausible that a hieratic scribe would have confused the hieratic numeral ‘50’ with the hieratic sign for  $\uparrow$ . Firstly, a glance at Möller’s hieratic palaeography provides three instances of sign  $\uparrow$  (FIG. 11) that are very similar to the numeral in ONL 317+. Secondly, the hieratic scribe might have interpreted the numeral ‘50’ as the sign for the right side in analogy with the sign for the left side that is clearly added to the second amount of 400 units of fish immediately following the entry in ONL 317+. The hieratic scribe perhaps expected that the side was specified for the first numeral as well, but it is clear that the scribe of ONL 317+ omitted the sign for the right side in some instances,<sup>315</sup> probably because a delivery to the right side was by default. He similarly refrained from specifying the destination of the wood deliveries for days 7 and 22, and it is only thanks to O. DeM 142 that we know they were sent to the right side of the crew.



FIGURE 9. ONL 317+ OBVERSE, L. 8, DETAIL



FIGURE 10. A: EXAMPLE OF THE SIGN FOR THE ‘RIGHT SIDE OF THE CREW’ ON ONL 317+ OBV., L. 7  
 B: EXAMPLE OF THE SIGN  $\uparrow$  IN HIERATIC OSTRACON O. DEM 142 OBV., L. 13  
 C: EXAMPLE OF THE SIGN  $\uparrow$  IN HIERATIC OSTRACON O. BERLIN P 12629, OBV., L. 4  
 D: EXAMPLE OF THE NUMERAL ‘50’ IN HIERATIC OSTRACON O. DEM 142 OBV., L. 4  
 E: EXAMPLE OF THE NUMERAL ‘50’ IN HIERATIC OSTRACON O. BERLIN P 12629, OBV., L. 5



FIGURE 11. THREE EXAMPLES OF THE HIERATIC SIGN FOR  $\uparrow$  FROM MÖLLER, *HIERATISCHE PALÄOGRAPHIE* II, 52, NR. 579

If this reconstruction is correct, the attempt of the scribe of ONL 317+ to adjust his badly written numeral failed, and the hieratic scribe of O. DeM 142 who consulted the ostracon with marks misread his handwriting.<sup>316</sup> This would explain a discrepancy between the two ostraca,

<sup>315</sup> Something similar might occur on ONL 318+ reverse, day 10 where two quantities of wood are recorded and the sign for the left side is inscribed in between the two numerals, although it is not clear to which of the two it belongs.

<sup>316</sup> Alternatively, there may be a third document situated in between the chain of transference of data from ONL 317+ to O. DeM 142. As argued below (p. 257-258, n. 316; p. 259; p. 265) the latter document may be an extract of a hieratic journal text O. Berlin P 12629 that records the duty roster, deliveries, and events for the first half of IV *z.h.t.* Unfortunately O. Berlin P 12629 is difficult to read at the point where the fish deliveries of day 8 are inscribed. The beginning of line 6 records a quantity of 400 units of fish, after which a much faded red

but more importantly it would be another indication that a hieratic scribe was able to decipher duty and delivery ostraca composed with marks, and that he consulted them in order to write hieratic documents.

Duplication of information from one document to another is attested in the hieratic administration of Deir el-Medina on several occasions. Still, this practice is not fully understood because in many cases there are alarming differences between one text and its duplicate. Such differences have been interpreted as mistakes of the scribes.<sup>317</sup> These discrepancies between corresponding documents occur also in the work of a Deir el-Medina scribe who wrote the majority of the hieratic delivery texts during the end of the reign of Ramesses III and the beginning of the reign of Ramesses IV, and who was in the habit of duplicating data from one text to another. He is the hieratic scribe thought to be Hori,<sup>318</sup> the same man that may have collaborated with the author of all duty rosters composed with marks. A few examples of this practice were signalled and examined by Donker van Heel. One case concerns O. DeM 40+, recording deliveries for year 1, I *ꜥh.t* days 1-30, and O. DeM 41, a record of deliveries for the subsequent month. The entry for day 1 on the latter ostrakon refers to a deficit of wood that is first mentioned for day 30 on the preceding ostrakon. It is thus plausible that the scribe made use of O. DeM 40+ to write the entry for II *ꜥh.t* day 1 on O. DeM 41.<sup>319</sup>

A more evident case of duplication are ostraca O. DeM 45+ and O. DeM 46,<sup>320</sup> both journal texts recording, among other things, deliveries and the duty roster, made by the same scribe. The first ostrakon records the entire month of year 2, II *ꜥh.t*, and continues with days 1-5 of the following month, III *ꜥh.t*. These five days are also recorded on O. DeM 46, which covers all 30 days of III *ꜥh.t*. Why this information was duplicated is not immediately clear. Donker van Heel argued that, as it was this scribe's habit to start the records of a new month on a new ostrakon, he copied the last entries from O. DeM 45+ in order to begin O. DeM 46 with day 1, as he was wont to do.<sup>321</sup> Yet, we face an odd problem with these two ostraca. Although the majority of the entries is perfectly duplicated, the two documents are not entirely in agreement. Ignoring the duties rosters for the moment, we read about the following deliveries:

O. DeM 45+		O. DeM 46	
III <i>ꜥh.t</i> day 1	Wood from Ptahmose for II <i>ꜥh.t</i> day 30: <b>155</b> From Pades: wood <b>155</b> and faggots 7	III <i>ꜥh.t</i> day 1	-  From Pades: wood <b>150</b> and faggots 7 for II <i>ꜥh.t</i> day 30
III <i>ꜥh.t</i> day 2	From Pades: wood 175 Total: 330 - -	III <i>ꜥh.t</i> day 2	Wood 175 from Pades Total: 330 <b>for II <i>ꜥh.t</i> 30.</b> <b>His deficit: 170</b>
III <i>ꜥh.t</i> day 3	<i>psn</i> bread <b>24</b> wood <b>160</b> from Bakenkhonsu	III <i>ꜥh.t</i> day 3	<i>psn</i> bread <b>20</b> wood <b>166</b> from Bakenkhonsu

inscription begins. It was suggested by the editors of Deir el Medine Online that the numeral '400' was to be read at the end of this rubricum, see <http://dem-online.gwi.uni-muenchen.de/fragment.php?id=307>. Together with the kind assistance of Maren Goecke-Bauer, who gracefully supplied a high-resolution image of the ostrakon, this could be confirmed. In the light of the data gained from O. DeM 142, we are virtually certain that this second numeral '400' also concerns a quantity of fish. If this reconstruction is correct, it must have been the scribe of O. Berlin P 12629 who misread ONL 317+.

<sup>317</sup> Janssen, *Village Varia*, 14-15.

<sup>318</sup> Donker van Heel, 'Individual handwritings', 72-82.

<sup>319</sup> Donker van Heel, 'Individual handwritings', 76.

<sup>320</sup> Donker van Heel, 'Individual handwritings', 76-77.

<sup>321</sup> Donker van Heel, 'Individual handwritings', 76.

	- -		<b>for II <i>ꜥh.t</i> 30</b> <b>His deficit: 280</b>
III <i>ꜥh.t</i> day 4	<i>ds</i> jars 7 dates 2 wood 166 from Pades - -	III <i>ꜥh.t</i> day 4	<i>ds</i> jars 7 dates 2 wood 166 from Pades <b>for II <i>ꜥh.t</i> day 30 to fill it.</b> <b>Deficit: 4</b>
III <i>ꜥh.t</i> day 5	Fish 1250 <i>dbn</i> from Khonsumose Amenkha	III <i>ꜥh.t</i> day 5	Fish 1250 <i>dbn</i> from Khonsumose From Amenkha son of Amenemone: <b>Fish 1100 <i>dbn</i></b>
III <i>ꜥh.t</i> day 6	Fish 300 <b>Amenemone: fish 1100</b>	III <i>ꜥh.t</i> day 6	Fish 300 <i>dbn</i> -

TABLE 49. COMPARISON OF O. DEM 45+ AND O. DEM 46

The discrepancies have been noticed by a number of authors, but they were not able to explain them.<sup>322</sup> It is clear however that O. DeM 46 (a record of the entire month of III *ꜥh.t*) was written after consultation of O. DeM 45+ (a record of the entire month of II *ꜥh.t* and only the first few days of III *ꜥh.t*).<sup>323</sup>

Two other ostraca from year 1 of Ramesses IV provide a very similar instance of the duplication of data. The documents in question, O. DeM 47 and O. Berlin P 12641+, are hieratic journal texts, most likely written by the same scribe as well. O. DeM 47 probably recorded the entire months of I and II *pr.t* and the first four days of III *pr.t*, while the Berlin ostrakon is completely dedicated to III *pr.t*.<sup>324</sup> Without paying attention to the duty roster, we find information about the following deliveries:

O. DeM 47		O. Berlin P 12641+	
III <i>pr.t</i> day 1	<b>From Ptahmose: wood 312</b> Fish 140 <i>dbn</i> from Amenkha son of Amenemone	III <i>pr.t</i> day 1	- From fisherman Amenkha: fish 140
III <i>pr.t</i> day 2	-	III <i>pr.t</i> day 2	-
III <i>pr.t</i> day 3	From Amenhotep: wood 324	III <i>pr.t</i> day 3	From Amenhot[ep] [...]
III <i>pr.t</i> day 4	<i>ds</i> jars 2; dates 1 for the right side From Amenhotep: wood 200 to complete 500, 20 of them are charged to Khaemnun	III <i>pr.t</i> day 4	<i>ds</i> jars 2 dates 1 for the right side Wood 200 from Amenhotep [...]

TABLE 50. COMPARISON OF O. DEM 47 AND O. BERLIN P 12641+

Once more we notice that, although the two documents are largely in agreement, there is a delivery of a quantity of wood that is only recorded in O. DeM 47 and not in the Berlin ostrakon. O. DeM 47 is therefore the most complete ostrakon, hence it would seem most logical that the scribe had written O. Berlin P 12641+ by consulting O. DeM 47.<sup>325</sup>

There are several more instances of the duplication of data from ostraca recording commodities that were brought to necropolis workmen during the reigns of Ramesses III and Ramesses IV, although these ostraca were not necessarily written by the same scribe. Firstly, there are ostraca O. Berlin P 12629, which we have already briefly discussed above, and O. DeM 142.<sup>326</sup>

<sup>322</sup> Janssen, *Village Varia*, 14, n. 7; Donker van Heel, 'Individual handwritings', 77.

<sup>323</sup> Cf. Donker van Heel, 'Individual handwritings', 77.

<sup>324</sup> Donker van Heel, 'Individual handwritings', 77-78.

<sup>325</sup> Cf. Donker van Heel, 'Individual handwritings', 78.

<sup>326</sup> Probably written by the same scribe who wrote several delivery texts at the end of the reign of Ramesses III and the beginning of the reign of Ramesses IV, see Donker van Heel, 'Individual handwritings', 74, n. 135.

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O. Berlin P 12629		O. DeM 142	
[...]	[...] <i>ps</i> jar 1 right side; left side, fish 600 <i>dbn</i> from Su[tekhmose] (?)	IV <i>sh.t</i> day 6	- Left side, 600 from Sutekhmose
[...]	[Amenemo]pe; dates 1 right side; <i>ps</i> jar 1 left side [...] fish 950 <i>dbn</i>	IV <i>sh.t</i> day 7	- - - <b>Right side, fish, 950 <i>dbn</i> from Amenkha son of Khonsumose</b>
IV <i>sh.t</i> day 8	Mose; [...] fish 400 <i>dbn</i> ;  [fish] 400 <i>dbn</i>	IV <i>sh.t</i> day 8	- Right side, 400 from Amenemheb son of Tun; left side, 400

TABLE 51. COMPARISON OF O. BERLIN P 12629 AND O. DEM 142

Our next example is similar to the pair formed by ostraca O. DeM 47 and O. Berlin P 12641+ that we have already discussed above. It concerns two journal texts that document deliveries, one of which records the first days of the following month, which was recorded – probably in its entirety – on a separate ostraca. Both entries for III *sh.t* day 1 are in agreement with each other:

O. DeM 155 <sup>327</sup>		O. Prague H 14 <sup>328</sup>	
III <i>sh.t</i> [day 1]	[...] Ptahmose: wood 300 [...]	Year 31, III <i>sh.t</i> , day 1	From Ptahmose: wood 300 for II <i>sh.t</i> day 30

TABLE 52. COMPARISON OF O. DEM 155 AND O. PRAGUE H 14

However, other cases of duplication demonstrate more discrepancies. To start with, there is the curious example of O. DeM 658. This document records wood deliveries for a number of consecutive months<sup>329</sup> and although no year number is preserved on the ostraca, we are able to date it to year 30 of the reign of Ramesses III on the basis of O. DeM 646. The latter ostraca is an account of wood deliveries as well, although a quantity of bread is also mentioned. The deliveries of O. DeM 646 concern the months of year 29, IV *pr.t*, and months II – IV *šmw* of year 30.<sup>330</sup> The ostraca therefore have a common subject matter, and even though O. DeM 658 is rather fragmentary, there are a few days that are recorded in both documents:

O. DeM 646		O. DeM 658	
III <i>šmw</i> day 3	From Tja-‘a: wood 440 From Sary: wood 480 <i>psn</i> bread 10; <i>bl.t</i> bread [6]	[...]	[...] [x + ] 180
III <i>šmw</i> day 4	From Bakenkhonsu: wood 1[50]		
-	-	[...]	[... x + ?] 130
<b>III <i>šmw</i> day 6</b>	<b>160 Bakenkhonsu</b>		
III <i>šmw</i> day 8	From Bakenkhonsu: wood 180; <b>total: 500</b>	Day 8	From him: wood 180 -
III <i>šmw</i> day 11	From Tja-‘a: wood 418		
III <i>šmw</i> day 1[4]	From Tja-‘a and Iuferikh: wood	[...]	[...]

<sup>327</sup> Records deliveries for II *sh.t* days 3 – 30 and III *sh.t* day 1, after which the ostraca breaks off.

<sup>328</sup> Records deliveries for III *sh.t* days 1 – 15, after which the ostraca breaks off.

<sup>329</sup> Records deliveries for III *šmw*, day [3]; [5 ?]; 8; 15; 20; IV *šmw*, 2; 10; 19; III *sh.t*, 3; [...]; 10; 15; [...].

<sup>330</sup> Records deliveries for year 29, IV *pr.t*, 10; year 30, II *šmw*, 2; 21; 22; 24; III *šmw*, 3; 4; 6; 8; 11; 14; 15; 17; 19; 26; 29; 30; IV *šmw*, day 1.

	19 From Bakenkhonsu: wood 332		Bakenkhonsu: wood 332 <sup>331</sup>
III <i>šmw</i> day 15	Wood 166	Day 15 <sup>332</sup>	From him: wood [40 + x ?]
-	-	[...]	[Amen]wahsu: wood 570
III <i>šmw</i> day 17	From Sary: wood 432	-	-
III <i>šmw</i> day 19	From Tja-‘a: 380	-	-
-	-	Day 20	Right side: from Amenwah[su] [...]

TABLE 53. COMPARISON OF O. DEM 646 AND O. DEM 658

The deliveries of Sary on day 3 and of Bakenkhonsu on day 8 and day 14 are recorded in both ostraca, but the remaining entries are hardly in agreement. O. DeM 646 is probably the more complete document as it includes deliveries of bread and mentions totals omitted in O. DeM 658, but on the other hand O. DeM 646 does not document the deliveries of Amenwahsu that are found in O. DeM 658. The relation between the two ostraca thus remains unclear. A similar mysterious connection exists between O. DeM 658 and O. DeM 145.<sup>333</sup> The latter ostrakon records wood deliveries and for some days also the duty roster for year 30, IV *šmw* – II *šh.t*, and thus partly overlaps with O. DeM 658:<sup>334</sup>

O. DeM 145		O. DeM 658	
Year 30 IV <i>šmw</i> day 2	Coming from Amenwahsu: wood 120 From Bakenkhonsu: wood 280	IV <i>šmw</i> day 2	Right side: from him: wood 120; From Bakenkhonsu [...]
IV <i>šmw</i> day 4	<b>From Bakenkhonsu – Nakhtmin [on duty] – wood: 176</b>	-	-
IV <i>šmw</i> day 5	<b>From Bakenkhonsu: wood 160 and 2 <i>šz.t</i>; Reshupeteref [on duty]</b>	-	-
IV <i>šmw</i> day 10	From Bakenkhonsu: wood 250; Hori [on duty]	[IV <i>šm</i> ]w day 10	Right side: from Bakenkhonsu: wood 250. [...] [x+?]150
IV <i>šmw</i> day 11	<b>Coming from Bakenkhonsu: wood 200</b>	-	-
IV <i>šmw</i> day 19	Coming from Bakenkhonsu: wood 160; Khaemnun [on duty]	{III} <IV> <i>šmw</i> day 19	Right side: from Ba[kenkhonsu: wood] [...]
IV <i>šmw</i> day 21	Coming from Bak[e]nkhonsu: wood 200 and 6 <i>šz.t</i> ; {from} Penanuqet [on duty]	[...]	[...]

TABLE 54. COMPARISON OF O. DEM 145 AND O. DEM 658

As it did for O. DeM 646, O. DeM 658 contains a few duplicated entries for O. DeM 145, recorded for days 2 and 10 and perhaps day 19. On the other hand, O. DeM 145 records several other wood deliveries that are for some inexplicable reason not present in O. DeM 658. Conversely, O. DeM 658 records a delivery for day 10 that is not documented by O. DeM 145. O. DeM 145 seems to be the more complete text and so we may suppose that the

<sup>331</sup> Incorrectly transcribed by Černý as “532”, pl. 15; but see photos of this ostrakon at <http://www.ifao.egnet.net/bases/archives/ostraca/?id=7566>.

<sup>332</sup> Incorrectly transcribed by Černý as “Day 5”, pl. 15; but see photos of this ostrakon at <http://www.ifao.egnet.net/bases/archives/ostraca/?id=7566>.

<sup>333</sup> O. DeM 145 was probably also written by the same scribe who wrote many of the hieratic delivery texts discussed above as well as several other journal texts, see Donker van Heel, ‘Individual handwritings’, 74, n. 135.

<sup>334</sup> Year 30, IV *šmw*, 2; 4; 5; 10; 11; 19; 21; 23; epagomenal days; I *šh.t*, 9; 10; 14; 18; 19; 21; 29; 30; II *šh.t*, 1; 10.



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scribe of O. DeM 658 consulted it to create the latter document, but we can only guess why several deliveries were excluded.

Many odd discrepancies are also observed in the following three instances of duplicated delivery texts from the reigns of Ramesses III and Ramesses IV. In the first case there are O. DeM 36<sup>335</sup> and O. DeM 392.<sup>336</sup> The latter ostrakon is an account of deliveries of wood and expenses for several days in year 31<sup>337</sup> that seems to have been consulted by the scribe who wrote O. DeM 36, a more complete journal text that records the duty roster, wood deliveries and events for II *pr.t* of the same year:<sup>338</sup>

O. DeM 36		O. DeM 392	
II <i>pr.t</i> day 18	From woodcutter Ptahmose: wood <b>1600</b> ; from Bakenkhonsu: wood <b>730</b> for I <i>pr.t</i> day 20; <b>total wood: 29[80]</b>	II <i>pr.t</i> day 18	Ptahmose: wood <b>1300</b>  From Bakenkhonsu: wood <b>710</b>  -
[...] 19 <sup>339</sup>	From woodcutter [...] [...] <b>345</b>	Day 19	From him: [wood] <b>2300</b>

TABLE 55. COMPARISON OF O. DEM 36 AND O. DEM 392

The second case involves O. Berlin P 10634, a brief account of fish deliveries made during the first month of the *ḥ.t* season of an unknown year, and O. Brussels E. 3214,<sup>340</sup> an account of fish deliveries by fishermen Seti and Sutekhmose during months I – III *ḥ.t* of an unknown year. The Berlin ostrakon is somewhat difficult to read, and although different scholars have read the day numbers as 21 and 13,<sup>341</sup> Helck pointed out the similarity with the Brussels ostrakon, which records days 11 and 12.<sup>342</sup> The parallel is plausible, and as the Berlin ostrakon appears to contain the most details the scribe of this piece perhaps used information from the Brussels ostrakon to write O. Berlin P 10634. Still we are at a loss as to why he then omitted the quantity of wood delivered by Seti on day 12.

O. Berlin P 10634		O. Brussels E. 3214	
I <i>ḥ.t</i> day 21[sic?]	Seti son of Kha<em>met: 450	I <i>ḥ.t</i> day 11	From Seti [...] 450
I <i>ḥ.t</i> day 13[sic?]	<b>Nebmehyt: fish: 325 <i>dbn</i></b> - This day: from Sutekhmose: fish: <b>325 <i>dbn</i></b> Total: 650 Memorandum concerning the papyrus roll and the ink	I <i>ḥ.t</i> day 12	- <b>From Seti: 400 [+ x ?] [...]</b> This day: from Sutekhmose: <b>fish: 321</b>

TABLE 56. COMPARISON OF O. BERLIN P 10634 AND O. BRUSSELS E. 3214

<sup>335</sup> Another document from the hand that wrote so many delivery texts, see Donker van Heel, ‘Individual handwritings’, 74, n. 135; 75.

<sup>336</sup> This text was written by a different scribe as argued by Kathrin Gabler, *Who’s who around Deir el-Medina. Prosopographische Untersuchungen des Versorgungspersonals (smd.t / n bnr / n pꜣ ḥr) für die Arbeitersiedlung und das Tal der Könige*. PhD Dissertation. Munich and Basel (forthcoming). Her ideas are supported by palaeographic observations of Maren Goecke-Bauer, personal communication, 2015.

<sup>337</sup> Recorded are II *pr.t* 18; 19; 28; 29.

<sup>338</sup> Recorded are II *pr.t* 1-4; [...] 14 – 20.

<sup>339</sup> The obverse of O. DeM 36 deals with II *pr.t*, while the entry that might refer to day 19 of this month is situated on the reverse. It is unclear if this day 19 belongs to II *pr.t* as well; the reverse opens with a date: “Year 31 I *pr.t* day 19” after which the line becomes illegible. One line below, there is another numeral 19 after a damaged bit, presumably for “Day 19”, followed by a damaged entry recording a wood delivery. It is possible that this entry deals with II *pr.t* day 19, since it is skipped over on the obverse, but that is not certain.

<sup>340</sup> *KRI* VII, 316.

<sup>341</sup> <http://dem-online.gwi.uni-muenchen.de/fragment.php?id=152>.

<sup>342</sup> Helck, *Die datierten und datierbaren Ostraka*, 317.

Equally problematic are the ostraca in our third case: O. Cairo CG 25635, an account of the wood deliveries of Bakenkhonsu during year 31, II and III *šmw*,<sup>343</sup> and O. DeM 154,<sup>344</sup> a journal text recording deliveries and the duty roster for II *šmw* of the same year.<sup>345</sup> As O. DeM 154 is the more detailed text, we suppose once again that this text was written using the notes from O. Cairo CG 25635. Yet, comparison of the two documents demonstrates that the amounts recorded for days 20 and 21 do not agree, that a delivery on day 22 is not recorded by O. Cairo CG 25635, and that a delivery on day 30 is not recorded by O. DeM 154.

O. Cairo CG 25635		O. DeM 154	
Day 20	[Bakenkhonsu: wood] <b>146</b>	II <i>šmw</i> day 20	Coming from Bakenkhonsu: wood <b>148</b>
Day 21	[Bakenkhonsu: wood] <b>308</b>	II <i>šmw</i> day 21	Coming from Bakenkhonsu: wood <b>146</b> ; from Ptahmose: wood 274
-	-	II [ <i>šmw</i> day 2]2	<b>Coming [from Bakenkhonsu: ] wood 300 and 3 <i>šz.t</i></b>
		[II <i>šmw</i> day 23]	[...] [wood 100 + x] [...]; <i>psn</i> bread 12; <i>bl.t</i> bread 8
		II <i>šmw</i> day 24	Coming from Ptahmose: wood 200; [the potter fulfils] 750; beer: 2 <i>ds</i> jars
		[Day 2]5	Mose
		Day 26	Menna
		[Day] 27	Nakhtmin. From Khonsumose: fish 244
		[Day] 28	Hori
		Day 29	Iyerniutef. Coming from the potter: 2 units, 55 <i>ib.w</i> for II <i>šmw</i> day 30; deficit: 65 Coming fro[m Ptahmose: wood] 270; beer: 2 <i>ps</i> jars
Day 30	<b>[Bakenkhonsu: wood] 330;</b> <b>total: 630</b>  Commissioning Pawekhede: wood 90; deficit: 40. -	II <i>šmw</i> day 30	- - Coming from Ptahmose: wood 270 Coming from Ptahmose: wood 280 This day: commissioning his son [...]  [Weighing the ...]

TABLE 57. COMPARISON OF O. CAIRO CH 25635 AND O. DEM 154

Our final case of duplication is most interesting: O. DeM 39+ and P. Turin Cat. 1946 + 1949. Both documents form the basis for the hypothesis that most documentary ostraca were in fact drafts, used to compose large journal texts on papyrus, which were either sent to the central administration in Thebes in original form, or in copy or extract.<sup>346</sup> Once again we see that the corresponding day entries in the two documents record different matters:

<sup>343</sup> Recorded are II *šmw*, 2; 4; 6; 8; 13; 16; 20; 21; 30; III *šmw*, 30.

<sup>344</sup> Yet another text made by the scribe of several delivery texts, see Donker van Heel, 'Individual handwritings', 74, n. 135.

<sup>345</sup> Recorded are II *šmw*, [...] 16-30. Compare Wolfgang Helck, *Materialien zur Wirtschaftsgeschichte des Neuen Reiches*. (Teil V). III. *Eigentum und Besitz an verschiedenen Dingen des täglichen Lebens*. Kapitel AI – AL. Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse 4 (Mainz 1965), 869.

<sup>346</sup> Černý, *Community*, 226-227; Valbelle, *Les ouvriers*, 49 and n. 6; Janssen, 'Literacy and Letters', 94; Donker van Heel, 'Drafts', 36-37.

3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

O. DeM 39+		P. Turin Cat. 1946 + 1949 vso. I	
III <i>šmw</i> day 11	Hori - <b>From Ptahmose: 340 wood</b>	III <i>šmw</i> day 11	- Inactive -
III <i>šmw</i> day 12	Weserhat - <b>270 from Bakenkhonsu</b> - -	III <i>šmw</i> day 12	- This place - <b><i>ds</i> jars 2</b> <b>dates 1</b>
III <i>šmw</i> day 13	Minkhau -	III <i>šmw</i> day 13	- This place
III <i>šmw</i> day 14	Iry-‘a <i>ds</i> jars 2 dates 1 <b>right side</b> -	III <i>šmw</i> day 14	- <i>ds</i> jars 2 dates 1 - <b>vegetables [...]</b>
III <i>šmw</i> day 15	Harshire - <i>psn</i> bread 8 <i>bi.t</i> bread 8 From Mehy: 277 <i>dbn</i> fish From woodcutter Amenhotep: 480 wood	III <i>šmw</i> day 15	- Working <i>psn</i> bread [...] <i>bi.t</i> bread 8 [...]
III <i>šmw</i> day 16	Iyerniutef - <b><i>ds</i> jars 2</b> Passing away of the king	III <i>šmw</i> day 16	- This place - Announcement of the passing away of the king

TABLE 58. COMPARISON OF O. DEM 39+ AND P. TURIN CAT. 1946 + 1949 VSO. I

We are not at all certain about the relation between the papyrus and the ostrakon, or about the purpose of both documents.<sup>347</sup> What is clear is that the scribe of the papyrus was not interested in documenting wood deliveries and the duty roster. He did note the deliveries of *ds* jars, dates, vegetables and different types of bread for some days, but apparently not as consistently as the scribe of the ostrakon did, omitting several deliveries. On the other hand, he records such goods on days for which they are not attested on the ostrakon. In contrast to the scribe of the ostrakon, the scribe of the papyrus does not seem to have been concerned with such details as the destination of a commodity to one of the two ‘sides’ of the crew. It is possible that the scribe of the papyrus used the ostrakon while composing his text, choosing to include certain elements of the ostrakon as he went along, perhaps indeed in an attempt to produce a document with a neat appearance for the expected audit by the scribes of the vizier.<sup>348</sup>

Our brief – and probably incomplete – survey of the duplication of information regarding deliveries and the duty roster in the hieratic administration of the end of the reign of Ramesses III and the beginning of the reign of Ramesses IV suggests that the practice of copying, or at least, of consulting older documents, was not uncommon. We may distinguish four different types of duplication of information: 1. journal texts composed on ostraca, information from which was incorporated into greater journal texts written on papyrus;<sup>349</sup> 2. journal texts covering successive months, with one text reiterating data already noted in the text of the previous month;<sup>350</sup> 3. accounts of deliveries of a particular commodity made during

<sup>347</sup> Cf. Eyre, *Employment and labour relations*, 43-44; Donker van Heel, ‘Drafts’, 36.

<sup>348</sup> Donker van Heel, ‘Drafts’, 36-37.

<sup>349</sup> O. DeM 39+ and P. Turin Cat. 1946+.

<sup>350</sup> O. DeM 40+ and O. DeM 41; O. DeM 45+ and O. DeM 46; O. DeM 47 and O. Berlin P 12641+; O. DeM 155 and O. Prague H 14.

a specific timeframe, one of which seems to be less complete than the other and may have served as a draft for the more complete text;<sup>351</sup> and 4. accounts of deliveries of a certain commodity that are also recorded in more detailed journal texts.<sup>352</sup> Regarding the accounts in this last category, we may wonder whether they served as drafts for journal texts. That could be the case, but the accounts might just as well have been extracts of journal texts. Such accounts are concerned with one particular commodity, either wood deliveries or fish deliveries, and may have been composed using earlier texts in order to calculate deficits.

We will return to this question in an instant, but before we do so it is important to note that many instances of duplication of information involve texts written by a single scribe. Oddly, inexplicable discrepancies in the quantities of the recorded deliveries occur in the majority of these pairs of documents, while some details are omitted altogether. These differences in two corresponding documents occur so often that it is hard to explain them as mere mistakes. While these inconsistencies in hieratic documents are enigmatic, we are by now quite familiar with such matters because we have seen that the exact same sort of discrepancies exist between duty and delivery records composed with marks and corresponding hieratic texts.

In fact, a closer look at ostraca composed with marks and hieratic administrative texts indicates that the practice of duplication of information is more complex than previously assumed, because for some of the hieratic duplicates mentioned above another duplicate composed with marks exists as well:

1. Ramesses III, year 26, IV *šh.t* days 4-8 are recorded in hieratic ostraca O. Berlin P. 12629 and O. DeM 142, but also by ONL 317+
2. Ramesses III, year 30, III *šmw* days 3-15 are recorded in hieratic ostraca O. DeM 646 and O. DeM 658, but also in ONL 297+
3. Ramesses III, year 30, IV *šmw* days 3-21 are recorded in hieratic ostraca O. DeM 145 and O. DeM 658, but also in O. Ashmolean HO 1084
4. Ramesses III, year 32, III *šmw* days 11-16 are recorded in hieratic ostraca O. DeM 39+ and P. Turin Cat. 1946+, but also by ONL 318+

In our first group of ostraca there are no discrepancies with the exception of the delivery of fish for day 8, which as discussed above might be due to a misinterpretation of a sign on ONL 317+. This ostraca composed with marks and O. Berlin P 12629 have more in common, as both documents record the duty roster and daily deliveries, while O. DeM 142 is only concerned with fish. In the next group of documents, it is clear that the record with marks is a better parallel for O. DeM 646 than for O. DeM 658. The latter text records several deliveries which are not attested on the ostraca with marks. The third group of ostraca is somewhat difficult to compare as O. DeM 658 is very fragmentary. Yet, O. DeM 658 seems to omit several deliveries recorded on O. DeM 145, and therefore O. Ashmolean HO 1084 is more in agreement with O. DeM 145.

We notice that, in all these cases, the records composed with marks display a greater degree of similarity to the more complete of the two corresponding hieratic documents, in most cases a journal text. That is noteworthy. As was argued above, there are indications that the ostraca with marks were copied, or rather transcribed, by the scribes of hieratic journal texts. If this hypothesis is correct this would suggest that hieratic journal texts were written before the accounts of a single commodity were produced. This follows from the fact that 1) it is unlikely that the scribe of documents with marks copied the hieratic accounts, and 2) the hieratic journal texts are more in agreement with ostraca composed with marks than hieratic

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<sup>351</sup> O. DeM 646 and O. DeM 658; O. DeM 145 and O. DeM 658; perhaps O. Berlin P 10634 and O. Brussels E. 3214.

<sup>352</sup> O. Berlin P 12629+ and O. DeM 142; O. DeM 154 and O. Cairo CG 25635.

accounts are, suggesting that in the chain of the transference of information they are situated closer to the mother copy, i.e. the ostrakon with marks, than the accounts are. As a consequence, the hieratic accounts must be extracts from rather than drafts for hieratic journal texts.

The last group of corresponding documents is interesting because it concerns an ostrakon with marks, a hieratic ostrakon and a hieratic papyrus.<sup>353</sup> Both ostraca are clearly related to each other, and we observe few discrepancies between these documents. There are no details mentioned in the ostrakon composed with marks that are absent in the hieratic ostrakon but present in the papyrus. If this had been so, that would be a strong indication that the scribe of the papyrus would have read, or at least would have had knowledge of the content of, the ostrakon composed with marks. Since this is not the case, we may propose that scribe of the papyrus had only consulted the hieratic ostrakon. This ostrakon in turn records much of the same information documented by the ostrakon with marks. Almost all of the data correspond perfectly, although the ostrakon with marks lists deliveries of *ds* jars for days 13 and 19 that are left out in the hieratic document, which in turn mentions some deliveries that are omitted on the marks ostrakon such as a quantity of fish for day 15 and a quantity of wood on day 20. In addition, the hieratic ostrakon records several events such as the passing away of king Ramesses III. Naturally, such details are not included in the ostrakon written with marks.

It is therefore hieratic ostrakon O. DeM 39+ that, of all three documents, is most complete. Considering the limited knowledge of hieratic script displayed by the scribe who used marks to record information, it is very unlikely that he copied from hieratic sources. His ostrakon was therefore probably composed before the other two documents were. There is little overlap between the ostrakon with marks and the hieratic papyrus, but the content of the hieratic ostrakon is closely related to that of the ostrakon with marks. It is thus plausible that this hieratic scribe did make use of the ostrakon with marks when he composed his journal text. This hieratic record may then in turn have been consulted, albeit to a very limited extent, by the scribe of the hieratic papyrus.

### 3.3.20 Conclusions

Duty and delivery documents composed with workmen's marks seem to record a minimum of data, all concerned with the daily delivery of goods, occasionally the deficits of goods, and the individuals involved in the process of delivery, most importantly the workmen who were on *wrš* duty. The duty roster that is included in the ostraca with marks almost exclusively involves workmen of the right side, but in at least one instance there are strong indications of the existence of a simultaneous duty roster of the left side. The turnus, the rotating system of *wrš* duties, must have had a predominantly functional character, because, as we have seen, several changes took place in the order of workmen on duty towards the end of the reign of Ramesses III.<sup>354</sup> These changes were painstakingly recorded and mistakes were corrected. Moreover, numerous check marks (19 out of 36) were added to the workmen's marks, presumably during a review of the document. Even though ostraca with marks regularly include details about the identity of the *smd.t* members responsible for certain deliveries, deficits and the destination of a commodity to a particular side of the crew, the documents are in this respect less elaborate than hieratic documents of the same genre.

<sup>353</sup> It should be mentioned here that P. Turin Cat. 1946+ belongs to a group of (fragmentary) journal texts inscribed on papyri from the reign of Ramesses III, which still await publication. Therefore it is very likely that there are more papyri that are duplicates of ostraca with marks and ostraca inscribed in hieratic.

<sup>354</sup> See above, 3.2.3.1 – 3.2.3.6; 3.2.5; 3.2.7.2 – 3.2.7.8; the shifts and replacements during the end of the reign of Ramesses III are summarised in Collier, 'Integrating Hieratic and Marks Data'.

The palaeography and the consistency in subject matter and lay-out of the ostraca that record deliveries and the duty roster with marks suggest that a single individual authored virtually all of these documents. The ostraca reveal a systematically organised branch of the Deir el-Medina administration. Nevertheless, the ostraca are evidently non-canonical in character and differ greatly from documents written by formally trained administrative scribes. That is evident in the unusual situation of different entries on the available surface of the document, but even more so in the non-standard references to months and festivals. All evidence indicates that a single workman devised his own system of notation, using hieratic numerals, self-invented signs and workmen's marks. This individual was not a fully trained hieratic scribe, as suggested by the absence of hieratic inscriptions, the deviant lay-out of his documents and some scribal errors made in the inscription of hieratic numerals. Nevertheless, the scribe of the ostraca with marks was to some extent acquainted with hieratic script, and in most instances he noted down hieratic numerals without any problems. His knowledge of script is also reflected in the signs he used to refer to commodities, members of the *smd.t* personnel, and months. These include hieratic biliteral signs (e.g. *h<sup>c</sup>* for Amenkha; *ms* for Ptahmose and Khonsumose) and trilateral signs (e.g. *h<sub>3</sub>tp* for *imn-h<sub>3</sub>tp* and *p<sub>3</sub>-imn-h<sub>3</sub>tp*; *wsr* for *wsr-h<sub>3</sub>.t-nh.t*). On the other hand, the scribe appears to have had a preference for uniliteral signs:

<i>s</i>	for <i>sw</i> ; for <i>s<sub>3</sub>ry</i>
<i>b</i>	for <i>bi.t</i> bread
<i>h</i> (+ <i>t</i> )	for <i>h<sub>3</sub>.t</i> in <i>h<sub>3</sub>.t-nfr</i> ; for <i>hr</i> in month <i>hw.t-hr</i>
<i>h</i>	for <i>h<sub>3</sub>sw</i> in <i>b<sub>3</sub>k-n-h<sub>3</sub>sw</i> ; <i>h<sub>3</sub>sw-ms</i> ; for <i>hnt.y</i> in <i>pn-p<sub>3</sub>-hnt.y</i>
<i>p</i>	for <i>p<sub>3</sub></i> in <i>p<sub>3</sub>-ds</i> ; <i>pn-p<sub>3</sub>-hnt.y</i> ; <i>p<sub>3</sub>-imn-h<sub>3</sub>tp</i>
<i>i</i>	for <i>imn</i> in <i>imn-m-in.t</i> ; <i>p<sub>3</sub>-imn-h<sub>3</sub>tp</i>

Particularly the usage of the signs *h* and *t* instead of the sign *h<sub>3</sub>.t* to refer to the fisherman Hatnefer are illustrative of the extent of his familiarity with script. It seems that uniliteral signs were more accessible than multiliteral signs to someone without formal scribal training.

Although the records with marks appear to be the output of one man, there are clear indications that a hieratic scribe with a neat hand aided the marks scribe in four instances. Cooperation is also suggested by hieratic journal texts recording deliveries that contain workmen's marks and hieratic numerals in their margins. The fact that records of deliveries written with marks and written in hieratic often have a common provenance supports the idea that the scribe of ostraca with marks and presumably a single hieratic scribe occasionally joined forces.

Evidence for revision of ostraca with marks is found in the form of check marks, later additions, and corrections. They illustrate the importance of the documents. Such elements also demonstrate that the documents were composed in several stages. That is suggested moreover by the frequent use of a different colour of ink for corrections and additions. Additionally, some scribal mistakes are unlikely to have been made if the document had been written at a single time rather than at different stages. Consecutive stages in an ostrakon are often recognisable by a single series of entries written in one particular colour. Some scribal errors indicate that such sections could have been written at a single time. As duty and delivery records composed with marks were created at different stages, a hieratic scribe involved in the administration of the deliveries could add entries to such documents. In such instances the hieratic scribe mostly employed marks rather than hieratic script. This proves that there was a hieratic scribe who was able to comprehend the delivery documents composed with marks and revised them.

The fact that many of the delivery records composed with marks were not inscribed in one session but during several stages, and that additions and corrections were made to the

documents is indicative of the function of the records. The documents are in all probability records of items that had been delivered, rather than order lists of commodities the crew of workmen wished to have delivered to the settlement. One would expect more unity in order lists, which are likely to be written in one fell swoop, with a distinct idea of what commodities were required during a specific month. Records of incoming goods, on the other hand, may be entered into the books on a daily basis or at certain intervals, at which point earlier entries may be corrected and additions can be made. It also seems less likely that order lists would specify the members of the external service personnel before the actual delivery had taken place.

The ostraca with marks were undoubtedly stored for a period of time after they were composed. This follows from the attestation of palimpsests, the existence of an ostrakon with records from two different years, evidence for different phases of inscription, evidence of revision and correction, as well as the habit of adding date lines to the ostraca. Like many hieratic records of deliveries from the reign of Ramesses III, the majority of these contemporaneous ostraca with marks were deposited at the Kom Sud. However, after year 2 of Ramesses IV the provenance of the majority of ostraca with marks shifts towards the Valley of the Kings. Likewise, the use of pottery as a medium becomes less frequent and limestone is more often chosen. This new evidence challenges the view of Donker van Heel that administrative ostraca from the Valley of the Kings deal almost exclusively with labour activities at the work site and not with deliveries.<sup>355</sup> It would appear that this shift towards the Valley of the Kings coincides with changes in local administrative practice: after year 2 of Ramesses IV hieratic journal texts on ostraca recording the duty roster and daily deliveries ceased to be produced on a regular basis. During the reign of Ramesses IV and much of the reign of Ramesses V, such documents were predominantly created by the scribe of the ostraca with marks, and with perhaps a few exceptions such as O. Cairo CG 25609 and O. DeM 655, no longer by hieratic scribes. This development is possibly related to the delayed start of the excavation of the tomb of Ramesses IV. Janssen has demonstrated that the protests of the workmen at the beginning of year 1, and perhaps also the belated appointment of a new vizier caused the first work on the royal tomb to be postponed to year 2. It is in this year that the workforce was increased to 120 men,<sup>356</sup> probably to make up for lost time.<sup>357</sup> One may speculate that the crew of workmen resided more frequently and for longer periods at the site of workmen's huts in the Valley of the Kings because work on the construction of the royal tomb had become very demanding from year 2 of Ramesses IV onwards.<sup>358</sup>

Among the finds from the huts settlement near KV 18, occupied for c. 25 years from about the reign of Ramesses IV onwards,<sup>359</sup> there were relatively few hieratic administrative ostraca. Dorn suggested that during this time in the 20<sup>th</sup> Dynasty hieratic documents were no longer written on ostraca, but straight onto papyrus. The few hieratic documents that came from this site were tentatively explained as rare drafts of texts that were copied onto papyrus, scribal exercises, and private accounts.<sup>360</sup> The duty and delivery texts composed with marks from the reigns of Ramesses IV and Ramesses V indicate nevertheless that this genre of texts continued to be produced on ostraca. The use of ostraca for administration was therefore not completely abandoned, and the assumed scribal exercises may in fact have been real records.

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<sup>355</sup> Donker van Heel, 'Drafts', 1.

<sup>356</sup> P. Turin Cat. 1891 rto.

<sup>357</sup> Janssen, *Village Varia*, 162-163. Compare also Sara Demichelis, 'Le projet initial de la tombe de Ramsès IV? Papyrus de Turin CGT 55002' *ZÄS* 131 (2004), 132-133.

<sup>358</sup> The age of the king could hardly be the reason that the necropolis workmen were overburdened with work on the tomb, as Ramesses IV was not extremely old at the time of his accession, c. 35 years according to Alexander J. Peden, *The reign of Ramesses IV* (Warminster 1994), 16.

<sup>359</sup> Dorn, *Arbeiterhütten*, 217.

<sup>360</sup> Dorn, *Arbeiterhütten*, 142.

It is of course possible that the information in the records composed with marks was, as proposed by Dorn, directly transferred in hieratic onto papyri.

It would thus seem that during the first half of the 20<sup>th</sup> Dynasty, the practice of using ostraca with marks to record deliveries and the duty roster is attested for a longer period than the use of hieratic ostraca for the same genre. We are unaware of such ostraca with marks from the first half of the reign of Ramesses III. As there are no similar records from the hieratic branch of administration before year 20 either, with perhaps the exception of fragmentary ostrakon O. DeM 253,<sup>361</sup> we might interpret this as an indication that the practice of recording the duty roster and the daily deliveries was not established yet in the first years of the reign of Ramesses III.<sup>362</sup> This does not mean that journal texts were not composed at earlier times. P. Greg demonstrates that in the reign of Siptah journal texts were written on papyrus, perhaps also composed from daily notes written on ostraca.<sup>363</sup> In addition, there are plenty of delivery texts as well as some documents that seem to record a duty roster, which date to earlier times in the 19<sup>th</sup> Dynasty.<sup>364</sup> We can only speculate as to whether they too were synthesised into a journal papyrus.

Journal texts from the 20<sup>th</sup> Dynasty composed with marks are comparable to hieratic journal texts in terms of their length, as they both prefer to record an entire month. Similarly, during the reigns of Ramesses III and Ramesses IV there seems to have been a single scribe, perhaps Hori, who recorded most of the duty and delivery texts, alongside a single scribe, perhaps Pentaweret (iii), who recorded these matters with marks. Hieratic records are however often more elaborate and include information about distribution of goods, deliveries of goods other than the daily commodities, details about activity and inactivity at the worksite, and other events.

The duty and delivery records composed with marks were created first and foremost for the administration of the Deir el-Medina community. We come to this conclusion through the fact that one of the most characteristic features of the documents is the inclusion of the *wrš* duty roster, an organisational device that was worth recording only for the local scribes. Additionally, there are no indications that anyone outside of the community of necropolis workmen would have been able to decipher the marks and signs with which the ostraca were inscribed.

It remains difficult to explain why ostraca with marks were produced exactly. One would expect that there were enough educated scribes among the workmen of the royal necropolis to document such matters in hieratic script, but perhaps this idea should be nuanced. It has been pointed out that wick accounts from the reign of Ramesses III are much more concise and abbreviated in comparison to wick accounts of the 19<sup>th</sup> Dynasty, written with abbreviated formulas and even acronyms, such as *h* for *hꜣw* ‘expense’.<sup>365</sup> Could this be another indication that the administration of the community of necropolis workmen had, in the 20<sup>th</sup> Dynasty, become too demanding and too time consuming? Was this the reason that a semi-literate workman was commissioned to assist the village scribes by keeping records of duty roster and deliveries? We can only speculate.

But perhaps the opposite is the case: the administration of the last 10 years of the reign of Ramesses III had not become more casual, but more meticulous. There may have been a need for more checks and balances, and indeed, as we have seen there is plenty of evidence for copying and duplication of hieratic records of deliveries during the late reign of Ramesses III and the early reign of Ramesses IV. In favour of this idea weighs the fact that this is the

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<sup>361</sup> But see above, p. 184, n. 108.

<sup>362</sup> Contra Janssen, ‘Literacy and letters’, 85.

<sup>363</sup> Janssen, *Village Varia*, 111-130.

<sup>364</sup> See chapter 5, 5.3.2.2.

<sup>365</sup> Donker van Heel, ‘Individual handwritings’, 70-71.



period in which the number of hieratic documentary texts at the Theban Necropolis reaches its peak. The increase in written administration as well as the standardisation thereof has been explained by Haring as the result of the high amount of literati in the community of Deir el-Medina, coupled with an awakened interest in the use of documents as *aides-mémoires*.<sup>366</sup> This may have inspired an untrained ‘*smd.t* scribe’ to generate his own records, and his ostraca with marks could well have played a role in a complex system of bookkeeping. It is not likely that records with marks were created entirely independently from the administrative scribes of Deir el-Medina, as marks are sometimes found on hieratic ostraca, and a hieratic hand can be detected in four duty rosters composed with marks. It is equally improbable that the marks scribe converted hieratic documents into ostraca with marks, since he was not fully literate. The fact alone that the scribe of the ostraca with marks nowhere in his documents used the horizontal numerals commonly used for hieratic day numbers renders it implausible that he would have been able to read hieratic records. In contrast, there is evidence that a hieratic scribe was able to employ the system of signs and identity marks to inscribe a few entries on ostraca with marks, and was thus able to read such ostraca as well. The purpose of the ostraca with marks lies perhaps in this hieratic scribe’s interest in the ostraca with marks. These records must have been created before the hieratic documents were written, and were transcribed by a scribe who wrote hieratic journal texts. A concrete indication of transcription is provided by ONL 317+, which appears to have been misread by the scribe of O. Berlin P 12629. This suggestion is supported by the fact that many ostraca with marks were demonstrably written over the course of several phases, while the hieratic records are generally of a well-organised and neat composition by comparison. Moreover, there is no evidence of the duplication of information from one document composed with marks to another document composed with marks. This reinforces the idea that after the marks scribe had finished his month record, he no longer used it but passed it on to a hieratic scribe for him to consult during his preparation of hieratic journal texts.

The scribe of hieratic journal texts of the end of the reign of Ramesses III to year 2 of Ramesses IV seems therefore to have relied on the marks scribe to provide him with the records of the commodities that were delivered, perhaps not every month but certainly on a regular basis. As Donker van Heel suggested, the scribe of the hieratic journal texts could not have been both at the worksite and at the *h<sub>tm</sub>* where the deliveries were brought.<sup>367</sup> He therefore needed to combine data from different sources, and the ostraca with marks appear to have served as one of them. Nevertheless, there are many discrepancies between the records composed with marks and their corresponding hieratic documents. Unfortunately we are unable to fully explain these puzzling differences, but as has been pointed out, very similar and equally unexplained discrepancies exist between hieratic documents and their duplicates. We may suppose that the hieratic scribe corrected and augmented his documents, perhaps with the aid of orally transmitted information.

### 3.4 THE DUTY ROSTERS AS A MNEMONIC DEVICE?

It has been hypothesised in a paper by Haring that the existence of a duty roster in the community of necropolis workmen was not specifically related to the transfer of supplies and rations to the village, but that it served a more general purpose. It was viewed as a mnemonic, used “as a help to remember individual days and what had happened on them”.<sup>368</sup> The argument was based on the suggestion that the duty roster is in hieratic administration not exclusively related to the delivery of commodities:

<sup>366</sup> Haring, ‘From Oral Practice to Written Record’.

<sup>367</sup> Donker van Heel, ‘Drafts’, 35.

<sup>368</sup> Haring, ‘Between Administrative Writing and Work Practice’, [5].

1. The *wrš* duty is also recorded in hieratic journal ostraca that document only the absence or presence of workmen.
2. The *wrš* duty is also mentioned in legal contexts
3. Many hieratic administrative documents record deliveries without mention of the *wrš* duty roster

In addition, it was pointed out that the duty roster was recorded with marks during periods in which the roster was omitted from the hieratic administration. Haring surmised from this that the administrative scribes had no practical necessity for the duty roster, and that it was not particularly invented for the written administration. Instead, he argued, it must have existed independently from scribal practice.<sup>369</sup> The duty roster was seen as “[o]ne of the local habits [...] presumably a mnemonic in the workmen’s daily practice, even though it hardly had added value for recording the progress of work and supplies.”<sup>370</sup> Haring contrasted the custom of administrative scribes of employing the civil calendar to date events with the ostraca that record the duty roster with marks. The latter system was therefore interpreted as a mnemonic that originated from a local non-literate tradition.<sup>371</sup>

Several of Haring’s observations are valid, but some refinement is in order. To begin with, the *wrš* duties do seem to be exclusively related to the organisation of the delivery of commodities. That is certainly the case for the ostraca composed with marks, but presumably also for the hieratic texts. Haring’s second point that the *wrš* duty is mentioned in legal contexts is based on two documents. In both texts the scribe refers to the *wrš* duty to explain the presence of a particular workman at the office of the *htm*. It is clear that he was there to await and coordinate the deliveries that were transferred to the village on that day.<sup>372</sup> Haring’s first point is correct. Indeed the mention of the *wrš* duty in such texts is odd, but this pertains to a more general question that we have discussed in the previous sections: why did the necropolis scribes put so much effort in recording details that will have been meaningless to Theban authorities and many of the necropolis workmen alike? The mention of the *wrš* duty in such texts cannot be explained, but it constitutes no argument against the connection between the duty roster and the organisation of deliveries.

Haring’s third point is true as well, and we can side with him on this statement. The hieratic scribes seem to have been selective in their mention of the duty roster. This ties in with Haring’s comment that the duty roster is recorded with marks at periods when hieratic scribes seem to have had no attention for the system. Indeed, this leads to the impression that the duty roster was not devised for scribal administrative purposes but is much more a part of local and practical customs.

Whether it truly functioned as a mnemonic may be disputed. First of all, it should be remarked that the duty rosters composed with marks could not do without the civil calendar either. The 20<sup>th</sup> Dynasty duty rosters composed with marks invariably occur in combination with day dates, and the addition of month signs and year numbers was not uncommon.<sup>373</sup> This weighs against the idea that the system functioned independently of the civil calendar. Moreover, it is doubtful if the duty roster would have been effective as a mnemonic. It has been demonstrated in this chapter that the roster was frequently subject to modifications caused by internal shifts, the departure of workmen and the introduction of new ones. At times, these alterations were so confusing that the scribe of the ostraca with marks himself made mistakes in the notation of the correct sequence. Additionally, the ostraca show that on

<sup>369</sup> Haring, ‘Between Administrative Writing and Work Practice’, [6].

<sup>370</sup> Haring, ‘Between Administrative Writing and Work Practice’, [7].

<sup>371</sup> Haring, ‘Between Administrative Writing and Work Practice’, [7-9].

<sup>372</sup> See above, p. 168, n. 3.

<sup>373</sup> For a time when duty rosters may have been created without the mentions of day dates, see chapter 5, 5.3.2.2.

### 3. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART I

rare occasions the workmen deviated from the roster, as an individual would take over the tasks of a colleague during a particular month.

None of these aspects are the hallmarks of a functional mnemonic device. The roster makes instead much more sense as a true schedule of the individual responsibilities of the workmen to keep the delivery system running. That seems to have been its primary purpose, but it does of course not exclude the possibility that the roster, evidently an important feature of everyday life during the first half of the 20<sup>th</sup> Dynasty, came to be used as a mnemonic device as well. Significantly, the order of workmen in the duty rosters seems to be a derivative of ordered lists of the entire crew, which in turn appear to be reflections of an actual hierarchy on the workforce. We will be introduced to such ordered name lists and their relevance in the next chapter.<sup>374</sup>

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<sup>374</sup> See chapter 4, 4.1; 4.3.3.1; see also chapter 6, 6.5.4.6.

## CHAPTER 4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II: LISTS, ACCOUNTS, AND OTHER DOCUMENTS

### 4.1 INTRODUCTION

The examination of the duty rosters from the 20<sup>th</sup> Dynasty in the previous chapter has provided us with a solid basis for the endeavours that lie ahead of us. We have been able to identify the persons behind several workmen's marks, and this knowledge will be crucial for the understanding of the ostraca examined in this chapter and the next. Many of the ostraca that shall require our attention contain ordered lists of workmen's marks: the workmen are recorded in a particular sequence that is to a certain extent dictated by the hierarchical position of workmen within the crew.<sup>1</sup> As the crew was divided into a right and a left side, there were two ordered lists for each one. The list is headed by the chief workman of that side, followed by the necropolis scribe, and then by the deputy of the corresponding side. We are familiar with such ordered lists, because we have encountered them already in the 18<sup>th</sup> Dynasty<sup>2</sup> and we have discussed some 20<sup>th</sup> Dynasty lists in the previous chapter.<sup>3</sup> During the Ramesside Period, such lists were also recorded in hieratic documents. They can be compared to ordered lists composed with workmen's marks, and this sometimes results in the identification of the workman behind a specific mark. Discussing the ordered lists found in hieratic sources of the 19<sup>th</sup> Dynasty<sup>4</sup> and the 20<sup>th</sup> Dynasty,<sup>5</sup> Collier had – hesitantly – coined the phrase “roster sequence”, because it is the same sequence (minus the scribe and the foreman) that determined during the Ramesside period the order of the turnus of *wrš* duties. It certainly is true that the ordered lists were used to organise the turnus, but ordered lists have served other purposes as well. They were used to record attendance, to create accounts of the distribution of goods, or simply to provide an inventory of all workmen of the crew during a specific moment. For that reason, we shall refrain from using the term ‘roster sequence’ and instead keep to ‘ordered list’. Quite a number of ordered lists with identity marks were composed during the 20<sup>th</sup> Dynasty, and through them we can follow the shifts that took place within the hierarchy of the crew: new workmen were introduced, workmen were transferred from one side of the crew to the other, younger men made their career and became senior workmen, deputies were promoted to the position of foremen, etc. Owing to these constant changes we are at times able to propose a relative date for an ostrakon with marks, because some of these events are known from dated hieratic documentary texts as well. In this chapter will pick up our journey in the middle of the 20<sup>th</sup> Dynasty, but the story will take us back to first half of the 20<sup>th</sup> Dynasty and eventually it will lead us as deep into the 20<sup>th</sup> Dynasty as the end of the reign of Ramesses XI.

Besides ostraca, identity marks of the 20<sup>th</sup> Dynasty are incised on ceramic vessels from the burials at Deir el-Medina as well as from domestic contexts from the village and settlements in the Valley of the Kings. From the same findspots originate a very wide variety of objects that bear workmen's marks, such as wooden labels,<sup>6</sup> weights,<sup>7</sup> tools,<sup>8</sup> domestic

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<sup>1</sup> See also below, 4.3.3.1.

<sup>2</sup> See chapter 2, 2.6.5.

<sup>3</sup> See chapter 3, 3.2.7.

<sup>4</sup> Collier, *Late XIXth Dynasty Ostraca*, 14.

<sup>5</sup> Collier, ‘The right side’, 1-2; *passim*.

<sup>6</sup> Bruyère, *Rapport 1934-1935* III, 226; 227, fig. 115.

<sup>7</sup> E.g. Dominique Valbelle, *Catalogue des poids à inscriptions hiéroglyphiques de Deir el-Médineh. Nos 5001-5423*. DFIFAO 41 (Cairo 1977), 105, pl. 40, W. DeM 5322.

<sup>8</sup> Wooden mushroom-shaped tools; Bruyère, *Rapport 1924-1925*, 80, 106. For such objects, compare O. DeM 10194, Grandet, *Ostraca hiéroglyphiques* XI, 79-80, 305.

objects,<sup>9</sup> stone blocks,<sup>10</sup> as well as a wooden anthropoid bust for ancestor worship.<sup>11</sup> Additionally, identity marks are attested in the graffiti that were carved in the mountains of the Theban wadis. In only few instances it is possible to attribute these objects and inscriptions to specific individuals. This is due to the fact that identity marks were often hereditary, and one cannot always be certain with which member of a particular family one is dealing. In this sense ostraca inscribed with identity marks are sometimes easier to comprehend. The style of the document as well as the cocurrence of other marks frequently offer a better indication of the date of the ostrakon than isolated marks on objects from disturbed archaeological contexts do. We will therefore direct our attention in the following section to the chronological overview of the 20<sup>th</sup> Dynasty ostraca inscribed with marks. Ostraca that offer little chronological insights are concisely treated in Appendix I, § 4-31.

## 4.2 CHRONOLOGICAL OVERVIEW

### 4.2.1 The right side of the crew during the reigns of Ramesses VI – Ramesses IX: O. IFAO C 7638 and related ostraca

Ostrakon O. IFAO C 7638 is completely preserved and contains a well legible list of workmen's marks. The list is an ordered one, and the sequence of marks reoccurs (partly) on other ostraca. It is not possible to provide an exact date for O. IFAO C 7638, but it should date to the middle of the 20<sup>th</sup> Dynasty. That is suggested by the fact that the sequence of marks is in some aspects similar to but certainly different from the ordered lists of workmen of the reigns of Ramesses III, Ramesses IV and Ramesses V. It is thus likely that O. IFAO C 7638 dates to a later period. We can be certain that the list dates to the 20<sup>th</sup> Dynasty, as it is headed by mark  $\text{⊃}\wedge$  for the deputy of the right side of the gang, Anynakht (i), who held this position from the beginning of the reign of Ramesses V to perhaps year 3 of Ramesses VI.<sup>12</sup> The other 30 marks on the ostrakon are most probably workmen of that side as well, and indeed we observe several marks that were used for workmen of the right side in earlier times, such as  $\text{⊃}\text{⊃}$ ,  $\text{⊃}$ ,  $\text{⊃}$ , and  $\text{⊃}$ .

Comparing the sequence of marks to the turnus of Ramesses V, we see that a number of changes had taken place on the right side at the time of O. IFAO C 7638. Mark  $\text{⊃}$  for Amenemope (x),  $\text{⊃}$  for Khaemwaset (iii),  $\text{⊃}$  for Nesamun (III),  $\text{⊃}$  for Penanuqet (iii) and  $\text{⊃}$  for Meryre (vi) have moved down in the roster. Mark  $\text{⊃}$ , previously used for Khaemnun (i), is now situated near the bottom of the sequence. Marks  $\text{⊃}$  for Reshupeteref (i), and  $\text{⊃}$  for Bakenamun (i) are no longer present. Indeed, these men are not securely attested after the reign of Ramesses V in hieratic documents either,<sup>13</sup> but that is also true for several of the workmen who are still present on O. IFAO C 7638. In fact, there are very few available documents from the period after year 1 of Ramesses V to year 1 of Ramesses IX, particularly

<sup>9</sup> Bruyère, *Rapport 1934-1935* III, 213; 233; 300; 363; pl. XXIV, nrs. 45-48; Bruyère, *Rapport 1948-1951*, 65, 83, fig. 15; Bruyère, *Rapport 1948-1951*, 88, pl. XVIII.

<sup>10</sup> Bruyère, *Rapport 1928*, 132; Bruyère, *Rapport 1929*, 19.

<sup>11</sup> München AS 448, see Jean Lewis Keith, *Anthropoid Busts of Deir el Medineh and Other Sites and Collections. Analyses, Catalogue, Appendices*. DFIFAO 49 (Cairo 2011), 348.

<sup>12</sup> Davies, *Who's who*, 74.

<sup>13</sup> Reshupeteref (i) is listed on undated hieratic ostrakon O. Brussels E 301, which could be from the reign of Ramesses V or a later ruler on account of the mentioned individuals. Reshupeteref occurs on several other ostraca attributed to the reign of Ramesses V: O. Ashmolean HO 14, see Helck, *Die datierten und datierbaren Ostraka*, 421-422; O. Ashmolean HO 20, see *KRI* VI, 263; O. DeM 398, see *KRI* VI, 251. According to Davies, *Who's who*, 219, the last attestation of Bakenamun (i) is in the duty roster of O. Cairo CG 25609, which dates to year 1 of Ramesses V, see chapter 3, 3.2.7.2. The Bakenamun mentioned in P. Turin Cat. 1972, attributed to year 10 of the *wḥm msw.t* of Ramesses XI certainly is another man, see Edward F. Wente, *Letters from Ancient Egypt*. WA 1 (Atlanta 1990), 24-27.

concerning workmen of the right side of the crew. Therefore we can only attribute a relative date to O. IFAO C 7638.

A number of other ostraca with workmen's marks must date to about the same period as O. IFAO C 7638, because they display a similar sequence of marks (TABLE 59). Related to O. IFAO C 7638 for example is ostrakon ONL 6515. The sequence on the latter piece approaches that of O. IFAO C 7638, although there are some clear differences as well. ONL 6515 is headed by  $\text{𓂏}$ , the mark for the foreman of the right side of the crew, followed  $\text{𓂏}$  for the scribe of the tomb. Deputy Anynakht (i) with mark  $\text{𓂏}$  is mentioned in the fourth position, dating the document to a period between c. year 1 of Ramesses V and year 8 of Ramesses VI, Ramesses VII, or perhaps Ramesses IX.<sup>14</sup> The mark in the third position is  $\text{𓂏}$ , the mark of Harshire, who does not appear on O. IFAO C 7638. His listing between the captains of the right side of the crew and just after the mark of the scribe of the tomb suggest that Harshire (i) himself was not yet promoted to the former position. Instead, he must have still acted as an assistant to the scribe of the tomb as on ONL 6516. It is still a matter of debate when exactly he became the senior scribe of the tomb,<sup>15</sup> but several ostraca inscribed with marks indicate that this happened after year 1 of Ramesses V.<sup>16</sup> Based on other sources, Janssen believed that Harshire was promoted to scribe of the tomb in year 2 or 4 of Ramesses VI,<sup>17</sup> a date which ties in better with the evidence from the ostraca inscribed with marks. If we take this proposed date as the most plausible, ostrakon ONL 6515 must date somewhere after the time of the 45 days turnus – let us say year 2 of Ramesses V – and before the promotion of Harshire in year 4 of Ramesses VI. ONL 6515 is most likely older than O. IFAO C 7638 because, as mentioned above, in O. IFAO C 7638 the mark  $\text{𓂏}$  for Harshire is no longer present. The reason for his disappearance might be the fact that he was already promoted to scribe of the tomb, and was therefore represented by mark  $\text{𓂏}$  instead.<sup>18</sup> As a consequence, O. IFAO C 7638 should date to a period close to but after year 4 of Ramesses VI. Returning to ONL 6515, we observe that the marks of Nesamun, Hori, Penanuqet, and Khaemwaset are no longer listed at the beginning of the sequence of marks, suggesting they had already descended in the order, as in O. IFAO C 7638. Similarly, mark  $\text{𓂏}$ , which is omitted from the first half of the list of O. IFAO C 7638, is not present two positions below the mark of Amenemope as in the 45 days turnus. As in documents recording this turnus, the latter workman is still mentioned very high in the order of workmen, in contrast to O. IFAO C 7638.

Like O. IFAO C 7638, ostrakon ONL 6290 with a shorter but very similar sequence of marks, should probably date to the period after year 4 of Ramesses VI. ONL 6290 lists marks  $\text{𓂏}$  to  $\text{𓂏}$  in the same order as O. IFAO C 7638. Yet, the marks that follow demonstrate that the sequence is not entirely the same as on O. IFAO C 7638. After a perhaps deliberately smudged mark, mark  $\text{𓂏}$  is discernable on ONL 6290, while this mark is situated in the upper regions of the list of O. IFAO C 7638, between  $\text{𓂏}$  and  $\text{𓂏}$ . As ONL 6290 seems to be preserved in its entirety, it evidently does not contain a list of the entire right side of the crew. The situation of mark  $\text{𓂏}$  at the end of the sequence does therefore not necessarily reflect a shift of his position in the order of workmen. The particular place of the mark on ONL 6290 cannot be explained.

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<sup>14</sup> Davies, *Who's who*, 53-54.

<sup>15</sup> Davies, *Who's who*, 115-116.

<sup>16</sup> See chapter 3, 3.2.7.4, O. Cairo JE 96328; Appendix I, § 15, ONL 6241 and § 9, ONL 6469.

<sup>17</sup> Jac. J. Janssen, 'A draughtsman who became scribe of the tomb: Harshīre, son of Amennakhtē', in: Rob J. Demarée and Jac. J. Janssen (eds.), *Gleanings from Deir el-Medīna*. EU 1 (Leiden 1982), 151.

<sup>18</sup> Note that mark  $\text{𓂏}$  reappears on ostraca from a later date (see below, ONL 6511 and ONL 6450; 4.2.3), but in all probability representing a different workman at that time.

The sequence of marks on ONL 6290 is partially recorded on fragmentary ostrakon ONL 6511 as well. Only marks 𐀀, 𐀁, 𐀂, and 𐀃 are preserved, but the sequence of the latter three marks coincides perfectly with that of ONL 6290. Like this ostrakon, ONL 6511 is presumably somewhat later than O. IFAO C 7638.

O. Cairo CG 25323 does not display a sequence of marks that is similar to that of O. IFAO C 7638 and associated pieces. However, all marks preserved on this document are present in O. IFAO C 7638 and ONL 6290. Interestingly, O. Cairo CG 25323 was found in or close to KV 6, the tomb of Ramesses IX.<sup>19</sup> It is conceivable that the ostrakon was composed in the reign of this king, and support for this assumption is found in the form of about five hieratic ostraca with the same provenance that are dated or attributed to the time of Ramesses IX or slightly later.<sup>20</sup> O. Cairo CG 25323 thus serves as a warning that ostraca O. IFAO C 7638, ONL 6290 and ONL 6511 could date closer to the reign of Ramesses IX.

Also closely related to ostrakon O. IFAO C 7638 is O. BM 50731. We have already discussed the reverse of this ostrakon in the context of the hypothetical 45 days turnus,<sup>21</sup> and suggested that the duty roster of this piece must postdate year 2 of Ramesses V. The list of workmen on the obverse only supports this assumption, because the marks in the right and middle column are presented in the very same relative position as in O. IFAO C 7638. On the basis of the similarity to that ostrakon, we may assume that marks 𐀄 and 𐀅 are allomorphs of 𐀆 and 𐀇.<sup>22</sup> After mark 𐀈 in the left column we observe some discrepancies between this ostrakon and O. IFAO C 7638. Instead of mark 𐀉 O. BM 50731 lists 𐀊, and instead of 𐀋 it displays 𐀌.

An examination of ostrakon ONL 6450 enables us to shine some light on the matter of the date of O. BM 50731. Again, the sequence of marks on ONL 6450 coincides largely with that of O. IFAO C 7638. The series of marks 𐀍 to 𐀎 are found on O. IFAO C 7638 and ONL 6450 alike. As on O. BM 50716, it is from mark 𐀎 onward that the sequence of ONL 6450 diverges from O. IFAO C 7638. Instead of mark 𐀏 the sequence continues with mark 𐀐, the mark we know to have been used by Harshire (i). Here we face a conundrum. Because of the similarity in the sequence of marks on ONL 6450 and on O. IFAO C 7638 and associated pieces, the former ostrakon probably dates to a time when Harshire was promoted to the position of scribe of the tomb and was therefore no longer listed among the workmen of the right side of the gang. Yet, on ONL 6450 mark 𐀐 is still present. We could thus propose that ONL 6450 must be older than O. IFAO C 7638 and associated documents. However, we shall see below that later ostraca inscribed with lists of workmen's marks of the right side from a time when Harshire definitely was the scribe of the tomb or had already retired, and also include mark 𐀐.<sup>23</sup> It is unlikely that on these ostraca the mark still refers to the individual Harshire (i), whom we may assume was now designated by the mark 𐀑. The conclusion must be that some other workman had taken over the mark from Harshire, perhaps one of his sons. Ostraca O. IFAO C 7638, O. BM 50731 and ONL 6290 suggest that this did not happen right after the promotion of Harshire, since mark 𐀐 is not included in these documents. This assumption would mean that ONL 6450 was created at a later point in time than O. IFAO C 7638, O. BM 50731, ONL 6290 and ONL 6511 were. The workman now referred to by mark

<sup>19</sup> Daressy, *Ostraca*, 83.

<sup>20</sup> O. Cairo CG 25236, attributed to the reign of Ramesses XI, see *KRI* VI, 839-840; O. Cairo CG 25253, attributed to year 1 of Ramesses IX, see *KRI* VII, 458 and Helck, *Die datierten und datierbaren Ostraka*, 472; O. Cairo CG 25299, attributed to year 14 of Ramesses IX, see *KRI* VI, 666 and Helck, *Die datierten und datierbaren Ostraka*, 507; O. Cairo CG 25337, attributed to the reign of Ramesses IX, see *KRI* VI, 667; O. Cairo CG 25300, see Gutgesell, *Die Datierung* II, 347.

<sup>21</sup> See chapter 3, 3.2.7.3.

<sup>22</sup> See also below, 4.2.3.

<sup>23</sup> See below, 4.2.3.

𐎎 was added to the lower regions of the ordered list, and his mark was inserted between 𐎎 and 𐎎. We have seen the latter mark already on O. BM 50731 in the slot occupied by the workman represented by 𐎎 on O. IFAO C 7638. Since mark 𐎎 is not included on ONL 6450, we can propose the following reconstruction: O. IFAO C 7638 was composed some time after year 4 of Ramesses VI. At a later point in time, workman 𐎎 was replaced by workman 𐎎, as documented in O. BM 50731. Later still, a new workman with mark 𐎎 was added to the right side, as reflected by ONL 6450. After the listing of mark 𐎎, ONL 6450 continues with marks 𐎎, 𐎎, and 𐎎, as on O. BM 50716. O. BM 50731 is therefore either slightly younger or older than O. IFAO C 7638. We may even propose a more concrete date for O. BM 50716 and ONL 6450. The occurrence of mark 𐎎 on O. Cairo CG 25323 – an ostrakon attributable to the reign of Ramesses IX – suggests that O. BM 50716 and ONL 6450 – documents in which 𐎎 is no longer included – should date to a period even closer to or well in the reign of Ramesses IX.

When we turn to the obverse of ONL 6232, we find another fragmentary list of workmen of the right side that is similar to O. IFAO C 7638. The right column of ONL 6232 lists workmen's marks 𐎎 to 𐎎 as on O. IFAO C 7638, indicating once again that 𐎎 and 𐎎 are allomorphs referring to the same individual.<sup>24</sup> Just above 𐎎 ONL 6232 lists mark 𐎎. The mark that occupied this position is not preserved on O. IFAO C 7638 and O. BM 50713, but at least in the case of O. IFAO C 7638 we can be sure that the position was not filled by mark 𐎎, because that mark is situated further down in the sequence between 𐎎 and 𐎎 on O. IFAO C 7638 and ONL 6290. We detect more discrepancies between O. IFAO C 7638 and ONL 6232 further down in the sequence of the latter document. In the left column of ONL 6232 the positioning of marks 𐎎 to 𐎎 is in accord with the sequence of O. IFAO C 7638, with the exception of mark 𐎎, situated in the slot held by mark 𐎎 on O. IFAO C 7638. It thus appears that at the time ONL 6232 was inscribed, the workman represented by mark 𐎎 had ascended in the order of the right side, and that his original place had been taken by the workman represented by 𐎎. ONL 6232 seems to be younger than O. IFAO C 7638 and ONL 6290 because 𐎎 is still positioned in about the same slot on the right side in ostraca from even later times.<sup>25</sup> More evidence for a date after the time of O. IFAO C 7638 is found on the reverse of ONL 6232, which is inscribed with marks 𐎎, 𐎎, 𐎎, and 𐎎, as on ONL 6450. This group of ostraca suggests that, by that time 𐎎 had already been replaced and that the new workman with 𐎎 was added to the right side of the crew.

We can probably attribute ostrakon ONL 6494 to the same period as ONL 6232. Even though it does not display an entire ordered list, marks 𐎎 and 𐎎, and 𐎎, 𐎎, 𐎎 and 𐎎 on ONL 6494 are given in the same relative position as in the list of ONL 6232.

The marks on weathered ostrakon ONL 6572 are difficult to discern, but it is likely that the ostrakon dates to about the same period as O. IFAO C 7638. ONL 6572 does not appear to contain a complete list of workmen of the right side, but apart from mark 𐎎 for the scribe of the tomb, all other inscribed marks are associated with the right side. Marks 𐎎 and 𐎎 are written next to each other, and are situated in subsequent positions in the lists on O. IFAO C 7638 and associated documents. Moreover, the row of marks 𐎎, 𐎎, and 𐎎 is similar to the sequence 𐎎 – 𐎎 – 𐎎 attested on O. IFAO C 7638, ONL 6290, ONL 6450 and ONL 6232. On the right half of the ostrakon mark 𐎎 is written over mark 𐎎, in the same sequence of for example O. BM 50731. A barely visible mark on the lower part of the ostrakon is perhaps 𐎎. If this identification is correct, ONL 6572 should date between ONL 6290 and O. BM 50731,

<sup>24</sup> See also chapter 3, 3.2.7.5.

<sup>25</sup> O. BM 5642 obverse, see below, 4.2.3. Mark 𐎎 also occurs in older lists of the right side such as O. Turin N. 57008 obverse (see below, 4.2.17), but is situated much higher in the list. It is unclear if the workman with this mark had descended in the ordered list or if mark in ONL 6232 and later marks represents a different workman with the same mark; compare also TABLE 59.





#### 4.2.2 The right side of the crew prior to year 24 of the reign of Ramesses III: ONL 6462, ONL 6420 and ONL 6554

ONL 6462, an ostrakon inscribed with marks, is important because it contains a regnal year. Although it is not well preserved, it can be read as year 22. After the year date follow some indiscernable signs that could have constituted a month. Left of the date, identity marks are inscribed in four horizontal boxes. These identity marks are well distinguishable as those we know from duty rosters, which suggests all workmen belong to the right side of the workforce, and that the year 22 belongs to the reign of Ramesses III. The three workmen's marks in the upper box are  $\Xi$ ,  $\text{𐀀}$  and  $\text{𐀁}$ . We recognise  $\text{𐀀}$  as the mark used by Nakhemmut (vi) after his installation as foreman of the right side. This promotion however took place in year 32 of Ramesses III / year 1 of Ramesses IV. Since ONL 6462 is about 10 years older,  $\text{𐀀}$  cannot have represented Nakhemmut (vi) yet. Perhaps we need to interpret the mark as the mark referring to the office of the foreman of the right side, and not as that of a specific individual. On ONL 6462 mark  $\text{𐀀}$  should then have represented Khons (v), who was the foreman of the right side in year 22 of Ramesses III.

The mark  $\Xi$  left of it is, 'readable' as *wn*, is one we have not encountered in the duty roster ostraca. Its position at the head of the ostraca and next to the mark of the foreman would suggest this mark represents the deputy. In year 22 of Ramesses III the deputy of the right side was Amenkha (i), but it would be somewhat odd to assign mark  $\Xi$  to this person because neither he himself, nor any of his ancestors possessed a name with the element *wn* in it.<sup>26</sup> It is therefore perhaps more sensible to assign the mark to the scribe of the tomb at the time, *Wennefer* (v). This identification is however nothing more than a tentative suggestion, because it would mean that apart from the mark  $\text{𐀁}$  the scribe of the tomb could be represented by his own personal mark.<sup>27</sup>

The third sign  $\text{𐀁}$  is quite a bit larger in size, and is executed with more detail than the other marks. The sign clearly depicts a quadruped, horned mammal, probably a ram. The same mark, although less elaborately executed, is also visible on O. Fitzwilliam EGA 6120.1943, where it is inscribed just above the entry of day 1 with Menna on duty. Although clear proof is not forthcoming, it is attractive to interpret this mark as a reference to the workman *Khnummose* (i). Basing himself on O. Turin N. 57026, Davies remarked that the workman *Khnummose* (i) belonged to the left side of the crew.<sup>28</sup> That does indeed seem to be correct, but this document dates to year 23 or 24 of Ramesses III. Before this time, *Khnummose* (i) could well have belonged to the right side. That is also suggested by O. DeM 406, the ostrakon dated to year 15 which we have already discussed above. This document lists only workmen of the right side, and includes *Khnummose* (i). Moreover, during the end of the 19<sup>th</sup> Dynasty *Khnummose* (i) certainly belonged to the right side of the crew.<sup>29</sup> It is therefore not out of place to expect the mark of *Khnummose* on ONL 6462 among workmen of the right side. What is peculiar, however, is the fact that despite his association with the right side, *Khnummose* was not included in the duty rosters of his time, as O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247 demonstrate. His exclusion from the turnus might have something to do with his prominence among his peers, but there is no hard evidence that points towards a higher standing, other than the fact that *Khnummose* and his family members must have been rather wealthy.<sup>30</sup> *Khnummose*'s presumed importance would

<sup>26</sup> See Davies, *Who's who*, chart 7.



<sup>27</sup> This identification is also problematic because the same mark was used in the reign of Ramesses IV for *Penamun* (V) who undoubtedly inherited it from his father *Wennefer* (iii), see below, 4.2.8.


















<sup>28</sup> Davies, *Who's who*, 41.

















<sup>29</sup> Collier, *Dating late XIXth Dynasty ostraca*, 137 and *passim*.

<sup>30</sup> Davies, *Who's who*, 261.

explain his situation next to the scribe of the crew and the foreman of the right side, and the larger size of his identity mark.

The three boxes below the heading of the document contain workmen's marks which are listed according to the sequence of the turnus. The order of marks coincides perfectly with the duty rosters of O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247, which we have dated to the time before year 24 of the reign of Ramesses III (TABLE 60). Particularly the latter ostrakon coincides with ONL 6462, because both documents present mark  three positions after mark  of Anynakht.

ONL 6462 is thus closely related to O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247. There are two more ostraca with marks which must date to a time before year 24 of Ramesses III. To begin with, there is ONL 6420. The document is inscribed with many of the same marks found in ONL 6462, O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247, although they are not listed according to the sequence of the turnus. Yet, several marks which are situated close to each other in the 18 days turnus are grouped together on the ostrakon, such as ,  and ; ,  and ; ,  and ;  and . Besides the identity marks of workmen of the right side, the mark  for the foreman of the right side reoccurs. In contrast to ONL 6462, where the scribe of the tomb is presumably represented by his personal mark , ONL 6420 includes mark  for the scribe. Mark , perhaps for Khnummose (i), is present as well on this piece. The only unexplained mark is , just below that of the scribe, which resembles the *ʿq* bird , Gardiner sign G 35. We can only guess as to the identity behind this mark. It is defensible to interpret the mark as the deputy of the right side around the time of year 22, Amenkha (i), because he is the only member of the right side whom we have not yet identified in the marks. On the other hand, the bird does not seem to be related to the name of Amenkha (i) or any of his ancestors, so the identification remains very tentative.

The second ostrakon that is related to this group is ONL 6554. Like ONL 6420, this ostrakon contains many of the same marks attested in O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247. Once more, the marks are not presented in the exact order of the turnus. As in ONL 6420, they are scattered over the surface of the ostrakon. However, within several clusters of marks, the marks are more or less inscribed according to the sequence of O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247. Apart from workmen who appear in the turnus, mark , for the foreman of the right side, and mark , perhaps for Khnummose (i) are attested in ONL 6554. Remarkably, mark  is twice inscribed on the reverse of the ostrakon: once in a section below a horizontal line, and once in a lighter shade below mark . The latter mark is inscribed in the same faded shade, and it is reasonable to assume both mark  and mark  were inscribed at the same time. In that light it is perhaps possible to interpret both signs as a single reference to Khnummose, an abbreviated writing of his name spelling *hnmw-ms*, written with determinative  for masculine names. The reverse of the ostrakon contains another interesting bit. In the section below the horizontal line five marks are inscribed in an order that resembles the sequence of the turnus. The section begins with  followed by , then by  and  on the next line, after which a previously unattested sign is discernable. In the turnus, the mark  for Nakhemmut (vi) is situated between  and . He thus seems to have been skipped over in this short inscription, although it is possible that he is referred to by the last sign following . This sign resembles the hieratic form of Gardiner sign A24 , which is used to write the word *nht*. It is therefore not unthinkable that on ONL 6554 it is an – unparalleled – abbreviation for this workman. This however cannot be proven, and it is certain that the scribe of this ostrakon was aware of the identity mark of Nakhemmut, as it is present on the obverse.

O. Fitzwilliam EGA 6120.1943 and O. Ashmolean HO 1247		ONL 6462	ONL 6420*	ONL 6554*
Anynakht (i)	𐎏𐎗	𐎏𐎗	𐎏𐎗	𐎏𐎗
Neferher (vi)	𐎎𐎗	𐎎𐎗	𐎎𐎗	𐎎𐎗
Irsu	𐎏𐎗	𐎏𐎗	𐎏𐎗	𐎏𐎗
Huynefer	𐎏𐎗	𐎏𐎗	𐎏𐎗	𐎏𐎗
Khaemnun (i) / Iry-‘a (i) / Telmontu	𐎏𐎗 / 𐎏𐎗 / 𐎏𐎗	𐎏𐎗	𐎏𐎗	-
Neferhotep (xi)	𐎎𐎗	𐎎𐎗	𐎎𐎗	𐎎𐎗
Meryre (v)	𐎏𐎗	𐎏𐎗	𐎏𐎗	𐎏𐎗
Kasa (v)/(vi)	𐎏𐎗	𐎏𐎗	𐎏𐎗	𐎏𐎗
Penamun (iv) = (iii)	𐎏𐎗	𐎏𐎗	𐎏𐎗	𐎏𐎗
Khaemope (iv)	𐎏𐎗	𐎏𐎗	𐎏𐎗	-
Reshupeteref (i)	𐎏𐎗	𐎏𐎗	𐎏𐎗	-
[Amenemope]	-	-	𐎏𐎗	𐎏𐎗
Mose (iv)	𐎏𐎗	-	𐎏𐎗	𐎏𐎗
Menna (i)	𐎏𐎗	-	𐎏𐎗	𐎏𐎗
Nakhemmut (vi)	𐎏𐎗	-	𐎏𐎗	𐎏𐎗
Iyerniutef (iii)	𐎏𐎗	-	𐎏𐎗	𐎏𐎗
Pentaweret (vii)	𐎏𐎗	-	𐎏𐎗	-
Hori (ii) = (iii)	𐎏𐎗	-	𐎏𐎗	-

TABLE 60. ORDERED LISTS PRE-YEAR 24. WITH \* = NOT IN SEQUENCE

#### 4.2.3 The right side of the crew during the reign of Ramesses IX: OL 170+ (obverse), O. BM 5642 (obverse) and related ostraca

The obverse and reverse of ostracon OL 170+ display columns with a large number of workmen's marks. Significant is the cartouche with the name of Ramesses IX inscribed in red ink over the column of marks in black on the reverse of the piece. The cartouche contains the prenomen of Ramesses IX, *nfr-k3.w-rꜥ-[stp.n-rꜥ]*. The cartouche was added to the ostracon after the marks were inscribed and therefore serves only as a *terminus ante quem*. There are however clear indications that the cartouche and the marks are of more or less the same date. To begin with, the marks are inscribed in a very neat hand, which reveals that the scribe was well acquainted with the hieratic and hieroglyphic scripts, someone who could have written the cartouche of Ramesses IX. Moreover, the lines of the cartouche and of the marks are of the same thickness. Remarkable furthermore is 𐎏𐎗, a single workman's mark on the reverse of the ostracon, which consists of a hieratic sign group that reads *imy-r pr-ḥd*. A draughtsman nicknamed Pa-imyperhedj comes to mind, who is attested in P. Turin Cat. 1898+, the journal text for year 3 of the reign of Ramesses X.<sup>31</sup> We may assume that this draughtsman was called Montuemtawy, and was named after the Royal Scribe and Overseer of the two Treasuries Montuemtawy (i) who is attested in the necropolis administration from the middle of the 20<sup>th</sup> Dynasty.<sup>32</sup> The only backing for this hypothesis comes in the form of O. BTdK 596, a name stone from approximately the same period that reads Overseer of the Treasury Montuemtawy. Since the piece appears to be a name stone, an object that according to our current ideas was used in the context of administration and/or social practices of the crew of

<sup>31</sup> On rto. 4.17, day 5 of III *šmw*, see *KRI* VI, 695; and on rto. 5.5, day 16 of III *šmw*, see *KRI* VI, 696.

<sup>32</sup> Davies, *Who's who*, 254.

workmen,<sup>33</sup> one would expect it to refer to a member of this community rather than to a high-ranking Theban official.<sup>34</sup>

Either way, the presence of mark  $\overline{\text{m}}$  on OL 170+ supports a date of the piece in the reign of Ramesses IX or an even later period. A date in the reign of Ramesses IX is corroborated by the occurrence of a second ‘readable’ mark on the obverse of OL 170+. It is mark  $\text{𐎃}$ , interpretable as *wsr-hpš*. It is very plausible that the mark refers to the workman Weserkhepesh (i), the son of foreman of the right side Nakhemmut (vi). At the end of the latter’s career, Weserkhepesh appears to have acted on his behalf as the foreman of the right side in year 16,<sup>35</sup> year 17<sup>36</sup> and perhaps year 18<sup>37</sup> of the reign of Ramesses IX. It would thus seem that Nakhemmut favoured his own son Weserkhepesh over his official deputy at that time, Pa’anqen (i). Since the supposed mark of Weserkhepesh is situated in the lower part of the list of OL 170+, he is there probably recorded as a regular workman rather than as a substitute for the foreman. In hieratic sources, Weserkhepesh is recorded as workman in P. Turin Cat. 2024+,<sup>38</sup> a document that mentions the deputy of the right side Pa’anqen (i). This Pa’anqen is first attested in the capacity of deputy in year 15 of Ramesses IX and probably held the position until year 17.<sup>39</sup> It is however possible that he had already obtained the title of deputy somewhere in or after year 11 of Ramesses IX, the year in which his predecessor Seny (i) is last mentioned.<sup>40</sup> All this implies that Weserkhepesh was still a regular workman in the period between year 11 and year 16 of the reign of Ramesses IX.

The sequence of marks on OL 170+ coincides to a great extent with that of O. BM 5642 (see TABLE 63), suggesting that the latter document dates to about the same period as OL 170+. Through a happy stroke of fortune, O. BM 5642 lists several marks that have been lost in the list of OL 170+, and vice versa. Like OL 170+, O. BM 5642 is inscribed on both sides with columns of marks. The left column on the obverse of O. BM 5642 is headed by mark  $\text{𐎃}$ , which we have come to know as the mark for the foreman of the right side. The following marks can be discerned fairly well until mark  $\text{𐎁}$ . We can pick up the sequence again with mark  $\text{𐎃}$  and continue until mark  $\text{𐎃}$ . The gap between  $\text{𐎁}$  and  $\text{𐎃}$  can probably be filled in by the marks on the obverse of OL 170+. It is inscribed with the sequence  $\text{𐎃} - \text{𐎃} - \text{𐎃} - \text{𐎃} - \text{𐎃}$ , which corresponds to some extent to the sequence  $\text{𐎃} - \text{𐎃} - \text{𐎃} - \text{𐎃} - \text{𐎃}$  on O. BM 5642. The marks that precede  $\text{𐎃}$  on OL 170+ are marks  $\text{𐎃}$  to  $\text{𐎃}$ . Presumably, a similar or identical sequence of marks was inscribed on O. BM 5642 after mark  $\text{𐎁}$ . That mark  $\text{𐎃}$  followed after mark  $\text{𐎁}$  is suggested by a third ostrakon with marks, ONL 6449. Despite the poor state of preservation, it is evident that the right column of marks on this ostrakon corresponds perfectly to the sequence of marks at the beginning of O. BM 5642 (TABLE 63). The left column displays mark  $\text{𐎃}$  followed by mark  $\text{𐎁}$ , after which several marks follow that occur on OL 170+ as well.

The sequences of marks on OL 170+ and on O. BM 5642 are thus evidently related to each other. If, like OL 170+, O. BM 5642 is datable to the period between year 1 and 16 of the reign of Ramesses IX, the foreman recorded by mark  $\text{𐎃}$  at the beginning of the list would still be Nakhemmut (vi). The mark following  $\text{𐎃}$  is damaged, but we can expect it to have been the mark of the scribe of the tomb. The first four marks that follow are  $\text{𐎃}$  (an allomorph

<sup>33</sup> The administrative purpose of name stones is however still a matter of debate, and it is conceivable that such pieces were used to other ends. For a discussion of name stones, see below, 4.3.3.4.

<sup>34</sup> Cf. Dorn, *Arbeiterhütten*, 143.

<sup>35</sup> Cf. Davies, *Who’s who*, 57. See P. BM 10221 rto.; P. Turin Cat. 2007 rto.

<sup>36</sup> Cf. Davies, *Who’s who*, 57. See P. BM 10053 rto.

<sup>37</sup> Cf. Davies, *Who’s who*, 57. See P. Turin Cat. 1881 vso.

<sup>38</sup> Transcription Černý NB 15.21-22.

<sup>39</sup> Davies, *Who’s who*, 172-173.

<sup>40</sup> Davies, *Who’s who*, 118.

of  $\Sigma$ , as will become clear below),<sup>41</sup>  $\text{𓆎}$ ,  $\text{𓆏}$ , and  $\text{𓆐}$ , which are all marks of workmen who are attested on the right side of the crew during the reigns of Ramesses III, Ramesses IV, Ramesses V, and in all likelihood the period of Ramesses VI - Ramesses IX. The obverse of O. BM 5642 thus appears to be an ordered list of workmen of the right side. The assumption that the workmen are presented in a meaningful order is supported by the fact that the foreman is mentioned at the top of the list and that the sequence is recorded in more or less the same order on several other ostraca (TABLE 63).

Because we have concerned ourselves mostly with the right side of the gang so far, we will begin to examine the obverse of O. BM 5642 and OL 170+. The reverse of both ostraca, which list the workmen of the left side, will be discussed below.<sup>42</sup> Among the list of identity marks on the obverse of both ostraca are several marks that we identified as workmen of the right side of the gang from the reigns of Ramesses III, Ramesses IV and Ramesses V. The lists of O. BM 5642 and OL 170+ are however situated in the reign of Ramesses IX, and we can therefore not be certain that the marks still refer to the very same individuals. All the worse is the fact that we do not appear to have any hieratic documents with an ordered list of the workmen of the right side for the greater part of the reign of Ramesses IX.

Such an inventory is available for year 17 of the reign of Ramesses IX, recorded in P. Turin Cat. 2001+ (Giornale 17A), where the workmen are recorded with filiation. This ordered list is however incompletely preserved, and is obviously later than ostraca O. BM 5642 and OL 170+. When we juxtapose the name list of P. Turin Cat. 2001+ and the list of workmen's marks on our two ostraca (TABLE 61), it indeed becomes evident that the lists are not much in agreement. After the foreman and the scribe of the tomb, the hieratic document from year 17 lists the deputy Pa'anqen, while O. BM 5642 displays mark  $\Sigma$  at the third position. In the reigns of Ramesses III to Ramesses V, this mark, an allomorph of  $\Sigma$ , was used to designate the workman Nesamun (III). He or his family do not seem to be related to the family of the deputy Pa'anqen (i), probably a son of Amenwa (i),<sup>43</sup> and there are therefore no clear indications to identify this individual with mark  $\Sigma$ .<sup>44</sup> Similarly, mark  $\text{𓆎}$ , earlier employed to refer to Neferher (vi), is not related with any of the workmen or their families mentioned on P. Turin Cat. 2001+.

P. Turin Cat. 2001+		O. BM 5642 obv.	OL 170+ obv.
1	[Chief workman Nakhemmut (iv)]	1 $\text{𓆑}$	1 [...]
2	[Scribe Khaemhedjet (i)] son of Harshire (i)	2 $\text{𓆒}$	2 [...]
3	Deputy Pa'anqen (i) son of Amenwa (i)	3 $\Sigma$	3 [...]
4	Meryre (vii) son of Neferhotep (xii)	4 $\text{𓆎}$	4 [...]
5	Nakhtmin (vii) son of Pentaweret (viii)	5 $\text{𓆏}$	5 [...]
6	Amennakht (ix) son of Kasa (vi)/(viii)	6 $\text{𓆐}$	6 [...]
7	Pentaweret (iv) son of Amennakht (v)	7 $\text{𓆑}$	7 [...]
8	Prehotep (ii) son of Menna (ii)	8 $\text{𓆒}$	8 [...]
9	Panefer (i) son of Meryre (vi)	9 $\text{𓆓}$	9 [...]
10	Hori (xii) son of Amenwa (i)	10 $\text{𓆔}$	10 [...]
11	[...]	11 [...]	11 [...]
12	[...]	12 $\text{𓆕}$	12 [...]
13	[...]	13 $\text{𓆖}$	13 $\text{𓆖}$
14	[...]	14 $\text{𓆗}$	14 $\text{𓆗}$

<sup>41</sup> See O. DeM 264 below, p. 286; see also TABLE 63.

<sup>42</sup> See below, 4.2.15.

<sup>43</sup> Nesamun (III) himself is not mentioned in Davies, *Who's who*, but no man of the same name occurs in Davies' reconstruction of the family tree of Pa'anqen (i), see Davies, *Who's who*, chart 8.

<sup>44</sup> For the identity of the man connected with mark  $\Sigma$  see also below, p. 285.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

15	[...]	15	[...]	15	⋈
16	[...]	16	[...]	16	⌢
17	[...]	17	[...]	17	⊖

TABLE 61. NAME LIST OF P. TURIN CAT. 2001+ COMPARED WITH THE LISTS OF O. BM 5642 AND OL 170+: NO OVERLAP?

There are nevertheless a few points where the hieratic record and the lists of workmen's marks are in accord. On OL 170+ we recognise marks ⋈ and ⌢, which we have securely identified as references to Pentaweret (iv) and Amennakht (ix). In the turnus lists of the reign of Ramesses V there were seven workmen situated between the positions of these two men, while in O. IFAO C 7638 and associated ostraca there was only one workman between them. On OL 170+ they are listed one after the other, as they are in the list of P. Turin Cat. 2001+. There, however, Amennakht is mentioned before Pentaweret. If we do connect marks ⋈ and ⌢ (positions 15 and 16) with workmen Pentaweret (iv) and Amennakht (v) (positions 7 and 6), we may perhaps interpret ⊖ (position 17) as the mark of workman Prehotep (ii) (position 8) (TABLE 62).

Continuing with O. BM 5642 we find in position 5 and 6 marks ⌢ and ⌢, which we had identified as the workmen Neferhotep (xii) and Nakhtmin (vi). However, comparison to the list of P. Turin Cat. 2001+ suggests that the marks refer here instead to Meryre (vii) son of Neferhotep (xii) and to Nakhtmin (vii) grandson of Nakhtmin (vi) respectively. These two workmen are positioned in slots 4 and 5 of the list of P. Turin Cat. 2001+, and thus the difference with the list of O. BM 5642 is one position. Likewise, we may propose that mark ⊖, previously used for Meryre (vi), in position 12 on O. BM 5642, relates to Panefer (i) son of Meryre (vi) in position 9 in P. Turin Cat. 2001+. Finally, one wonders whether mark ⌢ in position 10 on O. BM 5642 is to be linked to the workman Hori (xii) son of Amenwa (i), who is also mentioned in position 10 in P. Turin Cat. 2001+. As we have proposed above, Amenwa (i) may have been represented by mark ⊖, which is quite similar to mark ⌢, suggesting that Hori (xii) had inherited his father's mark but adjusted it slightly.

P. Turin Cat. 2001+		O. BM 5642 obv.		OL 170+ obv.	
1	[Chief workman Nakhemmut (iv)]	1	⌢	1	[...]
2	[Scribe Khaemhedjet (i)] son of Harshire (i) ?	2	[⌢]	2	[...]
		3	⋈	3	[...]
		4	⌢	4	[...]
4	Meryre (vii) son of Neferhotep (xii) ?	5	⌢	5	[...]
5	Nakhtmin (vii) son of Pentaweret (viii) ?	6	⌢	6	[...]
		7	⌢	7	[...]
		8	⌢	8	[...]
		9	⌢	9	[...]
10	Hori (xii) son of Amenwa (i) ?	10	⌢	10	[...]
		11	[...]	11	[...]
9	Panefer (i) son of Meryre (vi) ?	12	⊖	12	[...]
		13	⌢	13	⌢
		14	⌢	14	⌢
7	Pentaweret (iv) son of Amennakht (v)	15	[...]	15	⋈
6	Amennakht (ix) son of Kasa (vi)/(viii)	16	[...]	16	⌢
8	Prehotep (ii) son of Menna (ii)	17	[...]	17	⊖

TABLE 62. NAME LIST OF P. TURIN CAT. 2001+ COMPARED WITH THE LISTS OF O. BM 5642 AND OL 170+: IN ADJUSTED ORDER

The observations made here indicate that the list of workmen on O. BM 5642 and OL 170+ is quite different from that included in the journal text of year 17. Yet, the records are related in that they partially mention the same workmen and list them in a sequence that is somewhat similar. This can be taken as another indication that the lists of workmen's marks on O. BM 5642 and OL 170+ date to the reign of Ramesses IX, but date to a time before year 17.

The attribution of O. BM 5642 and OL 170+ to the reign of Ramesses IX means that both documents are later than O. IFAO C 7638 and associated pieces. Comparing the list of workmen of the latter ostrakon to that of O. BM 5642 and OL 170+, the first noticeable difference is the absence of mark  $\text{⊃}\wedge$  for the deputy Anynakht (i) on O. BM 5642. His disappearance suggests Anynakht had already been replaced as deputy of the right side by his successor by the time O. BM 5642 was inscribed. Unfortunately it is unclear when exactly the title of deputy of the right side was transferred from Anynakht (i) to his successor Khons (vi). This event must have taken place in or before year 8 of the reign of Ramesses VI, Ramesses VII, or Ramesses IX.<sup>45</sup>

The mark in position 3 on O. BM 5642 is  $\text{X}$ , an allomorph of  $\text{X}$ , which has moved up in comparison to the list of O. IFAO C 7638. In the reigns of Ramesses III – Ramesses V, mark  $\text{X}$  represented the workman Nesamun (III). This individual is however not related to the deputy Khons (vi) by blood, and it is thus unclear whether mark  $\text{X}$  stands for the deputy of the right side on O. BM 5642. The situation of mark  $\text{X}$  in the third slot of an ordered list of workmen's marks does however suggest that it refers to the deputy, and it is theoretically possible that Khons (vi) inherited the mark if he replaced Nesamun (III) in the order of workmen at some point in time.<sup>46</sup>

The subsequent marks  $\text{A}$  –  $\text{B}$  –  $\text{C}$  are found in the same order on O. IFAO C 7638. While mark  $\text{B}$  has shifted up in the list of O. BM 5642, mark  $\text{A}$  – if it is indeed a variant form of mark  $\text{A}$ <sup>47</sup> – has moved two slots down. We observe furthermore that marks  $\text{D}$  and  $\text{E}$  have descended in the order of workmen, whereas mark  $\text{F}$  has moved up to a position before  $\text{D}$ . Mark  $\text{G}$  has been omitted from the list of workmen of the right side on O. BM 5642 and OL 170+. Remarkably, this mark is found on the reverse of O. BM 5642 in the second position of the list. This is a significant detail. We had identified mark  $\text{G}$  as the draughtsman Amenhotep (vi) in lists from the reigns of Ramesses IV to Ramesses VI and perhaps even later, where he is always associated with the right side. However, in the journal text of year 17 of Ramesses IX, Amenhotep (vi) is mentioned as the chief draughtsman, a title he seems to have obtained already in the reign of Ramesses IV,<sup>48</sup> in the second position of a list of workmen of the left side. His attestation as the second listed man on the left side corresponds perfectly with the position of his mark on the reverse of O. BM 5642, which is another indication that O. BM 5642 dates to the reign of Ramesses IX.

Many more changes had taken place at the lower regions of the order of workmen at the time O. BM 5642 and OL 170+ were inscribed. We see that marks  $\text{H}$ ,  $\text{I}$ , and  $\text{J}$  move some slots downwards, and mark  $\text{K}$  is found several positions higher in the list. It appears that on OL 170+ marks  $\text{L}$ ,  $\text{M}$ ,  $\text{N}$  and  $\text{O}$  are no longer mentioned, while marks  $\text{P}$ ,  $\text{Q}$ ,  $\text{R}$ ,  $\text{S}$ , and  $\text{T}$  have newly entered the list. The latter three marks are known from earlier times, when they represented workmen of the left side.<sup>49</sup> Interesting is the reappearance of mark  $\text{U}$  on OL 170+. Earlier in the 20<sup>th</sup> Dynasty this mark had been used for Harshire (i), but he

<sup>45</sup> Davies, *Who's who*, 53-54, 74 and n. 158.

<sup>46</sup> See chapter 6, 6.5.4.6.

<sup>47</sup> Cf. O. BM 50731 and related ostraca, see above, 4.2.1.

<sup>48</sup> Cf. Davies, *Who's who*, 122.

<sup>49</sup> See O. ARTP 99/27 and associated ostraca (see below, 4.2.8), as well as O. Turin N. 57008 and related documents (see below, 4.2.17).



probably abandoned this mark in favour of  $\text{𓆎}$  when he was promoted to the position of senior scribe of the tomb sometime after the accession of Ramesses V. Mark  $\text{𓆎}$  on OL 170+ should therefore belong to a different workman to whom the mark was passed on.

In the lower half of the sequence of OL 170+ we encounter mark  $\text{𓆎}$  for the first time. It is similar to mark  $\text{𓆎}$  in that it consists of a hieratic group writing for the title of an official, in this case  $\text{t3ty}$  ‘vizier’. We are not at all sure from where the inspiration for this mark may have come, but we may again imagine that it referred to a workman who bore the same name as a vizier of the time. A candidate for such a scenario is Ramessesnakht (i) who was probably named after the vizier Ramessesnakht that was active between the reign of Ramesses VI and the reign of Ramesses IX.<sup>50</sup> A connection between Ramessesnakht (i) and the homonymous vizier is suggested by the fact that his father Tasherī (i) was likewise named after a vizier, vizier To.<sup>51</sup> Unfortunately this Ramessesnakht (i) is only attested in Theban Graffito 894a<sup>52</sup> and it cannot be established if he ever occupied the status of necropolis workman. Alternatively we may consider Montuhatef (i) or (ii), the latter attested as a member of the right side at the very end of the 20<sup>th</sup> Dynasty.<sup>53</sup> This man may have been named after the vizier Ramesses-montu(her)hatef, attested in years 1 to 8 of Ramesses IX.<sup>54</sup>

An ostrakon clearly related to O. BM 5642 is O. DeM 264. Like O. BM 5642, it contains a list of workmen headed by  $\text{𓆎}$ , the mark of the foreman of the right side of the crew. Omitting the mark of the scribe of the tomb, it continues with the sequence  $\text{𓆎}$  to  $\text{𓆎}$ , indicating that  $\text{𓆎}$  and  $\text{𓆎}$ ,  $\text{𓆎}$  and  $\text{𓆎}$ , and  $\text{𓆎}$  and  $\text{𓆎}$  are allomorphs. The order of the identity marks is clearly the same as that on O. BM 5642, suggesting that this ostrakon and O. BM 5642 cannot date far apart. It is nevertheless important to remind ourselves that O. DeM 264 is not a complete list of workmen of the right side, and we do not know what the rest of the order of workmen looked like at the time O. DeM 264 was written. Regarding the date of the ostrakon it is interesting that the document is headed by the name of Pased, written in hieratic. This man is probably the same individual as the Sed mentioned in O. Černý 22<sup>55</sup>, where he appears to be a ‘gardener of the tomb’ responsible for the delivery of vegetables. It is not clear in which reign the document was written, and suggested dates range from the reign of Ramesses IV<sup>56</sup> to the reign of Ramesses VII.<sup>57</sup> The gardener Pased is however still attested in year 13 and 14 of Ramesses IX.<sup>58</sup> A date around this period for O. DeM 264 would be in accord with the proposed date of O. BM 5642 and OL 170+.

Ostrakon ONL 6399 should date to the same time. The marks on the reverse of ONL 6399<sup>59</sup> all occur on the reverse of O. BM 5642 and OL 170+. In turn, the marks on the obverse of ONL 6399 are related to the obverse of these two ostraca. This suggests the three ostraca were composed in approximately the same period. Although ONL 6399 does not

<sup>50</sup> More or less cf. Gutgesell, *Die Datierung I*, 247-248; Davies, *Who's who*, 108.

<sup>51</sup> Davies, *Who's who*, 108.

<sup>52</sup> Davies, *Who's who*, 108, n. 326.

<sup>53</sup> Davies, *Who's who*, 54-55.

<sup>54</sup> Davies, *Who's who*, 72. One is perhaps inclined to propose a connection between mark  $\text{𓆎}$  and a workman Neferrenpet named after the homonymous vizier attested in year 14 of Ramesses IX, see Davies, *Who's who*, 72, n. 134. Davies points out, however, that this vizier Neferrenpet cannot have been installed before year 8 of Ramesses IX. The latest possible date for OL 170+ is year 16 of Ramesses IX on account of the occurrence of Weserkhopshef as a regular workman. It follows that if the workman with mark  $\text{𓆎}$  was named after vizier Neferrenpet, he must have been no older than eight years at the time OL 170+ was composed.

<sup>55</sup> Černý NB 77.14. Perhaps also mentioned on O. Alan Gardiner 94, probably to be dated to the period of Ramesses IX – XI.

<sup>56</sup> Helck, *Die datierten und datierbaren Ostraka*, 365.

<sup>57</sup> Janssen, *Village Varia*, 137, n. 19.

<sup>58</sup> P. Turin Cat. 1999+ vso.

<sup>59</sup> See also below, 4.2.15.

contain lists of the entire right and left sides of the crew, a division in sides has evidently been made, associating it with O. BM 5642 and OL 170+. Moreover, the marks on the obverse are presented more or less according to their relative position in the list of workmen.

The sequence of marks on ONL 6322 is likewise similar to that of O. BM 5642 and OL 170+. It is more akin to O. BM 5642 in that mark  $\text{𓂏}$  is not situated between marks  $\text{𓂏}$  and  $\text{𓂏}$ , as on OL 170+. Yet, it resembles the latter ostracon in that it includes mark  $\text{𓂏}$  within the lower regions of the list. Hence, ONL 6322 dates probably between O. BM 5642 and OL 170+.

It has already been mentioned that ONL 6449 partly displays the same sequence as O. BM 5642 and OL 170+. <sup>60</sup> ONL 6449 is also headed by the mark of the foreman of the right side, which is then followed by the mark of the scribe of the tomb, and marks  $\text{𓂏}$  to  $\text{𓂏}$ . The sequence continues further down with marks  $\text{𓂏} - \text{𓂏} - \text{𓂏} - \text{𓂏} - \text{𓂏} - \text{𓂏}$ . This sequence is slightly different from the list of workmen on OL 170+, as mark  $\text{𓂏}$  is situated six slots up, between  $\text{𓂏}$  and  $\text{𓂏}$ . Presumably, ONL 6449 is older than O. BM 5642 and OL 170+, as the position of the mark  $\text{𓂏}$  on the latter ostraca is more akin to that on O. IFAO C 7638 and associated ostraca dating to a period close to but after year 4 of Ramesses VI.

Perhaps quite a bit later than ostracon ONL 6449 is fragmentary ostracon ONL 6603. Only five marks can be discerned on this document, but it contains some crucial information. The ostracon must have been inscribed with a list of workmen's marks of the right side of the gang, as indicated by mark  $\text{𓂏}$ , followed by mark  $\text{𓂏}$ . The mark in the third position is not  $\text{𓂏}$ , which is here found in the fourth slot. Instead, we observe mark  $\text{𓂏}$ , which we had previously identified as the chief draughtsman Amenhotep (vi), below the mark of the scribe of the tomb. As mentioned, Amenhotep (vi) is listed on the left side on the reverse of O. BM 5642 as well as in the list of P. Turin Cat. 2001+. His position so high in the order of workmen of the right side is thus very different from ostraca O. BM 5642, OL 170+ and associated documents, but it agrees quite well to a hieratic list from year 2 the reign of Ramesses X in which Amennakht is listed as one of the captain of the crew in the capacity of chief draughtsman. <sup>61</sup> His name is recorded in position 4, after the foreman, scribe of the tomb and deputy of the right side of the crew. The occurrence of Amenhotep (vi)'s mark on the right side on ONL 6449 therefore indicates that the ostracon is later than O. BM 5642 and OL 170+, and that it should date somewhere in the period of Ramesses IX, year 16 – Ramesses X, year 2.

The date of O. Cairo JE 96326 is not entirely clear, but the nine marks that are discernable on this incomplete ostracon all appear almost exactly in the relative position the ordered list of the right side of the crew preserved on O. BM 5642 and OL 170+. The document dates therefore most likely to the reign of Ramesses IX as well.

ONL 6449	OL 170+ obv.	ONL 6322 obv.	BM 5642 obv.	JE 96326	DeM 264	ONL 6399 obv.*	ONL 6603
$\text{𓂏}$			$\text{𓂏}$		$\text{𓂏}$		$\text{𓂏}$
$\text{𓂏}$			...				$\text{𓂏}$
$\text{𓂏}$			$\text{𓂏}$		$\text{𓂏}$		$\text{𓂏}$
$\text{𓂏}$			$\text{𓂏}$		$\text{𓂏}$		$\text{𓂏}$
$\text{𓂏}$			$\text{𓂏}$	$\text{𓂏}$	$\text{𓂏}$		
$\text{𓂏}$			$\text{𓂏}$		$\text{𓂏}$		...
			$\text{𓂏}$		$\text{𓂏}$	$\text{𓂏}$	$\text{𓂏}$
			AA	AA		AA ?	

<sup>60</sup> See above, p. 282.

<sup>61</sup> P. Turin Cat. 1932+ vso.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

			𐀀				
			...	𐀁			
			𐀂				
	𐀃		𐀃	𐀃		𐀄	
𐀅	𐀅		𐀅				
𐀆	𐀆		...	𐀆			
𐀇	𐀇		...			𐀈 ?	
𐀉	𐀉		...				
𐀊	𐀊		...			𐀋	
𐀌	𐀌		...				
	𐀍	𐀍	...				
	𐀎	𐀎	𐀎	𐀎	𐀏		
	𐀐	𐀐	𐀐	𐀐	𐀑		
	𐀒	𐀒	𐀒	𐀒	𐀓		
	𐀔	𐀔	𐀔	𐀔	𐀕		
	𐀗	𐀗	𐀗	𐀗	𐀘		
	𐀙	𐀙	𐀙	𐀙	𐀚		
	𐀛	𐀛	𐀛	𐀛	𐀜		
	𐀞	𐀞	𐀞	𐀞	𐀟		
	𐀡	𐀡	𐀡	𐀡	𐀢		
	𐀤	𐀤	𐀤	𐀤	𐀥		
	𐀧	𐀧	𐀧	𐀧	𐀨		
	𐀪	𐀪	𐀪	𐀪	𐀫		
	𐀭	𐀭	𐀭	𐀭	𐀮		
	𐀰	𐀰	𐀰	𐀰	𐀱		
	𐀳	𐀳	𐀳	𐀳	𐀴		
	𐀶	𐀶	𐀶	𐀶	𐀷		
	𐀹	𐀹	𐀹	𐀹	𐀺		
	𐀼	𐀼	𐀼	𐀼	𐀽		
	𐀿	𐀿	𐀿	𐀿	𐁀		

TABLE 63. ORDERED LISTS OF O. BM 5642 (OBV.) AND OL 170+ (OBV.) AND ASSOCIATED OSTRACA (IN CHRONOLOGICAL ORDER). WITH \* = NOT ENTIRELY IN THAT ORDER.

4.2.4 Attributed ostraca to the reign of Ramesses IX

Three ostraca can be identified as documents concerned only with members of the right side of the crew, and might date to the reign of Ramesses IX on account of similarities with the ostraca treated in the previous section, see Appendix I, § 23.

4.2.5 Weserkhepesh (i) as deputy of the right side: ONL 6240

Ostrakon ONL 6240 is a unique piece because it records a list of workmen's marks that have all been incised in limestone. Unfortunately the incised signs are often difficult to discern. It seems that the ostrakon records an ordered list of workmen of the right side of the crew. That is suggested by the marks in the right column, headed by 𐀀, the mark for the foreman of the right side, followed by 𐀁 for the scribe of the tomb. In analogy to several other ostraca, the third mark should be that of the deputy. There we find 𐀎, the mark of Weserkhepesh (i). We had seen the mark of this workman in the lower regions of the ordered lists on O. BM 5642 and related ostraca. The occurrence of his mark in the position of the deputy is not that odd, because hieratic records inform us that Weserkhepesh occasionally replaced his father, the foreman of the right side Nakhemmut (vi), in the year 16,<sup>62</sup> 17<sup>63</sup> and perhaps 18<sup>64</sup> of Ramesses IX. Since he had the authority to act as foreman we may assume his status among colleagues was considerable, explaining his high position in the list of ONL 6240. We cannot exclude the possibility that at some point he did in fact operate as the official deputy of the right, perhaps at a time between the tenure of Seny (i) and Pa'anqen (i).<sup>65</sup> The position of the mark of Weserkhoshef (i) on ONL 6240 is indeed that of the deputy. When we compare the legible marks on ONL 6240 to the lists of O. BM 5642 and OL 170+ as well as O. Cairo JE 96326 (TABLE 64) we notice that some of the first eight marks of ONL 6240 are in agreement with the other sequences, but the remainder of the ordered list underwent several changes.

<sup>62</sup> Cf. Davies, *Who's who*, 57, n. 739; n. 742.

<sup>63</sup> Cf. Davies, *Who's who*, 57, n. 743.

<sup>64</sup> Cf. Davies, *Who's who*, 57, n. 744.


<sup>65</sup> In contrast to the situation we had observed earlier, see above, 4.2.3. For the activity of Weserkhepesh see Davies, *Who's who*, 281.

ONL 6240 is therefore probably younger than O. BM 5642 and related pieces, and we may date it to the end of the reign of Ramesses IX.

BM 5642	OL 170+	JE 96326	ONL 6240
...			
...			
			...
...			...
...			
...			
...			...
...			...
...			...
			...
			...

TABLE 64. ORDERED LIST OF ONL 6240 COMPARED

#### 4.2.6 The left side of the crew during the first half of the 20<sup>th</sup> Dynasty: Theban Graffiti nrs. 181, 1077, 1465, 1780 and 2839.



















An important identification of a workman's mark was established by Valbelle. She remarked that in Theban Graffito 1780<sup>66</sup> there was probably a connection between the mention of the "Deputy Hay, son of Amennakht, Païry" and the pomegranate-shaped mark  incised close to this inscription. This man can of course be no other than the deputy of the left side Hay (vii) son of Amennakht (x).<sup>67</sup> Valbelle's assumption that this mark belongs to his person<sup>68</sup> will be demonstrated to be correct.<sup>69</sup>

<sup>66</sup> Černý and Sadek, *Graffiti de la montagne thébaine* III.1, pl. XXV; Černý and Sadek, *Graffiti de la montagne thébaine* IV.1, 16.

<sup>67</sup> Davies, *Who's who*, 68-69.

<sup>68</sup> Valbelle, *La tombe de Hay*, 36 and fig. 20.



<sup>69</sup> See below, 4.2.8.

The mark of a son of Hay (vii), Amennakht (vi)/(xii), nicknamed Pawonesh, ‘the jackal’,<sup>70</sup> was also identified through graffiti in the Theban mountains, as Fronczak and Rzepka pointed out that there was a strong correlation between hieratic graffiti mentioning Amennakht (vi)/(xii) and the identity mark , depicting a canid.<sup>71</sup> Both assumed identifications are supported by Theban Graffiti nrs. 1077,<sup>72</sup> 1465,<sup>73</sup> 1609,<sup>74</sup> 2839,<sup>75</sup> which include both marks  and , as well as either the name of Hay (vii) or that of his son, Amennakht (vi)/(xii). In Theban Graffito 1077, we observe mark  next to the name Amennakht inscribed in hieratic, and to the left of the inscription mark , probably for Amennakht (vi)/(xii)'s father Hay (vii), and . The latter mark occurs also in Theban Graffito 181,<sup>76</sup> where it is inscribed twice. It occurs in this graffito together with mark , also inscribed twice. We have already encountered mark  on several occasions, and we established that it referred to Qenna (i) and his father Iniherkhau (ii). Because of the presence of mark  in Graffito 181 there are reasons to assume that  refers there to Iniherkhau (ii). Mark  resembles hieroglyph  with the phonetic value *h3*, and it will be shown below that it refers to a man named *Hay*.<sup>77</sup> The prevalence of the name Hay in the 20<sup>th</sup> Dynasty makes it difficult to determine with which Hay were are dealing exactly, but we may consider the possibility that is here used for Hay (iv), the foreman of the left side during much of the reign of Ramesses III and the father of Iniherkhau (ii), represented by mark . Some support for our suggested identification can be gained from Theban Graffito 1077 where, as mentioned, mark , presumably for Hay (iv), is found together with mark  for Amennakht (vi)/(xii) ‘Pawonesh’ and mark  for Hay (vii). The occurrence of these three marks together is probably not coincidental. Hay (vii) and Amennakht (vi)/(xii) were father and son. A similar relation existed between Hay (vii) and Hay (iv). Although Hay (vii) was a son of Amennakht (x), several inscriptions also mention Hay (iv) as the father of Hay (vii). Hay (vii), deputy of the left side of the crew, appears to have suggested this filiation to associate himself with Hay (iv), foreman of the left side, to strengthen his position in the hierarchy of the workmen.<sup>78</sup> The connection between Hay (iv) and mark  remains nevertheless hypothetical, and it will be demonstrated below that at a later point in the 20<sup>th</sup> Dynasty mark  was used for another Hay who was not related to Hay (iv).<sup>79</sup>

#### 4.2.7 The left side of the crew during the first half of the 20<sup>th</sup> Dynasty: O. Cairo CG 25660+

This ostrakon contains an incomplete hieratic account of the items of food brought for a feast by different individuals, dated to the first half of the 20<sup>th</sup> Dynasty.<sup>80</sup> The part of the text that interests us is found in lines 8-15. After Janssen,<sup>81</sup> we read:

<sup>70</sup> Davies, *Who's who*, 68.

<sup>71</sup> Fronczak and Rzepka, “Funny Signs”, 167. It is possible that at some point in the life of Amennakht (vi)/(xii), perhaps after the demise of his father Hay (vii), he discarded mark  to take on his father's mark , see below, 4.2.15 and chapter 6, 6.5.4.6.

<sup>72</sup> Jaroslav Černý, *Graffiti hiéroglyphiques et hiératiques de la nécropole Thébaine. Nos 1060 à 1405*. DFIFAO 9 (Cairo 1956), 2, pl. 2.

<sup>73</sup> Unpublished but accessible through the database of “Funny signs” in graffiti, *Non-textual marking systems in Ancient Egypt – database*, <http://www.ntms.uw.edu.pl/index.php?rt=funnycodes/search>.

<sup>74</sup> Černý and Sadek, *Graffiti de la Montagne Thébaine* III.1, pl. II.

<sup>75</sup> Jaroslav Černý and Abdel Aziz Sadek, *Graffiti de la Montagne Thébaine* III.3. *Fac-similés. Nos. 2567-2928*. CEDAE (Cairo 1971), pl. CLXI; Jaroslav Černý and Abdel Aziz Sadek, *Graffiti de la Montagne Thébaine* IV.2. *Transcriptions et indices. Nos. 2567-2928*. CEDAE (Cairo 1971), 126.

<sup>76</sup> Spiegelberg, *Graffiti*, 19 and pl. 22.

<sup>77</sup> See below, 4.2.8, O. ARTP 99/27.

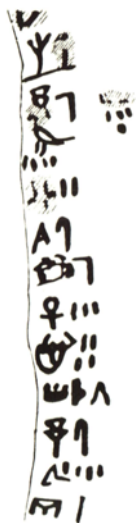
<sup>78</sup> Davies, *Who's who*, 63-64; see also chapter 6, 6.5.4.5.

<sup>79</sup> See below, 4.2.8, O. ARTP 99/27.

<sup>80</sup> Černý, *Ostraca Caire*, 52, 72, pl. LXIX; Janssen, *Village Varia*, 72-75, no. VI.

8. Pentaweret: 4 assorted loaves. Amennakht, son of Kasa: 5 assorted loaves. Wesekhnemtet: 5 assorted loaves.
9. Penniut, [son of] Mose: 7 assorted loaves. Amenpahapy, son of Aanakthu: 10 assorted loaves,
10. 1 *gzy*-vessel of meat cuts. The scorpion controller Amenmose: 4 assorted loaves. Minkhau: 3 assorted loaves.
11. Nehsy: 5 assorted loaves. Hornefer, [////] assorted loaves, 2 fish. Nebnefer, son of Pentaweret: 5 assorted loaves.
12. Seti: 10 assorted loaves. Amennakht, son of Reshupeteref: 6 assorted loaves. Penamun: 3 large loaves, 17 assorted loaves,
13. 1 *mḥ*-dish of fish, 3 oipe of cakes. Montupahapy: 5 large loaves, 11 assorted loaves,
14. 1 *gzy*-vessel of meat. Amenkha: 5 large loaves, 20 assorted loaves, 1 *mḥ*-dish of meat. Qenna, son of (Iniher)khau:
15. 6 assorted loaves. Nesamun: 5 assorted loaves. Qenherkhopshef, son of Khaemnun: 5 assorted loaves. Harmin: 5 assorted loaves. Nebnefer: 5 assorted loaves. Hathoremheb: 5 assorted loaves.

To the left of the text a partially preserved column of workmen's marks and hieratic numerals is inscribed. Some of the marks in are familiar to us, as they occur in turnus lists composed with marks as well:



- l. 1 damaged
- l. 2 mark of Khaemnun (i)
- l. 3 mark of Nesamun (III) (?), followed by a damaged mark
- l. 4 mark of Horii (ii) = (iii)
- l. 5 damaged mark
- l. 6 mark of Neferhotep (xii)
- l. 7 mark of Menna (i)
- l. 8 mark of Minkhau (i)
- l. 9 unidentified mark
- l. 10 unidentified mark
- l. 11 unidentified mark
- l. 12 perhaps mark of Wesekhnemtet (i)
- l. 13 unidentified mark

FIGURE 12. MARKS ON O. CG 25660+

Looking at the numerals and other signs added to the marks, it becomes clear that the column of marks corresponds at least partially to the hieratic text. Although according to line 8 of the hieratic text Wesekhnemtet was responsible for five loaves of bread, his mark appears to be connected with hieratic numeral 3. Yet, the numeral five right of the mark of Nesamun (III) agrees with the five loaves of bread brought by Nesamun in line 15 of the hieratic account and the numeral three right of the mark of Minkhau (i) corresponds to the three loaves mentioned in line 10 for the same workman.

With regard to the unidentified marks, the hieratic text offers some insight. It seems very plausible that mark depicts a scorpion, used for the workman Amenmose in line 10

<sup>81</sup> Janssen, *Village Varia*, 72-75.

who is named there with his title ‘scorpion controller’.<sup>82</sup> He is responsible for four loaves of bread and this amount coincides with the numeral 4 next to the mark  $\text{𐀀}$ . The mark  $\text{𐀁}$  below it reads ‘Amun’ and is connected with the numeral 10, which suggests that the mark is to be identified with the *Amenpahapy* of line 9 and the 10 loaves he brought. Three marks in the list are not connected with a hieratic numeral, but to what appears to be a hieroglyphic sign  $\text{𐀂}$ . We have seen the same sign in the duty rosters composed with marks, where it served as an abbreviation for the word *sw* ‘day’.<sup>83</sup> That explanation is not very probable in the context of the marks on O. Cairo CG 25660+. On this piece, the first instance of the sign is in combination with the mark of Khaemnun. In the hieratic text on the same ostrakon Khaemnun is not mentioned as someone who brings food, but as part of a filiation: line 15 mentions “Qenherkhopshef, son of Khaemnun.” In this light, the sign  $\text{𐀂}$  *s* next to mark  $\text{𐀃}$  for Khaemnun is perhaps used as an abbreviation for the word *sꜣ* ‘son’ to create a construction of filiation. If this assumption is correct, the damaged mark above the mark of Neferhotep must represent the son of Neferhotep on account of the *s* right of it. Yet, no son of Neferhotep is preserved in the hieratic account. The *s* right of mark  $\text{𐀄}$  below that of Amenpahapy would then indicate the father of Amenpahapy. Fortunately, this filiation can be found in line 9 of the hieratic inscription which informs us that Amenpahapy is the son of Aanakhtu, securely tying marks  $\text{𐀁}$  and  $\text{𐀄}$  to Davies’ Amenpahapy (iii) and Aanakhtu (i). Sign  $\text{𐀂}$  is thus indeed used to as an abbreviation for *sꜣ* ‘son’ on O. Cairo CG 25660+.

Connecting Aanakhtu (i) with mark  $\text{𐀄}$  leads perhaps to the equation of Aanakhtu (i) with Davies’ Aanakhtu (iii). That is suggested by Theban Graffito 3630. It displays two workmen’s marks,  $\text{𐀄}$  and  $\text{𐀅}$ . We may assume that the latter is an elaborate variant of mark  $\text{𐀆}$ , which we have identified as the mark of Weserhat (ii). The father of Weserhat (ii) was workman Aanakhtu (iii), so it is well possible that the graffito records a father and his son. Aanakhtu (iii) in turn may in fact be identical with Aanakhtu (iv).<sup>84</sup> This is plausible, as Aanakhtu (iv) is attested as a workman of the left side in the later years of the reign of Ramesses III,<sup>85</sup> and in the following section (4.2.8) we will see that Aanakhtu (iii) = (i) with mark  $\text{𐀄}$  is likewise recorded on the left side of the crew in the reign of Ramesses IV.<sup>86</sup>

#### 4.2.8 The left side of the crew during the reign of Ramesses IV: O. ARTP 99/27 and associated ostraca

O. ARTP 99/27 was discovered in the area between KV 56 and KV 9 in the Valley of the Kings. The obverse contains two columns of marks inscribed in red ink. Some of the marks are difficult to discern, and a number may have been erased, but the ostrakon appears to display at least 36 different workmen’s marks. Close parallels for the sequence of the right column of the ostrakon are found in ostraca O. Cairo JE 72491 and O. BTdK 550, which aid in interpreting some of the damaged and oddly executed marks. Moreover, the close similarity between O. ARTP 99/27 and O. BTdK 550 suggests that O. ARTP 99/27 is likewise datable to the 20<sup>th</sup> Dynasty and more specifically to a time after the reign of Ramesses III, because O. BTdK 550 was discovered in the huts settlement in the Valley of the Kings that was used in the period of Ramesses IV – Ramesses VII. Assuming that the beginning of O. ARTP 99/27 is at the top of the right column, we see that the first mark is  $\text{𐀇}$ , the pomegranate, ascribed to Hay (vii).<sup>87</sup> His position at the beginning of the list of workmen’s marks is significant, as it

<sup>82</sup> Not Amenmose (i) but the later homonymous scorpion controller, see Janssen, *Village Varia*, 29; Davies, *Who’s who*, 233.

<sup>83</sup> See above, chapter 3, 3.2.2.

<sup>84</sup> Contra Davies, *Who’s who*, 40.

<sup>85</sup> O. Turin N. 57026; O. Turin N. 57039.

<sup>86</sup> O. ARTP 99/27.

<sup>87</sup> See above, 4.2.6.

might indicate that this is an ordered list of workmen that starts with the mention of the deputy. As Hay (vii) was the deputy of the left side, the ostracon would seem to be a list of workmen of the left side.

This assumption is confirmed when we compare O. ARTP 99/27 to hieratic ostracon O. DeM 831.<sup>88</sup> The latter document is dated to the period of the end of the reign of Ramesses III to the end of the reign of Ramesses IV on account of the individuals that are mentioned in this name list of workmen belonging to the left side of the crew.<sup>89</sup> It is obvious that the hieratic name list is ordered as well: it begins with the deputy Hay (vii) and in the second position it lists Qed(her)akhtef (ii), the workman who would take over the role of deputy of the left side from Hay in the middle of the 20<sup>th</sup> Dynasty.<sup>90</sup> We are thus dealing with a list that on the surface appears to be similar to that of O. ARTP 99/27.

Apart from the mark of Hay (vii), O. ARTP 99/27 contains several workmen's marks which we have already identified. We know them from ostraca with duty rosters, such as the mark  $\text{C}^{\text{Q}}$  for Menna (i),  $\text{A}$  for Pentaweret (iv) and  $\text{L}$  for Qenna (i). Although they served on the right side of the crew at one time, we have observed that they each disappeared from the turnus towards the end of the reign of Ramesses III. In the case of Menna (i), it is explicitly stated in hieratic ostracon O. Prague H 14 that he was transferred to the left side of the crew in III *ah.t* of year 31. Regarding Qenna and Pentaweret it is clear that they were excluded from the duty rosters around IV *pr.t* year 28 and I *pr.t* year 30 respectively, and they could have ended up in the left side of the crew as well.

We find striking similarities when we juxtapose the sequence of names in the hieratic list of O. DeM 831 with the sequence of workmen's marks (TABLE 65). The left column of marks in O. ARTP 99/27 is difficult to interpret, as it appears to consist of two separated parts, none of which match well with the hieratic list. In contrast, the right column corresponds well to the first 20 entries in the list of O. DeM 831. After mark  $\text{E}$  of Hay (vii), we observe the identity mark  $\text{E}$ , a hieroglyph with phonetic value *qd*. This mark is easily explained as the first element in the name of the workman *Qedherakhtuf*. The next identity mark  $\text{Z}$  (*wzq*) could well be connected with Aapatjau (i) if we propose that this mark is related to the second element in the name of his father, workman *Siwadjet* (iii).

Similarly, identity mark  $\text{N}$  (*nb* and *nfr*) is most likely not a reference to the name of Bakenwerel (vii), but to that of his father. The identity of Bakenwerel's father is unfortunately not known, but in the light of Bakenwerel's identity mark we may theorise that he was called Nebnefer. Such an assumption is supported by the fact the Bakenwerel (vii)'s son was called Nebnefer (x), who in turn had a son called Bakenwerel (viii).<sup>91</sup> Thankfully, O. Ashmolean HO 68 confirms the identification of Bakenwerel (vii)'s mark  $\text{N}$ . The hieratic inscription on the obverse documents an oath by Neferher to pay for a metal vessel delivered by Bakenwerel. Interestingly, the unpublished reverse of the same ostracon displays two workmen's marks. One is  $\text{N}^{\text{d}}$ , which can only be a more elaborate version of the mark  $\text{N}$ , which we know belonged to Neferher (vi), corresponding to the workman mentioned in the hieratic inscription. The second mark is  $\text{N}$ , which, in accordance with the other mark, must refer to the Bakenwerel alluded to in the hieratic text.

Like the mark of Bakenwerel, the identity mark  $\text{W}$ , a ligature that reads 'wn', seems not to be related to the name of Penamun but to that of his father. We know of a workman

<sup>88</sup> Grandet, *Ostraca hiératiques* IX, 1, 11-13, 197-199.

<sup>89</sup> Grandet, *Ostraca hiératiques* IX, 1, 13.

<sup>90</sup> Cf. Grandet, *Ostraca hiératiques* IX, 11.

<sup>91</sup> Many workmen in Deir el-Medina were named after their grandfather, see chapter 6, 6.5.4.2. For the family of Bakenwerel (vii) see Davies, *Who's who*, chart 47. For the father of Bakenwerel (vii) see also below, 4.2.11.



Penamun (V) who was active in the 20<sup>th</sup> Dynasty, and whose father was called *Wennefer* (iii).<sup>92</sup>

The identity mark  $\text{𓂏}$  is of course well attested in the duty rosters, where it represents the workman Mose (iv). We have observed his mark in the turnus of the right side from the time of Ramesses III to those of the reign of Ramesses V or later. It is therefore odd to encounter the mark on O. ARTP 99/27 among workmen of the left side, and we get the suspicion that we are dealing with another workman. If that is indeed the case, the implication is that the same workman's mark can be used for different individuals simultaneously. This cannot be proven, but O. DeM 831 does list a workman who is not related to Mose (iv) for the slot of the mark  $\text{𓂏}$ . The name of this workman is damaged – it might have been [Men]na or Qen[na] – but the filiation can still be reconstructed and has been read as Nakhtenkhopshesf.<sup>93</sup> This individual is not included in Davies' *Who's who*, but a man with almost the same name, Nakhtherkhopshesf (I), is attested on O. BTdK 183, found among the recently excavated material from the workmen's huts near the tomb of Ramesses X. Nakhtherkhopshesf (I) is mentioned as a son of Ramose, probably Ramose (v),<sup>94</sup> and it is conceivable that mark  $\text{𓂏}$  (*ms*) is connected with the element –mose in that name.

Mark  $\text{𓂏}$  aligns with the name of the workman Seti. Indeed, mark and name may be connected, as Theban Graffito 1460 contains mark  $\text{𓂏}$  below the depiction of a seated Seth animal.

The following mark is  $\text{𓂏}$ , which we had already encountered in Theban Graffiti nrs. 181 and 1077. We had established that there is a possibility that it refers there to Hay (iv), but in O. ARTP 99/27 it certainly is used for another individual. According to the sequence of O. DeM 831, mark  $\text{𓂏}$  does correspond to a man named Hay but he cannot have been Hay (iv). The earliest possible date for the name list on O. DeM 831 is at the end of the reign of Ramesses III, and by this time Hay (iv) had already retired from his position as foreman. It is not easy to identify the workman Hay in O. DeM 831, the more so because the hieratic list mentions another workman of the same name in position 15. Two workmen named Hay are already found in a list of workmen of the left side dating to year 24 of Ramesses III,<sup>95</sup> where they are recorded with filiation: Hay (xi) son of Seba<sup>96</sup> and Hay (v) = (iii) son of Huy.<sup>97</sup> Both men are still recorded among a group of workmen of the left side on O. DeM 236, an ostrakon generally attributed to the reign of Ramesses IV.<sup>98</sup> We may thus assume that the two men in O. DeM 831 are the same individuals, but because the texts in which Hay (xi) and Hay (v) = (iii) occur are not ordered lists we are unable to specify which is which. We conclude that mark  $\text{𓂏}$  on O. ARTP 99/27 refers in all likelihood to either one of them.<sup>99</sup>

The connection between the identity mark  $\text{𓂏}$  and the name Penniut is not immediately obvious. Yet, we may consider Davies' suggestion that the woman Henutwati (i), the mother of Penniut (i), is the same person as Henutwati (ii), a daughter of *Nebimentet* (i).<sup>100</sup> If these

<sup>92</sup> Not in Davies, *Who's who*, but see Dorn, *Arbeiterhütten*, 354.

<sup>93</sup> Grandet, *Ostraca hiératiques IX*, 12.

<sup>94</sup> Dorn, *Arbeiterhütten*, 269.

<sup>95</sup> O. Turin N. 57028.

<sup>96</sup> Davies, *Who's who*, 266.

<sup>97</sup> Davies, *Who's who*, 215.

<sup>98</sup> E.g. Helck, *Die datierten und datierbaren Ostraka*, 367. Although the ostrakon does not contain an ordered list, the sequence of workmen recorded in the first two columns of the obverse – all men of the right side – corresponds slightly better to the ordered sequence of the reign of Ramesses V (where they are situated in slots 2, 3, 6, 7, 12, 14, 13, 19, 21 and 31) than the reign of Ramesses IV, and thus an attribution to this reign may be considered for this ostrakon as well.

<sup>99</sup> An ostrakon from the late 19<sup>th</sup> Dynasty, O. Ashmolean HO 801, would suggest that the same mark was used for Hay (v) = (iii), but hard evidence is lacking, see chapter 5, 5.2.3.1.

<sup>100</sup> Davies, *Who's who*, chart 5.

family ties are correctly reconstructed, it would appear that Penniut (i) had inherited his identity mark  $\hat{p}$  from his grandfather on his mothers' side.

Towards the bottom of the right column we reencounter mark  $\check{y}$ , which we have seen in ostracon O. Cairo CG 25660+ and Theban Graffito 3630, where the mark was identified as the workman Aanakhtu (i) = (iii). This association is confirmed by O. ARTP 99/27, as the mark coincides with exactly this name in O. DeM 831. It is noteworthy that Grandet identified this Aanakhtu as the workman mentioned in P. Genève MAH 15274.<sup>101</sup> The same workman is enumerated as Aanakhtu (iv) by Davies,<sup>102</sup> who recognised him as a workman of the left side of the gang. It would thus seem that Aanakhtu (i) = (iii) and Aanakhtu (iv) are in fact one and the same person.

The following mark  $\overline{mnw}$ , corresponding to the workman Qenymin (i) according to O. DeM 831, is explained without difficulty as the last element in his name. Finally, mark  $\mathcal{A}$  is positioned in the slot occupied by a Nebnefer in the list of O. DeM 831. Here too we come across a mark that we are well acquainted with as a reference to a workman of the right side of the crew, Hori (ii) = (iii). We are however entirely certain that at the time somewhere in the reign of Ramesses IV when O. ARTP 99/27 was inscribed, Hori (ii) = (iii) was associated with the right side of the gang. Mark  $\mathcal{A}$  on O. ARTP 99/27 must therefore designate someone else, and a good candidate is Nebnefer (ix), son of Hori (ix) and a contemporary of Hori (ii) = (iii).<sup>103</sup> Mark  $\mathcal{A}$  thus constitutes another example of two contemporaneous workmen, each belonging to a different side of the gang, who employed the same mark.

O. DeM 831				O. ARTP 99/27		
O. I.1	1	Hay (vii)	=	I.1	1	$\mathcal{H}$
O. I.2	2	Qed(her)akhtef (ii)	=	I.2	2	$\mathcal{E}$
O. I.3	3	Aapatjau (i)	=	I.3	3	$\mathcal{A}$
O. I.4	4	Qenna		I.4	4	$\mathcal{M}$
O. I.5	5	Bakenwerel	=	I.5	5	$\mathcal{W}$
O. I.6	6	[...]na, son of Nakhtherkhapshef (I)	≈	I.6	6	$\mathcal{N}$
O. I.7	7	Seti (i)	=	I.7	7	$\mathcal{T}$
O. I.8	8	Khnumnakht <sup>104</sup>		I.8	8	$\mathcal{K}$
O. I.9	9	Hay (v) = (iii) or (xi)	=	I.9	9	$\mathcal{H}$
O. I.10	10	Nakht		I.10	10	$\mathcal{N}$
O. II.1	11	Penamun (V)	=	I.11	11	$\mathcal{P}$
O. II.2	12	Waway		I.12	12	$\mathcal{W}$
O. II.3	13	Penniut (i) = (iii)	=	I.13	13	$\mathcal{P}$
O. II.4	14	Menna (i)	=	I.14	14	$\mathcal{M}$
O. II.5	15	Hay (xi) or (v) = (iii)		I.15	15	$\mathcal{H}$
O. II.6	16	Pentaweret (vii)	=	I.16	16	$\mathcal{P}$
O. II.7	17	Qenna (i)	=	I.17	17	$\mathcal{Q}$
O. II.8	18	Aanakhtu (iii) = Aanakhtu (iv)	=	I.18	18	$\check{y}$
O. II.9	19	Qenymin (i)	=	I.19	19	$\overline{mnw}$
O. II.10	20	Nebnefer	=	I.20	20	$\mathcal{A}$
O. II.11	21	Hormin (i)		I.21	21	$\mathcal{H}$
R. I.1	22	Sobekmose (i)		II.1	22	$\mathcal{S}$

<sup>101</sup> Grandet, *Ostraca hiératiques IX*, 13.

<sup>102</sup> Davies, *Who's who*, 40.

<sup>103</sup> Compare the discussion of men named Hori in Davies, *Who's who*, 143-146.

<sup>104</sup> Not in Davies, *Who's who*.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II






























R. I.2	23	Harmose (ii ?)		II.2	23	
R. I.3	24	Paneferemdjedu (i)		II.3	24	
R. I.4	25	Amennakht		II.4	25	
R. I.5	26	Burekhtuiunef (iii)		III.1	26	
R. I.6	27	Harnefer		III.2	27	
R. II.1	28	Mer[ysekhmet (iii)] ?		III.3	28	
R. II.2	29	Amenkha (ii ?)		III.4	29	
R. II.3	30	Sobeknakht		III.5	30	
R. II.4	31	Qeny		III.6	31	
R. II.5	32	Pashedu		III.7	32	
R. II.6	33	[...]r		III.8	33	
R. II.7	34	Akhpet (iii)		III.9	34	
R. III.1	35	Neb[...]y		III.10	35	
R. III.2	36	Huy		III.11	36	
R. III.3	37	[...]				
R. III.4	38	[...]				

TABLE 65. ORDERED LIST OF O. DEM 831 COMPARED TO O. ARTP 99/27

In the left column we find two marks we have already identified:  for Amenpahapy (iii) and  (in all likelihood an allomorph of mark  on O. Cairo CG 25660+<sup>105</sup>) for the scorpion controller Amenmose. Mark  is similar to mark , used for Penrennut (i) in duty rosters from the end of the reign of Ramesses IV or later times, who probably belonged to the right side of the crew during that period. Perhaps the same workman belonged to the left side at the time O. ARTP 99/27 was composed. This ostrakon lists several marks in the left column which we cannot identify securely through the hieratic text of O. DeM 831, but because these marks are hieroglyphic signs we can propose some identifications. To begin with, two marks below  for Amenpahapy a sistrum-shaped mark  (occasionally *shm*) is inscribed, and it is very tempting to connect it with the workman Merysekhmet<sup>106</sup> who is mentioned in position 28 in O. DeM 831. The first element of his name is indeed oftentimes written with sign .<sup>107</sup> Moreover, the sistrum  is once attested as an identity mark on pottery<sup>108</sup> in combination with the *mr* sign , which can be taken as another indication that  is related to the workman Merysekhmet.

Some marks down in the list on O. ARTP 99/27 mark  is situated. This is the *dd* sign, and it would make sense to tie this mark to the workman Paneferemdjedu (i) mentioned in position 24 on O. DeM 831. Support for this assumption is found in O. BTdK 539, a piece that must also date to the 20<sup>th</sup> Dynasty. It records several marks also present on O. ARTP 99/27, among which the mark , combining *nfr* and *dd*. Less certain are the options for  (*h3*) and  (*m* and *hb*). We may propose to connect the former mark with Amenkha mentioned in O. DeM 831,<sup>109</sup> but there is no corroborating evidence. The latter mark might stand for the workman Amenemheb, who is listed among the workmen of the left side in O. MMA 09.184.702, an ostrakon attributed to year 1 of Ramesses IV.<sup>110</sup> There is however no evidence for this suggestion either.

<sup>105</sup> See above, 4.2.7.

<sup>106</sup> Probably Merysekhmet (iii), see Davies, *Who's who*, 262.

<sup>107</sup> See e.g. Spiegelberg, *Graffiti*, 32, Theban Graffito nr. 356 or Bruyère, *Rapport 1948-1951*, pl. XVII.060

<sup>108</sup> Bruyère, *Rapport 1949-1951*, pl. XVII, [nr.] 60.

<sup>109</sup> Perhaps this is Amenkha (ii), see Davies, *Who's who*, 214.

<sup>110</sup> In all probability this man is either Amenemheb (i) = (ii) (see Davies, *Who's who*, 255-256) or Amenemheb (iv) (see Davies, *Who's who*, 68).

Because O. ARTP 99/27 corresponds to a large extent to the hieratic name list on O. DeM 831, the list of workmen's marks is best dated to the reign of Ramesses IV as well. More than 30 workmen of the left side are mentioned in both O. DeM 831 (38 names) and O. ARTP 99/27 (36 marks). This number of workmen would suggest that O. ARTP 99/27 was inscribed after the expansion of the crew to 60 workmen for each side of the gang in year 2 of the reign of Ramesses IV.<sup>111</sup> The inclusion of mark 𐀓 for Aanakhtu (i) = (iii) = Aanakhtu (iv) on O. ARTP 99/27 indicates that it must have been composed in or before year 6 of the reign of Ramesses IV, whose career appears to have ended in that year.<sup>112</sup>

The sequence of marks in the list of O. Cairo JE 72491 is very similar to the one recorded on O. ARTP 99/27, suggesting the two documents must date close to each other (TABLE 66). Although O. Cairo JE 72491 is less well preserved, almost all of its marks appear in the order of the list of O. ARTP 99/27, with some notable differences. To begin with, the second mark of O. Cairo JE 72491 is not 𐀓 but 𐀔, a mark that does not appear on O. ARTP 99/27. In turn, two marks down we notice that mark 𐀓 has been inscribed in the slot that is occupied by mark 𐀔 on O. ARTP 99/27. The latter mark seems to be omitted from O. Cairo JE 72491.<sup>113</sup> The slot that is filled by mark 𐀓 on O. ARTP 99/27 is used for mark 𐀕 on O. Cairo JE 72491, which in turn is absent on O. ARTP 99/27. The differences between the two lists suggest that O. Cairo JE 72491 is the older one, because, as we shall discover later on,<sup>114</sup> marks 𐀔 and 𐀓 will not appear in prominent positions at the top of lists of identity marks of workmen of the left side during later periods. Mark 𐀓 in contrast remained in such a position. It is thus possible to come to a relative date for O. Cairo JE 72491, but we cannot pinpoint it to a particular year. Like O. ARTP 99/27, O. Cairo JE 72491 is headed by the mark of deputy of the left side Hay (vii), and the ostrakon therefore probably postdates year 22 of the reign of Ramesses III, because in that year Hay (vii)'s predecessor, deputy Iniherkhau (ii), assumed his new position as foreman of the left side.<sup>115</sup> However, it would seem that O. Cairo JE 72491 recorded more than 30 workmen's marks, with 29 (partially) preserved marks still visible and at least two more marks in the lacunae. Like O. ARTP 99/27, O. Cairo JE 72491 is therefore presumably written after the workforce was doubled in year 2 of Ramesses IV. O. Cairo JE 72491 and similar ostraca demonstrate that mark 𐀖 on O. ARTP 99/27 is an allomorph of 𐀗.

Ostrakon ONL 6303, incompletely preserved, contains a list of workmen that is probably datable to a time between O. Cairo JE 72491 and O. ARTP 99/27. That is suggested by the sequence of workmen's marks on the ostrakon, which is similar to both O. Cairo JE 72491 and O. ARTP 99/27. As in the latter ostrakon, mark 𐀕 is no longer included in the list of ONL 6303. For the slot between 𐀘 and 𐀙 where mark 𐀕 is positioned on O. Cairo JE 72491, ONL 6303 lists mark 𐀔. This mark occurs on O. ARTP 99/27, but it is not mentioned on O. Cairo JE 72491. The workman referred to by mark 𐀔 thus seems to have replaced the workman with mark 𐀕, suggesting ONL 6303 is closer related to O. ARTP 99/27 in this respect. Yet, mark 𐀔 is situated in a position higher up in the list of O. ARTP 99/27 than in that of ONL 6303. Furthermore, the sequence 𐀚𐀛 – 𐀜 – 𐀝 on ONL 6303 can be observed on O. Cairo JE 72491, but not on O. ARTP 99/27. Hence, on our relative timeline of ostraca the sequence of marks ONL 6303 fits best in between O. Cairo JE 72491 and O. ARTP 99/27.

Comparing the order of marks of O. Cairo JE 72491 and ONL 6303 to that of O. ARTP 99/27, we see that several shifts and changes took place at or just before the time O.

<sup>111</sup> P. Turin Cat. 1891, rto.

<sup>112</sup> Cf. Grandet, *Ostraca hiératiques* IX, 13; Davies, *Who's who*, 40.

<sup>113</sup> Note that both marks 𐀔 and 𐀔 reappear in later ostraca such as O. Cairo JE 46862, see below, 4.2.12; 4.2.14.

<sup>114</sup> See below, 4.2.17, O. Prague NM P 3836; 4.2.15, O. BM 5642 reverse.

<sup>115</sup> Davies, *Who's who*, 27. Hay (vii) is however firstly attested with the title of deputy in year 27 of Ramesses III.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

ARTP 99/27 was written. As mentioned, mark 𐀓 appears to have been omitted from the list, marks 𐀙 and 𐀛 changed positions, and mark 𐀔 as well as marks 𐀞 and 𐀟 ascended in the list of O. ARTP 99/27.

The sequence of marks on the latter ostracon agrees to a great extent to that of O. BTdK 550. In fact, the order of marks is in complete accord, except for the disappearance of the slot between 𐀘 and 𐀔. On O. Cairo JE 72491 this position was dedicated to mark 𐀙, while in O. ARTP 99/27 this position is filled by mark 𐀛. We may interpret this as a consequence of the apparently short-lived career of the workman represented by 𐀛, who is absent in O. Cairo JE 72491, enters the middle regions of the workmen's list in ONL 6303, ascends to the fourth slot in O. ARTP 99/27, and disappears in O. BTdK 550.

The disappearance of mark 𐀛 from the list is probably reflected in ONL 6289 as well. Admittedly, this is not a list of the entire left side of the crew, but the five marks in the upper row do conform perfectly to the lists on O. Cairo JE 72491 and O. ARTP 99/27, apart from the slot between marks 𐀘 and 𐀔. On ONL 6289 this position is filled by mark 𐀚, suggesting the list was created after the exclusion of mark 𐀛 as in O. BTdK 550. Mark 𐀚 is present in the lists of O. Cairo JE 72491, O. BTdK 550 and O. ARTP 99/27, but several slots lower in the order of workmen than in that of ONL 6289. It thus seems that after the omission of mark 𐀛 in O. BTdK 550 his slot was taken by the workman with mark 𐀚, who moved up eight positions. ONL 6289 is therefore datable to some time in the reign of Ramesses IV, after the creation of O. BTdK 550.

ONL 6273 is most likely datable to about the same period. In the sequence of marks on this fragmentary ostracon, the slot between 𐀚 and 𐀑, previously occupied by mark 𐀚, has vanished, suggesting that as in ONL 6289 mark 𐀚 had already shifted upwards in the order of workmen. But, provided that ONL 6273 is indeed an ordered list of workmen, several more alterations in the sequence of marks had taken place, as we see that marks 𐀞 and 𐀟 have risen in the order of workmen and are now listed below mark 𐀑. The mark below 𐀑 is not securely identified, but could be mark 𐀛, which would then appear to have descended in the list.

JE 72491	ONL 6481	ONL 6303	ARTP 99/27	BTdK 550	ONL 6289	ONL 6273
𐀓			𐀓	𐀓	𐀓	
𐀔			𐀛	𐀛	𐀛	
𐀘	𐀘		𐀘	𐀘	𐀘	
𐀙	𐀙		𐀛	-	-	
𐀔			𐀔	𐀔	𐀚	
𐀑			𐀑	𐀑	𐀔	
𐀒			𐀒	𐀒		
𐀓			𐀓	𐀓		
𐀔			𐀔	𐀔		
𐀕			𐀕	𐀕		
𐀖			𐀖	𐀖		
𐀗			𐀗	𐀗		
𐀘			𐀘	𐀘		𐀚
𐀙			𐀙	𐀙		𐀑
𐀚	𐀑		𐀚	𐀚		𐀞
𐀛			𐀛	𐀛		𐀟
𐀜		𐀜	𐀜	𐀜		...
𐀝		𐀝	𐀝	𐀝		...
𐀞		𐀞	𐀞	𐀞		...
𐀟		𐀟	𐀟	𐀟		𐀛



rto., which is year 2 of Ramesses V, Ramesses VI or even later kings.<sup>119</sup> These dates seem to indicate that Hay (vii) never was a deputy under the foremanship of Harmose (ii), but this may be due to the absence of earlier attestations of Harmose (ii) as foreman and/or later attestations of Hay (vii) as deputy. In summary, O. Leipzig 1821 probably dates to a time in or around the reign of Ramesses VI or Ramesses VII.<sup>120</sup>

This attribution suggests that the document is quite some years later than ostrakon O. ARTP 99/27. Yet, the marks on O. Leipzig 1821 that follow after the mark of deputy Hay (vii) are almost all situated in the same relative position as in the ordered list of O. ARTP 99/27. The only exception is mark  $\equiv$ , undoubtedly an allomorph of mark  $\equiv$  in O. ARTP 99/27, which precedes marks  $\overline{\text{𓂏}}$  and  $\text{𓂏}$  on O. Leipzig 1821. Apart from the marks of the foreman and the scribe of the tomb, the other marks on O. Leipzig 1821 correspond to the first, sixth, seventh, tenth, twelfth, twentieth, twenty-first, twenty-second and twenty-seventh marks on O. ARTP 99/27.

#### 4.2.11 The left side of the crew during the first half of the 20<sup>th</sup> Dynasty: Theban Graffiti 3284 and 3295

Both Theban Graffiti 3284 and 3295 contain two workmen's marks. The first is  $\overline{\text{𓂏}}$ , the mark of Pentaweret (vii). The second mark is  $\text{𓂏} \cup \text{𓂏}$ , which is reminiscent of, but not necessarily equal to the mark  $\text{𓂏}$ , which as we have seen belongs to Bakenwerel (vii)<sup>121</sup> and presumably his father who must have been named Nebnefer. Coincidentally, Pentaweret (vii) is the son of a man named Nebnefer (vii) as well. If the marks  $\text{𓂏} \cup \text{𓂏}$  and  $\text{𓂏}$  can be proven to refer to the same individual, then Bakenwerel (vii) might have been a son of Nebnefer (vii) too. Alternatively, the mark  $\text{𓂏} \cup \text{𓂏}$  in Theban Graffiti 3284 and 3295 might belong to a possible son of Pentaweret (vii), Nebnefer (xii).

#### 4.2.12 The left side of the crew during the middle of the 20<sup>th</sup> Dynasty: Ostraca with the identity mark of Amennakht (vi)/(xii) called Pawonesh and related ostraca

As established above, several graffiti in the Theban mountains suggest that mark  $\text{𓂏}$  designated Amennakht (vi)/(xii) called Pawonesh.<sup>122</sup> Assuming that it was used exclusively for this man, we recognise the mark of Amennakht (vi)/(xii) on a number of ostraca inscribed with identity marks. The inclusion of his identity mark serves as an indication of an approximate date for such documents. Yet, it will become clear that the majority of ostraca on which the mark of Pawonesh occurs, as well as several associated pieces (TABLE 68), are rather difficult to date.

Perhaps the most clear cut case is ostrakon ONL 6436. The first line displays marks  $\text{𓂏}$  and  $\text{𓂏}$ , two marks we encountered in Theban Graffito 1077. Presumably these marks represent respectively Hay (vii) and Amennakht (vi)/(xii) called Pawonesh. Apart from marks  $\text{𓂏}$  and  $\text{𓂏}$ , all other marks on ONL 6436 are attested on O. ARTP 99/27 and associated ostraca and it is therefore likely that all marks refer to workmen of the left side of the crew. The order of marks  $\text{𓂏} - \text{𓂏} - \overline{\text{𓂏}} - \overline{\text{𓂏}}$  in the middle line of ONL 6436 resembles the sequence of  $\overline{\text{𓂏}} - \overline{\text{𓂏}} - \overline{\text{𓂏}}$  in the list of O. ARTP 99/27. Amennakht called Pawonesh was indeed the foreman of the left side, and we may assume he is here attested with mark  $\text{𓂏}$  in that function, or as a workman of the left side. By association, mark  $\text{𓂏}$  could have been a workman of the left side of the crew as well.

<sup>119</sup> Davies, *Who's who*, 69.

<sup>120</sup> An alternative explanation would be to interpret mark  $\text{𓂏}$  as a general mark for the chief workman of the left side of the crew. If this were true,  $\text{𓂏}$  could on O. Leipzig 1821 refer to foreman Iniherkhau (ii) in which case the ostrakon could date closer to O. ARTP 99/27 and associated pieces. See also below, chapter 6, 6.5.4.7.

<sup>121</sup> See above, 4.2.8.

<sup>122</sup> See above, 4.2.6.

The mark of Amennakht called Pawonesh occurs also on O. Cairo JE 46862. This document is somewhat difficult to date, and does not contain an ordered list of workmen's marks on which we can rely. Instead, the marks are scattered throughout the ostrakon, often with numerals and strokes added to the left of the mark. The marks are inscribed in different groups which are separated from each other by thick lines, creating different sections. This remarkable lay-out is recognisable in another ostrakon that we will discuss here, O. UC 31939+. Not only are the marks and numerals of the latter ostrakon presented in the very same fashion, a quick glance at the shape of the marks suggests O. Cairo JE 46862 and O. UC 31939+ were written by the same hand. That both ostraca are related is also suggested by the number of marks that overlap. O. UC 31939+, inscribed with 22 different marks, includes 13 marks that are also present on O. Cairo JE 46862 (TABLE 68).

The similarity between the two documents is significant, because it is possible to suggest a broad and tentative date for O. UC 31939+. Like O. Cairo JE 46862, this ostrakon does not provide us with an ordered list of identity marks, but a section at the bottom of the document appears to be related to the sequence of marks of O. ARTP 99/27 and O. BTdK 550. As on these two ostraca, we observe marks  $\xi - \Xi - \xi$  in a column. The ostrakon breaks off after the third mark, but the column to the left of it lists  $\mathfrak{M}$  and  $\mathfrak{T}$  in the same order as O. ARTP 99/27 and O. BTdK 550, suggesting two marks have been lost below  $\xi$ . The accordance to the sequence of marks on O. ARTP/27 and related documents is at first sight suggestive of a date for O. UC 31939+ in or close to the reign of Ramesses IV. Such a date would agree with the repertory of marks on O. UC 31939+, which is inscribed with 16 (out of a total of 22 different marks) that are included on O. ARTP 99/27 as well. Nevertheless, it is necessary to be cautious while dating O. UC 31939+, because it displays six more marks that are absent on O. ARTP 99/27. O. UC 31939+ may therefore date to a period after the reign of Ramesses IV as well.

A date for this ostrakon before the reign of Ramesses IV seems unlikely, because of its close similarity to O. Cairo JE 46862. This ostrakon is not preserved in its entirety and yet contains 31 different marks. The original number of marks could thus have well exceeded the total of 30 workmen, which indicates that the ostrakon must have been made after the workforce had been enlarged in year 2 of Ramesses IV to 60 workmen per side of the gang. Moreover, O. Cairo JE 46862 was discovered in the settlement of workmen's huts near the tomb of Ramesses X, and material from this area dates almost exclusively to the period between the reigns of Ramesses IV and Ramesses VII.<sup>123</sup> Perhaps O. Cairo JE 46862 was inscribed at a somewhat later period than O. UC 31939+, because even though it is slightly more intact, it displays 17 out of 31 marks that are included in the list of O. ARTP 99/27, but 14 marks that are not attested on that document. Moreover, as mentioned above, O. Cairo JE 46862 includes mark  $\mathfrak{A}$  for Amennakht called Pawonesh. It is unfortunately not clear when precisely he was active as a workman. His first secure attestation dates to a period prior to year 7 of the reign of Ramesses VI, but he may have already been part of the workforce in the reign of Ramesses IV or Ramesses V.<sup>124</sup>




As a result of the difficulties in dating O. Cairo JE 46862 and O. UC 31939+, we are not able to determine with certainty the identity behind many of the workmen's marks. Although it cannot be proven, it is very tempting to identify mark  $\mathfrak{V}$  on O. Cairo JE 46862 with the workman Akhpet (iii), whose name is written with the determinative  $\mathfrak{R}$ . Hieratic ostrakon O. DeM 831, which as we have seen coincides partially with the list of workmen's marks on O. ARTP 99/27, informs us that Akhpet (iii) was a workman of the left side.<sup>125</sup> An appearance of Akhpet (iii) on O. Cairo JE 46862 is therefore plausible, as this document is

<sup>123</sup> Dorn, *Arbeiterhütten*, 181.























<sup>124</sup> Davies, *Who's who*, 70.

<sup>125</sup> Cf. Davies, *Who's who*, 209 and n. 76.



related to the list of O. ARTP 99/27 as well and seemingly deals with the left side of the gang primarily. Akhpet (iii) is also named on O. Glasgow D. 1925.68, an undated document attributed to the period of the late reign of Ramesses III – reign of Ramesses IV,<sup>126</sup> which also makes mention of a scribe called Paser. This Paser might be referred to on O. Cairo JE 46862 by mark , which resembles hieroglyph  with phonetic value *sr*. According to Davies, the Paser on O. Glasgow D. 1925.68 is Paser (iv), who was a scribe of the vizier who occasionally visited the community of workmen at Deir el-Medina.<sup>127</sup> Yet, he is not mentioned with this title on O. Glasgow D. 1925.68, so we may propose that in this document we deal with Paser (iii) instead, a scribe who busied himself with the administration of deliveries for the left side of the gang and who is attested in the reign of Ramesses III.<sup>128</sup> The same ostrakon also records Ptahkha (i), who we may tentatively identify as the workman referred to by the mark representing the god Ptah, .

#### 4.2.13 O. BTdK 538: a puzzling ostrakon from the middle of the 20<sup>th</sup> Dynasty

Two other marks that we encounter for the first time on O. Cairo JE 46862 and O. UC 31939+ are  and . Interestingly, these marks occur on another ostrakon: O. BTdK 538. Unfortunately this is a badly damaged piece, but it is very useful because it contains an ordered list of workmen's marks. As we have seen in various other instances, the obverse of this ostrakon is dedicated to a list of workmen of the right side of the gang, while the reverse seems to list workmen of the left side. It is clear that the order of marks on the obverse is similar to the hypothetical 45 days turnus attested in the reign of Ramesses V. The sequence  –  –  in the right column of O. BTdK 538 adheres perfectly to the 45 days turnus, while the sequence  –  –  –  in the left column is quite similar to the order  –  –  – . Because the sequence of marks on O. BTdK 538 differs somewhat from the 45 days turnus,<sup>129</sup> the ostrakon probably dates to a slightly later period, yet it is older than ONL 6515 and the even later ostrakon O. IFAO C 7638, which show a rather different sequence of marks. O. BTdK 538 dates therefore most likely somewhere between year 2 of Ramesses V and year 4 of Ramesses VI. The reverse of O. BTdK 538, dedicated to the left side, displays an interesting sequence of marks. First of all, we encounter several marks that are also present on O. Cairo JE 46862 and O. UC 31939+:  (UC 31939+);  (O. Cairo JE 46862);  (O. Cairo JE 46862 and O. UC 31939+);  (O. Cairo JE 46862 and O. UC 31939+);  (O. Cairo JE 46862);  (O. Cairo JE 46862 and O. UC 31939+). Furthermore, when we examine the right column of the reverse of O. BTdK 538 we see that the sequence of marks is very similar to that of lists of marks of workmen of the left side from the reign of Ramesses IV. The order is more akin to that of O. ARTP 99/27 than to that of O. Cairo JE 72491. This observation suggests that O. BTdK 538 dates closer to the middle of the reign of Ramesses IV than to the beginning of the reign, which agrees with our idea that the obverse of the O. BTdK 538 should date in the reign of Ramesses V or Ramesses VI. Comparison with the sequence of O. ARTP 99/27 (TABLE 67) indicates that mark  is no longer situated between  and  on O. BTdK 538.

<sup>126</sup> McDowell, *Hieratic ostraca*, 6.

<sup>127</sup> Davies, *Who's who*, 103.

<sup>128</sup> Davies, *Who's who*, 102-103, 283.

<sup>129</sup> See chapter 3, 3.2.7.3.






























ARTP 99/27	BTdK 538
	
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













TABLE 67. SEQUENCE OF O. ARTP 99/27 COMPARED TO THAT OF O. BTdK 538







The shift of mark  in the right column is another indication that O. BTdK 538 was inscribed at a later point in time than O. ARTP 99/27. The sequence in the left column is more remarkable. The first two discernable marks appear to be  and . These marks are not present together in the 45 days turnus from the time of Ramesses V, but they are attested in exactly this sequence in O. IFAO C 7638, datable after year 4 of Ramesses VI. However, on that document the marks clearly belong to the right side of the crew. What is more, we have observed that in the period prior to O. BTdK 538, mark  referred to Wesekhmetet (i), who is still attested as a workman of the right side of the crew in the reign of Ramesses V. At that time, his identity mark was listed immediately before that of Maaninakhtuf (iii), whose mark  is still visible at the bottom of the left column on the obverse of O. BTdK 538. Postulating that mark  belongs to a workman of the left side on O. BTdK 538 therefore means that this individual, originally associated with the right side of the gang, was transferred to the left side somewhere at the end of the reign of Ramesses IV – Ramesses V, and then moved back to right side in the reign of Ramesses VI. Similarly, mark  would have shifted from the left to the right side.




















Although this reconstruction of events is very odd, such shifts are certainly not unthinkable. We may otherwise propose that the left column on the reverse of O. BTdK 538 records in fact a list of workmen of the right side. The sequence of the hypothetical 45 days turnus would indeed suggest that after  at the bottom of the left column of the obverse we could continue reading with  at the top of the left column on the reverse. As a result of this interpretation, marks  and  in the same column would most likely belong to workmen of the right side as well, suggesting that ostraca O. Cairo JE 46862 and O. UC 31939+ indeed record workmen of both sides of the crew. Yet another possible interpretation would be to suggest that after listing marks  and  (members of the right side of the crew), the left column on the reverse of O. BTdK 538 continued with members of the left side of the gang.

None of the suggested scenarios concerning the listing of marks  and  is particularly attractive, but regardless of the side of the gang these workmen may have been associated with on O. BTdK 538, their presence on that ostrakon and the order in which they are listed indicates that the left column on the reverse of O. BTdK 538 is related to O. IFAO C 7638, while the sequence of marks in the right column is related to O. ARTP 99/27. O. BTdK 538 dates therefore most probably to the reign of Ramesses V or Ramesses VI. As marks  and  are not securely attested on O. ARTP 99/27 and O. IFAO C 7638 and associated ostraca, or on older ostraca, we may by extension tentatively propose a date in the reign of Ramesses V and Ramesses VI for O. Cairo JE 46862 and O. UC 31939+ as well.

**4.2.14 Ostraca related to O. Cairo JE 46862 and O. UC 31939+**

Ostraca O. Cairo JE 46862 and O. UC 31939+ are only inaccurately dated. That is unfortunate, because the documents record several workmen's marks that we have not come across before, and which cannot be securely identified. In contrast, there are some marks that we have already encountered, but whose presence on O. Cairo JE 46862 and O. UC 31939+ is difficult to comprehend. These marks are  (a more elaborate variant of mark ) , , and  on O. Cairo JE 46862, and  on O. UC 31939+. We know these marks from duty rosters composed with marks from the reigns of Ramesses IV and Ramesses V, where they refer to workmen of the right side of the crew. The conundrum lays in the fact that ostraca O. Cairo JE 46862 and O. UC 31939+, seemingly documenting workmen of the left side of the gang only, probably date to about the same time. Marks , , , and  can thus be seen as other examples of the same identity mark used for different but contemporaneous workmen, as we saw must be the case for marks  and  on O. ARTP 99/27.<sup>130</sup> On the other hand, O. Cairo JE 46862 and O. UC 31939+ may simply record both workmen of the left as well as of the right side of the gang. We can be certain that from the middle of the 20<sup>th</sup> Dynasty onwards, marks ,  and  are attested in lists of workmen of the right side of the gang in O. IFAO C 7638 and associated ostraca as well as on O. BM 5642 and associated ostraca.

Similarly puzzling is the occurrence of marks  and  on O. Cairo JE 46862. This ostrakon, possibly of a slightly later date than O. UC 31939+, records both these marks, while we have observed that in the order of workmen from the reign of Ramesses IV mark , still present on O. Cairo JE 72491, was apparently replaced by mark , attested on O. ARTP 99/27 and associated ostraca.<sup>131</sup> Perhaps this assumed substitution was only a temporary situation, and it must be emphasised that few of the lists of workmen's marks of the left side from the time of Ramesses IV are preserved in their entirety. In fact, O. ARTP 99/27 is the only ostrakon in which mark  is attested in the fourth slot of the order of workmen of the left side. The workman represented by , or possibly the workman who inherited his identity mark, thus (re)appears around the time of Ramesses V or Ramesses VI.

The same mark is also attested on the obverse of ONL 6482,<sup>132</sup> in a list of what appear to be exclusively marks of workmen of the left side (TABLE 68). Besides mark  and mark  for Amennakht (vi)/(xii) Pawonesh, the ostrakon is inscribed with other marks that are also attested on O. Cairo JE 46862:  perhaps for Paser, and mark . The occurrence of these marks suggests a date for ONL 6482 around the same period in which O. Cairo JE 46862 was made. In addition to marks that we have already come to know, we encounter mark  for the first time. Mark  is also attested on ONL 6482. This ostrakon is unfortunately very fragmentary, and only mark  on the reverse is discernable. We may date it to the same period as ONL 6482. Mark  also appears on O. BTdK 551, an ostrakon that cannot be dated with much precision but which must have been composed around the same time as ONL 6482, O. Cairo JE 46862 and O. UC 31939+. O. BTdK 551 displays several marks that are not attested on O. ARTP 99/27, while marks , , , , , and  are found on O. Cairo JE 46862 and O. UC 31939+. The mark left of  is perhaps an allomorph of mark , or a mark that is not attested elsewhere, like  in the line above it. Besides these marks, there is one unclear mark that might have been erased. We recognise furthermore mark , presumably for the scribe of the tomb, and mark , which most probably refers to a workman of the right side. The sequence of the identity marks on O. BTdK 551 is not attested on other ostraca, but the fact that the piece was found at the workmen's huts close to the tomb of Ramesses X allows for a date around the time of Ramesses V and Ramesses VI.

<sup>130</sup> See above, 4.2.8.

<sup>131</sup> See above, 4.2.8.

<sup>132</sup> The reverse of this ostrakon presumably lists workmen of the right side.

A comparable ostrakon is O. Cairo JE 46866 with the same provenance. Like O. BTdK 551, it seems to record workmen of the right and left side of the crew alike. The mark of the scribe of the tomb might have been inscribed on the ostrakon as well, but it is insecurely identified as it is oddly shaped. If we are correct in interpreting the mark as  $\text{𐀀}$  then the fact that mark  $\text{𐀁}$  is written immediately below it suggests that the ostrakon is related to O. BTdK 551 where marks  $\text{𐀀}$  and  $\text{𐀁}$  are inscribed next to each other. The occurrence of mark  $\text{𐀂}$  on O. Cairo JE 46866 places it in the group of ostraca datable to the middle of the 20<sup>th</sup> Dynasty as well. The same is true for three other ostraca discovered at the site of the workmen's huts next to the tomb of Ramesses X. O. Cairo JE 46858, inscribed with marks of workmen of the left side only, belongs to this group based on the occurrence of marks  $\text{𐀃}$ ,  $\text{𐀄}$ , and  $\text{𐀅}$ , not attested on O. ARTP 99/27 but all present on O. Cairo JE 46862; O. BTdK 407 belongs to this group in view of the occurrence of marks  $\text{𐀆}$  and  $\text{𐀇}$ , both attested on O. Cairo JE 46862 as well; and O. Cairo JE 46864, inscribed with several now illegible signs, belongs to this group because of the occurrence of marks  $\text{𐀈}$ ,  $\text{𐀉}$ , and  $\text{𐀊}$ , not attested on O. ARTP 99/27 but all present on O. Cairo JE 46862.

Ostrakon O. Cairo JE 46863 was also found in the area of the huts near the tomb of Ramesses X. This provenance indicates that in all probability the ostrakon does not date to the period prior to the reign of Ramesses IV. Such a date is in accord with some of the marks displayed on O. Cairo JE 46863, such as  $\text{𐀋}$  (probably Paneferemdjedu) and  $\text{𐀌}$  (probably Amennakht (vi)/(xii) Pawonesh). Yet, the ostrakon seems to be inscribed with mark  $\text{𐀍}$  as well, a mark that is otherwise only attested in the second half of the 19<sup>th</sup> Dynasty.<sup>133</sup> The presence of this sign cannot be fully explained. O. Cairo JE 46863 is evidently not an ordered list of workmen of the left side. It should therefore be possible that the workmen represented by marks  $\text{𐀍}$  and  $\text{𐀎}$  were no longer listed as members of the crew, yet were still alive and retired, and could as such feature on documents other than lists of active workmen. Alternatively and perhaps more probably, mark  $\text{𐀍}$  was in use during the middle of the 20<sup>th</sup> Dynasty but has by chance only survived on this ostrakon.

An ostrakon inscribed with a number of enigmatic marks, O. Turin N. 57427, is possibly attributable to the same period. Dating the ostrakon is problematic because several marks are damaged and some are partially erased. Some marks are of an odd shape, while others do not seem to be attested on other ostraca from the 20<sup>th</sup> Dynasty. Discernable are  $\text{𐀏}$ , perhaps  $\text{𐀐}$ , perhaps  $\text{𐀑}$ , perhaps  $\text{𐀒}$ , perhaps  $\text{𐀓}$ ,  $\text{𐀔}$ ,  $\text{𐀕}$ ,  $\text{𐀖}$ ,  $\text{𐀗}$ , perhaps  $\text{𐀘}$ ,  $\text{𐀙}$ ,  $\text{𐀚}$ ,  $\text{𐀛}$  and  $\text{𐀜}$ . The majority of marks are characteristic for the repertory of the 20<sup>th</sup> Dynasty, but mark  $\text{𐀛}$  is not that frequently attested. It does occur on ostraca O. UC 31939+, O. BTdK 551 and O. Cairo JE 46866, suggesting a date around the middle of the 20<sup>th</sup> Dynasty. Indeed, other marks on O. Turin N. 57427 are attested on other ostraca in this group, but a particular good parallel is O. UC 31939+, which shares marks  $\text{𐀛}$ ,  $\text{𐀐}$ ,  $\text{𐀑}$ ,  $\text{𐀏}$  and  $\text{𐀚}$  with O. Turin N. 57427. Perhaps related to the latter document is the small fragment ONL 6651. Besides mark  $\text{𐀛}$  it displays mark  $\text{𐀝}$ , possibly an allomorph of mark  $\text{𐀞}$  on O. Turin N. 57427.

We may attribute ONL 6483 to the same group of ostraca. This piece is not completely preserved and the marks are difficult to distinguish because they are only faintly inscribed. We may tentatively discern  $\text{𐀏}$ ,  $\text{𐀐}$ ,  $\text{𐀑}$ ,  $\text{𐀒}$  and  $\text{𐀓}$ . Mark  $\text{𐀒}$  is not often attested as an identity mark and seems to be typical for the group of O. UC 31939+ and associated ostraca. Indeed, four of the six legible marks on ONL 6483 are also attested on O. Cairo JE 46862 ( $\text{𐀏}$ ,  $\text{𐀑}$ ,  $\text{𐀒}$  and  $\text{𐀓}$ ). Mark  $\text{𐀐}$  is not securely attested in the 20<sup>th</sup> Dynasty, and its reading is doubtful. Perhaps it is better interpreted as mark  $\text{𐀔}$ , attested around the middle of the 20<sup>th</sup> Dynasty for a workman of the left side as well on O. Cairo CG 25318.

<sup>133</sup> See chapter 5, 5.2.2.



#### 4.2.15 The left side of the crew during the reign of Ramesses IX: OL 170+ (reverse), O. BM 5642 (reverse) and related ostraca

We had already established that ostraca OL 170+ and O. BM 5642 record an ordered list of workmen of the right side on the obverse, and of the left side of the gang on the reverse. Having examined the lists of the right, we concluded that the sequences of marks on both ostraca overlap to a great extent, and that the ostraca date to the period of year 1 – 16 of the reign of Ramesses IX. Furthermore, we have observed that the list of workmen recorded in the journal text of year 17 of the reign of this king (P. Turin Cat. 2001+) presents a rather different order of men, but simultaneously provides some interesting correspondences to the list of workmen's marks.<sup>134</sup> At this point, we direct our attention to the reverse of the two ostraca.

The reverse of both OL 170+ and of O. BM 5642 is dedicated to the left side of the gang. This is confirmed by a third ostrakon inscribed with marks, O. Turin N. 57534. It presents a sequence of marks that is very similar to the upper portion of the left column on the reverse of O. BM 5642. Like O. BM 5642, O. Turin N. 57534 begins with mark  $\text{\AA}$ . This mark is followed by mark  $\text{\textcircled{A}}$  for the scribe of the tomb, and then by mark  $\text{\textcircled{B}}$ . Since the mark of the scribe of the tomb is listed in the second position, one would expect O. Turin N. 57534 to be an ordered list that includes the captains of the tomb, implying that the mark in the first position,  $\text{\AA}$ , is that of the foreman, and the mark in the third position,  $\text{\textcircled{B}}$ , that of the deputy. The fact that marks  $\text{\AA}$  and  $\text{\textcircled{B}}$  are found in the first and third position respectively in the left column of the reverse of O. BM 5642 is in accord with that assumption. As we had already determined, the obverse of this ostrakon lists the foreman and deputy of the right side of the gang, which indicates that the foreman and deputy listed on the reverse can only refer to the captains of the left side. Moreover, in the analysis of O. Leipzig 1821 we had already assumed a connection between the foreman Harmose (ii) and mark  $\text{\AA}$ . On O. BM 5642, mark  $\text{\AA}$  must therefore designate the foreman Harmose (ii) as well, and indeed he is securely attested with this title in year 8 of the reign of Ramesses VII and in year 17 of the reign of Ramesses IX.<sup>135</sup>

In all likelihood, the reverse of O. BM 5642 and of OL 170+ each contain an ordered list of workmen of the left side of the crew in the same fashion as the list of workmen of the right side on the obverse. When we compare the sequence of marks on the reverse of both ostraca to the list of workmen of the left recorded in P. Turin Cat. 2001+, that assumption is confirmed. Juxtaposing marks and name list we discover that the first two entries correspond:

P. Turin Cat. 2001+		O. BM 5642 reverse		OL 170+ reverse	
1	Chief workman Harmose (ii) son of Iniherkhau (ii)	1	$\text{\AA}$	1	...
2	Chief draughtsman Amenhotep (vi) son of Amennakht (v)	2	$\text{\textcircled{A}}$	2	...
3	Draughtsman Amennakht (xvii) son of Amenhotep (vi)	3	$\text{\textcircled{B}}$	3	...
4	Deputy Amenhotep (iv) son of Pentaweret (iv)	4	$\text{\textcircled{C}}$	4	...
5	Amennakht (vi)/(xii) son of Hay (vii)	5	$\text{\textcircled{D}}$	5	$\text{\textcircled{D}}$
6	Qenna (i) son of Iniherkhau (ii)	6	$\text{\textcircled{E}}$	6	$\text{\textcircled{E}}$
7	Aapatjau (i) son of Siwadjet (iii)	7	$\text{\textcircled{F}}$	7	$\text{\textcircled{F}}$
8	Harnefer (iii) son of Qenna (i)	8	$\text{\textcircled{G}}$	8	$\text{\textcircled{G}}$

<sup>134</sup> See above, 4.2.3.

<sup>135</sup> Davies, *Who's who*, 27-28.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

9	Hormin (i) son of Hori (ix)	9	𓂏	9	𓂏
10	Nebnefer (xiii) son of Amenemope (x)	10	𓂏	10	𓂏
11	Amenhotep (iii) son of Aapatjau (i)	11	𓂏	11	𓂏
12	Neferhotep son of Amennakht <sup>136</sup>	12	𓂏	12	𓂏
13	...	13	𓂏	13	𓂏

TABLE 69. NAME LIST OF P. TURIN CAT. 2001+ COMPARED WITH THE LISTS OF O. BM 5642 AND OL 170+: NO OVERLAP?

After mark  $\text{A}$  of foreman Harmose (ii), O. BM 5642 lists mark  $\text{d}$ , which we have encountered on several occasions in duty rosters as the mark for draughtsman Amenhotep (vi). Indeed, it is this individual who is mentioned immediately after the foreman of the left side in the list of P. Turin Cat. 2001+. He probably owed this position in slot 2 to the fact that he was promoted to the position of chief draughtsman – one of the captains of the crew – and seems to have acted as a counterpart to the scribe of the tomb, perhaps performing his duties for the administration of the left side of the gang.<sup>137</sup> The other entries in the list of P. Turin Cat. 2001+ do not correspond perfectly to the sequence of workmen of O. BM 5642 and OL 170+, but we do find some names that we can connect with the workmen's marks:


P. Turin Cat. 2001+		O. BM 5642 reverse		OL 170+ reverse	
1	Chief workman Harmose (ii) son of Iniherkhau (ii)	1	$\text{A}$	1	...
2	Chief draughtsman Amenhotep (vi) son of Amennakht (v)	2	$\text{d}$	2	...
		3	𓂏	3	...
		4	𓂏	4	...
		5	𓂏	5	𓂏
		6	𓂏	6	𓂏
5	Amennakht (vi)/(xii) son of Hay (vii) ?	7	$\text{e}$	7	$\text{e}$
7	Aapatjau (i) son of Siwadjet (iii)	8	𓂏	8	𓂏
6	Qenna (i) son of Iniherkhau (ii)	9	𓂏	9	𓂏
10	Nebnefer (xiii) son of Amenemope (x) ?	10	𓂏	10	𓂏
		11	𓂏	11	𓂏
		12	𓂏	12	𓂏
		13	𓂏	13	𓂏


TABLE 70. NAME LIST OF P. TURIN CAT. 2001+ COMPARED WITH THE LISTS OF O. BM 5642 AND OL 170+: IN ADJUSTED ORDER


The seventh name in the list of P. Turin Cat. 2001+ is that of Aapatjau (i), whose mark we have identified on O. ARTP 99/27 as  $\text{f}$ . Through no coincidence, this mark is listed in position 8 on O. BM 5642 and OL 170+. Similarly, we can connect the mark of Qenna (i) in slot 6 with mark  $\text{g}$  in slot 9. The Amennakht son of Hay who is mentioned as the fifth person in the list of P. Turin Cat. 2001+ is the same man as the Amennakht (vi)/(xii) Pawonesh who is attested with mark  $\text{h}$  on several ostraca and graffiti. However, it would seem that on ostraca O. BM 5642 and OL 170+ it is mark  $\text{e}$ , listed in slot 7, which refers to this individual. His father Hay (vii) is known to have been represented by mark  $\text{e}$ , so we may propose that








<sup>136</sup> Not in Davies, *Who's who*.

<sup>137</sup> See Davies, *Who's who*, 130-131 for an overview of the attestations of the 'scribe' Amenhotep.

after his father's retirement or death Amennakht decided to discard his own identity mark  to take over that of his father.<sup>138</sup>

We had tentatively identified mark  on O. ARTP 99/27 as Bakenwerel (vii). The same mark is also present on O. BM 5642 and OL 170+, and it is tempting to relate it to the workman Nebnefer (xiii), son of Amenemope (x). This individual is however in no way related to Bakenwerel (vii), and the identification is far from secure.

Other marks on the reverse of O. BM 5642 and OL 170+ that we have already identified, such as  for the workman Qedherakhtuf (ii), are apparently no longer included in the fragmentary hieratic workmen's list of year 17. Yet, the lists of workmen's marks indicate that they were still active at an earlier time in the reign of Ramesses IX.

One of the unidentified marks is . We have seen this mark in lists of workmen's marks of the left side of the crew and it has been proposed that it represented a man called Amenkha.<sup>139</sup> On O. BM 5642 however the mark appears to be used for the deputy of the left side. During the reign of Ramesses IX Amennakht (xii) called Pawonesh is attested as the deputy for this side of the crew,<sup>140</sup> but we have determined that his identity mark was  or perhaps also . Unfortunately much is unclear about the office of the deputy in the reign of Ramesses IX. In years 15<sup>141</sup> and 17,<sup>142</sup> another deputy is attested for the left side, Amenhotep (iv), whose tenure as deputy appears to have been a brief interruption of the much longer term of Amennakht (xii). Nevertheless, Amenhotep (iv) is the deputy who is mentioned in the ordered list of P. Turin Cat. 2001+. As we had established in chapter 3, the mark of Amenhotep (iv)'s father, Pentaweret (iv), was . Identifying mark  as the deputy Amenhotep (iv) would thus imply that this man did not inherit his mark from his father, and that his mark was not related to an element in his own name either. A priori there is nothing problematic about these observations, but it is curious that we cannot trace the origins of his mark, which as a hieroglyph has the phonetic value *h<sup>c</sup>*. We may therefore consider the possibility that mark  belongs instead to the deputy Seny (i), son of *Khaemhedjet* (i). This deputy is generally thought to have served in this office on the right side of the crew, primarily based on the fact that he is mentioned in the same document with deputy Amennakht (xii),<sup>143</sup> who must have belonged to the left side around the period of year 9 – year 11 of Ramesses IX.<sup>144</sup> His other attestations as deputy<sup>145</sup> do not specify with which side of the crew deputy Seny is associated. Without any kind of clear evidence we may very tentatively propose that at some point in the reign of Ramesses IX, Seny (i) served as the deputy of the left side of the crew, and that he is listed as such on O. BM 5642 with mark . This assumption would add a fourth deputy to the pool of individuals including Amennakht (xii) Pawonesh, Amenhotep (iv) and Pa'anqen (i) who seem to have acted as deputy, perhaps even simultaneously, around years 15 to 17 of the reign of Ramesses IX.<sup>146</sup>

The other marks listed on the reverse of O. BM 5642 and OL 170+ cannot be securely identified because of the absence of contemporaneous hieratic ordered name lists. As

<sup>138</sup> Hay (vii) probably passed away in the reign of Ramesses V or Ramesses VI, cf. Davies, *Who's who*, 69. For a discussion of the marks of Hay (vii) and Amennakht (vi)/(xii) see also below, chapter 6, 6.5.4.5.

<sup>139</sup> See above, 4.2.8.

<sup>140</sup> Davies, *Who's who*, 69-71.

<sup>141</sup> Davies, *Who's who*, 111, based on Gutgesell, *Die Datierung I*, 140.

<sup>142</sup> Davies, *Who's who*, 70.

<sup>143</sup> P. Turin Cat. 1891.

<sup>144</sup> Davies, *Who's who*, 70, 72.

<sup>145</sup> Ostraca Cairo CG 25742 and O. Cairo CG 25236.

<sup>146</sup> Lanny Bell has suggested that in this period, when the famous investigations into the tomb robberies took place, more officials were installed at the head of the workforce in order to heighten security, see Lanny Bell, 'Only one high priest Ramessesnakht and the second prophet Nesamun his younger son' *Serapis* 6 (1980), 14; Davies, *Who's who*, 71.



a consequence, we cannot accurately date both ostraca. Moreover, O. BM 5642 and OL 170+ do not necessarily date to the exact same period. Whereas the lists of workmen's marks on the obverse correspond to a very great extent, we notice some differences in the lists on the reverse (TABLE 71). While O. BM 5642 records mark 𐀓 after mark 𐀔, OL 170+ lists marks 𐀕, 𐀖, and 𐀗 between 𐀔 and 𐀓. In contrast, marks 𐀘 and 𐀙 listed on O. BM 5642 are not preserved on OL 170+. The list of marks on the latter document continues after mark 𐀚 with 𐀛 and 𐀜, and probably a few more marks, now lost.

The sequences of marks on O. BM 5642 and on OL 170+ do nevertheless seem to represent the hierarchical order of the workmen during the time they were composed, and other ostraca exist with a similar sequence of marks (TABLE 71). As we have already determined, O. Turin N. 57534 is closely related to ostraca O. BM 5642 and OL 170+, and must therefore likewise date to a time in the reign of Ramesses IX prior to year 16. O. Turin N. 57534 is, however, not a list of all workmen of the left side of the gang, which might explain why after mark 𐀞 it displays a somewhat different sequence of marks 𐀟 – 𐀠 – 𐀡 – 𐀢.

The reverse of O. Ashmolean HO 1098 is presumably a similar list of the workmen of the left side of the gang, datable to the second half of the 20<sup>th</sup> Dynasty. The middle and left columns on the reverse contain a sequence of marks that is more akin to that of the list of OL 170+ than to O. BM 5642. As in the former ostrakon, O. Ashmolean HO 1098 displays marks 𐀔 – 𐀕 – 𐀖 – 𐀗 (the latter apparently an allomorph of 𐀗), but the following slot is not filled by mark 𐀓, but by mark 𐀘 that is positioned in the same slot on O. BM 5642. The right column of O. Ashmolean HO 1098 must have contained marks that preceded the other columns. Only the uppermost mark 𐀙 is still discernable, and its position at the top of a column and before marks 𐀕 – 𐀖 suggests that mark 𐀙 could be an allomorph of mark 𐀙 for the foreman Harmose (ii). The height of the middle and left column suggest that the right column contained no more than four workmen's marks, which would mean that the reverse of O. Ashmolean HO 1098 did not present a list of the entire left side. Turning to the obverse of the ostrakon, we find marks of workmen who belonged both to the right as well as to the left side of the crew. Yet, when we compare them to the list of workmen's marks of the right side as recorded on the obverse of O. BM 5642 and of OL 170+, we find some discrepancies. Marks 𐀛 and 𐀜, well attested in the reigns of Ramesses IV and V, are no longer listed in these lists, but they do occur on O. Ashmolean HO 1098. This observation, coupled with the slightly diverging list of workmen's marks of the left side, indicate that O. Ashmolean HO 1098 is probably older than O. BM 5642 and OL 170+. In turn, OL 170+ is presumably older than O. BM 5642, because the sequence of marks on OL 170+ resembles that of O. Ashmolean HO 1098 more than that of O. BM 5642.

Two other related ostraca are ONL 6322 and ONL 6399. We had already dated both documents to the same time frame as O. BM 5642 and OL 170+ on account of the marks on their obverse.<sup>147</sup> Like O. BM 5642 and OL 170+, the reverse of each of these ostraca was reserved (predominantly) for marks of workmen of the left side of the crew. On ONL 6399, the marks 𐀞 – 𐀟 – 𐀡 are listed in the same sequence as our two key pieces O. BM 5642 and OL 170+. The lines above 𐀞 are incomprehensible, but the other discernable marks on ONL 6399, 𐀛, 𐀜, 𐀝, and 𐀞, are represented according to their relative position in the lists of the two key pieces. In that respect ONL 6322 is very similar. In accordance with our key pieces it displays the sequence 𐀞 – 𐀟 – 𐀠. With the exception of what appears to be mark 𐀡, the other discernable marks 𐀛, 𐀕, and 𐀖 all occur in the lists of the key pieces, while mark 𐀘 is included in the sequence of OL 170+.

<sup>147</sup> See above, 4.2.3.

Ostrakon ONL 411 records a brief list of workmen that agrees much with the part in the sequence of marks on O. BM 5642 starting with  $\text{Y}$  and ending with  $\text{P}$ . The difference is the occurrence on ONL 411 of mark  $\text{R}$  in the slot of mark  $\text{F}$ . Because the sequence  $\text{Y}$  to  $\text{P}$  is situated at the part of the list O. BM 5642 that diverges from the sequence on OL 170+, we may assume that ONL 411 dates closer to O. BM 5642 than OL 170+ does.

The wonderful ostrakon O. Brooklyn 16118+, discussed in more detail below,<sup>148</sup> is not inscribed with a great number of marks. It may originally have displayed more marks, since some seem to have been intentionally erased by the scribe of this piece. The ostrakon can be dated to the late 20<sup>th</sup> Dynasty on account of mark  $\text{M}$  on the reverse. This mark is listed on O. BM 5642 and OL 170+ among the workmen of the left side of the crew. All other marks on O. Brooklyn 16118+ might be associated with the same side, although the interpretation of mark  $\text{Q}$  is difficult. It may be an allomorph of mark  $\text{D}$  listed on the left side of the crew in OL 170+, or of mark  $\text{X}$  belonging to a member of the right side. The other marks are  $\text{U}$ ,  $\text{W}$  and  $\text{C}$ , situated in subsequent positions in the list of workmen of the left side of OL 170+. This observation weighs in favour of reading mark  $\text{Q}$  as  $\text{D}$ , situated two positions down from mark  $\text{C}$ .

The marks on ONL 6480 are not arranged in rows or columns but we nevertheless recognise in it the ordered sequence of the left side as recorded on OL 170+:  $\text{W} - \text{C} - \text{M} - \text{Q} - \text{Y}$ . This ostrakon demonstrates that mark  $\text{Q}$  was most probably occasionally used as an allomorph of mark  $\text{D}$ , which ties in with our earlier assumption that  $\text{Q}$  on O. Brooklyn 16118+, coincidentally written by the same scribe,<sup>149</sup> is also an allomorph of  $\text{D}$ .

Ashm. 1098 rev.	OL 170+ rev.	ONL 6322 rev.*	BM 5642 rev.	Turin N. 57534	ONL 6399 rev.*	ONL 411
$\text{A}$			$\text{A}$	$\text{A}$		
			$\text{I}$	$\text{H}$		
		$\text{D}$	$\text{D}$	$\text{D}$		
		$\text{E}$	$\text{E}$	$\text{E}$	$\text{E}$	
	$\text{F}$	$\text{F}$	$\text{F}$	$\text{F}$	$\text{F}$	
	$\text{G}$		$\text{G}$	$\text{G}$		
	$\text{H}$		$\text{H}$	$\text{H}$		
	$\text{I}$	$\text{I}$	$\text{I}$		$\text{I}$	
	$\text{J}$		$\text{J}$			
$\text{K}$	$\text{K}$		$\text{K}$			
$\text{L}$	$\text{L}$	$\text{L}$	$\text{Y}$			
$\text{M}$	$\text{M}$		$\text{Y}$			$\text{Y}$
$\text{N}$	$\text{N}$	$\text{F}$	$\text{F}$			$\text{R}$
$\text{O}$	$\text{Y}$		$\text{O}$			$\text{O}$
$\text{P}$	...		$\text{P}$			$\text{P}$
$[\text{M}]?$	$\text{F}$		$\text{M}$		$\text{F}$	$\text{M}$
	$\text{M}$		$\text{P}$		$\text{M}$	$\text{P}$
	$\text{Q}$		$\text{Q}$			
	$\text{R}$	$\text{R}$	$\text{X}$			
	$\text{S}$					
	$\text{T}$					
	$\text{U}$					



<sup>148</sup> See below, p. 355-357.






<sup>149</sup> See below, p. 395.

	𓂏𓂏				𓂏𓂏	
	...					

TABLE 71. ORDERED LISTS OF O. BM 5642 (REV.) AND OL 170+ (REV.) AND ASSOCIATED OSTRACA (IN CHRONOLOGICAL ORDER). WITH \* = NOT ENTIRELY IN THAT ORDER.

#### 4.2.16 The right side of the crew: O. BTdK 475

This ostrakon is inscribed with two columns of workmen's marks, some of which are difficult to discern. The document was found at the site of the workmen's huts in the Valley of the Kings near the tomb of Ramesses X, which suggests that it dates to the 20<sup>th</sup> Dynasty. One mark in the left column of the ostrakon is particularly noteworthy: mark  is composed of cursive hieroglyphs and reads *qd*. The mark is attested exclusively on O. BTdK 475, but because we can read the mark it is attractive to connect it with a *šs-*qd**, 'draughtsman'. The mark could well be an elaborate form of mark , the hieroglyph for *qd*, used by the famous draughtsman Amenhotep (vi).

In the right column of O. BTdK 475 we recognise mark . We are already acquainted with the ram-shaped mark, as we have identified it with the workman Khnummose (i) elsewhere.<sup>150</sup> O. BTdK 475, however, must be quite some time later, and it is more probable that the mark here refers to Khnummose (iv), a grandson of Khnummose (i). It is this Khnummose who is mentioned in P. Turin Cat. 2084+,<sup>151</sup> a document attributed to the reign of Ramesses IX that contains several columns with lists of names.<sup>152</sup> Interestingly column IV lists *pꜣ šš-*qd**, 'the draughtsman', without further specification. The mention of this title with the definite article but without a name is not at all common and does not normally feature in name lists. It would therefore seem that there is a close relation between O. BTdK 475 and P. Turin Cat. 2084+. When we align the name Khnummose in column III of the verso of the papyrus with identity mark  in the right column O. BTdK 475 (TABLE 72) we observe another plausible correspondence. Three entries above the entry of Khnummose P. Turin Cat. 2084+ lists Pasenedjem (i), the son of Meryre (vi),<sup>153</sup> while O. BTdK 475 displays mark  three positions up from the mark of Khnummose. We know mark  well as the identity mark of Neferhotep (xi) and his son Meryre (vi). It is therefore conceivable that the latter workman had in turn passed on his mark to his son Pasenedjem (i). This identification is however very uncertain, because we have seen above that there are reasons to believe that Meryre (vi) passed on his mark to another son of his, Panefer (i).<sup>154</sup> Whether mark  was used by both brothers is unclear.

The proposed connection between the three entries would suggest the two documents date to more or less the same period. O. BTdK 475 must then have been composed somewhere in the reign of Ramesses IX. But caution should be taken. The other marks on O. BTdK 475 are not evidently linkable to the list of P. Turin Cat. 2084+, and quite some time could have passed between the moments these documents were written down. If our understanding of O. BTdK 475 is correct, however, it would seem to be a list of workmen of the right side. Khnummose (iv) is associated with the right side of the crew on O. Brussels E. 301,<sup>155</sup> as is Khonsu (vii) son of Ipyu.<sup>156</sup> If we can equate the Iyerniutef in column III of the verso of P. Turin Cat. 2082+ with Iyerniutef (v), this is probably a member of the right side as

<sup>150</sup> See above, 4.2.2.

<sup>151</sup> Davies, *Who's who*, 262.

<sup>152</sup> *KRI* VI, 603-608; Helck, *Die datierten und datierbaren Ostraka*, 490-493.

<sup>153</sup> Davies, *Who's who*, 231-232.

<sup>154</sup> See above, p. 284.

<sup>155</sup> *KRI* VII, 358; Davies, *Who's who*, 262, n. 735.

<sup>156</sup> Recorded on the right side of the crew in P. Turin Cat. 2001+ rto.

well.<sup>157</sup> The mention of ‘the draughtsman’ in vso. column IV should then be a reference to Amenhotep (vi), member of the right side during most of the 20<sup>th</sup> Dynasty.

<b>P. Turin Cat. 2084+</b>	<b>O. BTdK 475</b>
vso. III 3. Iyerniutef (v) ?	
vso. III 4. Pasenedjem (i)	𓆎
vso. III 5. Khonsu (vii) son of Ipuy	
vso. III 6. Neferhotep	
vso. III 7. Khnummose (iv)	𓆎
vso. III 7. Hapiwer	

vso. IV 2. Pa-idenu	𓆎
---------------------	---

TABLE 72. ORDERED LISTS P. TURIN CAT. 2084+ COMPARED TO O. BTdK 475

#### 4.2.17 The right and left side of the crew during the reigns of Ramesses V – Ramesses VI: O. Turin N. 57008 and related ostraca

In our analysis of ordered lists of workmen’s marks from the reigns of Ramesses III to that of Ramesses IX, we have identified up to this point the following key pieces:

##### The right side of the crew

The reign of Ramesses III:	duty rosters with marks
The reign of Ramesses IV:	duty rosters with marks
The reign of Ramesses V:	duty rosters with marks; O. BM 50716; O. Cairo SR 12218
The reigns of Ramesses VI – XI:	O. IFAO C 7638; O. BM 50731
The reign of Ramesses IX:	O. BM 5642; OL 170+; ONL 6240

In addition we have signalled a group of ostraca inscribed mostly with marks of workmen belonging to the left side of the workforce (TABLE 68), roughly datable to the period between the reigns of Ramesses V – Ramesses VI or a somewhat later date. Other key ostraca with lists of workmen of the left side of the crew are:

##### The left side of the crew

The reign of Ramesses IV:	O. Cairo JE 72491; O. ARTP 99/27; O. BTdK 550
The reign of Ramesses IX:	O. BM 5642; OL 170+


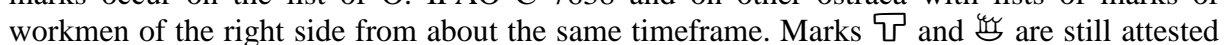
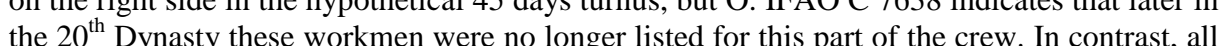
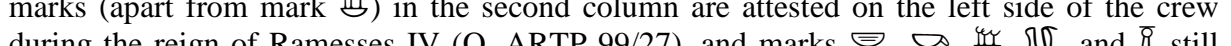
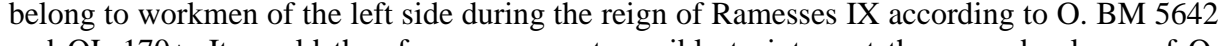
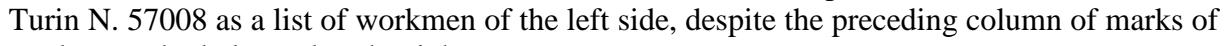
At this point we can turn our attention to ostrakon O. Turin N. 57008 and a group of associated ostraca. O. Turin N. 57008 is inscribed with at least 38 workmen’s marks presented in four columns (TABLE 73). The ostrakon is, however, damaged, so originally the total number of marks was probably higher. In order to understand the composition of this ostrakon, we need to compare it to ordered lists from earlier and later times (TABLE 74).

We begin with column 1, the column farthest to the right. We probably lack a number of marks at the top of the column that have not survived. Our first discernable mark is  $\Delta\Delta$ , which is followed by  $\text{𓆎}$  and  $\text{𓆎}$ . We recognise this sequence from the hypothetical 45 days turnus of the reign of Ramesses V. However, after mark  $\text{𓆎}$  the list of O. Turin N. 57008 continues with marks  $\Sigma - \square - \mathcal{A}$ , a sequence that is in accord with the list recorded on O. IFAO C 7638. Moreover, after marks  $\mathcal{A}$  and  $\perp$  the list of O. Turin N. 57008 continues with  $\text{𓆎} - \text{𓆎} - \perp$ , which is in accordance with O. IFAO C 7638 as well. We have dated the latter

<sup>157</sup> Iyerniutef (v) is listed on the right side in the list of P. Turin Cat. 2001+ rto. as well.

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ostrakon somewhere in the interval of the reigns of Ramesses VI – Ramesses IX. The sequence of marks in the first column on O. Turin N. 57008 thus appears to fit in between the group datable to the reign of Ramesses V and the group datable to the period of Ramesses VI – Ramesses IX.

The top of the next column has not been preserved either. It is inscribed with marks . Remarkably, hardly any of these marks occur on the list of O. IFAO C 7638 and on other ostraca with lists of marks of workmen of the right side from about the same timeframe. Marks  and  are still attested on the right side in the hypothetical 45 days turnus, but O. IFAO C 7638 indicates that later in the 20<sup>th</sup> Dynasty these workmen were no longer listed for this part of the crew. In contrast, all marks (apart from mark ) in the second column are attested on the left side of the crew during the reign of Ramesses IV (O. ARTP 99/27), and marks , and  still belong to workmen of the left side during the reign of Ramesses IX according to O. BM 5642 and OL 170+. It would therefore seem most sensible to interpret the second column of O. Turin N. 57008 as a list of workmen of the left side, despite the preceding column of marks of workmen who belonged to the right.


























































































































Column IV	Column III	Column II	Column I
...	...	...	...
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
			
















TABLE 73. THE FOUR COLUMNS OF MARKS ON O. TURIN N. 57008



Moving on to the third column on O. Turin N. 57008, we encounter marks which surprisingly seem to belong yet again to workmen of the right side. The sequence of marks on ostraca IFAO C 7638 and ONL 6450 are particular good parallels for the order of marks in the third column, and apart from mark , all marks are recorded for the right side of the crew in the period between the reigns of Ramesses VI and Ramesses IX, while marks , , ,  and  are already attested on the right side in the reign of Ramesses V. We can only conclude that after a column of workmen of the right side and a column of the left side, the third column on O. Turin N. 57008 continues with the right side of the crew.

It is at this point not so remarkable that, in analogy to the second column, the fourth column is inscribed with workmen of the left side exclusively. Indeed, all of these marks are attested on the left side during the reign of Ramesses IV (O. ARTP 99/27), and marks , , , , , and  are still listed on the left side in the reign of Ramesses IX (O. BM 5642 and OL 170+).

O. Turin N. 57008 thus is a document with ordered lists of the workmen of both the right as well as the left side, dating somewhere between the beginning of the reign of Ramesses V and some point in the reign of Ramesses VI. The division of the columns of marks is odd, and might perhaps suggest that around the middle of the 20<sup>th</sup> Dynasty each side of the crew was divided in half, resulting in four subgroups, but such a division is not attested in hieratic sources or other ostraca with marks. Our interpretation of columns 1 and 3 as a list of workmen of the right side and columns 2 and 4 as a list of workmen of the left side is nevertheless supported by the fact that there is a considerably large amount of blank space below mark  in the third column, separating it from the marks in column 4. The fact that the sequence of marks on O. Turin N. 57008 is not attested on any other ostrakon agrees with our theory as well. In fact, there are several ostraca inscribed with a sequence of marks that are in accord with that of either columns 1 and 3, or columns 2 and 4 of O. Turin N. 57008 (TABLE 76).

An example of the former group of ostraca is O. Cairo JE 46865. This document is incompletely preserved, and in its current state it displays three fragmentary columns of marks. The ostrakon was discovered at the site of the workmen's huts near the tomb of Ramesses X and should therefore date in the period covered by the reigns of Ramesses IV to Ramesses VII. The sequence of marks corresponds very well to the order of marks on O. Turin N. 57008, and by association O. Cairo JE 46865 can be attributed to the reigns of Ramesses V or Ramesses VI. The first two marks in the leftmost column,  and , are followed by marks  and , suggesting that this sequence partly overlaps with the lacuna at the top of column 1 of O. Turin N. 57008. The next column, right of the previous one, begins with mark , and is followed by , , and . This sequence of marks is entirely in accord with the sequence of O. Turin N. 57008, which suggests that on O. Cairo JE 46865 four marks are missing between the left column and the middle column. Unfortunately the sequence of marks on that document breaks off after mark , so it does not offer us any insight into the number of marks that may have been listed between columns 1 and 3 on O. Turin N. 57008. To return to O. Cairo JE 46865, we observe that the first mark in the right column is damaged beyond recognition. After this damaged mark follow , , and . The first mark is present in column 3 on O. Turin N. 57008, while the third mark is listed at the top of that column. We thus see that the list of O. Cairo JE 46865 is not entirely the same as the sequence on O. Turin N. 57008. Yet, our previous assumption that column 3 follows after column 1 seems to be justified. Estimating that there were originally about four marks between the top of the right column and the middle column of O. Cairo JE 46865 and two marks before the first mark of the left column, and that cf. column 3 on O. Turin N. 57008 five more marks follow below  (excluding mark , which is positioned before ) , we would come to a total of about 27 marks for the reconstructed list on O. Cairo JE 46865.

The suggestion that more marks are to be added before mark AA in the sequence of workmen's marks of the right side on O. Turin N. 57008 is not only indicated by O. Cairo JE 46865, but also by O. BTdK 535. This ostrakon is inscribed in three rows of marks in a sequence that adheres perfectly to that of the first column on O. Turin N. 57008, with the addition of mark δ before mark AA. The addition of mark δ is in accord with the sequence of O. Cairo JE 46865 as well.

Ostrakon ONL 6268 is similar to O. Cairo JE 46865 in that it displays three rather fragmentary columns of marks, listed in a sequence of marks that ties it to columns 1 and 3 of O. Turin N. 57008. Regrettably the sequence of ONL 6268 is even less well preserved, and so it does not inform us about the full sequence of marks of workmen of the right side at the time O. Cairo JE 46865 was written. Mark ⤴ above mark δ in the right column of ONL 6268 indicates furthermore that the sequence is different from that of O. Cairo JE 46865. The middle column of ONL 6268 begins with mark †, suggesting that about seven marks are lost between the bottom of the right column and the top of the middle column on ONL 6268. After marks δ and ⊥, the sequence of marks is once again cut off. When we continue in the left column, we encounter marks ⤴, ⤵, ±, and ⤶. We have not encountered this exact sequence before, but these marks are related to column 3 of O. Turin N. 57008, where we find a similar sequence with marks ⤵, ⤴, ±, and ⤶. Moreover, we have seen that mark ⤴ belongs to this part of the workmen's list on O. Cairo JE 46865. As the sequence of ONL 6268 is similar to that of both these ostraca, we can tentatively date ONL 6268 in between O. Turin N. 57008 and O. Cairo JE 46865.

Turning now to ostrakon ONL 6314, very fragmentary as well, we note that the right column is also inscribed with a sequence of marks that is similar to that of O. Turin N. 57008 and O. Cairo JE 46865. It displays, however, yet another mark before δ. The mark is damaged, but the traces clearly indicate that it could not have been ⤴ or ⤵. Instead, the damaged mark could well be ⤶. The subsequent marks δ – AA – ⤴ are in accord with the sequence on O. BTdK 535. The two marks that can be discerned in the left column are presumably ⊥ and †. Together with the marks in the right column, these marks suggest that the list of workmen's marks on ONL 6314 is related to the hypothetical 45 days sequence known from the reign of Ramesses V as well as with O. Turin N. 57008 and associated ostraca. The relation is illustrated in TABLE 75, where the sequences are juxtaposed. Taking mark ⤴ as the reference point to align the sequence, it becomes clear that the slot of mark ⤶, three positions before mark ⤴ is recorded on ostraca from the reign of Ramesses V as well as on ONL 6314. On the other hand, the sequence of marks δ – AA – ⤴ is attested on ostraca from a later period. Similarly, we see that mark ⤶ is no longer situated in the series of marks AA to † on ostraca related to O. Turin N. 57008, whereas it still is present on ostraca associated with the 45 hypothetical days turnus. This suggests that ONL 6314 is older than O. BTdK 535, yet it was in all probability inscribed in the period after the ostraca of the hypothetical 45 days turnus.

Hyp. 45 days turnus	ONL 6314	O. BTdK 535
⊥		
†		
⊥		
⊗		
⤵		
⤶	...	
⤶	⤶ (?)	...
⤶	δ	δ
⊥	AA	AA



4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

𐀀	𐀀	𐀀
𐀁	...	𐀁
±	...	⊗
𐀂	...	𐀂
𐀃	...	𐀃
AA	𐀂 (?)	𐀂
𐀄	𐀄	𐀄

TABLE 75. ONL 6314 COMPARED WITH THE HYPOTH. 45 DAYS TURNUS AND O. BTdK 535

Conversely, O. BTdK 542, inscribed with three columns of marks, is presumably of a later date than O. Turin N. 57008. The first mark of the rightmost column is 𐀄, but it is unclear whether traces of ink right of this column indicate that more marks once preceded it. Regardless, the remainder of the sequence of marks in the right column fully agrees with that of O. Turin N. 57008 and O. Cairo JE 46865, as does the middle column that follows immediately after the last mark in the right column. After mark 𐀂, some marks are lost, and when we continue with the left column we see marks 𐀃 and 𐀄. The latter mark belongs to the second half of the list of workmen's marks of the right side on O. Cairo JE 46865 and ONL 6268. Mark 𐀃 on the other hand is not attested on these ostraca or on O. Turin N. 57008. Yet, discussing O. IFAO C 7638 we had observed that after mark ⊗ on that ostrakon followed marks 𐀃 and 𐀄, a sequence that is similar to what we find on O. BTdK 542. We are therefore inclined to date O. BTdK 542 closer to the reign of Ramesses VI than to the reign of Ramesses V on the basis of the inclusion and position of mark 𐀃.

ONL 6314	BTdK 535		Turin N. 57008	ONL 6268	Cairo JE 46865	BTdK 542
𐀃?		Column 1		𐀃	𐀃	
𐀄	𐀄		...	𐀄	𐀄	𐀄
AA	AA		AA		AA	AA
𐀀	𐀀		𐀀		𐀀	𐀀
...	𐀁		𐀁			𐀁
...	⊗		⊗			⊗
...	𐀂		𐀂			𐀂
...	𐀃		𐀃			...
𐀂?	𐀂		𐀂		𐀂	𐀃
𐀄	𐀄		𐀄	𐀄	𐀄	𐀄
			𐀅	𐀅	𐀅	
			𐀆	𐀆	𐀆	
		Column 3			...	
					𐀃	
			...	𐀃	𐀃	
			⊗	𐀃	⊗	
			𐀃	±		
			𐀄	𐀃		
			±			
			𐀃			


TABLE 76. O. TURIN N. 57008 COL. I AND III: THE RIGHT SIDE OF THE CREW

Our suspicions that several marks are lost above mark AA in the first column of O. Turin N. 57008 are confirmed by ostracon O. Cairo JE 46860. Having examined the sequences of the previous ostraca we can now interpret this piece, which is inscribed with columns of mostly pairs of marks. It is now clear that these marks too are inscribed in accordance with an ordered list, although not very strictly so; it seems that the scribe was not so much concerned with the placement of a particular mark within each pair. For example, in the sequence of O. Turin N. 57008 we find marks X and □ after mark 𐎎, but in O. Cairo JE 46860 the pair following mark 𐎎 is given as □ and X. Regardless, it is evident that the sequence of O. Cairo JE 46860 is an important parallel to the sequence of the right side as recorded on O. Turin N. 57008. Having stated this, we do see some discrepancies between the two sequences, and in some respects the order of marks on O. Cairo JE 46860 is more akin to that of later ostracon O. IFAO C 7638. Comparing the three lists is enlightening:

Turin N. 57008	Cairo JE 46860	IFAO C 7638
		𐎎
		𐎎
	𐎎	𐎎
	𐎎	𐎎
	𐎎	𐎎
	𐎎	𐎎
...	𐎎*	?
AA	AA*	AA
𐎎	𐎎	𐎎?
𐎎	𐎎	𐎎
𐎎	𐎎*	𐎎
□	□*	□?
𐎎	𐎎	𐎎
𐎎	𐎎	𐎎
𐎎	𐎎*	𐎎
𐎎	𐎎*	𐎎
𐎎	𐎎	𐎎
...	𐎎	𐎎
	𐎎	𐎎
	𐎎	𐎎
	𐎎	𐎎
...	𐎎	𐎎
𐎎	𐎎	𐎎
𐎎	𐎎	𐎎
𐎎	...	𐎎
𐎎	𐎎	𐎎
𐎎	𐎎	𐎎
𐎎	𐎎	𐎎

<sup>158</sup> In comparison with the sequence of O. Turin N. 57008 and O. IFAO C 7638 the traces of this mark might allow for a reading of 𐎎.

𐀀	𐀀	𐀀
		𐀁

TABLE 77. O. TURIN N. 57008, O. CAIRO JE 46860 AND O. IFAO C 7638 COMPARED

Marks 𐀁 to 𐀀 on O. Cairo JE 46860 are almost entirely in accord with the sequence of O. Turin N. 57008. Comparing the list to the sequence of O. IFAO C 7638, we observe some of the changes that occurred in the ordered list. To begin with, the marks 𐀁 and 𐀂 of draughtsmen Amenhotep (vi) and Pentaweret (iv) are positioned quite high in the list of O. Cairo JE 46860, but have descended a considerable bit in the list of O. IFAO C 7638. Additionally mark 𐀃 has dropped while marks 𐀄 and 𐀅 have gone up. The mark of Bakenamun (i) 𐀆 has disappeared in O. IFAO C 7638. These changes indicate that O. Cairo JE 46860 must date somewhere in between O. Turin N. 57008 and O. IFAO C 7638.

Apart from ostraca that are related to the list of marks of workmen of the right side recorded on O. Turin N. 57008, there is a group of ostraca inscribed with marks that belong to workmen of the left side of the crew datable to about the same period as O. Turin N. 57008 (TABLE 78). One such ostrakon is O. Cairo CG 25318. This fragmentary piece is inscribed with two columns of marks. The sequence of the right column is almost exactly the same as that of O. Turin N. 57008, apart from the omission of mark 𐀇 on O. Cairo CG 25318. We can therefore probably date this ostrakon to about the same time as O. Turin N. 57008. The left column contains marks 𐀈 and 𐀉, which are not attested on O. Turin N. 57008, but could have been recorded in the sections of columns 2 and 4 which have been lost.

ONL 6602 appears to be a completely preserved ostrakon inscribed with a column of marks in a sequence that is very similar to that of O. Turin N. 57008, recording marks 𐀊 to 𐀋. The difference with the sequence of O. Turin N. 57008 is the position of mark 𐀌 between 𐀊 and 𐀋. Notably, we have already encountered the sequence 𐀌 – 𐀋 on O. ARTP 99/27, dated to the reign of Ramesses IV. The order of these marks may therefore be an indication that ONL 6602 dates closer to O. ARTP 99/27 than to O. Turin N. 57008.

That may also be true for O. Cairo JE 72499. The sequence of marks with which it is inscribed is both similar to O. Turin N. 57008 and O. ARTP 99/27. On O. Cairo JE 72499, marks 𐀍, 𐀎, 𐀏, 𐀐, 𐀑, and 𐀒 are positioned in the same order as on O. Turin N. 57008. After mark 𐀒 follows mark 𐀓, which might have been inscribed below mark 𐀒 on O. Turin N. 57008 as well. However, the marks preceding 𐀓 on O. Cairo JE 72499 are 𐀔 and 𐀕. Mark 𐀕, the mark of Aanakhtu (iii) = (iv) = (i) is still present on O. ARTP 99/27 and associated ostraca, but it is no longer listed on O. Turin N. 57008 or related ostraca. In the list of O. ARTP 99/27 marks 𐀔 and 𐀕 are positioned very close to each other, with mark 𐀒 situated in between them. The column of marks on O. Cairo JE 72499 might therefore present us with traces of this older sequence of workmen. If, as proposed earlier,<sup>159</sup> Aanakhtu (iii) is the same individual as Aanakhtu (iv), we can date O. Cairo JE 72499 to a time in or prior to year 6 of Ramesses IV.<sup>160</sup> The exclusion of mark 𐀕 in the lists of O. Turin N. 57008 and related ostraca supports the suggested date in the period of the reigns of Ramesses V – Ramesses VI.

Another list of workmen of the left side is inscribed on O. Ashmolean HO 626. Its sequence of marks links it to O. Turin N. 57008, and apart from the omission of mark 𐀐, marks 𐀑 – 𐀒 are listed in the same order in the left column. To the right of this column we observe 𐀓, 𐀔, and 𐀕 in the same sequence as in column 4 of O. Turin N. 57008. Interestingly, some more marks are discernable above mark 𐀑 in the left column. Just above

<sup>159</sup> See above, p. 292; 295.

<sup>160</sup> Aanakhtu (iv)'s career seems to have come to a halt in that year, see Davies, *Who's who*, 40. We have already seen that mark 𐀕 reappeared on later ostraca, see above, 4.2.14; 4.2.15.

a damaged section marks  $\Xi$  and  $\text{𐀀}$  are clearly visible. Both marks are situated in highly positioned slots in the lists of O. ARTP 99/27, O. BTdK 550 and ONL 6289, so it should not come as a surprise that we observe these two marks before  $\text{𐀁}$  on O. Ashmolean HO 626. On this ostrakon, we may have reached the upper part of the list as well with marks  $\Xi$  and  $\text{𐀀}$ . Frustratingly, the mark above  $\Xi$ , that may have been the mark of the deputy of the left side and could have presented a more precise date for the document, is damaged.

The occurrence of marks  $\Xi$  and  $\text{𐀀}$  on ostraca from the time of Ramesses V – Ramesses VI brings us to O. Prague NM P 3836. This is a puzzling but very interesting ostrakon, which is most likely to be dated to about the same time as O. Turin N. 57008. That is suggested by the occurrence of sequences  $\text{𐀂} - \text{𐀃} - \text{𐀄} - \text{𐀅} - \text{𐀆} - \text{𐀇} - \text{𐀈}$  (in the second column from the right) and  $\text{𐀉} - \text{𐀊} - \text{𐀋} - \text{𐀌} - \text{𐀍} - \text{𐀎}$  (in the third column of the right, continuing on the reverse), also found on O. Turin N. 57008. On O. Prague NM P 3836, the column farthest to the right is probably the first column because it seems to be headed by the foreman of the left side, scribe of the tomb and deputy of the left side. That is suggested by the position of mark  $\text{𐀏}$  in the second slot of this column. Just above it, a damaged mark is visible, which is most probably identifiable as mark  $\text{𐀐}$  or its allomorph  $\text{𐀑}$ .<sup>161</sup> Discussing the reverse of O. BM 5642 and related pieces, we noted that on O. Ashmolean HO 1098 mark  $\text{𐀐}$  is used as an allomorph for mark  $\text{𐀒}$ , which probably refers to Harmose (ii), the foreman of the left side. The deputy is listed immediately below the mark of the scribe in slot 3. It is mark  $\Xi$ , for Qedherakhtuf (ii) who is indeed known to have been the deputy of the left side. The inclusion of the deputy Qedherakhtuf (ii) on O. Prague NM P 3836 supports our date in the reigns of Ramesses V – Ramesses VI, as his time in office falls approximately in this period.<sup>162</sup> However, when we attempt to identify the foreman on O. Prague NM P 3836 we run into the same problems we encountered with O. Leipzig 1821: it is difficult to interpret  $\text{𐀐}$  as the mark of Harmose (ii) on the Prague ostrakon because his first attestation as a foreman dates to the reign of Ramesses VII.<sup>163</sup> Yet, an earlier date in the time of Ramesses V – Ramesses VI seems more probable for the Prague ostrakon. At this time Iniherkhau (ii) must still have been the foreman of the left side,<sup>164</sup> whom we have securely connected with mark  $\text{𐀒}$ . As a consequence, we may have to reconsider our date for the Prague ostrakon and suggest that it is in fact of a list from the time of Ramesses VII. A second possibility is to resort to our earlier suggestion that mark  $\text{𐀐}$ , allomorph of  $\text{𐀒}$ , was used as the general mark for the foreman of the left side, regardless of his identity.

What is also remarkable about the sequence of the Prague ostrakon is the appearance of mark  $\text{𐀓}$  following  $\Xi$  for the deputy Qedherakhtuf (ii). We had tied the former mark to the person of Anynakht (i). It is very plausible that he remained in the position of deputy at the time O. Prague NM P 3836 was composed, let us say Ramesses V – Ramesses VI.<sup>165</sup> He was, however, the deputy of the right side of the crew and his presence in an ordered list of men of the left side is puzzling.

To some extent, the sequence of marks on O. Cairo CG 25319 reconciles the list of O. Prague NM P 3836 with the list of O. Turin N. 57008. As in the latter sequence, O. Cairo CG 25319 displays the sequence  $\text{𐀔} - \text{𐀕}$ . These two marks are preceded by mark  $\text{𐀖}$ , which in O. Prague NM P 3836 is in all probability one mark removed from  $\text{𐀔}$ . The remaining seven marks do not adhere to the ordered list but they are all attested for workmen of the left side on O. Turin N. 57008, the Prague ostrakon and associated documents.

<sup>161</sup> See above, 4.2.1, ONL 6232; chapter 3, 3.2.7.5.

<sup>162</sup> Davies, *Who's who*, 56, 281.

<sup>163</sup> Davies, *Who's who*, 27-28.

<sup>164</sup> Davies, *Who's who*, 27-28, 279.

<sup>165</sup> Davies, *Who's who*, 74.



### Excursus III. The expansion of the crew to 120 workmen

According to P. Turin Cat. 1891, the workforce was expanded from 60 to 120 workmen in the second year of the reign of Ramesses IV. As we have seen, this increase had no effect on the number of men that partook in the duty roster,<sup>166</sup> which appears to include no more than 30 men throughout the reign of Ramesses IV. The consequences of doubling the total number of workmen may however be detected in the turnus of the reign of Ramesses V, which would seem to have included 45 workmen.<sup>167</sup> Yet, there is not a single ostrakon that records the marks of all of the 60 men that must have comprised one side of the crew around the middle of the 20<sup>th</sup> Dynasty. In fact, most of the well preserved ordered lists of the left side of the crew from the reigns of Ramesses IV, Ramesses V and Ramesses VI, such as O. ARTP 99/27, O. Cairo JE 46860 and O. IFAO C 7638, record a total of about 30 men (TABLE 79).<sup>168</sup> Even in the settlement of huts near the tomb of Ramesses X, a site that was in use over the course of about 25 years during the reigns of Ramesses IV to Ramesses VII,<sup>169</sup> no more than 90 different workmen's marks were attested.<sup>170</sup> This observation does not mean that we should mistrust the note in P. Turin Cat. 1891 about the expansion of the crew, but it forces us to consider the status of the group of men that reinforced the existing pool of workmen.

Janssen suggested that these workers may have been sent from temples on the East Bank of Thebes or elsewhere. In his opinion they could not have been *smd.t* agents because they “lacked all necessary skills and could only be used to carry the rubble away.”<sup>171</sup> But perhaps carrying away rubble was all that the reinforcements were tasked with. If the assumption that these newcomers are not included in lists of workmen is correct, they may have not all been considered full members of the community. We may envisage (some of) these 60 new men as relatively unskilled workers who assisted the original, more specialised necropolis workmen in the excavation of the rooms and galleries of the royal tomb. The additional 60 men mentioned in P. Turin Cat. 1891 may therefore have been present at the worksite, but their *individual* activities seem not to have been relevant enough to be included in the necropolis administration, whether written in hieratic or composed with marks. There is even a possibility that these men did not live with the original crew members in the village of Deir el-Medina.<sup>172</sup> Andreas Dorn proposed that all of these 120 men would have had their own identity mark,<sup>173</sup> but this seems unlikely in the light of unpublished evidence that is now available to us, since these documents record smaller numbers of workmen. Additionally, the c. 90 different workmen's marks attested at the site of the huts need not necessarily be exactly contemporaneous, and in 25 years some workmen may have retired to be replaced by other men with their own identity marks.<sup>174</sup> What is more, the estimate of c. 90 different marks is

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<sup>166</sup> Cf. Haring, ‘Workmen’s marks on ostraca’, 149.

<sup>167</sup> Compare preliminary observations in Haring and Soliman, ‘Ostraca with Workmen’s Marks’, 78.

<sup>168</sup> As a group the mid-20<sup>th</sup> Dynasty ostraca with workmen’s marks of members of the left side such as O. UC 31939+ include over 50 different workmen, but we are not sure how far these ostraca date apart exactly. The best preserved ostraca from this group include a number of ostraca that does not even approach the total of 60 (O. Cairo JE 46862: 32 marks; O. UC 31939+: 24 marks).

<sup>169</sup> Dorn, *Arbeiterhütten*, 217.

<sup>170</sup> Dorn, *Arbeiterhütten*, 140.

<sup>171</sup> Janssen, *Village Varia*, 163.

<sup>172</sup> As suggested by Janssen, *Village Varia*, 136, n. 16, where he also mentioned O. Cairo CG 25234, an ostrakon from the middle of the 20<sup>th</sup> Dynasty that concludes with the enigmatic phrase *iw 60 n hnw dmi 60 n bnr* ‘60 of/to <the> inside of <the> village and 60 of/to the outside’. It is unclear if it refers to a division of the 120 workmen into one half that lived outside and one half that lived inside of the village.

<sup>173</sup> Dorn, *Arbeiterhütten*, 140-141.

<sup>174</sup> Note however that the repertory of marks of the members of the right does not appear to have changed much from the time of Ramesses IV to Ramesses IX, see chapter 6, 6.5.4.6.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

probably slightly too high.<sup>175</sup> We can therefore not escape the conclusion that not every single individual in the crew of 120 workmen possessed his own identity mark. This suggests that the usage of such marks was a unique phenomenon embedded in the tradition of the community of necropolis workmen that was not adopted by all of the 60 temporary, ancillary workers.

The right side of the gang				
Ram. IV	Ram. V	Ram. V - VI	Ram. VI - IX	Ram. IX
卅	𐀀		𐀀	𐀅
𐀁	卅		卅	卅
𐀂	𐀁		𐀂	𐀂
𐀃	𐀂		𐀃	𐀃
𐀄	𐀃		𐀄	𐀄
𐀅	𐀄	...	𐀅	𐀅
𐀆	𐀅	𐀆	?	AA
𐀇	𐀆	AA	AA	𐀇
𐀈	𐀇	𐀈	𐀈?	...
𐀉	𐀈	𐀉	𐀉	𐀉
𐀊	𐀉	𐀊	𐀊?	𐀊
𐀋	𐀊	𐀋	𐀋	𐀋
AA	𐀋	𐀌	𐀌	𐀌
𐀍	AA	𐀍	𐀍	𐀍
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











	Δ							
								
								
								
								
								
	...							
								
								
								
								
								
								







TABLE 79. ORDERED LISTS OF THE 20<sup>TH</sup> DYNASTY

#### 4.2.18 The right and left side during the reigns of Ramesses IV – Ramesses VII: The ostraca and marked objects from the workmen's huts close to the tomb of Ramesses X

A considerable number of ostraca and pottery fragments with workmen's marks has been discovered in and around the workmen's huts in the Valley of the Kings nearby KV 18 (Ramesses X) during the excavations of Davis and Ayrton, and during the excavations carried out by the University of Basel. Finds from this camp of huts indicate that it was used throughout the reigns of Ramesses IV through VII, and perhaps in the brief reign of Ramesses VIII.<sup>176</sup> Indeed, we have already discussed several ostraca with identity marks from this area that date to this period, and we will examine other ostraca from this site in sections below.

The remaining ostraca with workmen's marks should probably date to about the same period. In some cases this can be demonstrated by comparing the marks to other ostraca discussed above, but in those instances where an ostrakon is inscribed with one or two marks only we have to rely on its provenance for a plausible date. The ostraca in question are discussed in Appendix I, § 16.

#### 4.2.19 O. Cairo CG 25317 and other ostraca with the identity mark of Qaydjeret (i)

O. Cairo CG 25317 is inscribed with two columns of workmen's marks. Oddly, mark  is written both in the right and in the left column. As the left column is clearly shorter than the right one, it is most likely that the scribe of this ostrakon began writing at the top of the right column. The second instance of mark  is written towards the very end of this list of marks. Inscribed immediately above this mark is the horizontal variant of mark , which is rarely attested in the 20<sup>th</sup> Dynasty. It occurs also on O. Cairo Unnumbered R, which dates to the second half of the 20<sup>th</sup> Dynasty.<sup>177</sup> In this document, the mark is situated towards the bottom of the list as well. One is reminded of accounts of the distribution of grain from the 20<sup>th</sup> Dynasty, where the doorkeeper,    *ir.y-ʿz* in Egyptian, is often recorded as one of the last individuals of the list.<sup>178</sup> We find a striking parallel in O. Berlin P 14264, attributed to the middle of the 20<sup>th</sup> Dynasty. The obverse of this text lists the quantities of emmer to be distributed among the foremen, scribe, and workmen, as well as the amounts destined for the 'Divine Offering'. The total is mentioned in the final line (line 9), while in line 7 the ration of the doorkeeper is listed. In line 8, an amount of grain is recorded for the "lord of both lands"

<sup>176</sup> Dorn, *Arbeiterhütten*, 181.

<sup>177</sup> See Appendix I, § 28.

<sup>178</sup> See for a convenient overview Maren Goecke-Bauer, 'Untersuchungen zu den 'Torwächtern' in: Janssen, Froid and Goecke-Bauer, *Woodcutters, Potters and Doorkeepers*, 79-89. We are unable to determine which doorkeeper is referred to in this document, because the mark refers to the occupation of this man rather than to his name, as do hieratic administrative texts, see Gabler, 'Could I Stay or Could I go?' (forthcoming).



(*nb t3.w.y*). This seems to be a reference to a temple or chapel of the ruling king or a deified king.<sup>179</sup> It is very well possible that the marks on O. Cairo CG 25317 form a very similar list. If mark  $\text{𓂏}$  is indeed a reference to a doorkeeper it is likely that the second instance of mark  $\text{𓂏}$ , a hieroglyphic sign group readable as *nb t3wy*, inscribed below the supposed mark for the doorkeeper does not refer to a workman, as it does in the right column, but to a temple or chapel of the king. This is an interesting observation because it would date O. Cairo CG 25317 around the same period, and it demonstrates that marks were not only used to refer to individuals, commodities, and units of measured time, but also to institutions.

Moreover, the ostrakon provides evidence for the assumption that apart from workmen, doorkeepers of the necropolis are also recorded in ostraca with marks. This is a salient detail, particularly in regard to another mark on O. Cairo CG 25317 that could refer to a doorkeeper. It is the third mark from below in the right column that attracts our attention here, and even though it is damaged we recognise it to be the mark  $\text{𓂏}$ . This mark is attested on several ostraca as well as graffiti. It occurs possibly in Theban Graffito 3980, which mentions Amennakht (v), the famous scribe who was active throughout the 20<sup>th</sup> Dynasty, but it is certainly present in a number of graffiti from the end of the 20<sup>th</sup> Dynasty. We find the mark in Theban Graffiti 1261 and 1561, which both include the name of a scribe called Penhiribtahutnakht. He is perhaps identical to the scribe Pentahutnakht (i), an army scribe connected with the temple of Medinet Habu attested in the reigns of Ramesses IX, Ramesses X and Ramesses XI. Although Davies explicitly notes that this scribe is not attested in graffiti,<sup>180</sup> we cannot think of any objections to his identification in the aforementioned graffiti because the scribe was frequently involved in the lives of the necropolis workmen.<sup>181</sup> The mark is also found in Theban Graffito 1769 and perhaps in Theban Graffito 1577, both of which mention Penparei (ii), who appears to have been the scribe of the tomb in the reign of Ramesses XI.<sup>182</sup>

The attestations of mark  $\text{𓂏}$  on ostrakon O. Cairo CG 25317 and several graffiti can thus be pinpointed in the second half of the 20<sup>th</sup> Dynasty. Because the mark, evidently borrowed from hieroglyphic script, has the phonetic value *q3(i)*, we are tempted to connect it with one particular individual who is very often attested in the same timeframe: Qaydjeret (i). His earliest secure attestation in hieratic sources dates to about the middle of the reign of Ramesses IX.<sup>183</sup> The identification of this man with mark  $\text{𓂏}$  is as plausible as it is challenging, because Qaydjeret (i) was not a workman but a doorkeeper. Although O. Cairo CG 25317 demonstrates that a doorkeeper could be recorded on ostraca with marks, mark  $\text{𓂏}$  refers to the occupation of that doorkeeper rather than to his own identity. This stands in contrast to mark  $\text{𓂏}$  that seems to be a reference to the name of Qaydjeret rather than to his occupation. Moreover, identifying mark  $\text{𓂏}$  with Qaydjeret (i) would suggest that O. Cairo CG 25317 records two doorkeepers. There is however a way out of this conundrum, as Qaydjeret (i) was promoted to the position of guardian.<sup>184</sup> It is perhaps in this capacity that he is attested with his mark in the graffiti in the Valley of the Kings. In fact, graffiti of guardians are not uncommon, and one of Qaydjeret (i)'s predecessors, guardian Penmennefer (i) is attested in

<sup>179</sup> Janssen, *Village Varia*, 34-35.

<sup>180</sup> Davies, *Who's who*, 122.

<sup>181</sup> Cf. Davies, *Who's who*, 121-122.

<sup>182</sup> Davies, *Who's who*, 104.

<sup>183</sup> Davies, *Who's who*, 200. Alternatively there is a possibility that mark  $\text{𓂏}$  refers to an obscure workman called Paqaydjeret, who is mentioned in P. Turin Cat. 2018, dating to year 8 of Ramesses XI. This individual is not attested elsewhere, but he cannot be identical to Qaydjeret (i) who is recorded in the very same papyrus in a list of men associated with the right side of the crew.

<sup>184</sup> Davies, *Who's who*, 201.

three graffiti<sup>185</sup> together with a necropolis scribe in a fashion that is similar to Qaydjeret's mark and the scribes Penhiribtahutnakht and Penparei.

In his role as doorkeeper and guardian of the necropolis, Qaydjeret (i) stood in close contact with the crew of workmen.<sup>186</sup> He is recorded in several administrative hieratic documents of the time, and is often listed as the last or penultimate person in accounts of the distribution of grain rations.<sup>187</sup> It can therefore not be a coincidence that mark  $\text{𓆎}$  is situated at the bottom of a list of workmen in four ostraca: O. Area K Unnumbered (which is associated with ostraca from the reign of Ramesses IX),<sup>188</sup> O. ARTP 02/224; O. Cairo CG 25315,<sup>189</sup> and O. Cairo JE 96647. These ostraca seem to record the doorkeeper Qaydjeret, and should therefore date to the period of Ramesses IX – Ramesses XI.

O. Cairo JE 96647 may be of a particularly late date. Although it is very difficult to identify the workmen who are recorded by this document it is very probable that the right column lists workmen of the right side of the crew and the left column workmen of the left side. The damaged mark at the top of the right column could well be  $\text{𓆎}$  for the foreman of the right side, but the upper mark of the left column is not  $\text{𓆎}$ , the mark which designates the foreman of the left side in some instances.<sup>190</sup> Still, a comparison of the marks and their position on some of the ostraca with ordered lists of marks from the reign of Ramesses IX suggests a division in a right and a left side. Excluding chief workman and scribes, we come to the following table:

Left column	Attested on left side of crew	Right column	Attested on right side of crew
$\text{𓆎}$		$\text{𓆎}$	O. BM 5642; O. DeM 264; ONL 6449
$\text{𓆎}$	O. BM 5642; OL 170+; ONL 6322; ONL 6399; O. Turin N. 57534	$\text{𓆎}$	
$\text{𓆎}$		$\text{𓆎}$	OL 170+; ONL 6449
$\text{𓆎}$		$\text{𓆎}$	ONL 6603
?		$\text{𓆎}$	
$\text{𓆎}$	OL 170+; O. Ashm. 1098	$\text{𓆎}$	O. BM 5642; OL 170+; ONL 6322; ONL 6449
$\text{𓆎}$	O. BM 5642; ONL 6322; O. Turin N. 57543	?	
$\text{𓆎}$		$\text{𓆎}$	O. BM 5642
$\text{𓆎}$		$\text{𓆎}$	O. BM 5642; ONL 6399
$\text{𓆎}$		$\text{𓆎}$ ?	
$\text{𓆎}$		$\text{𓆎}$ ?	
$\text{𓆎}$		?	
$\text{𓆎}$		?	
		?	
		$\text{𓆎}$	

TABLE 80. MARKS ON O. CAIRO JE 96647 AND THEIR ATTESTATIONS ON EITHER SIDE OF THE CREW

<sup>185</sup> Davies, *Who's who*, 197, n. 71.

<sup>186</sup> Cf. Goecke-Bauer, 'Torwächter', 144-146.

<sup>187</sup> E.g. P. Turin Cat. 2004+ rto. III.4, (although there reportedly recorded as the son of a Hay, compare Davies, *Who's who*, 200, n. 120); P. Turin Cat. 2001+ rto. A IV.8.

<sup>188</sup> See Appendix I, § 24.

<sup>189</sup> This ostrakon is discussed in more detail below. The hieratic inscription on the other side of the document confirms a date in the late 20<sup>th</sup> Dynasty.

<sup>190</sup> As proposed above, 4.2.10; 4.2.17, O. Prague NM P 3836.

It is noteworthy that the sequence  $\overline{\text{F}}$  -  $\star$  is also attested in the list of the right side of the crew on O. BM 5642. If the left column of O. Cairo JE 96647 is a list of members of the left side, the occurrence of mark  $\overline{\text{X}}$  in position three is remarkable. It follows  $\text{H}$ , the mark of the scribe, which is also situated in position 2 of the right column. The mention of a single scribe for each side is another indication that the ostrakon dates to the end of the 20<sup>th</sup> Dynasty, because from about the reign of Ramesses X onwards there were two necropolis scribes who were each assigned to a single side of the crew.<sup>191</sup> As a consequence, the marks in position 1 and 3 on O. Cairo JE 96647 should refer to the foremen and the deputies. Unfortunately our comprehension of the marks of the late 20<sup>th</sup> Dynasty is not sufficient enough to identify these men. We have seen mark  $\overline{\text{X}}$  in the position of the deputy of the right side of the crew as well on ostraca O. BM 5642, O. DeM 264 and ONL 6449, which should date to the last years of the reign of Ramesses IX. Mark  $\overline{\text{X}}$  belonged to the workman Nesamun (III) in the first half of the 20<sup>th</sup> Dynasty, but nothing is known about his offspring. Therefore we cannot securely connect the mark with any of the deputies of the right side of the late 20<sup>th</sup> Dynasty. The deputy recorded on the left side of the crew by mark  $\overline{\text{X}}$  might be Amenhotep (iii) or his brother Pamerenamun (i). The father of these two men was Aapatjau (i), who was referred to by mark  $\overline{\text{X}}$  that we find in position 3 of the left column on O. Cairo JE 96647. If this identification is correct, the ostrakon should probably date to the reign of Ramesses XI, as he is attested for the first time in the function of deputy in year 8 of that reign.

At the top of the left column we do not find mark  $\text{A}$ , assumedly the mark used during much of the 20<sup>th</sup> Dynasty for the foreman of the left side. Instead we encounter mark  $\overline{\text{E}}$ . That is interesting because this mark is absent from lists of workmen's marks of the reign of Ramesses IX.<sup>192</sup> Before that period, the mark belonged to Pentaweret (vii), who seems to have retired from the left side of the crew after the reign of Ramesses VI. The fact that the mark reappears in the list of the left side of O. Cairo JE 96647 suggests we are dealing with another individual, presumably a son of Pentaweret (vii). Unfortunately little is known about Pentaweret (vii),<sup>193</sup> and his only known son, Nebnefer (xii), is not attested as foreman. We can therefore not be sure whether  $\overline{\text{E}}$  represents a foreman or not. During the reign of Ramesses XI one of the foremen of the left side was Qenna (ii), who is unrelated to Pentaweret (vii). His first attestation as foreman is in year 8, and he held this position at least until year 10.<sup>194</sup> It is therefore theoretically possible that a son of Pentaweret (vii), perhaps Nebnefer (xii), preceded or succeeded Qenna (ii) as foreman of the left side of the crew in the reign of Ramesses XI,<sup>195</sup> which would explain the position of mark  $\overline{\text{E}}$  on O. Cairo JE 96647. On the other hand we may attribute more weight to the fact that mark  $\text{A}$  for the foreman of the left side is not used, and hypothesise that mark  $\overline{\text{E}}$  refers to a workman – perhaps Nebnefer (xii) – who by way of exception acted on behalf of the foreman of the left side. This list would then constitute another example of a regular workman who was given precedence over the official deputy as the substitute of the foreman.<sup>196</sup>

The mark of Qaydjeret does not occur exclusively at the bottom of lists of workmen. In other instances, he appears to be listed among regular workmen, such as in Theban Graffito 390 and Theban Graffito 1941. In O. Cairo CG 25317 the mark of Qaydjeret is situated in between the marks of workmen as well. There he is probably not listed as a doorkeeper, but perhaps as a guardian.

<sup>191</sup> Davies, *Who's who*, 136-138.

<sup>192</sup> See above, 4.2.15.

<sup>193</sup> Davies, *Who's who*, 228.

<sup>194</sup> Davies, *Who's who*, 29-30.

<sup>195</sup> Compare Davies' overview of foremen, *Who's who*, 279.

<sup>196</sup> For a similar case, compare the career of Weserkhepesh (i), see Davies, *Who's who*, 57; see also above, 4.2.3.

The mark of Qaydjeret is furthermore attested on three different pieces belonging to a distinct group of ostraca with marks. These ostraca were all discovered in the Valley of the Kings and share a corpus of marks. The style of the layout as well as the palaeography of the marks indicate they were probably made by a single scribe. The group consists of ostraca O. MMA 09.184.783, O. MMA 09.184.784+, O. Cairo JE 72493, O. Cairo JE 72495, O. Cilli 84, O. ARTP 02/225, O. ARTP 02/224 and O. KV 10041 (TABLE 82). We can attribute to this group O. ARTP 02/223 on the basis of find context (together with O. ARTP 02/224 and O. ARTP 02/0225) as well as its lay-out, although no marks are preserved in their entirety.<sup>197</sup>

Apart from palaeographic resemblances and a shared corpus of marks, three ostraca are evidently connected because they display a very similar sequence of marks:

MMA 09.184.783	MMA 09.184.784+	ARTP 02/224

TABLE 81. ORDERED SEQUENCE OF O. MMA 09.184.783 AND SIMILAR OSTRACA

O. MMA 09.184.784+ is best preserved and inscribed with a large number of marks. It demonstrates an aspect that is common to O. MMA 009.184.783, O. Cilli 84 and O. KV 10041 as well: a single mark is often repeated on the same ostrakon. This would mean that the document records different events in which the same workmen took part. On the other hand, the fact that duplicated marks are inscribed one immediately after the other on O. MMA 09.184.784+, O. Cilli 84 and O. KV 10041 renders such an explanation unlikely. Instead, we could be dealing with a father and a son who were represented by the same mark, as on ostraca from the 18<sup>th</sup> Dynasty.<sup>198</sup>

<sup>197</sup> Of this ostrakon only a handcopy is available to us, which does not allow the secure identification of any of the marks.

<sup>198</sup> See chapter 2, 2.6.3.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

MMA 09.184.784	MMA 09.184.783	JE 72493	JE 72495	Cilli 84	ARTP 02/225	ARTP 02/224	KV 10041
+							
𐀀							
𐀁							
?							
𐀂		𐀂	𐀂		𐀂		
𐀃							
𐀄			𐀄	𐀄	𐀄		
𐀅	𐀅						
𐀆	𐀆						
𐀇	𐀇					𐀇	
𐀈	𐀈						
𐀉	𐀉						𐀉
𐀊	𐀊						
𐀋	𐀋						
𐀌	𐀌					𐀌	
𐀍	𐀍					𐀍	
𐀎	𐀎					𐀎	
𐀏	𐀏	𐀏	𐀏		𐀏		
𐀐							
𐀑							
𐀒							
𐀓							
𐀔							
𐀕							
𐀖							
𐀗							
𐀘				𐀘	𐀘		
𐀙			𐀙				
𐀚		𐀚			𐀚		
𐀛							
𐀜				𐀜	𐀜		𐀜
𐀝							
				𐀞	𐀞		
						𐀟	
						𐀠	𐀠

TABLE 82. OSTRACA FROM THE VALLEY OF THE KINGS DATING TO THE LATE 20<sup>TH</sup> DYNASTY

In all probability the column of marks on O. MMA 14.6.204 is related to this group of ostraca and to O. MMA 09.184.784+ in particular. The column contains eight marks, but they are not all discernable because lines of the drawing of two crocodiles run through them. The fourth and fifth mark could be 𐀅 and 𐀇, but the penultimate mark cannot be identified. All marks are attested on O. MMA 09.184.784+, suggesting O. MMA 14.6.204 too should date to the very end of the 20<sup>th</sup> Dynasty.

The ostraca in this group are rather difficult to interpret. Theban Graffito nr. 390 is probably associated with these ostraca, as it contains several of the same marks and features the same repetition of a single mark. Unfortunately it does not provide further indications as to the date or meaning of the ostraca. However, the presence of mark 𐀇 situates the ostraca and the graffito at the end of the 20<sup>th</sup> Dynasty.

#### 4.2.20 The Grand Puits group: ostraca from the reign of Ramesses XI?

The very same mark 𐎏 occurs also on ONL 6185, an ostracon that belongs to another group of ostraca consisting of ONL 1409, ONL 6178 – 6185, ONL 6239, ONL 6242, ONL 6282, ONL 6685, ONL 6711, and ONL 6832. This group of ostraca is characterised by the use of (semi-)hieratic numerals, signs and sign groups, which are intricately interwoven with workmen's marks. Moreover, three of these pieces are headed by a date line. A common factor of almost all of the ostraca is that they record different days of the month. In most cases a day date is written using the sign 𐎏 for *sw* 'day' combined with semi-hieratic numerals. The provenance of 11 of 16 of these ostraca is not recorded, but they must have all been discovered by the French excavations at the village of Deir el-Medina. Ostraca ONL 6185, ONL 6282, ONL 6685, ONL 6711 and ONL 6832 were found in the Grand Puits during the season of 1949. For our convenience we shall refer to all ostraca under discussion here as the Grand Puits group. The interpretation of these documents is rather problematic because the ostraca are often very fragmentary, and there are seemingly no hieratic parallels for these ostraca. Related to this group of ostraca is O. Louvre N. 699, which we will discuss in this section as well.

Although three ostraca from this group are inscribed with a year number, they are not unambiguously datable. The earliest date is written at the top of ONL 6239. After the group *rnp.t-sp* follows a neat hieratic sign for the numeral 6. However, it is followed by the numeral '10', after which the ostracon breaks off. One would expect a month number after the numeral '6'. However, the date line at the top of ONL 1409 demonstrates that it was sufficient for the scribe of these ostraca to note only the year number, after which other signs follow, suggesting the '10' on ONL 6239 is not related to the date. On the other hand, we can interpret the numerals '6' and '10' on ONL 6239 as a defective spelling of '16', where the '6' erroneously precedes the '10'. This reading is plausible, as there are several other instances in which the scribe made similar mistakes in his compound numerals. A date in year 16 is also favorable over a year 6, because ONL 1409 dates to year 20, and as the ostraca are clearly related we do not expect them to date very far apart. The date of ONL 6685 is difficult to ascertain because the ink has faded away to a great extent. After the sign group for 'year' the numeral '10' is clear, as is a horizontal stroke. This might be the hieratic numeral '7', but there are traces of another horizontal stroke above it, suggesting the year is '18'. After the year number follow two hieratic ligatures for *ꜣbd* III and *ꜣh.t* as well as the numeral '10'. The ostracon can thus be pinpointed to year 18, III *ꜣh.t*, day 10. This date would fit neatly in the timeframe set by ONL 6239 and ONL 1409.

The ostraca thus date to the time of a king who reigned at least 20 years. We can exclude the reign of Ramesses II because we shall see that the marks on the ostraca belong to workmen of the 20<sup>th</sup> Dynasty. This narrows our options down to the reigns of Ramesses III and Ramesses XI, as both ruled for more than 20 years.<sup>199</sup> In order to date the ostraca more precisely it is necessary to examine the workmen's marks they record (TABLE 83). Even though the ostraca display a number of unexplained signs, the workmen's marks that are attested with certainty are given in the table below. We find that many of the marks attested in the Grand Puits group are also found on O. ARTP 99/27, as well as on the core ostraca belonging to a group discussed above, O. Cairo JE 46862 and O. UC 31939+.

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<sup>199</sup> Hornung, Krauss and Warburton (eds.), *Ancient Egyptian Chronology*, 215; 216.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

Mark	Ostraca	ARTP 99/27	JE 46862	UC 31939+
	ONL 1409; ONL 6711; ONL 6832; ONL 6711; ONL 6832	✓	✓	✓
	ONL 1409; ONL 6185; ONL 6832	✓		
	ONL 1409; ONL 6282; ONL 6685			
	ONL 1409; ONL 6183 (?)			
	ONL 6180; ONL 6185	✓		
	ONL 6181; ONL 6185	✓		✓
	ONL 6182	✓	✓	
	ONL 6182; ONL 6832	✓	✓	✓
	ONL 6182; ONL 6185	✓	✓	
	ONL 6185 (?);	✓		✓
	ONL 6185; ONL 6685			
	ONL 6185	✓		
	ONL 6239	✓	✓	✓
	ONL 6239			
	ONL 6239; ONL 6282; ONL 6685; ONL 6832	✓	✓	
	ONL 6239; ONL 6685			
	ONL 6239; ONL 6832		✓	
	ONL 6239; ONL 6242; ONL 6685	✓		
	ONL 6282	✓	✓	✓
	ONL 6282; ONL 6685	✓	✓	✓
	ONL 6282; ONL 6685	✓		
	ONL 6685 (?)			
	ONL 6685			
	ONL 6685		✓	
	ONL 6685			
	ONL 6685 (?)	✓		
	ONL 6685; ONL 6832	✓		✓
	ONL 6711			
	ONL 6832	✓		✓
	ONL 6832 (?)			
	ONL 6832 (?)			
	ONL 6832 (?)			

TABLE 83. MARKS ON THE OSTRACA FROM THE KOM SUD GROUP COMPARED

The relation between the repertory of marks in O. ARTP 99/27 and that of the Grand Puits group is evident. Interestingly, the Grand Puits ostraca also provide additional attestations for and , two rather rare identity marks that are inscribed on O. Cairo JE 46862 and O. UC 31939+. In fact, the corpus of marks attested in the Grand Puits group overlaps to some extent with the corpus of ostraca that include mark for Amennakht (vi)/(xii) called Pawonesh and associated ostraca (TABLE 84). In this light, we may contemplate whether the sign that is attested four times on ONL 6185 is a rather abstract allomorph of mark .





4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

								𐔢		𐔢
								𐔣?		
								𐔤		
								𐔥		𐔥

TABLE 84. MARKS ON THE OSTRACA OF THE GRAND PUIITS GROUP

As demonstrated above, O. Cairo JE 46862 and O. UC 31939+ date to the middle of the 20<sup>th</sup> Dynasty, more or less in the reigns of Ramesses V and Ramesses VI. We have also determined that O. ARTP 99/27 dates to the reign of Ramesses IV. The repertory of marks in the Grand Puits group therefore suggests that a date in the reign of Ramesses III is very unlikely. Marks 𐔤 and 𐔢 are not attested in the reign of Ramesses III, but do occur on later ostraca. We have associated the former mark with the workman Ptahkhou (i), whose earliest attestation seems to be on O. DeM 657. This ostrakon cannot be earlier than the reign of Ramesses IV, as it mentions Nakhemmut (vi) as the foreman of the crew. Similarly, the workman nicknamed Pawonesh whose mark may be inscribed on ONL 6185, is not securely attested before the reign of Ramesses IV.<sup>200</sup> A date in the second half of the 20<sup>th</sup> Dynasty is also suggested by the presence of mark 𐔥 for Qaydjeret (i) on ONL 6185. As we have discussed above, he is securely attested in the reigns of Ramesses IX to Ramesses XI.

In summary, it is rather unlikely that the ostraca from the Grand Puits group date to the reign of Ramesses III. As a consequence, the documents ought to date to the reign of Ramesses XI. This however presents us with somewhat of a dilemma, because it is during the reign of Ramesses XI that the village of Deir el-Medina is abandoned. It has been pointed out that towards the end of this reign necropolis workmen seem to have been living inside the quarters of the funerary temple of Ramesses III at Medinet Habu.<sup>201</sup> Yet, other authors have disputed this assumption, and a closer examination of the sources suggests that *some* members of the crew might have lived at Medinet Habu.<sup>202</sup> Regardless, it is a fact that we do not possess any ostraca from the village of Deir el-Medina that securely date to the reign of Ramesses XI.<sup>203</sup> The ostraca of the Grand Puits group would then be unique in this respect.

It is also problematic that ostrakon ONL 1409 records a year 20. While it is true that Ramesses XI reigned for more than 20 years, year 19 of his reign was proclaimed as the beginning of a new era, a *renaissance* called *whm msw.t*. The count of his reign was reset to year 1 from that point onward, and the previous count was generally abolished. In the written administration of the Theban Necropolis no year numbers of the old count are known after year 19, and the years of the *whm msw.t* are applied instead. We should therefore question the attribution of ONL 1409 to the reign of Ramesses XI, because if it dates to his reign a more correct date would have been ‘year 2 of the *whm msw.t*’ instead of ‘year 20’. Yet, P. Turin. Cat. 2034 demonstrates that at least in year 19 the old year count was not entirely abandoned, as it mentions both ‘year 19’ as well as ‘year 1 of the *whm msw.t*’. We may assume that during the first years of the *whm msw.t* scribes were not completely accustomed to the new year count, and continued to use the older system. Moreover, usage of the *whm msw.t* years may have been reserved for official documents only, while in more mundane settings one

<sup>200</sup> Davies, *Who's who*, 70.

<sup>201</sup> E.g. Valbelle, *Les ouvriers*, 123-125.

<sup>202</sup> Haring, ‘Scribes and scribal activity’, 111-112.

<sup>203</sup> A date to this reign has been proposed for only four ostraca: O. DeM 571 (Grand Puits), O. Turin N. 57372 (Deir el-Medina), O. Turin N. 57387 (Deir el-Medina), and O. UC 39649 (provenance unknown), but this cannot be confirmed. In addition, there is a corpus of documents, some of which are of an administrative nature, that come from the Theban necropolis and date to the beginning of the 21<sup>st</sup> Dynasty. The texts are currently under study by Rob Demarée; for a preliminary overview see his article ‘Quelques textes de la fin de la XX<sup>e</sup> et du début de la XXI<sup>e</sup> dynastie’ in: Andreu (ed.), *Deir el-Médineh et la Vallée des Rois*, 246-250.

would have maintained the older count. As will be made clear below, the ostraca of the Grand Puits group are indeed anything but official, standardised documentations.

One of the characteristics of the ostraca from the Grand Puits group is the use of semi-hieratic numerals. To record quantities the scribe wrote down the hieratic forms of the numerals ‘1’, ‘10’, ‘100’, and ‘100.000’, but used them as if they were hieroglyphic numerals, noting down multiples of these hieratic signs. The scribe may, however, have been acquainted with true hieratic numerals, because he used them to write down numerals ‘6’,<sup>204</sup> ‘8’,<sup>205</sup> and ‘20’<sup>206</sup> for day numbers and year numbers. The scribe’s familiarity with the hieratic script is clear from his use of other hieratic signs and sign groups, such as the incompletely preserved group  $\overline{\text{pp}}$  in the first line of ONL 6184.

Within the Grand Puits group there is a subgroup of smaller, fragmentary ostraca that can be distinguished from the other ostraca. This group is formed by ONL 6178 – ONL 6185 and ONL 6242. In these ostraca, all lines of marks are separated from each other by horizontal dividing lines. The ostraca are all written on the same type of whitish limestone, each of more or less the same thickness. In fact, some of these fragments may have once belonged to the same document, but none of the surviving pieces join. Additionally, there are a number of recurring signs that are typical for these ostraca. Frequent is sign  $\text{𓂏}$ , which resembles a clumsily executed hieratic or cursive hieroglyphic sign for  $\text{𓂏}$  *h3.t* ‘front’. In analogy with the sign for *h3.t*, sign  $\text{𓂐}$  is probably an odd hieratic sign for  $\text{𓂐}$  *ph* ‘end’. Within the subgroup, *h3.t* en *ph* are often followed by the group  $\text{𓂑}$  or in one instance sign  $\text{𓂒}$ . Since the scribe of these ostraca wrote all multiples of 10 simply by repeating the numeral ‘10’, we probably should not read these signs as ‘90’ or ‘60’, but as *pn* and *p*. This group is often – but not exclusively – followed by the sign  $\text{𓂓}$  that only occurs in combination with the *pn* group. The meaning of all these signs is rather problematic. There are no direct parallels for the combined use of *h3.t* and *ph* in the hieratic administrative nomenclature of Deir el-Medina. One might be inclined to interpret *h3.t* as part of the phrase *hr h3.t* ‘previously’, ‘firstly’.<sup>207</sup> This expression occurs throughout the 19<sup>th</sup> and 20<sup>th</sup> Dynasties in the administrative texts from the Theban Necropolis as a way to record deliveries that had already been made.<sup>208</sup> Similarly, *ph* could be an abbreviation of *ph.wy* used in O. DeM 895, presumably to express the remainder of quantities of wood to be delivered.<sup>209</sup>

An alternative explanation would be to interpret *h3.t* as a reference to the fisherman *Hatnefer* who is attested throughout the 20<sup>th</sup> Dynasty and still appears in the hieratic administration dating to the reign of Ramesses IX.<sup>210</sup> Sign  $\text{𓂐}$  could then refer to the individual *Rekhpehtyef* who is recorded delivering wood in the reign of Ramesses IX.<sup>211</sup> Signs  $\text{𓂑}$  and  $\text{𓂓}$  would then probably be references to *smd.t* agents as well. None of this can, however, be proven, and it is unlikely that the fisherman *Hatnefer* would still have been active in year 20 of Ramesses XI. The content of ostraca ONL 6178 – ONL 6242 remains thus highly enigmatic:

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<sup>204</sup> ONL 6239.

<sup>205</sup> ONL 6685.

<sup>206</sup> ONL 6181; ONL 6182; ONL 1409.

<sup>207</sup> *WB* III, 23, 16; 18.

<sup>208</sup> Examples from the end of the 20<sup>th</sup> are found in P. BM EA 9997, P. Turin Cat. 1884+; P. Turin Cat. 1895; P. Turin Cat. 1945+ and P. Turin Cat. 2013+.

<sup>209</sup> Grandet, *Ostraca hiératiques* IX, 68 and 69. One might interpret the sign as a reference to *ph rm.w*, the ends of fish that were eaten at Deir el-Medina, see Valbelle, *Catalogue des poids*, 23. However, the frequent occurrence of both *h3.t* and *ph* on our ostraca makes this interpretation improbable.

<sup>210</sup> P. Turin Cat. 1881+; P. Turin Cat. 2013+.

<sup>211</sup> P. Turin Cat. 1900+.

ONL 6178

[...] 300 (+ x ?); *sw* 15 *ph pn* ⚡ [...]
   
[...] *pn* [...]

ONL 6179

[...]
   
[*s*]w 11<sup>212</sup> *h3.t p <n>* ⚡ [...]
   
[...] ⚡ [...]

ONL 6180

[...] ⚡ 250 [...]
   
[...] ][200 + x?]

ONL 6181

[...] 370 (?); *s*[w] [...]
   
[...] 120; 10; *ph p[n]* [...]
   
[...] ⚡ (?) 120; *sw* 17 [...]
   
[...] [damaged mark] 500 [+ x?] [...]

ONL 6182

[...] ⚡ \ 400; *sw* 25 *ph* (?) [...]
   
[...] ⚡ 440; *sw* 10 *h3.t pn* ⚡ [...]

ONL 6183

[...] 250 [...]
   
[...] *sw* 7 *h3.t pn* (?) [superimposed sign ⚡ ?] [...]
   
[...] ⚡ 600 (+ x?) [...]

ONL 6184

[...] *h3y* [...]
   
[...] [*h*]3.t *pn* □ [...]
   
[...] 13 (+ x?) [damaged sign] [...]

ONL 6242

[...] *ph* [...]
   
[...] *ph* ⚡ 300 (+ x?) [...]

The last ostrakon in this group is ONL 6185, an accession number given to two fragments, although it is not entirely certain if both pieces truly formed part of a single document. ONL 6185 contains several more mysterious signs. Firstly, we observe sign ⚡ in lines 3, 4 and 5. It somewhat resembles the hieratic sign for ⚡ *ht* ‘wood’, and might give us a clue as to the content of this ostrakon as well as the other pieces in our subgroup: they seem to record wood deliveries. Sign ⚡ in line 3 seems to be an incorrectly orientated variant of ⚡, *h3.t*. It is followed by a hieratic sign group, which also occurs at the beginning of line 4. The group resembles hieratic signs ⚡ and ⚡, but it is unclear what they denote.<sup>213</sup> One might speculate that sign ⚡ should be read as ⚡ for I *3bd*, but the group is not clearly followed by a day

<sup>212</sup> Written ‘10’ + ‘1’.

<sup>213</sup> Possibly a reference to *š3i* flowers?

number. Alternatively but less likely the group could be read as  $\overline{\text{sd}}$ , perhaps referring to a *smd.t* agent with this element in his name.<sup>214</sup>

ONL 6185

[...] *sw* 1 *ph pn* [damaged sign]  $\overline{\text{sd}}$  (?) [damaged sign] [...] *sw* [...]  
 [...]  $\overline{\text{sd}}$  790; *sw* [...] *ph pn*  $\overline{\text{sd}}$  (?) [...]  
 [...] 50; *sw* 17 *h3.t zbd* 1 *zhd* (?) [...] 150; *sw* 13 *ht* [...]  
 [...] *zbd* 1 *zhd* (?)  $\overline{\text{sd}}$   $\Delta$  250; *sw* 10 (+ x?) [...] 3 *ht zbd* 1 *zhd* (?)  $\overline{\text{sd}}$   $\overline{\text{sd}}$  510 (+ x?) [...]  
 [...] *ht*  $\overline{\text{sd}}$   $\overline{\text{sd}}$  200 (+ x?) [...] 3 *ph*  $\overline{\text{sd}}$   $\overline{\text{sd}}$  150 [...]  
 [...] 200 (+ x?)

Ostracon ONL 6685 is better preserved than the pieces discussed above, but some of its sections are almost illegible. Sign  $\overline{\text{sd}}$  in lines 1 and 2 seems to be a very cursive variant of the inverted sign  $\overline{\text{sd}}$ . By line 3, the same sign appears to have been reduced to  $\overline{\text{sd}}$ . Like the sign  $\overline{\text{sd}}$  in ONL 6178 – ONL 6185,  $\overline{\text{sd}}$  and  $\overline{\text{sd}}$  are inscribed immediately after day dates. This interpretation is however problematic for line 4, which would then read ‘*sw* 20 (?): *h3.t*  $\overline{\text{sd}}$  *h3.t*  $\Delta$  300’, and the repetition of the second ‘*h3.t*’ is difficult to explain. Sign  $\overline{\text{sd}}$  occurs in lines 3 and 4, and is perhaps a hieroglyphic sign for *whm* ‘repeating’, a term regularly found in hieratic administration of the Theban Necropolis.<sup>215</sup>

ONL 6685

*rnp.t-sp* 18 *zbd* 3 *zhd* 10 *h3.t* 4 (or *p < n >* ?) \ *zhd* (?) 720; *h3.t p < n >* [...] 600; 500; 500; 80; *sw* 1 10 *h3.t* [unclear sign] \ 500; 300; *sw* 5  $\overline{\text{sd}}$  [...]  
 10 *ph*  $\overline{\text{sd}}$   $\leq$  200; *sw* 11 *ht whm*  $\overline{\text{sd}}$  700; *sw* 15 *ph whm*  $\overline{\text{sd}}$  400 (+ x?) [...]  
*sw* 18 *ph whm*  $\overline{\text{sd}}$   $\overline{\text{sd}}$  350; *sw* 20 (?) *h3.t*  $\overline{\text{sd}}$   $\Delta$  300  
 [...]  $\overline{\text{sd}}$   $\overline{\text{sd}}$   $\overline{\text{sd}}$  100; *sw* 22  $\overline{\text{sd}}$   $\overline{\text{sd}}$   $\overline{\text{sd}}$  200  
 [...]  $\overline{\text{sd}}$  190; *sw* 10 *ph*  $\overline{\text{sd}}$  (?)  $\overline{\text{sd}}$  200  
 [...] 340; *sw* 11 *h3.t*  $\overline{\text{sd}}$   $\overline{\text{sd}}$

Ostraca ONL 6711 and 6282 are very fragmentary pieces that do not present us with further unattested signs.

ONL 6711

[...] 20 [...]  
 [...] *p < n >*  $\overline{\text{sd}}$  [...]  
 [...] 600; 500 [...]  
 [...] 300 [...]  
 [...]  $\overline{\text{sd}}$  [...]  
 [...] 300 (+ x?); 20; 20; 20; 20 [...]

ONL 6282

[...]  
 900 + x (?)  
 --  
 [...] *h3.t*  $\overline{\text{sd}}$   $\overline{\text{sd}}$  820  
 [...]  $\overline{\text{sd}}$   $\overline{\text{sd}}$  520 [... .. .]

<sup>214</sup> E.g. Amenemipetnakht attested in the reign of Ramesses XI in P. Turin Cat. 2094.

<sup>215</sup> Examples from the reign of Ramesses XI are P. Turin Cat. 1895+ and P. Turin Cat. 1898+.

-- 400; 400; 300; 300; 𐀀  
 500.000 400; 400; 400; 400; 400  
 3

ONL 6239 would appear to be another indication that the ostraca in the Grand Puits group record deliveries, because sign 𐀀 in lines 5 and 9 resembles the hieratic sign for 𐀀 *rm* ‘fish’. The signs in line 10 are only faintly preserved, but traces of ink suggest a reading of 𐀀 for 𐀀 } *wp-rnp.t* ‘New Year’s Day’.<sup>216</sup> The reading and meaning of sign 𐀀 in line 3 and signs 𐀀 𐀀 in line 8 are unclear.

ONL 6239

*rnp.t-sp* 16 [...]
   
320 (+ x ?) [...]
   
𐀀 𐀀 𐀀 200 (+ x ?) [...]
   
𐀀 𐀀 420 (+ x?) [...]
   
*rm.w ht*
  
𐀀 270 𐀀 𐀀 [...]
   
[?] 40 (?); 410; 20 (+ x?) [...]

10 *ht p < n >* 𐀀 𐀀 (?) 𐀀 700 (+ x?) [...]
   
[?] 𐀀 *rm.w ht*
  
[...] *wp.t rnp.t* 𐀀

In ostrakon ONL 6832 the group 𐀀 occurs in five instances. Except for the instance in line 4, the group is always followed by a series of strokes, suggesting the group should be read as a variant of 𐀀 *sw* ‘day’. Sign 𐀀 occurs also in the spelling of *hrw* ‘day’ in P. BM EA 10375, vso. 8, which dates to the reign of Ramesses XI.<sup>217</sup> Alternatively, the group may be read as 𐀀 *t* ‘bread’, but this word would not seem specific enough for a document recording deliveries, as hieratic delivery texts of the 20<sup>th</sup> Dynasty generally record particular types of bread. In the third line from below, traces of ink resemble a cartouche of which the lower sign group might be *imn*. The sign above it is a horizontal one, and could be *htp*. The signs seem to form a defective spelling for the name of king Amenhotep, which might be a reference to the month III *pr.t*, called *p3-n(y)-imn-htp*, or to a festival of this deified king.

ONL 6832

[...] 𐀀 𐀀 200; 200; 450
   
[...] 𐀀 100 *sw* 8 *ph* 𐀀 𐀀 *ph* 270
   
[...] *h3.t* 𐀀 𐀀 4 (+ x?) [...]
   
[...] 𐀀
   
[...] 280; *sw* [sic] 𐀀 340 (+ x?) [...]
   
[...] 𐀀 (?) 𐀀 (?) 540; *sw* 1 [...]
   
[...] *h3.t* 𐀀 (?) 𐀀 300; *sw* 4 𐀀 420 (+ x?) [...]
   
[...] *h3.t* [...] 180; *sw* 2 *ht* 𐀀 (?) [...]

<sup>216</sup> WB I, 305, 1.

<sup>217</sup> Jac. J. Janssen, *Late Ramesside Letters and Communications*. Hieratic papyri in the British Museum VI (London 1991), pl. 40.

The group  $\overline{\text{ō}}$  reoccurs in ONL 1409 and should probably read as *sw* as well.

ONL 1409

*rnp.t-sp* 20 *h3.t* [?]  $\equiv$

900; 900; 900; 900 (?); 600; 700

*sw* 19  $\square$  450 *sw* [...]

$\overline{\text{ō}}$   $\overline{\text{ō}}$

*ph* 600; 600; 600; 500 + x; 200 + x [...]

[s]w 20 [...]

We come to the disappointing conclusion that the ostraca of the Grand Puits group are poorly understood. We recognise parts of year and day dates, and perhaps references to festivals of the New Year and of the deified Amenhotep I. The documents would seem to record deliveries, among which are quantities of fish and wood. Some signs are very tentatively explained as references to members of the *smd.t* personnel.

O. Louvre N. 699, perhaps associated with the Grand Puits group, is rather different from the other documents in terms of handwriting and layout. The document is written in a tabular format, presented below. It displays some of the same workmen's marks attested in the Grand Puits group. More importantly the sign for *ph* is unmistakably added to two of the cells. Additionally the ostrakon seems to deal with wood as well, and the sign for *ht* is inscribed in four of the cells. The upper cell of the middle column is inscribed in hieratic with the word *wsf* 'inactive'. The sign for wood is superimposed, but unlike the other instances of this sign, it is not accompanied by strokes. At least two or perhaps three cells contain a reference to a divinity. In the rightmost column we notice  $\overline{\text{ō}}$ , perhaps for Isis, as well as  $\overline{\text{ō}}$  for Thot. In the leftmost column, the cobra could well refer to the goddess Renenutet. Taking into account the signs for months or month festivals that we encountered on duty rosters composed with marks, we may interpret the signs on Louvre N. 699 in a similar way. It is then remarkable that the table contains 12 cells, suggesting one cell was inscribed for each month of a year.<sup>218</sup> If we pursue this hypothesis, sign  $\overline{\text{ō}}$  should refer to month *dhwtj* (I *3h.t*), and sign  $\overline{\text{ō}}$  to month *p3-n(y)-rnmw.t.t* (IV *pr.t*). Reading the columns from right to left we count exactly six cells between the cell with  $\overline{\text{ō}}$  and the cell with  $\overline{\text{ō}}$ , exactly the number of months between I *3h.t* and IV *pr.t*. The goddess in the cell above that of *dhwtj* could then indeed be Isis, as a reference to the fourth epagomenal day attached to the previous month, IV *šmw*.

Up to this point, the puzzle that is O. Louvre N. 699 makes some sense, but the interpretation of the ostrakon as a year calendar is not without problems. First of all, if each cell of the ostrakon represents a single month, would that mean that during the entire month of II *3h.t* – represented by the upper cell in the middle column according to our hypothetical reading – the crew was *wsf*, 'inactive'? Not only does this seem unlikely, but the author does not know of any instances in which *wsf* is used to describe a unit of time longer than a single day. One also wonders why the calendar begins with month II *šmw*. We have associated O. Louvre N. 699 with the ostraca of the Grand Puits group, which we had situated in the reign of Ramesses XI. It is generally thought that P. Turin Cat. 1888 demonstrates that the regnal years of this king began on III *šmw*,<sup>219</sup> a month later than the supposed calendar of the Louvre ostrakon. The answers to these questions escape us completely.

<sup>218</sup> The ostrakon is perhaps not completely preserved, but considering the table on the reverse, not much seems to have been lost.

<sup>219</sup> For references, see Hornung, Krauss and Warburton (eds.), *Ancient Egyptian Chronology*, 217.

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In fact, we cannot ascertain the meaning of the first two cells in the rightmost column. The depiction of a bovine in the cell that we assume represents II *šmw* could designate the slaughter of an ox at the occasion of a festival,<sup>220</sup> but there is nothing that upholds this suggestion. The signs in the cell below it are not immediately evident either. Sign  $\sqcup$  could refer to month *k3-ḥr-k3* (IV *3ḥ.t*), but this would not agree with our proposed direction of reading this ‘calendar’. Additionally, signs  $\ddagger$  (?) and  $\text{𐀀}$  in the second and third cell are unexplained. We may therefore propose an alternative interpretation of the ostrakon. Instead of references to months, the majority of signs could – with the exception of  $\text{𐀀}$  for wood and perhaps  $\text{𐀁}$  for an actual bovine – refer to workmen or other individuals in the same way we had proposed to take  $\text{𐀂}$  as a reference to a *smd.t* agent. Indeed, signs  $\text{𐀃}$ ,  $\text{𐀄}$  and  $\text{𐀅}$  are probably recorded as workmen in the Grand Puits group, and the bovine in the first cell is perhaps a poorly drawn allomorph of workmen’s mark  $\text{𐀆}$  that seems to occur in ONL 6832. Each cell of this ostrakon might then represent a single day, and those of the middle column could record wood deliveries as well as a day off from work at the tomb. This interpretation is still far from satisfactory because it does not explain the meaning of the deities.

$\text{𐀂}$ 8	$\text{𐀀}$ $\text{𐀁}$ $\text{𐀂}$	8 $\text{𐀃}$ $\text{𐀄}$
$\text{𐀂}$ 6 $\text{𐀃}$	8 $\text{𐀀}$	6 $\ddagger$ $\sqcup$
10 $\text{𐀆}$	7 $\text{𐀀}$ $\text{𐀃}$	$\text{𐀃}$ $\text{𐀄}$ 4 $\text{𐀅}$
$\text{𐀃}$ 10 (+ x?)	6 (+ x?) $\text{𐀅}$ $\text{𐀀}$ 6(+ x?)	10 (+ x?) $\text{𐀆}$

In this context we may also mention O. Cairo CG 25316. It is remarkably similar to ostraca from the Grand Puits group and O. Louvre N. 699 because it displays semi-hieratic numerals, signs  $\text{𐀇}$ ,  $\text{𐀈}$  and  $\text{𐀉}$ , and possibly also workmen’s marks. Unfortunately the fragmentary state of the ostrakon prohibits a conclusive interpretation. We can decipher the ostrakon to some extent:























12  $\text{𐀇}$  *ḥ3.t* 400  
 [...]  $\text{𐀈}$   $\text{𐀉}$  *pḥ* 900  
 [ $\text{𐀇}$ ] 400 600

The sign that resembles  $\text{𐀇}$  is not elsewhere attested as a workman’s mark, and whether it here represents a workman, a *smd.t* agent, or a building or shrine is entirely unclear. Likewise we cannot be sure if sign  $\text{𐀉}$  is here a hieratic *p* or the numeral ‘60’. Signs  $\text{𐀈}$  and [ $\text{𐀇}$ ] could be

<sup>220</sup> Jauhiainen, “Do not celebrate your feast”, 273; 297.

workmen's marks and are indeed attested as such in the 20<sup>th</sup> Dynasty. Still, a date and a reasonable interpretation of this ostracon cannot be provided. On account of its resemblance to ostraca from the Grand Puits group it is hesitantly attributed to the late 20<sup>th</sup> Dynasty.





#### 4.2.21 Overview of tentatively identified workmen's marks

Aanakhtu (iii) = (i) = (iv)	
Aapatjau (i)	
Amenenheb (i) = (ii) or Amenemheb (iv)	
Amenhotep (iii) or Pamerenamun (i)	
Amenkha (ii) ?	
Amennakht (vi)/(vii)	 (and  ?)
Amenpahapy (iii)	
Bakenwerel (vii)	
Hay (iv)	 ?
Hay (v) = (iii) or Hay (xi)	
Hay (vii)	
Hay (xi) of Hay (v) = (iii)	
Hori (ix)	
Hori (xii)	
Khaemhedjet (i)	
Khnummose (iv)	
Khons (vi)	
Meryre (vii)	
Merysekhmet (iii)	
Nakht-en- / -her-khopshef (I) ?	
Nakhtmin (vii)	
Nebimentet (i)	
Nebnefer (ix)	
Nebnefer (xii)	
'Pa-imyperhedj' = a Montuemtawy?	
Panefer (i)	
Paneferemdjedu (i)	
Pasennedjem (i)	
Paser (iii)	
Patjaudiamun (ii) <sup>221</sup>	
Penamun (V)	
Penniut (i) = (iii)	
Penniut (IV) <sup>222</sup>	
Prehotep (ii)	
Ptahkha (i)	
Qaydjeret (i)	
Qedherakhtuf (ii)	
Qenymin (i)	
Ramessesnakht (i)	
Scorpion controller Amenmose	
Seny (i)	
Seti (i)	

<sup>221</sup> Ibidem.

<sup>222</sup> See Appendix I, § 15, O. BTdK 539.



Siwadjet (iii)		
Wennefer (iii)		
Weserkhepesh (i)		
Foreman of the left side; or personal identity mark of Harmose (ii)		

#### 4.3 THE PURPOSE OF THE RECORDS WRITTEN WITH IDENTITY MARKS

In the chronological discussion of 20<sup>th</sup> Dynasty ostraca with marks we have already touched upon the meaning and purpose of some of the records, but the ostraca deserve a more thorough study. An analysis of the lay-out of the ostraca, as well as scrutiny of the use of hieroglyphic and hieratic signs, numerals and depictions of objects elucidates the meaning and purpose of documents composed with identity marks.

##### 4.3.1 Use of hieroglyphic text on ostraca with marks

Hieroglyphic inscriptions are attested on only six ostraca from the 20<sup>th</sup> Dynasty, and in most cases they are not related to the workmen's marks on the same document. The hieroglyphs on the obverse of O. MMA 14.6.204 are most probably exercises made by same hand that also drew a beautiful face and two crocodiles on the ostrakon, all unconnected with the column of identity marks. The inscription on a second ostrakon, ONL 6258, is ambiguous. It may be interpreted as mark  $\overline{\text{𓆎}}$  of Nakhtmin next to an odd cursive hieroglyphic writing  $p < n > -niw.t$  for Penniut. This reading – and the date of the ostrakon for that matter – is uncertain, as it requires the signs to be read as a column. Moreover, the relationship between a Penniut and a Nakhtmin is unclear.

The hieroglyphic inscription written at the top of ONL 6874 is damaged and difficult to read, but the style of the signs, the thickness of the lines and the colour of the ink indicate that it was added by the same scribe who inscribed the rest of the document. The hieroglyphic text is therefore most probably related to the rest of the document, and may have served as a heading. The hieroglyphic inscription of O. MMA 14.6.218 on the other hand was clearly inscribed over the column of marks, and is seemingly unrelated to the column of workmen's marks. The meaning of the hieroglyphic inscription is completely unclear.

O. BTdK 454 is inscribed on its reverse with the cartouche of Ramesses VI in what appears to be a different hand, suggesting the ostrakon was reused. ONL 170+ displays the cartouche of Ramesses IX and a large elaborate drawing of the hieroglyphic sign  $\overline{\text{𓆎}}$  (Gardiner G1), written over the columns of marks. The marks are drawn by a very competent hand in a style that is similar to the hieroglyphs of the cartouche. It is therefore probable that the scribe reused a list of workmen's marks for unrelated hieroglyphic exercises. O. BTdK 485 is inscribed with a column of poorly executed and incorrectly orientated hieroglyphs that can be deciphered as “Chief of sculptors in the Place of Truth, Pashedu,” probably Pashedu (iii).<sup>223</sup> There is however no evidence to connect this man with workmen's mark  $\overline{\text{𓆎}}$  that is incised over the inscription, the more so because mark  $\overline{\text{𓆎}}$  was used for either Hay (v) = (iii) or Hay (xi) in the reign of Ramesses IV.<sup>224</sup> These men are not related to the family of Pashedu (iii), and the mark may have been added at a moment when O. BTdK 485 was reused.

Finally, there is the complicated case of O. BTdK 547. It displays an inscription in poorly drawn hieroglyphs, many of which are incorrectly orientated. The column was deciphered by Dorn and translated as an invocation of Amun-Re followed by titles and an identity mark: “Amun-Re, lord of the sky, for the *ka* of the scorpion controller, the *wab* priest, at the sky of the lord of both lands in the Place of Truth,  $\overline{\text{𓆎}}$ ”.<sup>225</sup> Indeed, the column ends with

<sup>223</sup> Cf. Dorn, *Arbeiterhütten*, 357.

<sup>224</sup> See above, 4.2.8.

<sup>225</sup> Dorn, *Arbeiterhütten*, 372.

a reference to the Theban Necropolis, the Place of Truth, and the inscriptions seems to continue on the side, at the top of which the identity mark is written. However, if we follow Dorn's interpretation of the text, this would most likely mean that we are dealing with a member of the family of Hay (iv), Hay (v) = (iii) or Hay (xi), whom we have tentatively connected with mark  $\text{𓏏}$ . None of the known scorpion controllers is evidently related to the family of any of these men.<sup>226</sup> Dorn suggested that the scorpion controller of O. BTdK 547 was Amenmose,<sup>227</sup> but we have established that this person was signified by mark  $\text{𓏏}$ . The reading of O. BTdK 547 is therefore altogether problematic. There are several possible ways to read the ostrakon. Perhaps the mark at the side of O. BTdK 547 was not incorporated in the hieroglyphic text after all, and the inscription in the column stands on its own. Alternatively, the hieroglyphic inscription on O. BTdK 547 might need to be read in different way. The reading of 'scorpion controller' makes sense, as the sign of the scorpion is recognisable, but the sign for *hrp* is not. Yet, we are unable to offer a better interpretation of these signs. We may propose that there existed a contemporaneous, previously unattested scorpion controller who was called Hay and who used the same mark as the man who was designated by mark  $\text{𓏏}$ , or who was a son of the latter man. Finally, it could be that Dorn's reading of the piece is entirely correct, and that mark  $\text{𓏏}$  refers indeed to the scorpion controller Amenmose. We may then speculate that this Amenmose was a son of Hay (iv), and identify him with the workman otherwise known as Mose (ii), a son of Hay (iv) according to the base of a stela.<sup>228</sup>

#### 4.3.2 Use of hieratic text on ostraca with marks

##### 4.3.2.1 Texts unrelated to marks

Some hieratic inscriptions are clearly unrelated to the marks that are inscribed on the document as well, and the document appears to have been reused. In five cases, the hieratic text is clearly unrelated: the obverse of O. BM EA 50716 displays a drawing of a bull, part of a miscellany text, and an account of received goods, none of which are clearly linked to the ordered list of workmen's marks on the reverse; the columns of marks on ONL 6273 are written over an erased hieratic account, probably a delivery text; in contrast, the letter on O. Ashmolean HO 5 was written over the columns of marks and its content is not connected with any of the listed workmen; the oracle text on O. IFAO 876 is not linked to the duty roster that is recorded on this ostrakon fragment as well.

##### 4.3.2.2 Unclear relation between texts and marks


There are several more instances of the use of hieratic on ostraca that are inscribed with marks as well, but often a possible relation between the marks and the hieratic text is far from evident. Sometimes the hieratic text is just not well enough preserved to determine its exact content, and it could well be that these ostraca were reused by the author who added the marks.<sup>229</sup> In other instances the marks are uncertain.<sup>230</sup>

<sup>226</sup> Janssen, *Village Varia*, 27-29.

<sup>227</sup> A scorpion controller attested in the 20<sup>th</sup> Dynasty, see Janssen, *Village Varia*, 29; Davies, *Who's Who*, 233.

<sup>228</sup> Davies, *Who's who*, 21; for the base of the stela, see Bruyère, *Rapport 1934-1935* III, 358, fig. 208; perhaps also attested on O. Cairo CG 25534. For Mose as a contraction of the name *Ramose* or *Minmose*, see Davies, *Who's who*, 124. For Mose as hypocoristic form of *Khnummose*, see Davies, *Who's who*, 260-261.

<sup>229</sup> O. Cairo JE 96581 reverse; O. Berlin P 14231 reverse; O. Leipzig 1821 reverse; ONL 311 reverse; ONL 309; ONL 6392 reverse; ONL 773 reverse; ONL 6267 reverse; ONL 6684 obverse; ONL 6693; O. Keimer 54: the hieratic inscription is described but not visible in the available images; O. DeM 5055 = O. Ashmolean HO 1047: the first line of hieratic is undoubtedly read as 'the weight of the spike of' but the second line, which mentions the name of the owner of the weight, is uncertain; it was read as 'Qenna, son of Seba' by Valbelle, *Catalogue des poids*, 48, but photos of this piece show that this reading is utterly uncertain; the sign  $\text{𓏏}$  below it suggests a

Elsewhere a connection between the marks and the hieratic text is plausible, but cannot be proven. For example, there is the puzzling O. Cairo CG 25270, inscribed with four lines. The first line mentions the date, year 4, IV *ꜥh.t* day 7, which was attributed to the reign of Ramesses IV by Helck.<sup>231</sup> Lines 1 and 2 record that the crew went to the Valley of the Kings, but we are not sure for what reason, as the end of line two is missing. The next line contains four signs, which were interpreted by Darresy<sup>232</sup> and Helck<sup>233</sup> as the marks added by the crew to stones that they had extracted in the valley. One assumes they came to this conclusion by interpreting the traces at the end of line 2 as  *r inr.w* ‘to the stones’. Such a reading is very hypothetical. The signs in line four appear to be  $\perp$ , the hieratic sign for (*w*)*dꜣ* ‘deficit’; then  $\sqcup$ , perhaps a depiction of a cup with handle, and  $\square$  and  $\text{⌘}$ , both frequently attested as workmen’s marks. The fourth and final line is enigmatic as well, as it appears to read *m pꜣ hrw m hrw pn*, which seems superfluous. The meaning of the ostrakon is thus very unclear. There is not much evidence for the suggestion that the signs were added to stones cut in the Valley of the Kings. Two of the four signs could be workmen’s marks, but the other two signs are inexplicable. Moreover, the purpose of the supposed workmen’s marks on this ostraca is far from evident.

O. DeM 10028 contains a hieratic text on the obverse and reverse, and at least one, perhaps two workmen’s marks on the reverse. The hieratic text consists of nothing more than consecutive day dates occasionally followed by a hieratic numeral, mostly ‘one’ but once ‘twenty’. Three day dates seems to be preceded by the sign  $\wedge$  *iw*, perhaps indicating attendance at the worksite.<sup>234</sup> The text is thus a very simple document in which no full sentences or standard phraseology are used. Nevertheless the scribe made several mistakes in this brief account. He appears to have been less familiar with the horizontal numerals used in the writing of dates, causing him to write  $\overline{\text{⌘}}$  instead of  $\overline{\text{⌘}}$ ,  $\overline{\text{⌘}}$  instead of  $\overline{\text{⌘}}$ ,  $\overline{\text{⌘}}$  instead of  $\overline{\text{⌘}}$  and  $\overline{\text{⌘}}$  instead of  $\overline{\text{⌘}}$ .<sup>235</sup> It is interesting to observe that identity marks occur in the document of someone who was not a trained scribe, although it is utterly unclear whether mark  $\text{⌘}$  on the reverse is related to this list of dates. While the hieratic text is written in black ink, the mark is done in red ink and is somewhat larger in size than the hieratic signs. Moreover, the hieratic text was turned 180 degrees to add the mark at the other end of the reverse.

A much more plausible relation between a hieratic inscription and workmen’s marks is found on O. Glasgow D. 1925.72, which is an account of commodities given to an unnamed individual at several different occasions. One of these moments is dated to year 19, which is generally thought to refer to the reign of Ramesses III.<sup>236</sup> However, O. Leipzig Inv. No. 1907,

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connection with Iniherkhau (i), Iniherkhau (ii) or Qenna (i) but none of these names fit the traces of ink in the second line.

<sup>230</sup> O. Berlin P 12649 reverse: unclear whether the large inscribed falcon is a workman’s mark; O. UC 39606 reverse (possibly mark of Bakenamun (i)) and O. UC 39661 reverse: unclear if workmen’s marks; O. DeM 556: the sign at the bottom of the text is probably attested in the 20<sup>th</sup> Dynasty as a workman’s mark on ONL 303, but it is uncertain if it was added as an identity mark on O. DeM 556 and if so, what its function may have been. The marks or signs on the reverse of O. UC 39620 are very unclear as well. The obverse contains a hieratic text recording items given as payment by workman Weserhat. There is a possibility that the marks  $\text{⌘}$  and perhaps  $\text{⌘}$  refer to recipients of such items. The unclear sign left of  $\text{⌘}$  may in fact record one of the items, but too little of this ostrakon is preserved to verify such suggestions.

<sup>231</sup> Helck, *Die datierten und datierbaren Ostraka*, 391.

<sup>232</sup> Daressy, *Ostraca*, 69.

<sup>233</sup> Helck, *Die datierten und datierbaren Ostraka*, 391.

<sup>234</sup> See below, 4.3.3.2.

<sup>235</sup> Cf. Grandet, *Ostraca hiératiques* X, 34.

<sup>236</sup> McDowell, *Hieratic Ostraca*, 13; *KRI* VII, 285.

which mentions a year 15, may join to the Glasgow piece.<sup>237</sup> If this reconstruction is correct, the first occasion of the transfer of goods to the anonymous individual would be in this year 15, when he was appointed to the crew of workmen. A clue as to the identity of this man may be found on the reverse of this ostrakon, where mark  $\Delta\Delta$  is inscribed. Not far from it the numeral 560 is written in red ink, but it is not clear if it is related to this mark. In the reign of Ramesses III, this mark referred to Nakhemmut (vi). The long career of this man extended to the reign of Ramesses IX, but thanks to Theban Graffito 2661<sup>238</sup> it is known that he must have been appointed to the gang prior to year 16 of Ramesses III. Nakhemmut (vi) therefore fits the description of the man mentioned on the obverse of O. Glasgow D. 1925.72. We may speculate that a scribe added the mark of Nakhemmut on the reverse, as a mnemonic device that summarised the content of the text, but we cannot prove such a connection.<sup>239</sup>

O. Stockholm MM 14129 presents a similar case. The text records an account of a payment and the transfer of goods. The workmen recorded by the workmen's marks and the items of furniture that are inscribed and depicted on the ostrakon may well be connected with this transfer, but we cannot prove this.<sup>240</sup> Similarly, the account of water deliveries recorded on the obverse of O. Michaelides Nr. 91 may or may not be related to workmen that are recorded on the reverse of the same document. The obverse of ostrakon ONL 322+ contains a duty roster composed with marks. The reverse of this piece is inscribed with a hieratic note about the *h3k.w* quota<sup>241</sup> of two water-carriers. As argued in the previous chapter (3.3.11),<sup>242</sup> it seems unlikely that the author of the duty rosters with marks was able to write in hieratic. The note is therefore probably the work of another scribe. On the basis of our investigation of the duty rosters composed with marks we may suggest that this scribe may have been the man (perhaps Hori) with whom the author of the ostraca with marks appears to have cooperated.<sup>243</sup> On the other hand it is possible that the ostrakon was reused, and that the hieratic note belongs to an earlier or later text.

Ostraca O. BTdK 545 and O. BTdK 572 are inscribed on the obverse with one and two hieratic names respectively, while the reverse is dedicated to several workmen's marks. There may well be a connection between obverse and reverse, but of what nature is not at all evident.<sup>244</sup> On ONL 6737, a connection between the marks and what appears to be a hieratic inscription is very likely, as the inscription was evidently made by a single scribe. However, the text cannot be deciphered because the ink has faded away.

Ostrakon O. Cairo CG 25569 contains a hieratic account of the issuing of wicks. It was attributed to the 20<sup>th</sup> Dynasty by Černý.<sup>245</sup> It is difficult to verify this date, although it is not necessarily incorrect. The text consists of two lines that each begin with a date, followed by the phrase *iw=i swd hbs dbn x*. This formula is not known from other documentary texts and the use of the first person singular is a bit odd. Below the two lines of hieratic there are two lines containing workmen's marks. The lower line is damaged and only a workman's mark is preserved, but left of the two marks in the upper line a hieratic numeral is inscribed. It is possible that this numeral, 8 and 10 respectively, signifies an amount of lamps issued by the scribe of the ostrakon to corresponding workmen. There are similar 20<sup>th</sup> Dynasty documents

<sup>237</sup> Although McDowell had some reservations, see *Hieratic Ostraca*, 13.

<sup>238</sup> Černý and Sadek, *Graffiti de la Montagne Thébaine* IV.2, 114; Černý and Sadek, *Graffiti de la Montagne Thébaine* III.3, pl. CXLIV; Davies, *Who's who*, 50.

<sup>239</sup> Compare also O. Ashmolean HO 68, see below, 4.3.2.3.

<sup>240</sup> Cf. Killen and Weiss, 'Markings on objects of daily use', 143-144. See also below, 4.3.3.3.

<sup>241</sup> A more or less fixed work quota of members of the *smd.t* personnel, see Jac. J. Janssen, 'B3kw: From work to product' *SAK* 20 (1993), 88-90.

<sup>242</sup> See also below, p. 394.

<sup>243</sup> See chapter 3, 3.3.11.

<sup>244</sup> For O. BTdK 572, see below, p. 373.

<sup>245</sup> Černý, *Ostraca hiératiques. Nos. 25501-25832*, 25-26.

that seem to record the distribution of lamps to specific workmen and that were found at the settlement of workmen's huts in the Valley of the Kings.<sup>246</sup> On the other hand, the marks below the hieratic text are larger than the hieratic signs. They are inscribed in red ink instead of the black of the hieratic text. It is therefore possible that they were added by another scribe, and they might not be related to the hieratic text at all.

Finally, there is the fascinating case of O. Ashmolean HO 261. The obverse of this ostrakon contains a hieratic text that records the hire of a donkey to the water-carrier *Weserhatnakht* for 11 days, and subsequently the hire of the same donkey to woodcutter *Pa-ib*. The hire of the donkey took place in some month of the *pr.t* season, and it is attributed to the end of the reign of *Ramesses III* or the beginning of the reign of *Ramesses IV* based on the mention of the *smd.t* agents.<sup>247</sup> The reverse of the same document might be inscribed with mark  $\times$ , referring to *Pentaweret (iv)*. The mark is damaged and the preceding bit is not preserved. Still, it is very plausible that we are dealing here with workmen's marks, because it is inscribed with *sw* dates in the same way that duty rosters composed with marks are. The sign  $\uparrow s$  is used for the word *sw* after which a hieratic numeral follows. Obverse and reverse therefore appear to date to the same period. Nevertheless, the reverse does not record a duty roster, as there are no workmen's marks or signs of commodities added to the day numbers. Moreover, the day numbers appear to have been written in descending order, starting with day 25 at the top of the left column and probably ending with day 1 in the right column. As the scribe went along, the sign for *sw* was omitted from day 22 onwards, although it probably reappears for days 3 – 1. The handwriting is very similar to that of the scribe who authored the duty rosters composed with marks, but it is not immediately clear what the purpose of the dates on O. Ashmolean HO 261 is. *Pentaweret (iv)*'s mark is not evidently connected with a *sw* date, and he is not mentioned in what remains of the hieratic text on the reverse. It is therefore unclear if the reverse and the obverse are related. It is very unlikely that the scribe of the duty rosters was the author of the text on the obverse, because it has been demonstrated in chapter 3 that he was not trained as a hieratic scribe. The limited scribal capabilities of this man are underlined by the reverse of O. Ashmolean HO 261, where the numeral 20 is erroneously mirrored in the writing of days 22 – 20. We may therefore propose that the scribe of the reverse enumerated the days of a month independently from the author of the text on the obverse, to count for himself the days on which a donkey was hired to the two *smd.t* agents. If the two texts are indeed related, we note once again that the scribe of the duty roster composed with marks is concerned with matters that belong to the domain of the *smd.t* personnel.

#### 4.3.2.3 Texts related to marks

The relation between the hieratic text and the marks on O. Cairo CG 25660 and O. Cairo JE 37649 has already been discussed, but the facsimile of the piece does not allow a comparison of both hands. We have also seen that on O. Cairo CG 25651, a dated note is concerned with the same month as the duty roster composed with marks, but it is again not possible to determine whether marks and hieratic were made by the same scribe. In the case of ostrakon O. Ashmolean HO 68 that does seem very likely. The obverse of the document records an oath by *Neferher*, promising he will pay back *Bakenwerel* for a metal vessel he had given him, while the reverse is inscribed with two neat and elaborate workmen's marks:  $\uparrow$  for *Bakenwerel (vii)* and  $\uparrow\uparrow\uparrow\uparrow$  for *Neferher (vi)*. The scribe may have written the marks on the back of the ostrakon as a summary of its content, facilitating him in retrieving the document from his archive.

<sup>246</sup> O. BTdK 643 – 645.

<sup>247</sup> As kindly suggested by Kathrin Gabler, personal communication, 2014.

Ostrakon O. Cairo CG 25315 is inscribed with hieratic and with marks as well. The obverse of the ostrakon displays two columns of marks. Left of each mark a hieratic numeral, or a combination of a numeral and a number of dots is written. Although the ostrakon is rather effaced, the recognisable marks can be dated to the second half of the 20<sup>th</sup> Dynasty. The reverse of the same piece is inscribed with nine lines of hieratic text comprising a somewhat disorganised account. Several parts of the text are illegible, but in lines 6-11 we can decipher amongst other things:

[...] doorkeeper [...]  
 [...] the Divine Offering [...]  
 [...]  
 Right side, total: 161 *khar* ½  
 Left side: 150 *khar* ½  
 Total: 311 *khar* ½

We are evidently dealing with an account of the distribution of grain rations. In fact, the mention of a doorkeeper and the Divine Offering<sup>248</sup> as the recipients of grain rations dates the text to the 20<sup>th</sup> Dynasty. Other such accounts often list the recipients in a meaningful order, beginning with the foremen of the crew, followed by the scribe and the workmen, and sometimes other groups such as slaves and youths.<sup>249</sup> The doorkeeper and the Divine Offering are frequently listed near the end of these lists, and in exactly this order they are attested on five papyri dating to the reigns of Ramesses IX and Ramesses XI.<sup>250</sup>

Apart from its date, the significance of this ostrakon lies in the relation between the obverse and the reverse. It is more than probable that the numerals written behind the workmen's marks on the obverse are to be interpreted as amounts measured in *khar*, and the dots as amounts of *oipe*, as in hieratic script. The obverse is thus an overview of the distribution of grain among the workmen, and should be read in the following way:

[...] 4 <i>khar</i>	⊕ 5 <i>khar</i> ½
⊕ 4 <i>khar</i>	⊗ 5 <i>khar</i> ½
⊕ 2 <i>khar</i>	[...] 5 <i>khar</i> ½
⊕ 4 <i>khar</i>	[...]
⊕ 6 <i>khar</i>	[...]
⊕ 2 <i>khar</i>	[...]
⊕ 2 <i>khar</i>	[...]
± 2 <i>khar</i>	[...] 5 <i>khar</i>

<sup>248</sup> Probably an amount of grain that was offered to one or more divinities in the local cults of Deir el-Medina, compare e.g. Haring, *Divine Households*, 32, n. 4.

<sup>249</sup> Cf. Donker van Heel, 'Drafts', 23.

<sup>250</sup> P. Turin Cat. 2002+ vso. I (Ramesses IX); P. Turin Cat. 1906+ rto. III (Ramesses IX / XI); P. Turin Cat. 2071+ vso. I (Ramesses IX); P. Turin Cat. 1932+ rto. II (Ramesses IX); P. Turin Cat. 2018+ rto. A II; A III; A IV; C I; C III (Ramesses XI). Cf. above, 4.2.19.

𐎢 1 <i>khar</i> ½	𐎡 5 <i>khar</i>
𐎣 1 <i>khar</i> ½	𐎢 5 <i>khar</i>
𐎤 5 <i>khar</i>	𐎣 5 <i>khar</i>
- 1 <i>khar</i> ½	𐎤 5 <i>khar</i>
	[...] 𐎥 4 <i>khar</i>

Accounts of grain ration distributions from the 20<sup>th</sup> Dynasty usually do not list the names of the individual workmen, but record them as a group: “the workmen”. There are nevertheless examples of accounts that do enumerate the members of the crew separately.<sup>251</sup> This may have been done when the rations differed greatly per individual, as is the case on the obverse of O. Cairo CG 25315. The reverse of the ostrakon recapitulates this account in hieratic and adds details about other destinations for the rations of grain, such as the doorkeeper and the Divine Offering. The hieratic numerals next to the workmen’s marks on the obverse are written in red ink, as is the hieratic account on the reverse. There is therefore no reason to think that obverse and reverse were not written by one and the same individual.

A somewhat similar ostrakon is ONL 6539, inscribed in hieratic on the obverse with an account of a payment of various wooden objects to the draughtsman Hormin. On the reverse we find several workmen’s marks, again connected with a numeral and a group of dots each. At a first glance it would seem plausible that in analogy with O. Cairo CG 25315, these numerals and the dots are amounts measured in *khar* and *oipe*. This interpretation had been suggested by Killen and Weiss, who considered the possibility that the obverse, an account of the payment in quantities of barley to workmen involved in the construction of furniture, was connected with the workmen’s marks on the reverse.<sup>252</sup> A closer inspection of the dots on the reverse however reveals that they cannot represent *oipe*. Most marks are accompanied by four dots and one by up to six dots. In contrast, dots that represent *oipe* occur only in ones, twos and threes because one *oipe* equals a quarter of a *khar*.<sup>253</sup> Four dots cannot represent four *oipe*, since that would amount to one *khar*, which are always signified by hieratic numerals. The meaning of the combination of hieratic numerals and dots on ONL 6539 is thus unfortunately unclear, and the marks on the reverse may not be related to the text on the obverse at all.

The hieratic line inscribed on the obverse of O. BTdK 546 is partially legible: “those who have received fr[om ...]”. The reverse is inscribed in black ink with six marks of workmen of the right side of the crew. A red dot, perhaps a check mark, is added to each one of the marks. The marks are written in an elegant hand that definitely belonged to a trained scribe. It is therefore well possible that obverse and reverse are related, which would mean that the workmen on the reverse were the recipients of the transaction alluded to on the obverse.

ONL 411 presents a difficult example. It contains a fragmentary hieratic name list, which mentions a Paqarer, a Pashedu, perhaps a Qenherkhapshef, and a Neferhotep. The other names are no longer recognisable. The first name is rather unusual, and appears to belong to an individual who is recorded in four other instances.<sup>254</sup> Three of these texts were dated to the

<sup>251</sup> E.g. P. Turin Cat. 1906+ rto. I (Ramesses IX, year 7, III *sh.t*).

<sup>252</sup> Killen and Weiss, ‘Markings on objects’, 141.

<sup>253</sup> Janssen, *Commodity Prices*, 109-111.

<sup>254</sup> O. Ashmolean HO 274; O. Cairo JE 72472; O. DeM 256; P. Turin Cat. 2014.

20<sup>th</sup> Dynasty, and a fourth one as late as the 21<sup>st</sup> Dynasty. As was established earlier, the column of marks on ONL 411 is a list of workmen of the left side of the crew that is datable to the reign of Ramesses IX. It is therefore plausible that the hieratic name list and the list of workmen's marks were inscribed at the same moment. Another very fragmentary name list written in hieratic during the time of Ramesses X<sup>255</sup> might be related to the hieratic name list on ONL 411, because it includes a Pashedu, son of Hori, as well as two different workmen called Neferhotep. As in ONL 411, there are eight names between Pashedu and Neferhotep son of Buqentuef. On the other hand, it does not mention Paqerer or Qenherkhopshef. Regardless, the list of workmen's marks and the hieratic name list on ONL 411 could well be of the same date, and it is more than likely that they relate to the same group of persons, i.e. the left side of the crew. However, it appears that the marks that are preserved on this piece do not correspond to the names in the hieratic list. It is even unsure if the marks and the hieratic were written by one and the same scribe as the marks, which are larger than the hieratic signs, are inscribed in a red ink while the hieratic text is written in black.

#### 4.3.2.4 Marks incorporated in hieratic text

There are instances in which one or more workmen's marks were incorporated in hieratic texts. The presence of such marks is highly uncertain in some of these documents.<sup>256</sup> In four other instances the marks added to a hieratic ostrakon are clearly related to the content of the text. It should perhaps not come as a surprise that these four ostraca are all hieratic duty and delivery texts from the beginning of the reign of Ramesses III, the time when a hieratic scribe and a scribe employing a system of marks and ancillary signs both composed administrative records of the same topic. Moreover, we recognise the hand of a hieratic scribe on the ostraca with marks, suggesting the author of the ostraca with marks was in contact with at least one hieratic scribe. The four hieratic ostraca that were also inscribed with identity marks are O. DeM 32, O. DeM 34+, O. DeM 150+ and O. Glasgow D. 1925.67. They all date between years 25 and 27 of the reign of Ramesses III. Moreover, they were all most likely written by the same scribe and possibly kept in his archive.<sup>257</sup>

The most evident example is O. Glasgow D. 1925.67, a hieratic journal text that records the duty roster and deliveries for year 25, II *pr.t* in the reign of Ramesses III. The marks at the top of the obverse record deliveries for days 9 and 10 of that very month and perhaps day 20 of the preceding month. Marks and hieratic text thus deal with the same subject matter.

The marks added just above the first hieratic line of O. DeM 32, a journal text recording the duty roster and deliveries for year 25, IV *šmw*, may be explained in a similar fashion. We find mark 𐎃 for Khaemwaset (iii) accompanied by the numeral '350' and mark 𐎄 for Nakhtmin (vi) with numeral '750'. The position of these two marks at the top of the ostrakon is significant. Nakhtmin's *wrš* duty took place on the first day of IV *šmw*, as is recorded in the first hieratic line of O. DeM 32. Khaemwaset had thus been on duty on the last day of the previous month. The marks and numerals above the hieratic account of O. DeM 32 may therefore somehow refer to events that took place in the previous month, before O. DeM 32 was written: '350' may be the quantity of wood received on III *šmw* day 30 by

<sup>255</sup> P. Turin Cat. 1932+ vso.

<sup>256</sup> The narrow edge of O. Ashmolean HO 4 is inscribed with a few signs: the group reading *imn* and the sign for *hꜥp*, both attested as workmen's marks in the 20<sup>th</sup> Dynasty, but here probably added as a summary of the document's subject matter, which involves the oracle of the deified Amenhotep (for this practice compare O. Ashmolean HO 68 and perhaps also O. Glasgow D. 1925.72); O. BM EA 5643 is a hieratic account written on a piece of pottery that is incised with a workman's mark, which is most likely not related to the text; O. Turin N. 57508: an account of commodities including flax; the sign 𐎃 may instead be a determinative or an ideogram for the word 'flower'.

<sup>257</sup> Donker van Heel, 'Individual handwritings', 74, n. 135.



Khaemwaset. The amount of ‘750’ could perhaps be wood brought to Khaemwaset on IV *šmw* day 1, although the hieratic line on O. DeM 32 records a much higher amount for the wood delivery of that day. We may therefore assume that the batch of wood for day 1 was delivered in two instances, and the ‘750’ at the top of the ostrakon records the earlier batch. Such an interpretation is not unthinkable, because it was a habit of this hieratic scribe to record information about the end of the previous month at the beginning of a new month record.<sup>258</sup> The hieratic scribe would then have to be the person who noted down these identity marks, and indeed, the marks are clearly not written in the hand that produced the numerous duty rosters composed with marks.

It is not clear whether the marks on O. DeM 34+ were written by the same scribe who wrote down the hieratic account, as the handwriting is somewhat reminiscent of the scribe of the duty rosters with marks. The marks on O. DeM 34+ are related to the hieratic text in the sense that they too deal with workmen of the right side. Each mark is accompanied by a hieratic numeral:

𐀀 100	𐀀 100	
	𐀀 50 (?)	𐀀 50
𐀀 100	𐀀 50	

The marks belong to the workmen Pentaweret (iv), Mose (iv), Kasa (v/vi), Nakhemmut (vi) and Hori (ii) = (iii), but the reading of mark 𐀀 for the foreman of the right side is uncertain.<sup>259</sup> The data recorded by these marks and numerals is not evidently related to the content of the hieratic text on O. DeM 34+. Moreover, the marks are not listed according to their position in the duty roster. They are therefore more likely an additional section to the hieratic account. The quantities mentioned in this section are comparable to those in the lists of O. Cairo JE 96328 and O. Berlin P 10842.

In O. DeM 150+, mark 𐀀 of Amenemope (x) and the numeral 60 are written next to an account of deliveries and deficits of wood in year 26. The meaning of this note is not immediately clear, as are the brief hieratic remarks beneath the mark. Lines 6a and 7a<sup>260</sup> are encircled and attached to a line that is directed to the beginning of line 10. These lines seem to indicate that the encircled section was added to the entry written in line 10, and thus the line with the marks below should be interpreted as a later addition as well. In lines 4a and 5a we read:

𐀀	𐀀𐀀
𐀀	𐀀𐀀
𐀀	𐀀𐀀
𐀀	𐀀𐀀

Since the deliveries mentioned in the hieratic account were all made on day 10, 20 or 30, we should perhaps interpret sign 𐀀 as a reference to the last day of the month, as in the duty rosters composed with marks. Line 5a would then read ‘1200, day 30, deficit’. This does not explain the mark of Amenemope (x) above the entry, because he was not scheduled for *wrš* duty on day 30 during year 26 of Ramesses III. The inscription thus remains problematic. It is nevertheless clear that it was written by the same scribe who wrote the rest of O. DeM 150+, and not by the scribe of the duty rosters with marks. The hieratic scribe may have resorted to

<sup>258</sup> Donker van Heel, ‘Individual handwritings’, 76-77.

<sup>259</sup> It was transcribed by Černý as a bird-shaped sign, but the sign is probably not identifiable as 𐀀, which is mentioned further down.

<sup>260</sup> See Jaroslav Černý, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh*. II. Nos. 114 à 189. DFIFAO 4 (Cairo 1937), pl. 24.

the usage of marks to quickly add a brief note to his hieratic text, but switched to hieratic in line 6a when he needed to note down more complex information.

#### 4.3.2.5 Hieratic text added to marks

O. DeM 264 is inscribed with a hieratic name and two columns of workmen's marks, each of which is connected with the hieratic numeral '5'. Although the ostrakon is not very detailed, we are able to interpret it quite well. As we have seen<sup>261</sup> the document dates probably to the reign of Ramesses IX. In all probability, the Pased mentioned in O. DeM 264 is the gardener Pased, who is recorded in documents from the reign of Ramesses IX.<sup>262</sup> This gardener occurs also in O. Černý 22, a document that was attributed to the reign of Ramesses IV<sup>263</sup>, Ramesses V<sup>264</sup> or possibly a later king.<sup>265</sup> Interestingly, this hieratic document records the delivery of bundles of vegetables to the crew by various gardeners, amongst whom Pased is mentioned. The hieratic ostrakon presents a hierarchical list of the different groups of the crew that begins with a foreman, a scribe, presumably the workmen of the right side and then those of the left side, followed by the 'boys'. We read that the foreman receives 10 bundles, while the scribe and each workman receives five bundles. O. Černý 22 thus records similar information as O. DeM 264: in the latter ostrakon, the name of the gardener Pased at the head of the document suggests that the ostrakon is connected with the delivery of vegetables. Just as in O. Černý 22, the individuals are listed in a hierarchical order, and each workman receives five bundles. The difference between O. DeM 264 and O. Černý 22 is that the former document enumerates the individual members of the crew, whereas O. Černý 22 lists the recipients in categories of men, as is the custom in contemporary hieratic texts. O. DeM 264 is exceptional as it deals with only seven workmen, while hieratic documents are concerned with the entire crew. It might record a special delivery of vegetables, as we observe that the foreman of the crew collects just as many bundles as the six workmen. Moreover, while the men referred to on O. DeM 264 are recorded in an ordered list, the scribe of the tomb is omitted after the mark of the foreman. Obviously, O. DeM 264 is also different from O. Černý 22 in that it is inscribed with workmen's marks. It is however very likely that O. DeM 264 was written by a scribe who was well acquainted with hieratic script, as evidence by his writing of the name of Pased as well as the workmen's marks that clearly betray a hieratic hand.

On O. DeM 10121 we also find a combination of hieratic names and workmen's marks. The shapes and the size of the marks indicate that they were made by the same hand that wrote the hieratic lines. In the right column, four workmen's marks are inscribed beneath each hieratic name, while in the left column only two workmen's marks follow below the hieratic name. Groups of names and marks are separated from each other by a horizontal dividing line. Notably, all workmen belong to the left side. The grouping of these workmen is unclear. The presence in this ostrakon of mark  $\overset{\circ}{\text{f}}$  on the left side of the crew suggests that it predates the reign of Ramesses IX. Although the marks in the first group of O. DeM 10121 are reminiscent of the sequence of for example ARTP 99/27 (positions 7, 15, 8 and 19), marks  $\overline{\text{T}}$ ,  $\text{C}$  and  $\text{D}$  are attested in the same subsequent order on later ostraca O. Cairo JE 96614 and O. Turin N. 57008. Other than these marks, the sequence of O. DeM 10121 does not adhere very strictly to any of the ordered lists from the 20<sup>th</sup> Dynasty. Moving on to the hieratic names, we struggle to identify some of the mentioned individuals. A Huy, son of Nes[...] is apparently not elsewhere attested, while the names of Amenhotep and Wennefer are extremely common at Deir el-Medina. The name [...]tahut can probably be completed to

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<sup>261</sup> See above, 4.2.3.

<sup>262</sup> P. Turin Cat. 1900+; P. Turin Cat. 1999+.

<sup>263</sup> Gutgesell, *Die Datierung I*, 260; Helck, *Die datierten und datierbaren Ostraka*, 365.

<sup>264</sup> *KRI VII*, 353-354.

<sup>265</sup> Janssen, *Village Varia*, 137, n. 19.

Panakhtemtahut, attested as a fisherman<sup>266</sup> in the reign of Ramesses XI. He might well be the same person as Pentahutnakht,<sup>267</sup> a fisherman who is recorded on P. Turin Cat. 1898+. The last name is Pa-‘aemtainet. Several men of that name are known as members of the *smd.t* crew, and are recorded delivering wood<sup>268</sup> and grain<sup>269</sup> and water,<sup>270</sup> but also pottery.<sup>271</sup> The hieratic writing of *smd.t* agents is analogous to O. DeM 264, and it is therefore probable that the other names on O. DeM 10121 are *smd.t* members as well. In contrast to O. DeM 264, however, it is not immediately clear what is recorded on O. DeM 10121. First of all, it appears that the *smd.t* agents do not belong to one clear category, say woodcutters. Moreover, no numerals are added next to the workmen’s marks, and thus it seems that this ostrakon does not record deliveries by *smd.t* agents to groups of workmen. But it is not evident what it does record. The group consisting of  $\text{𓆎}$  and  $\text{𓆏}$  is the only meaningful one as Menna (i) is the father of Merysekhmet (iii), but other workmen do not seem to be related. Hence, one may speculate that the workmen listed here are the representatives of different households of the left side of the crew, and that the *smd.t* members associated with them were responsible for deliveries to these households. This explanation is still very unsatisfactory, because nothing on O. DeM 10121 explicitly refers to any sort of delivery.

A very similar case is O. OIM 19215. The ostrakon is headed by the hieratic writing of a name, followed by seven workmen’s marks. It was evidently written by a single well trained hieratic scribe. The name at the top of the ostrakon is that of Ikhemnetef. This is a very obscure individual who is probably attested in three different sources from the middle of the 20<sup>th</sup> Dynasty, although there his name is spelled as Ikhnetef or Ikhnetef. Only O. IFAO 860 offers some context. This document consists of nothing more than the name of Ikhemnetef and that of an Iuferikh. The latter individual is probably a *smd.t* agent who is recorded delivering wood and as a water-carrier.<sup>272</sup> We are unaware of any further attestations of Ikhnetef. He is nowhere attested as a workman, and his occurrence together with Iuferikh suggests that he may have been a rarely mentioned *smd.t* agent as well. In analogy with O. DeM 264 and O. DeM 10121, his mention on O. OIM 19215 in this capacity is not implausible. Yet again, the purpose of the ostrakon is not clear. In this instance, the workmen belong to the right side of the crew. They are recorded according to their relative position in the ordered lists from the reigns of Ramesses IV and V, and the workmen are not family members. Apart from these facts we are, as in the case of O. DeM 10121, left in the dark regarding the meaning of the document, and we can only propose that Ikhnetef was responsible for the delivery of goods to these workmen of the right side and perhaps their families. It can be pointed out that ostrakon O. OIM 19215 as well as the previous two ostraca O. DeM 264 and O. DeM 10121 are similar to a number of hieratic ostraca from the first half of the 20<sup>th</sup> Dynasty, which are headed by the name of a water-carrier, after which a list of workmen follows.<sup>273</sup> The purpose of such lists was never commented on, but it is conceivable that they record that water deliveries were to be made to the workmen listed on such documents.

<sup>266</sup> P. Turin Cat. 1895+.

<sup>267</sup> As kindly suggested by Kathrin Gabler, personal communication, 2014.

<sup>268</sup> O. DeM 409.

<sup>269</sup> O. Ashmolean HO 203.

<sup>270</sup> O. Ashmolean HO 104; probably also O. Gardiner AG 90, see Janssen, *Donkeys at Deir el-Medīna*, 29.

<sup>271</sup> O. Berlin P 12343.

<sup>272</sup> O. DeM 557; O. DeM 631; O. DeM 958; P. Turin Cat. 1880. The (amusing) names of both men – *ih-ntf*, literally ‘What-is-he?’; and *iw=f-r-ih*, ‘What-will-he-be?’ – are so similar that it is likely that they belong to a father and his son, as kindly suggested by Ben Haring.

<sup>273</sup> E.g. O. DeM 262; O. DeM 415; O. DeM 709; O. Turin N. 57447; compare also O. DeM 10003.

The fact that in the previous three ostraca no identity marks are used for *smd.t* agents suggests that no such marks were employed by members of the *smd.t* personnel, or that they were unknown to the scribes of these ostraca. These three documents stand therefore in contrast to the duty rosters composed with marks. The scribe of these ostraca did use marks, or rather abbreviations, to refer to *smd.t* agents. The variability of these designations (𓆎 and 𓆏; 𓆑 and 𓆒) combined with the fact that almost all of the designations contain simple signs that can be read suggests that they were invented by the scribe of the ostraca, rather than that they were true identity marks used by the members of the *smd.t* personnel themselves. This in turn might be another indication that the scribe of the duty rosters with marks was not fully literate, because his method diverges from scribes who are capable of writing hieratic.

A rather different case is that of ONL 6462. This ostrakon contains an ordered list of marks of workmen of the right side of the crew, but to the left of this list a date has been added in hieratic that seems to read *rnp.t-sp* 22. The shapes of the workmen's marks suggest that the ostrakon was in all probability made by the same man who created the duty rosters with marks.<sup>274</sup> As we saw earlier there are clear indications that he was not well trained in writing hieratic, but he is known to have added year numbers to his documents. Therefore this ostrakon was probably entirely written by him. The meaning of the document is unclear.

A hieratic word was also added to ONL 6220, which contains the identity marks of six workmen of the right side of the crew and the word *mrḥ.t* 'oil'. Apart perhaps from mark 𓆑, the other marks display a hieratic ductus, which makes it likely that the ostrakon was written by one and the same scribe. A single dot was added to each mark. The ostrakon might therefore be a list of workmen who received portions of oil. Similar hieratic accounts from the 20<sup>th</sup> Dynasty are ostraca O. DeM 1872 reverse and O. IFAO 321.

ONL 6576 was also probably made by a single scribe. It contains a group of workmen's marks that are faintly inscribed with charcoal. In what is certainly the same hand a drawing of a man's head and shoulders were added to the lower part of the ostrakon, as well as an inscription in hieratic that reads: '20 men [of the crew ?] Sennedjem'. Perhaps the numeral 20 is to be read separately, leaving *rmṯ* <*n*> [*t3 is.t*] as the title of the name Sennedjem. Alternatively the numeral may refer to the number of workmen's marks, but only 14 marks are clearly recognisable (taking the double flower as a single mark). Since the ostrakon is dated to the second half of the 20<sup>th</sup> Dynasty, the Sennedjem mentioned in the text is perhaps an early attestation of Pasennedjem (i), who was indeed a regular workman.<sup>275</sup>

Hieratic is furthermore incorporated in a few of the duty rosters composed with marks. The most straightforward example of this is ONL 300+ discussed in chapter 3.<sup>276</sup> A hieratic scribe began composing the duty roster and added hieratic entries recording the distribution of goods for some of the days. The rest of the duty roster was made by the 'marks scribe' who normally authored such documents. In O. Glasgow D. 1925.80, a duty roster from the reign of Ramesses V, a brief hieratic inscription seems to have been added to day 30, but the ostrakon is not preserved well enough to confirm this or to decipher it.<sup>277</sup> This short inscription could well have been the work of a hieratic scribe, as the shape of the sign for wood diverges significantly from the other signs on the ostrakon. Another document, ONL 1639, contains elements of duty rosters with marks but may have been another type of document. Its fragmentary state makes it difficult to determine what is recorded on the ostrakon, but besides several hieratic numerals, *sw* dates (not connected with marks), and individual workmen's marks, the left side of the ostrakon is inscribed with a fragmentary hieratic line, of which the

<sup>274</sup> See below, 3.2.3.1.

<sup>275</sup> Davies, *Who's who*, 231.

<sup>276</sup> See chapter 3, 3.3.11.

<sup>277</sup> One is tempted to read after 'wood, 480' the hieratic elements for *nmt.t*, as day 30 was the day on which Wesekhmet performed his *wrš* duty, but the reading of the other elements is unclear.

first elements seem to read ‘total: wood [...]’. Apart from this hieratic text, the handwriting of the ostrakon would seem to be that of the man who wrote the duty rosters with marks, and it is therefore very unlikely that he wrote the hieratic line as well.

A more elaborate document with both workmen’s marks and hieratic writing is O. OIM MH 2666. Reverse and obverse are inscribed with a hieratic account:

Obverse

<i>ḥ.t nh.t</i>	<i>ḥ3r</i> 1		
<i>ḥnw</i>	<i>ḥ3r</i> 1	<i>tb.ty</i> (?)	
[...]	<i>[ip.t]</i> 2 (?)	<i>nb-nfr</i>	<i>ip.t</i> 1 (?)
[...]ty... (?)	<i>ip.t</i> 2	<i>ḥw.t.y</i>	<i>it ip.t</i> 1

*it ḥ3r* 1 *ir.n* 8*it ḥ3r* 1*it ip.t* 1*it ip.t* 2

Sycamore wood	1 <i>khar</i>		
Plants	1 <i>khar</i>	2 sandals (?)	
[...]	2 <i>oipe</i> (?)	Nebnefer	1 <i>oipe</i> (?)
[...]	2 <i>oipe</i>	Hutiya	grain 1 <i>oipe</i>

Grain 1 *khar* makes 8Grain 1 *khar*Grain 1 *oipe*Grain 2 *oipe*Reverse

[...]			
<i>idn.w imn-nḥ.t it ip.t</i> 2		<i>idn.w imn-nḥ.t it ip.t</i> [1] (?)	
<i>t3-ḥfn.w it ip.t</i> 2		<i>idn.w imn-nḥ.t</i> [...]	
<i>[id]n.w imn-nḥ.t it ḥ3r</i> 1 <i>ip.t</i> 2 <i>it bd.t ḥ3r</i> 1			
<i>idn.w imn-nḥ.t it ḥ3r</i> 1		<i>ir.n ḥ3r</i> 9 <i>ip.t</i> 3	
<i>t3-ḥfn.w it ip.t</i> 2		<i>it &lt;ḥ3r&gt;</i> 1	10; 3 (?)
<i>idn.w imn-nḥ.t &lt;ḥ3r&gt;</i> 1		<i>ir(i).n</i>	
		13 (?)	

[...]

Deputy Amennakht: grain: 2 *oipe*Deputy Amennakht: grain: 1 *oipe* (?)Tahefnu: grain: 2 *oipe*







Deputy Amennakht [...]








Deputy Amennakht: grain: 1 *khar*, 1 *oipe*; emmer: 1 *khar*Deputy Amennakht: grain: 1 *khar*Makes 9 *khar*, 3 *oipe*Tahefnu: grain: 2 *oipe*Grain: 1 *khar* 10; 3Deputy Amennakht: 1 *khar*

Makes [sic]

13 (?)

On the basis of the individuals recorded in the document we can date the ostrakon to the later part of the 20<sup>th</sup> Dynasty. The deputy Amennakht is straightforwardly identified as Amennakht (xii), who was the husband of the woman recorded in the same document, Tahefnu (i). The

individuals on the obverse are the brother of Amennakht (xii), Nebnefer (vii) and his wife Hutiyi (i).<sup>278</sup> The hieratic account appears to record private transactions related to these persons, but the ostracon records more details. Left of the hieratic text on the obverse we find the workman's mark  inscribed next to what appears to be a depiction of a cloth with fringes on one side. Below it is perhaps another effaced mark as well as a depiction of a bed with a neck support, with underneath it mark  and the word *psš* 'distribution'. The last line seems to contain workmen's marks and simple hieratic signs: . The most probable interpretation of this line is: workman  causes/gives the work<sup>279</sup> of workmen  and .<sup>280</sup> What the exact relation is between the hieratic text, the depictions of items and the semi-hieratic inscription is not clear. Perhaps workmen are here put to work to craft or decorate furniture, for which they are subsequently paid.<sup>281</sup>

The ostraca discussed so far in this section are all documents composed with marks, to which some phrases or words written in hieratic were added. But there also exist ostraca in which hieratic and marks are completely interwoven. A fascinating example is O. Brooklyn 16118+, which display a roster on both obverse and reverse with multiple cells containing depictions of items of furniture and of commodities, identity marks, as well as hieratic captions. We recognise some of the same elements as in the previous ostracon, including the word *psš* 'distribution', as well as the sign . In fact, the handwriting of both ostraca is so similar that they must have been made by the same scribe. The date of O. Brooklyn 16118+ certainly would not refute that, because like O. OIM MH 2666 it dates to end of the 20<sup>th</sup> Dynasty.<sup>282</sup> The top of the obverse displays a depiction of a chest, probably accompanied by a workman's mark that is almost completely lost. Below it is a depiction of (the upper part of ?) a coffin. Left of both items a piece of cloth with fringes on the upper and right side is depicted. It appears that like the cloth on O. OIM MH 2666, a brief hieratic inscription was added inside of the cloth, but damage to the ostracon prevents us from reading it. The three cells below contain, from right to left: a cursive hieroglyphic group reading *psš* 'distribution', a depiction of a man bending over to fold or to manufacture a mat made of palm fibres<sup>283</sup> accompanied by mark , and a depiction of a man holding a vessel hanging from a handle probably accompanied by mark . In the register below, we observe in the rightmost cell an object that resembles the wooden, mushroom-shaped tools that might have been used in the process of sanding down surfaces.<sup>284</sup> In the adjacent cell a brush has been depicted<sup>285</sup> next to mark , and to the far left we notice a depiction of a bed with head rest and mark . The lower section of the ostracon displays a table consisting of four columns and four rows. Two columns are filled with depictions of fish: *in(t)*, *Tilapia*<sup>286</sup> on the left and *whꜥ*, *Synodontis* (schall)<sup>287</sup> on the right. Left of each depicted fish is a cell with hieratic – but incorrectly orientated – sign  *fꜣi* over a hieratic group consisting of the signs . In combination with the depiction of fish, the word *fꜣi* is here most likely not the verb 'to carry', but the noun 'weight'.<sup>288</sup> The group below it contains the sign for *is(y)*, another word for weight,<sup>289</sup> but

<sup>278</sup> Davies, *Who's who*, chart 8.

<sup>279</sup> For another interpretation of this sign, here read as *kꜣ.t*, see below, O. Brooklyn 16118+.

<sup>280</sup> The identification of the latter workman's mark is highly uncertain.

<sup>281</sup> As such the document is perhaps similar to the 'furniture ostraca' discussed below, 4.3.3.3.

<sup>282</sup> See above, 4.2.15.

<sup>283</sup> For actual mats from Deir el-Medina see e.g. Louvre Inv. E 14446, Andreu (ed.), *Les artistes*, 94, nr. 26.

<sup>284</sup> See e.g. Andreu (ed.), *Les artistes*, 199, nr. 147 a-e.

<sup>285</sup> Cf. Andreu (ed.), *Les artistes*, 96, nr. 30 and fig. on p. 94.

<sup>286</sup> Perhaps *Tilapia zillii*, a common type of fish at Deir el-Medina, see Janssen, *Village Varia*, 49-50.

<sup>287</sup> Janssen, *Village Varia*, 49; perhaps also called *sꜣr* on weights, see Janssen, *Village Varia*, 49, n. 90; Jaroslav Černý, 'Deux noms de poisson du Nouvel Empire' *BIFAO* 37 (1937), 35-37, figs. 1-3.

<sup>288</sup> Valbelle, *Catalogue des poids*, 3-6.

here apparently used together.<sup>290</sup> The *n* below it forms the indirect genitive, undoubtedly connected with the workmen's marks that were once inscribed left of these hieratic sign groups but appear to have been erased. Traces of mark  $\text{𓆎}$  are still visible in the third row. Inside each depicted fish a hieratic sign is added. In the two upper rows, that sign is  $\text{𓆏}$  or  $\text{𓆐}$  for *wꜣd* 'fresh', 'raw'.<sup>291</sup> At least one fish in the third row is inscribed with sign  $\text{𓆑}$ , presumably for *sšr* 'dried',<sup>292</sup> which is apparently distinguished from fish in the lower row that is marked with sign  $\text{𓆒}$  for *šw* 'dried (in the sun?)'.<sup>293</sup> Together, the depictions, signs and marks can be understood to mean "Tilapia / *Barbus bynni* fish, fresh / dried, in the amount of the weight of workman X".<sup>294</sup> Below this table traces of another fish are visible, as is another instance of the sign  $\text{𓆓}$ . Fragment O. Ashmolean HO 1131 most probably fits to the bottom of the Brooklyn fragment, and contains two more fragmentary depictions of fish, and of an unclear object.

The reverse of Brooklyn 16118+ appears to be divided into a right and a left section. Several of the cells on the left half appear to have contained workmen's marks that have been deliberately erased and are unrecognisable. The cells in the leftmost column each seem to contain a particular product, some of which are written within a more or less square-shaped container. The first legible product is *bi.t* 'honey', correctly but rather summarily written with sign  $\text{𓆔}$ .<sup>295</sup> The hieratic inscription one cell below it reads *mrh.t* 'oil'.<sup>296</sup> One cell below that we can probably make out the hieratic spelling for *smi* 'curd'.<sup>297</sup> The two lowermost cells of the column contain depictions of vessels that are found on the right half of the ostrakon as well. The lower one is a large amphora that seems to be inscribed with a now much faded hieratic caption. At the top of the right side of the ostrakon a hide is depicted.<sup>298</sup> Below it we see half of a rectangular shape that is damaged. Inside the depiction part of a hieratic inscription is still preserved, and in the light of the hide above it, we may tentatively read the traces as *mst* 'leather basket'.<sup>299</sup> The object is accompanied by mark  $\text{𓆕}$ . The two cells below it each contain a depiction of a kid or a goat, both with a different hieratic caption written over it, and one accompanied by mark  $\text{𓆖}$ . The lower inscription is too damaged to read, the upper inscription ends in signs *r* and *n*. Perhaps the word *rn*, usually followed by a noun and used to describe a young animal,<sup>300</sup> was here added as a specification of the figure of the animal. In the next cell a goose is depicted, and the  $\text{𓆗}$  sign above it may indicate that a live goose is meant. Below it is a cell with a depiction of an amphora, inscribed with an odd spelling  $\text{𓆘}$

<sup>289</sup> Valbelle, *Catalogue des poids*, 6-7.

<sup>290</sup> Although the words are apparently never attested together, W. DeM 5202 would suggest the words are used interchangeably, see Valbelle, *Catalogue des poids*, 6, n. 9.

<sup>291</sup> WB I, 265, 11; Janssen, *Village Varia*, 48.

<sup>292</sup> WB IV, 295, 9.

<sup>293</sup> WB IV, 429, 10; Janssen, *Village Varia*, 48.

<sup>294</sup> Compare formulae *fꜣ (n) object n X*; *isy (n) object n X*; Valbelle, *Catalogue des poids*, 6; 7; and see e.g. W. DeM 5219: *isy n sd-ḥwti n qnnꜣ*, 'Weight of *sd-ḥwti*-fish of Qenna'.

<sup>295</sup> WB I, 434, 6; Janssen, *Commodity Prices*, 352-353.


<sup>296</sup> Janssen, *Commodity Prices*, 333-336. Fragmentary ostrakon O. DeM 731 is also inscribed in hieratic with the word *mrh.t* within a very similar rectangular container. It was tentatively interpreted as a countermark by Pierre Grandet, *Catalogue des ostraca hiératiques non littéraires de Dêr el-Médîneh VIII. Nos. 706-830*. DFIFAO 39 (Cairo 2000), 5 and 29, but it may have been part of a larger ostrakon such as O. Brooklyn 16118+.


<sup>297</sup> Janssen, *Commodity Prices*, 353-355.





<sup>298</sup> Janssen, *Commodity Prices*, 398-400.





<sup>299</sup> Janssen, *Commodity Prices*, 403-404; perhaps this ostrakon finally sheds some light on the question as to what such a basket may have looked like?




<sup>300</sup> WB II, 429, 1.


for the word *irp* ‘wine’.<sup>301</sup> In the column right of it an object is depicted that resembles hieroglyph , a bundle of reeds.<sup>302</sup> Records from Deir el-Medina do make mention of *isr* reed,<sup>303</sup> and perhaps the depiction refers to this commodity. The *nfr* sign written inside the depiction may refer to the quality of the reed.<sup>304</sup> To the far right of the reverse three more objects are depicted. We find a round vessel in the middle cell,<sup>305</sup> above what seems to be an architectural element, and below it an unidentified object.





Workmen’s marks are marvellously combined with hieratic numerals, signs and sign groups in ONL 1371. The ostrakon, evidently written by a single scribe, contains a list of workmen represented by their identity marks. Although the list, which is not preserved in its entirety, starts with  for the chief workman of the right side of the crew, the other marks are not mentioned according to a known ordered sequence. On the contrary, the list intermingles members of the right and of the left side of the crew. Apart from identity marks, the ostrakon is inscribed in hieratic, and we can read the words such as ‘meat’, ‘*mḥ*-dish’,<sup>306</sup> ‘white bread’,<sup>307</sup> ‘*kk*-bread’,<sup>308</sup> and perhaps ‘flowers’. The occurrence of such items in combination with a large group of different individuals clearly classifies the ostrakon as a list of gifts, well known from the 20<sup>th</sup> Dynasty.<sup>309</sup> Yet, because of the abbreviated nature of the phrasing in this document it still holds many riddles.





For example, the meaning of one very frequent sign, , escapes us. It cannot be the hieratic sign for , perhaps for *rdi* ‘to give’, because in line 7 it appears after  (an identity mark or a reference to a live bird?) and in front of a workman’s mark. Neither can it be the sign  for *s3* ‘son’, because in line 2 it is situated between a workman’s mark and the word for ‘meat’. Other signs and sign groups are also problematic, but we are able to decipher the ostrakon to a great extent:





  1;  2 []?






 , meat: 1 *mḥ*-dish;  10


 white bread: 1





 white bread: 2;  white bread: 1;  []?





 ;  white bread: 1;  white bread: 1






 *kk*-bread: 1;  white bread: 1;  



 white bread: 10, ;  (?) , flowers: 4 (?), 

 20, meat: 1 *mḥ*-dish

 white bread: 1;  *kk*-bread: 1,  20,  10, flowers: 1 (?)

 white bread: 1;  , meat: 1 *mḥ*-dish;  white bread: 1; [?] white br[ead ...]


 ;  white bread: 1;  

 white bread ; half of a white bread 1

<sup>301</sup> WB I, 115, 5-8.



<sup>302</sup> Alan Gardiner, *Egyptian Grammar. Being an Introduction to the Study of Hieroglyphs*. 3<sup>rd</sup> ed. (Oxford 1957) 484, sign M 40.

<sup>303</sup> Janssen, *Commodity Prices*, 365.

<sup>304</sup> Alternatively, but less likely due to the addition of the *nfr* sign,  may be a reference to a particular category of clothing called *isw* ‘(old) rags’, see Jac. J. Janssen, *Daily Dress at Deir el-Medina. Words for Clothing*. GHPE 8 (London 2008), 71-72.

<sup>305</sup> Cf. Nagel, *La céramique*, 38, nr. 19 and fig. 25; Schiaparelli, *La tomba*, 81, fig. 52, top centre.

<sup>306</sup> WB II, 126, 13

<sup>307</sup> For the spelling of this word see WB III, 210, 8; Janssen, *Egyptian Ship’s Logs*, 22-23; note however that scribe of ONL 1371 erroneously used hieratic sign  (Gardiner V25) instead of  (Gardiner T3) to write the word *hd*.

<sup>308</sup> Janssen, *Commodity Prices*, 344-346; Janssen, *Village Varia*, 58, h.

<sup>309</sup> Janssen, *Village Varia*, 55-86.



𐎗 white bread: 1; 𐎗𐎍 white bread ⚡

The ostrakon does not mention on what occasion these goods were donated. That is also typical for similar hieratic lists of commodities and individuals, but Janssen suggested that they record goods, usually small objects or items of food, brought by different persons to a party. Such parties were probably organised during private feasts.<sup>310</sup> While such lists often include women, our ostrakon seems to be concerned with workmen exclusively.

We have already noted that in a number of ostraca from the late 20<sup>th</sup> Dynasty, here dubbed the ‘Grand Puits group’, hieratic signs are inscribed alongside (semi-)hieratic numerals and workmen’s marks. Their meaning is not always very clear, but we have identified hieratic date lines, as well as signs and sign groups that may or may not refer to members of the *smd.t* personnel, and perhaps for administrative phraseology such as *whm* ‘repeating’.<sup>311</sup> Brief hieratic word groups are sometimes used in duty and delivery texts composed with marks as well, as discussed in chapter 3.<sup>312</sup>

### 4.3.3 Well distinguishable document types

#### 4.3.3.1 Name lists

In the chronological overview of ostraca with marks from the 20<sup>th</sup> Dynasty we have made ample use of ostraca that record identity marks according to an ordered list. Ordered lists were used in the hieratic administration of the workmen’s community as well. One of the document types of this administration is the name list.<sup>313</sup> In such name lists, whether recorded in hieratic or with marks, the workmen are to some extent ordered according to their seniority. This fact was pointed out by Collier. He observed with respect to hieratic name lists from the second half of the 19<sup>th</sup> Dynasty that “those individuals who served throughout the period tended to gravitate towards the tip of the roster [...] and thus, in broad terms (with a few exceptions [...]) represent the senior, experienced members of the gang (with another interesting group of more senior workmen at the bottom of the list, including figures explicitly termed ‘draughtsmen’ and ‘sculptors’ in some sources)”.<sup>314</sup>

To some extent the same is true for hieratic name lists of the 20<sup>th</sup> Dynasty.<sup>315</sup> If we look at the ordered list of the workmen of the right side of the crew during the reign of Ramesses IV,<sup>316</sup> we see that it is headed by the chief workman, and subsequently the scribe of the tomb and the deputy of the right side follow. Three of the next four workmen, Neferher (vi), Amenemope (x), Nesamun (III) and Khaemnun (i), were by this time very experienced workmen.<sup>317</sup> Moreover, when the crew was expanded in year 1 of Ramesses IV and 11 new, younger workmen were added to the right side, they were listed at the bottom of the ordered

<sup>310</sup> Jac. J. Janssen, ‘Gift-giving in Ancient Egypt as an Economic Feature’ *JEA* 68 (1982), 253-258; Jac. J. Janssen, *Village Varia*, 55-86.

<sup>311</sup> See above, 4.2.20.

<sup>312</sup> Words like ‘year’ and ‘deficit’, see chapter 3, 3.2.2.1; 3.2.2.3.

<sup>313</sup> The designation *im.y-rn=f* was probably used to refer to lists of names of individuals. These lists could be incorporated in greater administrative texts, but they also existed as autonomous documents. A text consisting of nothing else but a list of names was referred to as an ‘*r.t im.y-rn=f*’, see Ben J.J. Haring, ‘Egyptian text denominatives’ in: Donker van Heel and Haring, *Writing in a workmen’s village*, 86-87.

<sup>314</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 19.

<sup>315</sup> Contra Christophe, ‘Les enseignements’, 120, n. 2.

<sup>316</sup> Conveniently listed by Collier, ‘The right side’, 2.

<sup>317</sup> Neferher and Amenemope are already attested on the right side in year 15 of Ramesses III on O. DeM 406; Khaemnun belonged to the left side in year 20 (O. Turin N. 57432) but is attested on the right side as early as year 23 (O. Turin N. 57026). Nesamun (III) on the other hand was relatively new to the right side and is first attested among this part of the crew in year 28 as we have seen in chapter 3, p. 180, n. 94.

list.<sup>318</sup> When we examine the list from the reign of Ramesses IV we do not see evident clusters of specialists:

1. Neferher (vi)	workman?
2. Amenemope (x)	workman
3. Nesamun (III)	workman?
4. Khaemnun (i)	workman
5. Hori (ii) = (iii)	workman
6. Neferhotep (xii)	workman / “scribe” <sup>319</sup>
7. Penanuqet (iii)	workman
8. Khaemwaset (iii)	workman
9. Nakhtmin (vi)	workman
10. Reshupeteref (i)	workman
11. Meryre (vi)	workman
12. Mose (iv)	workman
13. Pamedunakht (i)	workman
14. Weserhat (ii)	workman
15. Minkhau (i)	workman
16. Iry-‘a (i)	workman?
17. Amennakht (xxv)	workman
18. Harshire (i)	draughtsman / scribe
19. Iyerniutef (iii)	sculptor
20. Nebnakht (viii)	workman
21. Wesekhnemtet (i)	workman
22. Pentaweret (iv)	draughtsman
23. Nakhemmut (ii)	draughtsman
24. Amennakht (xxvi)	workman
25. Amennakht (ix)	workman
26. Ta (i) = Tasherī	workman / scribe
27. Maaninakhtuf (iii)	workman
28. Amenhotep	draughtsman
29. Bakenamun (i)	workman
30. Anynakht (i) <sup>320</sup>	workman

The hierarchy that must have existed within the community of necropolis workmen was not only expressed in the position one was attributed in an ordered name list, but more so in the height of the wages one was paid for one’s services. For example, the foremen and scribe of the crew earned higher monthly wages than did the regular workmen, who in turn got more rations than e.g. doorkeepers and young men associated with the crew.<sup>321</sup> Ranking of individuals in the administration of Deir el-Medina was therefore not purely formal or symbolic, but served an administrative purpose. Ordered name lists are thus functional lists, and may simultaneously, or rather consequentially, have functioned as mnemonic devices.

<sup>318</sup> Well illustrated by Collier, ‘The right side’, 6-7.

<sup>319</sup> Davies, *Who’s who*, 230.

<sup>320</sup> According to the ordered list of P. Turin Cat. 1891 rto. Neferher (vi) occupied the first position on the right side during year 2 of Ramesses IV. The duty rosters of O. DeM 45 and O. DeM 46 indicate that Anynakht (i) must then have been the very last man on this list (see also Collier, ‘The right side’, 1-4). We have seen, however, that during the reign of Ramesses V, the mark of Anynakht precedes that of Neferher suggesting the list of the time of Ramesses IV could have started with his name as well. Either way, his situation in slot 30 is by no means a reflection of a lower standing.

<sup>321</sup> Janssen, *Village Varia*, 13-34.

As pointed out earlier, ordered lists were employed in numerous hieratic texts of different types from the 19<sup>th</sup> Dynasty<sup>322</sup> and the 20<sup>th</sup> Dynasty.<sup>323</sup> As Donker van Heel remarked, any administration that is concerned with a large group of individuals will necessitate the use of name-lists.<sup>324</sup> Following a suggestion by Grandet<sup>325</sup> he proposed that hieratic ostrakon O. DeM 706, inscribed with nothing else than an ordered list of the names of all workmen of the crew, was a mnemonic instrument, an *aide-mémoire*, that a scribe could use when composing other administrative documents. A plausible example of such a document is O. BM EA 5634, the famous list of workmen from the reign of Ramesses II that enumerates the entire crew according to the ordered sequence, and the days on which they were absent from work. Both ostraca date to about the same period and present the workmen in accordance with more or less the same sequence, and thus O. BM EA 5634 could have been drawn up by a scribe who consulted O. DeM 706 or a similar document.<sup>326</sup> Donker van Heel demonstrated furthermore how name lists may have been used to draw up accounts of the distribution of grain rations.<sup>327</sup> This was confirmed in Collier's extensive study of ostraca from the later part of the 19<sup>th</sup> Dynasty, which also revealed that numerous absentee lists, name lists, duty roster records and some delivery texts were composed according to ordered sequences.<sup>328</sup> Eyre, however, cautioned that simple lists of names without any heading are not necessarily connected with the administration of work on the tomb.<sup>329</sup>

As we have seen there are numerous examples of 20<sup>th</sup> Dynasty ostraca that contain ordered lists of workmen's marks. A number of these ostraca dating from the early, middle and late 20<sup>th</sup> Dynasty and found both in the Valley of the Kings and in the village are (most likely) lists of the entire side of the crew. O. BM EA 50716, O. IFAO C 7638, ONL 6268 and ONL 6240 seem to record all members of the right side of the crew, while O. ARTP 99/27 and O. Cairo JE 72491 are complete lists of workmen of the left side. O. BM EA 5642 and OL 170+ document the entire workforce with an ordered list of the workmen of the right on one side of the ostrakon and that of the left on the other.<sup>330</sup> There may well be more name lists composed with workmen's marks, but the fragmentary nature of many ostraca prevents us from confirming this. Yet, the close adherence to a known sequence of workmen and/or the attestation of a foreman, scribe and deputy suggest that such an assumption is defensible in the cases of ONL 6314, ONL 6469, ONL 6511, ONL 6603 and O. Cairo JE 46865, which were probably lists of all workmen of the right side. Likewise, O. Ashmolean HO 626, the reverse of O. Ashmolean HO 1098 and ONL 6273 might well be lists of the entire left side of the crew.

Such ordered lists of workmen's marks could have served the same purpose as hieratic name lists, that is, as master lists, mnemonic devices used by a scribe to create accounts of the collective distributions of goods or lists of the workmen that were present and absent on the construction site. The lists with marks may have served as Vorlage for hieratic records as well as other records composed with marks. Indeed, some lists such as O. Cairo JE 72491 clearly reveal the hand of a trained scribe.<sup>331</sup> Moreover, the lists may have been used for oral practices such a roll-call at the beginning of a workday, regardless of the question if any

<sup>322</sup> Collier, *Late XIXth Dynasty Ostraca*, 14.

<sup>323</sup> Collier, 'The right side', 1-2; *passim*.

<sup>324</sup> Donker van Heel, 'Drafts', 18; compare also Eyre, *Employment and labour relations*, 19-22.

<sup>325</sup> Grandet, *Ostraca hiératiques* VIII, 2.

<sup>326</sup> Donker van Heel, 'Drafts', 19-21.

<sup>327</sup> Donker van Heel, 'Drafts', 23-27.

<sup>328</sup> Collier, *Late XIXth Dynasty ostraca*, *passim*.

<sup>329</sup> Eyre, *Employment and labour relations*, 20.

<sup>330</sup> A similar lay-out is attested on 19<sup>th</sup> Dynasty hieratic ostraca, e.g. O. BM 5634 and O. Ashmolean HO 57, cf. Collier, *Late XIXth Dynasty ostraca*, 14.

<sup>331</sup> See below, 4.4.

absent workmen were subsequently noted down. Because ordered lists of workmen's marks deal with the collective tomb administration we expect them to have been created and used by the scribe of the tomb, but also by the other captains of the crew. It is even conceivable that the system of workmen's marks may have provided an alternative system of administration to foremen and deputies who were not sufficiently acquainted with hieratic script. We do not know much about the degree of literacy of these men. Baines and Eyre<sup>332</sup> as well as Janssen<sup>333</sup> maintained that these captains of the crew were "fully literate", but hardly provide concrete evidence for that statement.<sup>334</sup> In contrast, but without any substantiated evidence either, Černý was of the opinion that the scribe of the tomb would have written the letters of the foreman to the higher authorities in Thebes.<sup>335</sup> We should therefore not exclude the possibility that not every foreman and every captain were trained scribes.

#### 4.3.3.2 Records of absence from or attendance at the worksite

Two ostraca dating to the 20<sup>th</sup> Dynasty are certainly lists of absence and presence, because they display signs that were employed in hieratic texts. Hieratic documents recording absence and presence of workmen are well attested from the 19<sup>th</sup> and 20<sup>th</sup> Dynasties.<sup>336</sup> Over the course of time there were various manners to record if workmen were present at the worksite and if they performed work or not. It seems that different scribes had different ways of doing so.<sup>337</sup> In some lists of workmen the sign  $\sim n$ , the negative particle, with the meaning 'not (at work)', was added next to the name of a workman to denote absence. It could be alternated with the sign  $\wedge iw$  '(has) come', indicating that a workman was present at the worksite. Hieratic lists documenting the activities of individual workmen are attested in the second half of the 19<sup>th</sup> Dynasty.<sup>338</sup> Yet, both these signs are also added to ONL 6851, an ostrakon with columns of workmen's marks that should date to the 20<sup>th</sup> Dynasty on account of the individuals it records. Fragmentary ostrakon ONL 6463 displays similar columns of workmen's marks accompanied by signs  $\wedge$  or  $\sim$ , but because these workmen's marks occur both in the 19<sup>th</sup> and 20<sup>th</sup> Dynasties the date of this piece is not certain.

The sign  $\wedge$  is also found on ostrakon O. Cairo JE 96647 which is inscribed with two columns of workmen's marks and dates to the end of the 20<sup>th</sup> Dynasty. Sign  $\wedge$  is written right of at least 11 marks. Right of the other marks a single dot or diagonal tick is added, and probably indicates that a workman was absent at the worksite. We find a parallel in the journal text of P. Turin Cat. 1880, the famous Strike Papyrus, where either a dot or sign  $\wedge$  was added to the day entries on vso. VIII to indicate whether the crew in its entirety had gone to the worksite or not.<sup>339</sup> Interestingly, O. Cairo JE 96647 informs us that both scribes of the crew were absent. This could be the reason why on this day the list of absentees was not written in hieratic, but made by another crew member with less or no scribal experience who preferred to make use of identity marks instead.

The three ostraca described above demonstrate that in the 20<sup>th</sup> Dynasty individual attendance and work activity were sometimes recorded by means of the marking system. With

<sup>332</sup> Baines and Eyre, 'Four notes on literacy', 86, 90.

<sup>333</sup> Janssen, 'Literacy and Letters', 82.

<sup>334</sup> Baines and Eyre, 'Four notes on literacy', 86, refer only to O. UC 32054, indeed seemingly written by (*ir.w in*) the foreman Nakhemmut (vi). Haring also mentions O. Ashmolean HO 104, see Haring, 'From Oral Practice to Written Record', 261.

<sup>335</sup> Černý, *Community*, 129.

<sup>336</sup> Janssen, *Village Varia*, 87-98; Haring, 'Document headings', 143-145.

<sup>337</sup> Janssen, *Village Varia*, 92.

<sup>338</sup> O. DeM 913; O. Strasbourg H 119.




<sup>339</sup> See *Deir el-Medina Database*.

this information in mind, we may propose that some ostraca with a list of workmen's marks not of the entire crew, but of a part of it, may be documents of attendance and activity as well. Indeed there are hieratic documents from the 20<sup>th</sup> Dynasty that record similar details. Hieratic lists usually contain a heading such as "those who are working", "those who are active", and "the crew was at this place (i.e. the Valley of the Kings)", followed by a list of the workmen concerned.<sup>340</sup> Many of our ostraca with workmen's marks from the 20<sup>th</sup> Dynasty, either with a long list of workmen's marks or with only a small number of marks, can be interpreted in the same way, but without the addition of a written heading this is not more than a suggestion.<sup>341</sup> Evidently, longer lists of workmen's marks would then be lists of attendance rather than records of absence.

#### 4.3.3.3 Depictions of furniture and other objects combined with marks.

Ostraca O. OIM MH 2666 and O. Brooklyn 16118+ have demonstrated how scribes combined depictions of commodities and objects with written captions as well as workmen's marks to create accounts. There are similar ostraca that deal predominantly with items of furniture. A number of these documents were discussed by Killen and Weiss in an article where they were dubbed 'furniture ostraca'. The ostraca were interpreted as records of business transactions, depicting the objects of the transactions and the identity marks of the manufacturer, the recipient or both.<sup>342</sup> We shall see, however, that ostraca that have come to light after their publication depict other objects besides furniture and indicate that this term is somewhat too limited.

Regarding ostraca with depictions of items of furniture, Killen and Weiss pointed out that they fit well into the idea put forward by Cooney that the members of the necropolis community cooperated in what she called an 'informal workshop', "an entity in which they could not only pool their talents, but also work within existing formal hierarchical specialisations, using their reputations as members of the official Deir el-Medina crew to gain customers, as well as utilising their access to materials to make additional income in the private sector, beyond their workshop salaries."<sup>343</sup> Cooney collected over 200 documents from Deir el-Medina that record instances of manufacture, commission, trade, and inheritance of privately produced craft goods. Although it remains a matter of debate under which circumstances such objects were manufactured, either as an individual commercial activity or in an exploitative situation, the artisans of the Royal Necropolis certainly were involved in the production of primarily funerary objects.<sup>344</sup>

Three of the ostraca discussed by Killen and Weiss, O. Florence 2628, O. Florence 2629 and O. Florence 2630, were dated to the Ramesside Period. Each ostrakon was taken to represent an "[o]rder of pieces of furniture or a receipt of a sale/manufacture of pieces of furniture".<sup>345</sup> All three ostraca are very similar documents in terms of subject matter, style, and palaeography. We may venture a guess that they were written by the same scribe. The occurrence of mark  for Menna (i) on O. Florence 2628-2630 dates this group to the 20<sup>th</sup> Dynasty. Mark for  Bakenamun (i) on O. Florence 2629 is no longer attested in the second half of the 20<sup>th</sup> Dynasty, while mark  on the same piece suggests a date in the reign of

<sup>340</sup> Haring, 'Document headings', 144-145.

<sup>341</sup> Similarly hieratic ostraca with name lists but no additional information are difficult to interpret, cf. Eyre, *Employment and Labour Relations*, 20. Also in the case of O. Turin N. 57082, headed by a date and followed by a list of workmen, it is unclear whether these men are recorded as absentees or men who attended work, see Haring, 'Document headings', 145.

<sup>342</sup> Killen and Weiss, 'Markings on objects', 140.

<sup>343</sup> Kathlyn M. Cooney, 'An informal workshop: Textual evidence for private funerary art production in the Ramesside Period' in: Dorn and Hofmann (eds.), *Living and writing in Deir el-Medine*, 44.

<sup>344</sup> Cooney, 'An informal workshop', 43-44.

<sup>345</sup> Killen and Weiss, 'Markings on objects', 145, 151, 153.

Ramesses V. The three ostraca can therefore be dated in the first half of the 20<sup>th</sup> Dynasty, the period from which most of our information about workmen's marks stems. That is fortunate because it means that we can now identify the majority of the individuals represented by the identity marks. The three ostraca provide the following details:

*Florence 2628*

	Amenemope (x) – workman
	Menna (i) – draughtsman
	Pentaweret (vii) – workman
	Iyerniutef (iii) – sculptor
	Bakenamun (i) – workman
	Nakhemmut (vi) ? – later foreman?
	Mose (iv) – workman
	Hori – workman

Objects:<sup>346</sup> chairs, chests, tables, vase for *mrḥ.t* oil, perhaps a basket, beds,<sup>347</sup> coffins.

*Florence 2629*

	Khaemwaset (iii) – workman
	Bakenamun (i) – workman
	Unidentified

Objects:<sup>348</sup> chair, chests, tables

*Florence 2630*

	Penanuqet (iii) – workman
	Neferher (vi) – workman

Objects:<sup>349</sup> stool (?), chests, bed

We can almost certainly ascribe O. Turin N. 57141 to the same hand. Like the previous three ostraca it depicts items of furniture in combination with workmen's marks. The use of limestone as a surface, the lay-out with horizontal line dividers, the use of black ink, and the shape and repertory of the marks on this piece connect it with the Florence group. In addition, this document also displays marks of workmen of the right side exclusively.

*O. Turin N. 57141*

	Khaemwaset (iii) – workman
	Bakenamun (i) – workman
	Penanuqet (iii) – workman

<sup>346</sup> Compare Killen and Weiss, 'Markings on objects', 146-150.

<sup>347</sup> Perhaps the *yt.t* or *iz.t.y* funerary couch that occurs often together with coffins, see Jac. J. Janssen, *Furniture at Deir el-Medina including Wooden Containers of the New Kingdom and Ostrakon Varille 19*. GHPE 9 (London 2009), 4-5.

<sup>348</sup> Compare Killen and Weiss, 'Markings on objects', 151-152.

<sup>349</sup> Compare Killen and Weiss, 'Markings on objects', 153-154.

𐓗𐓗 Iyerniutef (iii) – sculptor

Objects: chairs, chests, and perhaps a bed.

There are about a dozen more ostraca in which identity marks are combined with a pictorial list of mostly items of furniture. Their style and the repertory of marks suggest a date in the first half of the 20<sup>th</sup> Dynasty.

*O. Turin N. 57523*

Although the ostracon is partly damaged, several marks can be discerned, all belonging to workmen of the right side of the crew. On the basis of the occurrence of marks 𐓗, 𐓗𐓗, and 𐓗𐓗, the document dates most likely to the time of Ramesses IV – Ramesses V.

𐓗 Nakhtmin (vi) – workman  
 𐓗 Mose (iv) – workman  
 𐓗𐓗 Pamedu(netjer)nakht (i) – workman  
 𐓗 Amenwa (i) – draughtsman  
 𐓗 Nebnakht (viii) – workman  
 𐓗 Iry-‘a (i) – workman?  
 𐓗 Pahemnetjer (ii) – workman?  
 𐓗 Amennakht (ix) – workman  
 𐓗 Penmennefer (II) – workman?

Objects: chests, chair, table

*O. BM 5861*

This ostracon is less well legible. With perhaps one exception the marks that can be discerned are all used for workmen of the right side of the crew throughout the 20<sup>th</sup> Dynasty. The ostracon does not record any marks that are typical for the second half of the 20<sup>th</sup> Dynasty and in analogy with the previous ostraca we may propose that O. BM 5861 too dates to the period of Ramesses III – Ramesses V.

𐓗 Penanuqet (iii) – workman  
 𐓗 Neferher (vi) – workman  
 𐓗 Iyerniutef (iii) – sculptor  
 𐓗 Khaemwaset (iii) – workman  
 𐓗 Neferhotep (xii) – workman, but styled as scribe in Theban Graffito nr. 889<sup>350</sup>  
 𐓗 A Khnumnakht ? – workman?

Objects: chests, beds

*O. München 398*

The marks inscribed on this ostracon belong predominately to workmen of the right side of the crew.

𐓗 Amennakht (xxv) – workman  
 𐓗 Nebnakht (viii) – workman  
 𐓗 Amennakht (ix) – workman

<sup>350</sup> Davies, *Who's who*, 230.

⊕(?)	Neferher (vi) – workman
□	Amenemope (x) – workman
𓆎	Aanakhtu (iii) – workman
⊔	Anynakht (i) – deputy
⊔	Penanuqet (iii) – workman
𓆏	Mose (iv) – workman

Objects: chairs, stools, a table (?)

*O. Cairo SR 11303*

This ostrakon, certainly related to the ostraca above, is inscribed with only one item of furniture in combination with three workmen's marks. It is therefore somewhat more difficult to date. All marks are prevalent during the 20<sup>th</sup> Dynasty. In analogy with the previous documents it is tentatively attributed to the first half of the 20<sup>th</sup> Dynasty.

⊕	Nakhemmut (vi) – workman / Pamedunakht (i) – workman ?
𓆎	Amennakht (xxv) – workman
𓆏	Huynefer (xi) – workman / Minkhau (i) – workman

Objects: stool with two handles (?)

*O. Stockholm MM 14129*

As we have seen above this ostrakon is dated to the period of Ramesses III – Ramesses V. It displays the marks of workmen of both sides of the crew as well as two rarely attested marks 𓆎 and 𓆏.

𓆎	Aapatjau (i) – workman
𓆎	Unidentified
⊔	Amenwa (i) – draughtsman
𓆎	Hay (iii) = (v) / (xi) – workman
□	Amenemope (x) – workman
𓆎	Pentaweret (iv) – workman
𓆏	Mose (iv) – workman
⊕	Neferher (vi) – workman
𓆎	Unidentified

Objects: chests, chairs

*ONL 6670*

This ostrakon, presumably completely preserved, displays six identity marks and nine items of furniture, but it is not always clear which items are connected with which individuals. All identity marks belong to workmen of the right side of the crew and are attested in the duty rosters from the time of Ramesses IV and V. Mark 𓆎 is legible as *wn-nfr* and is probably an elaborate allomorph of 𓆎. It refers to Penamun (V), son of Wennefer (iii), or less likely to the latter man.

⊕	Reshupeteref (i) – workman
𓆎	Amennakht (xxv) – workman
⊔	Penanuqet (iii) – workman
𓆎	Amennakht (ix) – workman



4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

𓆎	Weserhat (ii) – workman
𓆏	Harshire (i) – draughtsman / scribe
𓆐	Nakhemmut (vi) – workman / Pamedunakht (i) – workman ?
𓆑	Penamun (V) – workman
𓆒	Mose (iv) – workman / unidentified workman of left side
𓆓	Unidentified workman of left side

Objects: chests, tables, chairs

*ONL 6644*

This ostrakon is tentatively attributed to the 20<sup>th</sup> Dynasty on account of its similarity to ONL 6670. Both ostraca are limestone pieces inscribed in red ink with depictions of furniture as well as workmen's marks. The only mark that is preserved on ONL 6644 is 𓆎 for workman Nebnakht (viii).

𓆎	Nebnakht (viii) – workman
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Objects: chests, a chair (?)

*O. BTdK 589*

Not all drawings and marks on this ostrakon are well discernable, but five marks are probably identifiable as workmen of the 20<sup>th</sup> Dynasty. A date in the first half of this period is very well plausible.

𓆔	Amenemope (x) – workman
𓆕	Hay (iii) = (v) / (xi) ? – workman
𓆑	Penamun (V) – workman
𓆒 <sup>351</sup>	Unidentified workman
𓆓	Amenpahapy (iii) ? – workman

Objects: chest, stools

*O. BTdK 590*

The marks and drawings on this ostrakon are inscribed in charcoal and are poorly preserved. A date in the first half of the 20<sup>th</sup> Dynasty is plausible on account of the provenance of the piece (the huts settlement that was in use from Ramesses IV to Ramesses VII) and the tentatively identified workmen's marks:

𓆖	Neferher (vi) – workman
𓆗	Merysekhmet (iii) – draughtsman
𓆘	Pentaweret (iv) – draughtsman

Objects: beds, a stool, a chest (?)

O. IFAO C 7586 should be mentioned in this context, despite its uncertain date and fragmentary state of preservation. Apart from what may perhaps be workmen's marks and a drawing of a human figure, it seems to display depictions of objects among which we may

<sup>351</sup> Contra Dorn, *Arbeiterhütter*, 381, who interpreted the latter marks as mark 𓆒 with a basket underneath. Such a mark is not attested elsewhere.

recognise a bed and perhaps a table. Similarly unclear is O. Turin N. 57140. Traces of the inscription display several items of furniture among which are probably chests and perhaps chairs. One mark may be  $\perp$ . By association with the other ‘furniture ostraca’ it probably dates to the first half of the 20<sup>th</sup> Dynasty.

There are two related ostraca which are difficult to date accurately, yet a date in the first half in the 20<sup>th</sup> Dynasty is plausible as well. They differ from the ostraca listed above in that they depict other items besides furniture, most likely objects that were part of the funerary equipment of the royal burial. That is most obvious in O. BTdK 382, which depicts a striding statue of the king holding a staff:<sup>352</sup>

#### *O. BTdK 382*

The ostrakon includes perhaps one workmen’s mark,  $\text{A}$ , which features on several other ‘furniture ostraca’. A damaged semi-hieratic inscription at the bottom of the ostrakon was read by Dorn as *wp.t rnp.t 10* ‘opening of year 10’. This interpretation is not unambiguous, but if correct it refers to the reign of Ramesses III, Ramesses IX or Ramesses XI.<sup>353</sup>

$\text{A}$  Nakhemmut (vi) – workman /Pamedunakht (i) – workman ?

Objects:<sup>354</sup> construction elements of furniture (?), the end of a bed (?) decorated with a Bes-figure flanked by hippopotamus figures, a stool, chests, a staff, cloths (?), decorated foots of a chair (?), a Bes-figure and two sitting lion figures, incense burners, a royal statue, door leaves, a shrine, a head rest decorated with a Bes-figure

#### *O. Ashmolean HO 1123*

This ostrakon is very similar to O. BTdK 382. Both ostraca are limestone pieces inscribed in red ink and in the same style. There is on this document no clear connection with the royal burial but both ostraca depict items worked in wood or stone decorated with Bes-figures as well as incense burners.

$\text{A}$  Amenhotep (vi) – draughtsman  
 $\text{B}$  Merysekhmet (iii) – draughtsman  
 $\text{C}$  Amennakht (ix) – workman

Objects: cloths (?), chests, a head rest decorated with a Bes-figure, the end of a bed (?) decorated with a Bes-figure flanked by sitting lions, incense burners

All our ostraca with depictions of furniture seem to be situated in the first half of the 20<sup>th</sup> Dynasty, or more precisely in the reigns of Ramesses III, Ramesses IV and Ramesses V. A priori it is not certain if these ostraca are evidence of activities performed in the context of a semi-formal workshop. The ostraca are hardly informative, and it is often unclear which identity mark accompanies which object. A few hieratic numerals are inscribed on some of the ostraca, probably indicating the quantity of objects, but they do not elucidate the records. Ostraca that exclusively depict items of furniture such as complete chests and chairs could in theory record everything from ownership to transport of the depicted object. That is not the case with O. BTdK 382 and probably also O. Ashmolean HO 1123, where the depiction of a royal statue and a shrine do not signify private ownership.

<sup>352</sup> Dorn, *Arbeiterhütten*, 329. There is of course the possibility that the royal statue was destined for a local temple.

<sup>353</sup> Dorn, *Arbeiterhütten*, 330.

<sup>354</sup> Compare Dorn, *Arbeiterhütten*, 329-330.

An important hint is provided by signs  $\text{⏏⏏}$  and  $\text{⏏⏏⏏}$  that accompany some of the depicted objects on O. Florence 2628. They have been interpreted by Killen and Weiss as indicators of quality. This explanation seems plausible for this ostrakon, but as rightly pointed out by both authors, it is uncertain if these quality marks also occur on other ostraca. On other ostraca they could be identity marks  $\text{⏏⏏}$  for Tasherī or  $\text{⏏⏏}$  for Neferher (vi).<sup>355</sup> Nevertheless, the quality indicators in O. Florence 2628 do suggest that the ostraca record the production of the depicted objects, otherwise the mention of quality makes little sense. The identity marks that accompany the items are then best explained as references to the individuals involved in the production process.

The evidence that emerges from these documents is that during this period of Ramesses III – Ramesses V quite a large group of at least 38 different individuals must have been involved in some way in the ‘informal workshop’ (TABLE 85). The majority of the identity marks (28) on these ostraca refer to members of the right side of the gang, although the left side is represented in this category of ostraca as well (10 marks). It is noteworthy that the ostraca do not point to particular teams of workmen that occasionally collaborated. Instead, each ostrakon records a different combination of workmen’s marks. The number of workmen with a certain specialisation is not particularly high. Against thirty ‘regular’ workmen we have one deputy (Anynakht (i), one instance), one self-styled scribe (Neferhotep (xii), one instance), one draughtsman/scribe (Harshire (i), one instance), four draughtsmen (Menna (i), one instance; Amenwa (i), two instances; Pentaweret (iv), one instance; Amenhotep (vi), one instance), and one sculptor (Iyerniutef (iii), three instances). Remarkable is also that in seven ostraca<sup>356</sup> no specialist is recorded. O. München 398 does include the mark of deputy Anynakht (i), but to what extent this man may have been a specialist is unclear.

One would perhaps expect more attestations of scribes if the ostraca truly record the preparation of funerary furniture. The only ostrakon that features sign  $\text{⏏}$  is O. Florence 2628. The mark is written left of the lid of a coffin, and it is of course conceivable that a scribe may have been tasked with decorating it and inscribing it with funerary texts. Another explanation however would be to take this sign as a mark describing the properties of the lid, in analogy with the quality marker  $\text{⏏⏏⏏}$ . Together, the signs and depictions would then mean ‘an inscribed coffin lid of excellent quality’, and the mark of Pentaweret (vii) below it could refer to the individual responsible for it.

The absence of scribes in the documents may be due to the fact that the scribes were the individuals who obtained the orders from clients outside of the community of workmen, and who subsequently organised the work on the objects to be executed by their colleagues.<sup>357</sup> As the coordinators of the work process, they may have been the authors of the ‘furniture ostraca’. Indeed, several of the ‘furniture ostraca’ display the steady and neat hand of an individual with at least some scribal experience. The same is suggested by the use of the more elaborate allomorphs of marks  $\text{⏏}$ ,  $\text{⏏}$  and  $\text{⏏}$  for marks that occur more often as  $\text{⏏}$ ,  $\text{⏏}$  and  $\text{⏏}$ . The authors may not all have been professional scribes, which would explain the incorrectly orientated hieratic numerals 12 and 15 on O. Florence 2628,<sup>358</sup> but were rather draughtsmen with restricted proficiency in hieratic script.

The scribes of the ostraca may themselves have been responsible for the penultimate phase in the process of the production of funerary objects such as coffins and furniture, which

<sup>355</sup> Cf. Killen and Weiss, ‘Markings on Objects’, 143-144 and n. 25; 149, nrs. 43 and 46; 150, nrs. 48, 51, 54, 56; 154, nr. 7.

<sup>356</sup> O. Florence 2629, O. Florence 2630, O. Turin N. 57141, O. Cairo SR 11303, ONL 6644, O. BTdK 382 and O. BTdK 589.

<sup>357</sup> Cooney, ‘An Informal Workshop’, 49.

<sup>358</sup> Misread as 22 and 24 by Killen and Weiss, ‘Markings on Objects’, 148-149, nr. 34; 149, nr. 40.

was their decoration,<sup>359</sup> and therefore often omitted themselves from the ostraca. These documents would then attest to an earlier phase in the production process: the construction of the objects from the raw materials.<sup>360</sup> Indeed, ‘ordinary’ workmen are recorded to have been tasked with carpentry-work, and some may have been specialised in this craft and therefore took on the title *hmww* ‘carpenter’.<sup>361</sup> If the ‘furniture ostraca’ are indeed documents of carpentry and construction of objects, this would explain the high number of workmen’s marks of non-specialists. Would one accept these assumptions, then the ostraca are best not interpreted as receipts of the sale or manufacture of objects, but rather as work sheets that stipulate which objects were to be produced by individual workmen. By creating a pictorial list combined with identity marks, such plans could be understood by illiterate individuals as well, and the records may be materialised oral agreements between workmen to craft a set of items, assumedly within the context of the ‘informal workshop’.

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<sup>359</sup> Cooney, ‘An Informal Workshop’, 51.

<sup>360</sup> Cooney, ‘An Informal Workshop’, 50.

<sup>361</sup> Cooney, ‘An Informal Workshop’, 46-47; 50.

4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II

Flor. 2628	Flor. 2629	Flor. 2630	Turin N. 57141	Turin N. 57523	BM 5861	München 398	Cairo SR 11303	Stockh. 14129	ONL 6670	ONL 6644	BTdK 589	BTdK 590	BTdK 382	Ashm. HO 1123
<b>Members of the right side of the crew</b>														

The ostraca discussed above do not only depict items of furniture, but also purely funerary objects such as coffin lids and perhaps a funerary statue. In addition we have encountered drawings of vessels. Purely pictorial lists of objects are known from the 20<sup>th</sup> Dynasty, and a good example is O. BTdK 383, which depicts a chair, a pair of sandals, perhaps a sack, two chests and a head rest.<sup>362</sup> No workmen's marks are added to the objects and the document could therefore be a private inventory or a list of items involved in a personal transaction. O. BTdK 567 is probably of a 20<sup>th</sup> Dynasty date as well. That is suggested by its provenance in the settlement near KV 18 and by the inscription of mark  $\text{𓆎}$ . The mark is situated below the drawing of an axe, and the ostrakon was interpreted as a record of the issue of an axe by the tomb administration to the workman represented by  $\text{𓆎}$ .<sup>363</sup> Such an interpretation is plausible, although the ostrakon may perhaps also attest to the ownership of the axe by the workman.

The meaning of O. BTdK 529 from the same site is unclear. It represents a drawing of a vessel with to its left 12 vertical strokes. An additional sign left of these strokes is damaged. One may take the vessel to represent an actual object and the 12 strokes as an indication of the quantity of the vessels. We cannot however exclude the possibility that the vessel is in fact a crude form of the workman's mark  $\text{𓆎}$ , here accompanied by 12 tally strokes. In the case of the reverse of O. Cairo JE 46864 it is clear that the rather crude drawings of jars and amphorae refer to actual vessels because of their number and the fact that they are accompanied by semi-hieratic numerals. The ostrakon is not perfectly well preserved and its lay-out is rather disorganised. The account can therefore not be properly understood, but in all likelihood the numerals, vessels, and workmen's marks represent a record of the distribution or delivery of a commodity kept in amphorae. O. Cairo CG 25325 may be a similar record, but is even less well legible. Above the column of marks on the reverse we distinguish at least one drawing of an amphora, and this piece too could be an account of deliveries or distribution. In contrast, the meaning of fragmentary ostrakon ONL 6591, tentatively attributed to the 20<sup>th</sup> Dynasty, escapes us completely. It may depict some sort of portable incense burner<sup>364</sup> with to its left large hieratic numerals for the numeral 11 and perhaps a fragment of a cartouche. The connection between this numeral, the object, and the two workmen's marks for members of the right side just above it is not evident.

Finally there is the reverse of O. Turin N. 57008. While the obverse of this ostrakon is inscribed with an ordered list of workmen of the right and the left side, the reverse displays five mindboggling lines of identity marks, depictions of objects and hieratic numerals. The account is difficult to interpret because it has not survived in its entirety and because the ink is rather effaced:

[stool] [...]  $\overline{\text{𓆎}}$  [table]  
 [stool ?]  $\text{𓆎}$ ; [unidentified object]  $\text{⊕}$   $\text{𓆎}$   $\text{𓆎}$  [unidentified object]; [unidentified object] 5  
 $\text{𓆎}$   $\text{𓆎}$   $\text{𓆎}$   $\text{𓆎}$ ;  $\text{𓆎}$  [unidentified object];  $\text{𓆎}$   $\text{mrh.t}$  vessel; loaf of bread;  $\text{𓆎}$ ; bundle  $\text{𓆎}$   
 $\text{𓆎}$   $\text{𓆎}$   $\text{𓆎}$  folded cloth (?);  $\text{𓆎}$  ·  $\text{𓆎}$ ;  $\text{𓆎}$  [unclear signs]  
 [...] [unidentified object] [unclear sign]; folded cloth (?);  $\text{𓆎}$  [...]

It is evident that the inscription is concerned with objects, and we recognise the depictions of tables and a stool in the first two lines. The square-shaped objects in lines 1, 2 and 5 may also be pieces of furniture. Line 2 ends with a circular shape followed by what is perhaps the hieratic numeral five. The tall sign that occurs in lines 2 and 3 could be a hieratic sign for  $\text{𓆎}$  'repeating'. Another hieratic sign group is found in line 3, readable as  $\text{𓆎}$  'white'. In

<sup>362</sup> Dorn, *Arbeiterhütten*, 330.

<sup>363</sup> Dorn, *Arbeiterhütten*, 377.

<sup>364</sup> Compare Nagel, *La Céramique*, 176-181.

contrast to ONL 1371, this word does not seem to refer to white bread as it is not connected with a sign for, or a depiction of a loaf of bread. Instead it is followed by a depiction of an unidentified object, perhaps a piece of clothing. Further down in line 3 a vessel for *mrh.t* oil is depicted, as is a pointed triangular object, probably a loaf of bread. The penultimate sign of line 3 depicts a bundle of vertical objects, perhaps wood or vegetables.<sup>365</sup> In lines 4 and 5 a rectangular shape might represent one or more folded cloths. Because of the inclusion of loaves of bread, the ostrakon is perhaps best explained as a list of gifts contributed by a group of individuals on a special occasion. A hieratic parallel for such a list is O. Cairo CG 25624, dating to year 27 of Ramesses III. Besides various types of bread it records items such as sandals, a *ṯzy*-box, an *ḏd.t*-box, a *ṯpy*-box and perhaps a folding stool.<sup>366</sup> If the reverse of O. Turin N. 57008 is contemporaneous with the obverse, our list dates probably to the period of Ramesses V – Ramesses VI. It would then be quite a bit younger than the hieratic gift-giving record, but the subject matter of both documents seems to be comparable.

#### 4.3.3.4 Name stones

A group of ostraca from the 20<sup>th</sup> Dynasty site of workmen's huts in the Valley of the Kings are inscribed with nothing else but a single identity mark. They were interpreted by Dorn – with good reason – as so-called 'name stones'.<sup>367</sup> The term 'name stones',<sup>368</sup> applies to pieces of limestone that were inscribed with (usually) not more than a single name. For such ostraca Grandet employed the label "tessère onomastique".<sup>369</sup> He proposed they were used in an administrative practice as personal countermarks ("contremarques") that were to be presented at the occasion of the distribution of commodities or tools. Grandet theorised that such small documents were prepared by the scribe according to a list he had drawn up, after which they were given to the corresponding individuals who would then need to present them to the scribe at the occasion of a distribution.<sup>370</sup> Dorn considered this interpretation and suggested that some name stones may have been used as countermarks for the distribution of chisels.<sup>371</sup> Although definitely plausible, Grandet's reconstruction appears a bit overcomplicated. If a scribe did indeed make use of a specific list during the distribution of goods or tools, there would not seem to be any necessity for members of the community to present their token to the scribe, because once they arrived in front of him he could simply cross them off his list. Moreover, this practice would be highly susceptible to counterfeiting.

Grandet's interesting discussion of name stones and their use extended to ostraca inscribed with a group of names as well as ostraca inscribed with a single word. The ostraca of the former category were seen as collective countermarks. Similarly, ostraca like O. DeM 710, inscribed with the word 'left' for the left side of the crew, were suggested to be countermarks that represented the entire group of workmen associated with this side. They were supposedly used at an earlier administrative stage before the distribution to individual workmen had taken place, and were to be handed over to a scribe to receive tools or victuals

<sup>365</sup> A very similar bundle is found on the obverse and reverse of ONL 6663, an ostrakon that is not inscribed with writing or with marks but contains depictions of objects connected with dots and strokes.

<sup>366</sup> Janssen, *Village Varia*, 69-72.

<sup>367</sup> Dorn, *Arbeiterhütten*, 140.

<sup>368</sup> Cf. 'Namenssteine', Dorn, *Arbeiterhütten*, 142-143.

<sup>369</sup> From Latin *tessera frumentaria*, a token that could be exchanged for a specific amount of wheat.

<sup>370</sup> Grandet, *Ostraca hieratiques*, VIII, 4.

<sup>371</sup> Dorn, *Arbeiterhütten*, 143. One of the name stones, O. BTdK 596, is inscribed with the name of the Overseer of the Treasury Montuemtawy. This particular piece was not interpreted as purely a name stone, but as a writing exercise (see Dorn, *Arbeiterhütten*, 143; 384). As a result of our examination of late 20<sup>th</sup> Dynasty ostraca with marks we can propose that the name and title of this man may in fact be a reference not that official, but to one of the workmen of the same name who perhaps jokingly styled himself after this official, and had taken on the identity mark  $\overline{\text{mn}}$  in the same vein.

destined for that half of the workforce. Although there is no evidence at all to disprove this hypothetical use of the ostraca under discussion, such a practice would again seem needlessly complicated. Certainly we imagine the scribe and/or the captains of the workforce dividing any amount of commodities or tools into two halves. But who would have had to present a countermark in this process? The most likely representatives of one half of the crew are the foreman and his deputy. It is hard to envisage these high-ranking individuals turning in an ostrakon reading 'left side' to the scribe, only to begin the procedure of distribution to individual workmen, a practice in which this very same scribe was probably involved.

Grandet's vision is not necessarily incorrect, but in the light of ostraca inscribed with a single mark, we may broaden our scope a bit. According to Grandet's theory, hieratic name stones were issued by a scribe. One wonders if this was also the case for name stones with identity marks. It is definitely possible that a professional hieratic scribe produced them, but it is equally plausible that the owner of a name stone with a workman's mark had created it himself. The latter possibility seems more likely regarding name stones with a mark inscribed with kohl rather than with ink,<sup>372</sup> with an incised mark,<sup>373</sup> or with a mark that clearly does not display a hieroglyphic or hieratic ductus.<sup>374</sup>

There are other ostraca with marks that may fall into the category of name stones, even though they display more than a single mark. We may interpret these pieces as collective name stones, in analogy to Grandet's 'collective countermarks'. As a possible example of a collective countermark Grandet mentioned O. DeM 709.<sup>375</sup> This ostrakon is perhaps best explained not as a countermark but as a document pertaining to the delivery of water, since it is headed by the name of water-carrier Pentaweret.<sup>376</sup> Nevertheless, there exist ostraca that better fit Grandet's description of 'collective countermarks'. They are completely preserved ostraca inscribed with no other text except for the names of two workmen.<sup>377</sup> Such pieces are paralleled by ostraca O. BTdK 569, O. BTdK 571, O. BTdK 572, and O. BTdK 574, which are each inscribed and/or incised with two workmen's marks. Among these ostraca are also marks that were evidently not drawn by the hand of a professional scribe.

If these ostraca with marks were indeed created by the owners themselves, their possible function as an official countermark necessary to receive tools or commodities makes little sense. Comparing such ostraca to other instances in which the workmen themselves added ostraca we enter the domain of potmarks, objects inscribed and incised with identity marks, and graffiti. In all these contexts, the marks convey the identity of the owner of the mark to other individuals, either as the owner of an object or as an individual in a specific space. Such marks are meant to be seen by the collective of the workforce. Name stones with identity marks could have functioned in a similar way. The owner of a name stone might have placed it in his house, his hut or his stable, as a way to declare ownership of that space and the objects therein. While it has been suggested that the roofs of the houses in the village of Deir el-Medina must have been considered public space used to facilitate movement across the settlement,<sup>378</sup> it is clear that ownership of these houses was conveyed by means of inscriptions. The names of the owners are recorded on lintels, doorposts columns and column bases.<sup>379</sup> Further evidence that workmen claimed a specific space by furnishing it with an inscribed object is found in the text of O. UC 39622, where a stela is erected to mark the

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<sup>372</sup> O. BTdK 563.

<sup>373</sup> O. BTdK 584; O. BTdK 585; O. BTdK 586; O. BTdK 587; BTdK 588.

<sup>374</sup> O. BTdK 565; O. BTdK 575; O. BTdK 583.

<sup>375</sup> Grandet, *Ostraca hiératiques* VIII, 5.

<sup>376</sup> For similar ostraca see the discussion of O. DeM 264, O. DeM 10121 and O. DeM 19125 above, 4.3.2.5.

<sup>377</sup> E.g. O. IFAO 168, O. IFAO 1509, O. Cairo JE 72472 and O. Qurna 655/1.

<sup>378</sup> Meskell, 'Spatial analyses', 261-262.

<sup>379</sup> Bruyère, *Rapport 1931-1932*, 81; 89.



ownership of a hut.<sup>380</sup> Whether hieratic name stones were used in the same fashion is open to discussion.<sup>381</sup>

Ceramic ostraca with a single mark that could be name stones are not in every instance clearly identifiable, they could also be potmarks, added to convey the owner of the property. Likewise, there are limestone jar stoppers with marks on them. These marks may have functioned like a potmark and represented the owner of the jar. But it is also possible that the jar stoppers were later reused to function solely as a name stone. Apart from these difficulties it is often very problematic to date a name stone inscribed with a mark. It has been demonstrated that large numbers of marks were used throughout the 20<sup>th</sup> Dynasty, and we will see that many of them occurred already in the 19<sup>th</sup> Dynasty. In isolation, such marks cannot be dated accurately.

One body of ostraca with one or two marks can more or less safely be attributed to the period of the reigns of Ramesses IV to Ramesses VII. These are the examples discovered at the site of the huts near KV 18. Nine jar stoppers<sup>382</sup> and four ceramic fragments with marks (which could also be potmarks)<sup>383</sup> are here considered as ostraca with one or two marks that may have function as name stones. Seven of these objects from this settlement can be categorised as collective name stones. Unfortunately the marks inscribed on them do not elucidate their meaning or purpose.

We have already mentioned the enigmatic O. BTdK 572, inscribed on one side with two names that are not directly related to the marks on the other side. These marks are  $\underline{\text{v}}$  and  $\hat{\text{p}}$ , during the reign of Ramesses IV used for Pentaweret (vii) and Penniut (i). Why both men shared a name stone is not evident because they were no family members. Perhaps they possessed a joint name stone because they were at some point colleagues on the left side of the crew. Two marks,  $\text{X}$  and  $\text{r}$ , probably for Nesamun (III) and Nakhemmut (ii), are inscribed on O. BTdK 574. These men are not known to have been family members either. They both served on the right side of the crew during the reigns of Ramesses IV and Ramesses V. That may also be true for the workmen referred to on O. BTdK 571, with  $\text{f}$  for Minkhau (i) and  $\text{A}$ , if here indeed used as an allomorph of  $\text{AA}$ , for Pamedunakht (i). Similarly, marks  $\text{C}$  and  $\text{d}$  on O. BTdK 569 are attested together on O. Cairo JE 46862 probably as workmen of the left side of the crew. O. BTdK 579 and ONL BTdK 580 are both inscribed with the pair  $\text{z}$  and  $\text{v}$ . The former mark belonged to Maaninakhtuf (iii), workman of the right side, and the latter mark is attested for an unidentified workman of the right side on O. Turin N 57008. O. BTdK 581 is incised with two signs,  $\text{f}$  and  $\text{e}$ . The latter is worked in very shallow lines, and although it is attested as a workman's mark for a member of the left side it is unclear if it is here used as such. We may alternatively propose that mark  $\text{f}$  used for Minkhau (i) is here combined with hieroglyph  $\text{e}$  with phonetic value  $\text{h}^c$ , as another reference to Minkhau (i). O. BTdK 583 is inscribed with three instances of the mark  $\text{k}$ . All may refer to Iry-'a, who used this mark during the first half of the 20<sup>th</sup> Dynasty, but there is a possibility that here it signifies his person and that of his sons or two apprentices of his.

<sup>380</sup> Robert J. Demarée, 'Remove your stela'. (O. Petrie 21 = *Hier. Ostr.* 16, 4) in: Demarée and Janssen (eds.), *Gleanings*, 101-108.

<sup>381</sup> One may object that hieratic name stones could not have functioned in the same way because the majority of the members of the crew would not have been able to read the ostraca. A tentative explanation of such pieces is that they were used in oracular practice or as labels added to commodities in a storeroom that were yet to be distributed among the workmen by the captains of the crew. The same explanation may be offered for ostraca which only mention one side of the crew or a specific commodity.

<sup>382</sup> KD 18; O. BTdK 485 = KD 20; O. BTdK 576 = KD 35; O. BTdK 577 = KD 41; O. BTdK 578 = KD 9; O. BTdK 579 = KD 29; O. BTdK 580 = KD 21; O. BTdK 581 = KD 42; and O. BTdK 582 = KD 26.

<sup>383</sup> O. BTdK 585; O. BTdK 586; O. BTdK 587 and O. BTdK 588.

The marks on these pieces from the huts settlement were made with charcoal<sup>384</sup> or with black ink<sup>385</sup> or red ink,<sup>386</sup> but the majority is incised.<sup>387</sup> The practice of incising limestone pieces with marks seems to be typical for this site. Numerous Ramesside ostraca with a single mark have indeed been discovered in and around the village of Deir el-Medina, but these are generally inscribed in ink. It is nevertheless plausible that some of the Ramesside ceramic fragments incised with a mark, found in great quantities in the Grand Puits,<sup>388</sup> functioned as name stones as well. Instead of inscribing a shard with a mark to use it as name stone, workmen may have incised a shard when no charcoal or ink was available.

As stated above, it is as a rule impossible to attribute an accurate date to ostraca with one or two marks found at Deir el-Medina because in most cases the archaeological context of these pieces is insufficiently understood.<sup>389</sup> Nevertheless it should be clear that several of these marks are also attested in the 20<sup>th</sup> Dynasty, and it is practically certain that during this period name stones with identity marks were created and used at the village. Several Ramesside examples were discovered at the Grand Puits or its adjacent *kom*. Besides numerous administrative ostraca, this findspot yielded many objects that were used in a domestic context. It is therefore likely that they were used in the same way as the name stones with marks found in the settlement in the Valley of the Kings.

One ostrakon inscribed with two marks from the Grand Puits is ONL 432. It is a remarkable example because it is inscribed with mark  $\overline{\text{X}}$  on the obverse while the reverse is inscribed with mark  $\overline{\text{T}}$ . The later mark is attested for Qenymin (i), while the former mark has been connected with Apatjau (i) as well as his father Siwadjet (iii). The possibility exists that Qenymin (i) was, like Apatjau (i), a son of Siwadjet (iii).<sup>390</sup> If we assume that ONL 432 records two of these three individuals the name stone may be dated to the end of the 19<sup>th</sup> Dynasty or the first half of the 20<sup>th</sup> Dynasty. Since the individuals are family members, it is likely the piece refers to a commodity, object or space that was in the possession of this family.

#### 4.3.4 Analysis of lay-out

Ostraca with identity marks from the 20<sup>th</sup> Dynasty display a wide variety in the design of their lay-out and show different arrangements of identity marks. Formats attested in the 18<sup>th</sup> Dynasty, such as ostraca with rows of marks, ostraca where marks are combined with strokes and dots, and ostraca with a single identity mark were still current in the 20<sup>th</sup> Dynasty. Yet, an analysis of the lay-out of 20<sup>th</sup> Dynasty ostraca with marks demonstrates that by this period several new ways of recording information with identity marks had been introduced. Columns of marks seem to have become the preferred arrangement for documents listing a great number of marks.<sup>391</sup> We shall see furthermore that the 20<sup>th</sup> Dynasty scribes were able to combine hieroglyphic or hieratic signs and numerals as well as self-invented signs and depictions of objects to convey information.

In the sections below the ostraca are divided into different categories, among which are the group of ostraca with marks in columns and the group of ostraca with marks in rows. Such a division is purely artificial, and there are no clear indications that there are significant

<sup>384</sup> O. BTdK 351; O. BTdK 563; O. BTdK 566; O. BTdK 568 and O. BTdK 583.

<sup>385</sup> O. BTdK 89; O. BTdK 557; O. BTdK 558; O. BTdK 562 and O. BTdK 575.

<sup>386</sup> KD 18; O. BTdK 350; O. BTdK 406; O. BTdK 559; O. BTdK 561; O. BTdK 564; O. BTdK 565 and O. BTdK 573.

<sup>387</sup> O. BTdK 123; O. BTdK 530; O. BTdK 560; O. BTdK 576; O. BTdK 578; O. BTdK 582; O. BTdK 584; O. BTdK 585; O. BTdK 586; O. BTdK 587 and O. BTdK 588.

<sup>388</sup> See for example Bruyère, *Rapport 1948 – 1951*, pls. 16-17.

<sup>389</sup> See also the ostraca mentioned above, Introduction, p. 17, n. 107.

<sup>390</sup> Davies, *Who's who*, 186.

<sup>391</sup> Cf. Haring, 'Workmen's Marks on Ostraca', 146.

differences in the meaning of these two document types. As we will see, both ostraca with columns of marks and ostraca with rows of marks can be accompanied by dots, strokes and / or numerals. In fact, ONL 6297 demonstrates that within a single document both columns and rows may feature side by side.

The ostraca with marks are, like hieratic ostraca, most often written in black ink, but the use of red ink is not at all uncommon. It has already been pointed out that the use of red ink in the duty and delivery texts composed with marks from the first half of the 20<sup>th</sup> Dynasty probably relates to different stages in the progress of the scribe's account.<sup>392</sup> Only few comments will be made in the following sections in regard to the use of red or black ink. Examination of the use of one particular colour does not lead to clear patterns. It seems instead that a scribe's choice for a certain colour was mostly motivated by the sort of ink at hand. The use of charcoal to inscribe ostraca with marks is rare during the 20<sup>th</sup> Dynasty. One example is ONL 6576. Such ostraca may have been written at moments when ink was not available to the scribe, although the crude handwriting of ONL 6576 also suggests that this individual, obviously not a trained scribe, may not have had access to ink at all.

An attempt will be made here to deduce the meaning and function of the ostraca. In most cases this is a difficult undertaking because the documents are far from explicit about their content. With two exceptions,<sup>393</sup> the ostraca do not have a heading, and in many cases we can unfortunately only offer tentative interpretations of the records. We may however take a cue from the ostraca inscribed both with marks and with hieratic and with hieroglyphic texts. In sections 4.3.1 and 4.3.2 we had seen that several of them are records of the distribution of goods: O. Cairo CG 25569 is an account of wicks; O. Cairo CG 25315 records the distribution of portions of grain; O. OIM MH 2666 records the distribution of perhaps grain and other items; and O. Brooklyn 16118+ attests the distribution of fish, oil, honey, curd and perhaps objects. In addition we have seen that ostraca ONL 1371 and O. Cairo CG 25660+ are lists of items brought by particular individuals on a special occasion. All these ostraca have a common factor: the identity marks of workmen are associated with commodities. We may therefore expect that other ostraca with lists of workmen's marks accompanied by numerals, strokes or dots are similar accounts. These figures and signs may tally commodities allotted to or presented by workmen.

#### 4.3.4.1 Ostraca with marks in columns

There are 193 ostraca from the 20<sup>th</sup> Dynasty that are inscribed with columns of marks. In several instances, dots, strokes, numerals and / or other signs are added to these marks. A very precise examination of these ostraca reveals that there are many possible combinations:

- Columns of marks without additional signs (60)
- Columns of marks with dots to the right (10)
- Columns of marks with dots to the left (7)
- Columns of marks with dots to the right and/or left (4)
- Columns of marks with dots to the right, left and/or underneath (1)
- Columns of marks with dots underneath (1)
- Columns of marks with separate group of dots (1)
- Columns of marks with dots and hieratic signs for 'presence' and 'absence' to the right (3)
- Columns of marks with vertical strokes or dots to the right (1)
- Columns of marks with vertical strokes underneath (1)

<sup>392</sup> See chapter 3, 3.3.9.

<sup>393</sup> The label *psš* 'distribution' is added to O. OIM MH 2666 and O. Brooklyn 16118+.

Columns of marks with vertical strokes to the right (2)  
 Columns of marks with vertical strokes to the left (3)  
 Columns of marks with vertical strokes to the right or left (1)  
 Columns of marks with horizontal strokes to the right or underneath (1)  
 Columns of marks in sections with strokes to the right (1)  
 Columns of marks with hieratic numerals to the right (2)  
 Columns of marks with hieratic numerals to the left (4)  
 Columns of pairs of marks with hieratic numeral to left and dots to right or left (1)  
 Columns of marks with hieratic numerals and/or dots to the left (1)  
 Columns of marks with hieratic numerals and dots to the left or underneath (1)  
 Columns of marks with hieratic numerals and/or dots to the left or right (4)  
 Columns of marks with hieratic numerals and/or dots to the right, above or underneath (1)  
 Columns of marks with numerals and/or dots to the right and rows of marks with marks underneath or to the right (1)  
 Columns of marks in sections with hieratic numerals to the right, or dots to the right, left, above or underneath (1)  
 Columns of marks with *sw* data, marks, sign for commodities and *smd.t* agents and hieratic numerals (80)

*Columns of marks without additional signs*

About two thirds of these 80 ostraca were discovered at the village of Deir el-Medina, while the other third comes from the Valley of the Kings. In 36 ostraca we observe marks that are written in an ordered sequence. Among these documents are four ostraca that record members of both sides of the crew.<sup>394</sup> While the marks in three of these ostraca are only partly written in an ordered sequence, O. BM 5642 is in all probability an ordered list of the entire crew. There are 21 additional ostraca that contain columns of what appear to be ordered lists of workmen of the right side, or with marks that are listed in an order that agrees with the relative position of these marks in the duty roster.<sup>395</sup> In the case of O. BTdK 475 it is not quite certain whether the list of workmen is an ordered one, but as it compares to some extent to a hieratic list of workmen we assume it is. Eleven of such documents exist for workmen of the left side.<sup>396</sup> The ostraca with ordered lists of workmen may have functioned in the same way as hieratic name lists, as discussed in section 4.3.3.1.

In 23 other ostraca with columns of marks we do not recognise an ordered list. Eight of these ostraca contain workmen of both sides of the crew,<sup>397</sup> seven record workmen of the right side exclusively,<sup>398</sup> and two ostraca record members of the left side exclusively.<sup>399</sup> Six additional ostraca do not adhere to any attested ordered sequence but apart from ONL 6217, the marks in the other five ostraca clearly belong to a single pool of workmen who may have

<sup>394</sup> O. BM 5642, O. Area K Unnumbered, O. Cilli 111 and O. Cilli 335.

<sup>395</sup> O. BM 50716; O. BTdK 475; O. BTdK 542; O. BTdK 552; O. Cairo JE 46865; O. IFAO C 7638; ONL 6240; ONL 6268; ONL 6314; ONL 6322; ONL 6399; ONL 6429; ONL 6437; ONL 6440; ONL 6450; ONL 6469; ONL 6494; ONL 6511; ONL 6548; ONL 6603 and O. OIM 19215.

<sup>396</sup> O. Ashmolean HO 626; O. Ashmolean HO 1098; O. BTdK 475; O. Cairo JE 72491; O. Cairo JE 72497; O. Cairo JE 72499; O. DeM 10121; O. MMA 14.6.218; ONL 6273; ONL 6478; ONL 6481 and ONL 6693.

<sup>397</sup> O. Ashmolean HO 704; O. BTdK 547; O. Cairo Unnumbered R; ONL 307; ONL 6275; ONL 6323; ONL 6453 and ONL 6283.

<sup>398</sup> O. BTdK 543; O. Cairo JE 96529 ; O. Cairo CG 25323; O. Cairo CG 25324; O. IFAO C 2470; ONL 6427 and ONL 6468.

<sup>399</sup> O. Cairo CG 25320 and ONL 6482; the document might also record workmen of the right side, but seemingly not in an ordered list.

served on one side of the workforce.<sup>400</sup> The purpose of such ostraca is very unclear. O. Cairo Unnumbered R<sup>401</sup> also records a doorkeeper near the bottom of a column and it could therefore be an ordered list to some extent. Since the lists are not ordered they do not necessarily have to be documents of the collective tomb administration. Instead they could be private notes.

*Ostraca with columns of marks and with dots*

To this category belong 23 ostraca: three of unknown provenance, eight from the village of Deir el-Medina, and 12 from the Valley of the Kings. A small majority of 14 ostraca is entirely or partially written conform an ordered list, suggesting they are part of the collective tomb administration. Twelve of these ostraca contain marks that are accompanied by a single dot. These 12 ostraca record lists of workmen of the right side,<sup>402</sup> of the left side<sup>403</sup> and of both sides.<sup>404</sup> Presumably these dots are check marks, made by the scribe when he revised his document. In the case of O. Cairo SR 12218 and ONL 6602 the dots are added in another colour than the marks, perhaps evidence of a second revision. Alternatively the dots may indicate the absence or presence of a particular workman on a particular day. Indeed, some of the dots originally added on O. ARTP 99/27 have been deliberately erased by the scribe, indicating the dots were of certain significance.

Ostraca ONL 6256 and ONL 6502, discovered at the village, record workmen of the right side in an ordered sequence. On these documents the marks are accompanied by respectively two and three dots each. What these dots count is unclear, but since the marks occur in an ordered list the documents could record the distribution of goods.

Some of the other ostraca do not contain ordered lists of marks, but are nevertheless concerned with workmen of one particular side of the crew exclusively. O. BTdK 546 (from the settlement near KV 18) and ONL 6531 (from the village) record workmen of the right side. In both documents a single dot is added in a different colour than the marks, suggesting they were added at a later moment for administrative purposes. ONL 6713 records members of the left side and O. BTdK 539 deals with workmen of both the right and the left side. The single dots accompanying the marks could be check marks.

The meaning of O. Michaelides Nr. 91 and ONL 6675 is not quite clear. The latter document is perhaps a record of members of the left side. Large numbers of dots, ranging from one to 14, accompany the marks. Several dots are added to the marks on O. Michaelides Nr. 91 but it can often not be determined which dots belong to which mark. It is unclear what exactly is being counted in these documents.

Ostrakon O. Cilli 84 is very fragmentary. A dot has been added next to only one workman's mark, and the document may have been a list of workmen as well. A single dot is perhaps added next to one of the marks on O. BM 41649, the provenance of which is unclear. O. MMA 09.184.785 displays two incomplete columns of workmen's marks.<sup>405</sup> Two marks have been intentionally erased by the scribe. The name of a female, Wasetnakht (i), is written in the left column in a rather abbreviated hieroglyphic spelling. A second name written in hieroglyphs may feature at the bottom of the right column but is severely damaged. A dot or rather a blob of ink had been added next to eight of the marks and names, some of which have not survived. The two horizontal strokes below the second column may be interpreted as the hieratic numeral 8, added as a total. O. MMA 09.184.785 is not necessarily a document made

<sup>400</sup> O. ARTP 02/225; O. Cairo JE 72493; O. Cairo JE 72495; O. KV 10041; O. MMA 14.6.204 and ONL 6217.

<sup>401</sup> Appendix I, § 28.

<sup>402</sup> O. BTdK 537; O. BTdK 538; O. BTdK 541; O. BTdK 554; O. Cairo SR 12218; ONL 6251; ONL 6513.

<sup>403</sup> O. ARTP 99/27; O. BTdK 555; O. Cairo CG 25318; ONL 6602.

<sup>404</sup> O. Ashmolean HO 1118.

<sup>405</sup> Appendix I, § 12.

in the context of work on the tomb, as some recorded individuals are family members. Wasetnakht (i) was the daughter of Khaemnun (i) and brother of Maaninakhtuef (iii), whose marks feature in this document. The document may therefore be a private account recording the distribution of commodities among family and friends.

*Ostraca with columns of marks and with dots and a hieratic sign for 'presence' and 'absence'*  
The three ostraca of this category have been discussed above in section 4.3.3.2. While O. Cairo JE 96647 was discovered in the Valley of the Kings, ONL 6463 and ONL 6851 come from the village of Deir el-Medina. All three ostraca are explicitly concerned with attendance at the work site.

*Ostraca with columns of marks and with a separate group of dots*  
One ostrakon from the Valley of the Kings, O. Cairo CG 25319, is inscribed with two columns of marks for members of the left side in an order that is comparable to the ordered sequence. On the right side of the ostrakon 10 superimposed dots are added that conceivably correspond to the 10 marks. The meaning of the document is unclear, but the adherence to the ordered sequence suggests that it was part of the collective necropolis administration.

*Ostraca with columns of marks and with vertical strokes*  
Instead of dots, vertical strokes are occasionally added to marks on some ostraca. The strokes all appear to represent amounts, and are all integers. If they record quantities of grain or any other commodity measured in *khar*, they apparently never include portions with  $\frac{1}{4}$ ,  $\frac{1}{2}$  or  $\frac{3}{4}$  *khar* because the strokes are never combined with dots.<sup>406</sup> In O. Cairo CG 25317, the strokes indeed represent *khars*, as pointed out below in this section. If the quantities in other ostraca are indeed amounts of commodities, they could represent bundles of vegetables (distributed in portions of ten, five and one bundle on O. Černý 22 dated to the middle of the 20<sup>th</sup> Dynasty), or loaves of bread (distributed in portions of one or two on O. DeM 296 dated to the middle of the 20<sup>th</sup> Dynasty). Other items are of course possible as well and in hieratic distribution texts from the 20<sup>th</sup> Dynasty we find commodities such as beer, oil, honey etc. Theoretically the strokes could also tally the number of days a workman had been present or absent at the worksite during a specific timeframe, or perhaps the output of labour over the course of a particular period, but there are no parallels for such records in the hieratic administration.




Ostraca with marks and vertical strokes were found at the village of Deir el-Medina as well as the Valley of the Kings. Ostraca O. BTdK 550, O. Cairo JE 96614, O. Prague NM P 3836 and ONL 6253 are ordered lists of workmen of the left side. On O. BTdK 550 one stroke is added to one mark only. Its meaning is unclear. Similarly, ONL 6253 displays one mark accompanied by two strokes. On O. Cairo JE 96614 and O. Prague NM P 3836 there are many more marks with strokes, added in greater quantities. Seven or eight strokes are added on O. Prague NM P 3836, and up to 16 strokes on O. Cairo JE 96614. These documents are evidently accounts of collective administration and tally something about which we can only guess. Related is also the obverse of O. Turin N. 57008. It displays four columns of marks, separated from each other by column dividers, and horizontal rather than vertical strokes are added to a few of the marks. The strokes feature in quantities of one, two or three. It seems probable that just like the vertical strokes they are tally strokes.

All such ostraca may be accounts of the distribution of goods. This is at least suggested by O. Cairo CG 25317.<sup>407</sup> In this ostrakon, two strokes are added next to four of the marks. The marks without strokes count as one and the marks with two strokes as two,

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<sup>406</sup> For the use of marks in combinations with strokes and dots, see below.

<sup>407</sup> It is very unlikely that the dot to the right of one mark is significant. It may be a check mark or simply a splatter of ink.

resulting in a total of 24, to which the hieratic numeral at the bottom of the ostrakon must refer. As we pointed out above, the list of marks on this ostrakon is to some extent an ordered one, because it mentions a doorkeeper at the bottom. We have also remarked that mark  at the bottom of the left column is a reference to a temple or chapel of the king. In analogy with hieratic lists such as O. Berlin P 14264, which also record a doorkeeper and the chapel of the 'Lord of both Lands', we can interpret O. Cairo CG 25317 as a record of the distribution of grain rations. The strokes most likely represent amounts of *khar*, indicating that most of the recorded individuals received one *khar* and four colleagues were allotted two *khar*. Similar figures are known from hieratic grain distribution texts from the end of the 20<sup>th</sup> Dynasty.<sup>408</sup> The reason for the higher portions for some of the individuals in this list must be connected with their rank, but we are not able to identify all of them. Mark  may refer to the guardian Qaydjeret (i), but men of this occupation were usually not given a higher ration than workmen. Mark  may however refer to Qenna (i), who was deputy of the left side in the second half of the 20<sup>th</sup> Dynasty.<sup>409</sup> Whereas hieratic distribution texts always list the individuals in categories, such as 'the four captains' and 'the workmen', O. Cairo CG 25317 is an individualised list. We may therefore assume that O. Cairo CG 25317 was a draft made by a hieratic scribe in preparation of a more elaborate hieratic distribution text.

Ostraca O. Ashmolean HO 5 and ONL 6540 display marks of workmen of the right and the left side and they are not inscribed in accordance with an ordered sequence. In the former ostrakon one or two strokes are added to each mark, in the latter ostrakon we observe up to four strokes. Since these documents do not feature ordered lists, they could be private accounts.

#### *Ostraca with columns of marks in sections with strokes*

The marks on ONL 6303 are listed in two columns in accordance with an ordered sequence of the left side. The marks are inscribed in a table that contains compartmented groups of marks. Each mark, written in black ink, is accompanied by six strokes in red ink, suggesting the strokes were added at a later stage. There are no apparent differences between marks in one group and in the other apart from faint traces of ink in two boxes in the right column that appear to be depictions of pieces of shawls with fringes.<sup>410</sup> The strokes may thus tally the number of clothes distributed among a group of workmen. After the first few boxes the scribe may have decided to stop repeating the depiction of the shawl for each group of individuals.

#### *Ostraca with columns of marks and with dots or vertical strokes*

The only ostrakon in this category is ONL 6435. On this document there are three marks with two dots, one mark with three dots and one mark with two vertical strokes. It would seem that the dots signify something different than the strokes. One may propose that the strokes stand for quantities of *khar* and the dots for *oipe*, but that cannot be proven.

#### *Ostraca with columns of marks and with hieratic numerals*

The six ostraca in this category have been discovered at the village as well as in the Valley of Kings. Thanks to the mention of Pased on O. DeM 264 we have been able to interpret this ordered list of marks of members of the right side accompanied by the hieratic numeral five as an account of the distribution of bundles of vegetables. O. Cairo JE 96326 and ONL 6549 too are ordered lists of members of the right side with the number five, and could therefore be similar documents.

<sup>408</sup> See the overview in Goecke-Bauer, 'Torwächter', 84-87.

<sup>409</sup> Davies, *Who's who*, 22.


<sup>410</sup> Cf. pictorial depictions of items of laundry and other objects, see chapter 5, 5.3.2.3.

The meaning of O. Cairo CG 25660+ was also elucidated thanks to the hieratic inscription on the same vessel. It represents a gift-giving list of members of both sides of the crew and the number of loaves they contributed on the occasion of a festival. Since it corresponds rather well to the hieratic text, it may be a first draft of that text, or perhaps a transcription of it, so it would be comprehensible to a larger public of individuals without scribal training.

O. Cairo JE 96581 is only a brief document, displaying two marks accompanied by the numeral seven and one mark with the numeral four. The men belong to the right side of the crew, but the meaning of the document is not at all evident.

The purpose of the account on ONL 6874, a large amphora inscribed with marks, is not completely clear either. The workmen that are recorded belong to both sides of the crew and are not listed in accordance with an ordered sequence. The added numerals range from two up to as great a number as 35. Like O. Cairo CG 25660+ this text may be an account of the gifts brought by individuals to a party. An alternative but unsubstantiated explanation would be that it is an account of the distribution among various community members of the content of the amphora itself.

#### *Ostraca with columns of marks and with hieratic numerals and/or dots*

Nine ostraca with columns of marks feature dots as well as hieratic numerals. We have seen that in O. Cairo CG 25315 this is done to record quantities of *khar* and *oipe* in an account of the distribution of grain rations. The notation of these units seems, however, to be limited to this single ostrakon. The significance of the dots and numerals that accompany several marks on the reverse of ONL 6539 is utterly unclear because we do not comprehend the system of counting that is employed there. Four ostraca from the group of documents from the Valley of the Kings were made by a single scribe towards the end of the 20<sup>th</sup> Dynasty.<sup>411</sup> The fact that some of the marks appear in a recurring sequence suggests that these may be partially ordered lists of workmen. In these lists, some marks are accompanied by a set of dots, others by semi-hieratic numerals, and some by a combination of both. The semi-hieratic numerals are often incorrectly orientated and are composed of multiples of the signs for one, 10 and 20. What these figures count is not clear. Several marks display five or six dots, but the numerals range from eight to perhaps 33. Perhaps the dots are nothing more than alternative signs for the numeral one. A group such as  should then be read as '16'.

Both ostraca O. BM 50731 and OL 170+ are ordered lists written in columns separated by column dividers. In OL 170+ we can see that the numerals and dots were added at a later moment, after the list had been completed. Hieratic numerals ranging from two to 12 are added to some but not all of the marks, and we can only guess as to their meaning. The fact that the lists are ordered probably indicates that they were made as part of the collective tomb administration. The single dots added to some of the marks must be check marks.

The marks on ONL 6297 are accompanied by semi-hieratic numerals for 400, 500, 600 and 700 which are all wrongly orientated. Five dots are added above one instance of the numeral 500, but in all probability these dots have no meaning. They seem rather to have been made when the scribe of the document checked his documents and counted the vertical strokes of that particular numeral.

#### *Ostraca with columns of pairs of marks and with hieratic numerals and/or dots*

Only one ostrakon of this type is known, O. Cairo JE 46860, discovered in the settlement of huts near the tomb of Ramesses X. It is inscribed in red ink and records all members of the right side following the ordered sequence. Most workmen are listed in pairs, with the

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<sup>411</sup> O. ARTP 02/223, O. ARTP 02/224, O. MMA 09.184.783 and O. MMA 09.184.784+.



inexplicable exceptions of  $\lambda$ ,  $\bar{\Pi}$  and  $\bar{\Pi}$ . The meaning of the pairs of workmen is unclear, but every pair is connected with the hieratic numeral five. Only in the case of the pair of workmen represented by marks  $\underline{\lambda}$  and  $\underline{\lambda}$  is the numeral five added to both marks. The workmen designated by  $\lambda$ ,  $\bar{\Pi}$  and  $\bar{\Pi}$  that feature on their own are likewise connected with the numeral five. The single dots added to some of the marks are most probably check marks. The significance of the numeral 42 below the columns of marks is unclear. It cannot refer to a total of the recorded numerals, because that figure should be 85. Since the ostrakon concerns the entire right side of the crew, we may suppose that it documents a collective distribution of an unspecified commodity issued in quantities of five, as on O. Cairo JE 96326. In contrast to the latter account, most of the workmen in O. Cairo JE 46860 had to share their portion with a colleague, while others were attributed a full allotment. The arrangement in pairs is odd, and the only other parallel is ONL 6269.

*Ostraca with columns of marks with day dates, marks, sign for commodities and smd.t agents and hieratic numerals*

The 80 ostraca of this type are discussed in detail in section chapter 3.

#### 4.3.4.2 Ostraca with marks in rows

A considerably smaller body of ostraca from the 20<sup>th</sup> Dynasty record ostraca that are arranged in rows. The majority of such ostraca record marks without additional signs, but there are several ostraca in which marks are combined with dots, strokes, numerals or a combination of such elements:

- Rows of marks without additional signs (40)
- Rows of marks with dots underneath (2)
- Rows of marks with dots to the left (1)
- Rows of marks with dots to right and left (1)
- Rows of marks with dots above and underneath, to right or left (1)
- Rows of marks with a separate group of dots (1)
- Rows of marks with vertical strokes to the left (2)
- Rows of marks with vertical strokes underneath (1)
- Rows of marks with hieratic numerals to the left (5)
- Rows of marks with hieratic numerals or dots (1)
- Rows of marks in sections divided by horizontal lines (1)
- Rows of marks in columns with dots and vertical strokes underneath (2)

*Ostraca with rows of marks without additional signs*

The majority of ostraca in this category come from the village of Deir el-Medina. Only 12 out of 39 ostraca were discovered in the Valley of the Kings. Remarkable is also that only 12 ostraca in this category display an arrangement of marks that is in accordance with an ordered sequence. It seems therefore that during the 20<sup>th</sup> Dynasty the preferred lay-out for ordered lists of workmen's marks were columns. Of the ostraca that do at least partly follow the ordered sequence, eight record members of the right side exclusively,<sup>412</sup> and four are solely concerned with members of the left.<sup>413</sup> These documents are not different from ordered lists of workmen's marks arranged in columns, and may have served the same purpose.

<sup>412</sup> O. Ashmolean HO 1095, section on reverse; O. BTdK 535; ONL 6229; ONL 6290; ONL 6301; ONL 6397; ONL 6439 and ONL 6554.

<sup>413</sup> ONL 533; ONL 6246; ONL 6289; and O. Turin N. 57534.

The ostraca in which an ordered sequence cannot be detected could have had a different function. Of these documents 10 record workmen of both sides of the crew,<sup>414</sup> but other ostraca display a clear distinction between the right and the left side: 10 ostraca record only members of the right,<sup>415</sup> and three ostraca contain only marks of members of the left side.<sup>416</sup> Four additional ostraca are difficult to interpret and it is not clear to which side the marks belong.<sup>417</sup> Regarding the ostraca that deal with one side exclusively, an administrative character may be considered. Yet, all documents in this sub-category may also constitute private notes.

*Ostraca with rows of marks in sections divided by horizontal lines*

The only ostrakon that fits this description is fragmentary O. BTdK 407. It records workmen of one side but its sequence is not ordered. The marks are listed in a sort of table, but it does not appear to change the meaning of the document. In all probability the format of a table was chosen to create a neater overview. Its format does suggest that this record was created as part of the collective tomb administration.

*Ostraca with rows of marks and with dots*

There are five ostraca with marks arranged in rows that are accompanied by dots.<sup>418</sup> They were all discovered at the village but it is unclear if this means that the subject of this type of documents is related to the location at which they were written. Except perhaps for ONL 6506, the rows of marks on the other four documents were not arranged in an ordered sequence. In every ostrakon each mark is not accompanied by more than a single dot. In ONL 6430 it is perhaps one mark that is connected with a dot, in ONL 6483 there are only two marks with a dot. A semi-hieratic numeral 33 seems to be added below the row of marks in the latter ostrakon, but its meaning is unclear. In fact, we cannot ascertain what the other ostraca record exactly. In all cases the dots can be nothing more than check marks. Since the documents are not arranged in an ordered sequence, we cannot exclude the possibility that the records are private accounts of some event.

*Ostraca with rows of marks and with a separate group of dots*

O. BTdK 520, an ostrakon from the settlement near the tomb of Ramesses X, is inscribed with two or three marks for workmen of the right side. The other side is inscribed with at least 10 dots, but whether the two sides are related is unclear.

*Ostraca with rows of marks and with vertical strokes*

Like the five ostraca with rows of marks with dots, the three ostraca with rows of marks with vertical strokes were all discovered at the village of Deir el-Medina. Another parallel is the fact that the marks are not exactly enumerated in an ordered sequence, although the order of marks on ONL 6507 and O. UC 31987+ does seem to be related to one. On ONL 6575 the number of strokes ranges from three to a number over four, on O. UC 31987+ from four to perhaps ten, and on ONL 6507 from four to five. Once again we are left in the dark as to what

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<sup>414</sup> O. BTdK 536; O. BTdK 548; O. BTdK 569; ONL 6255; O. Cairo JE 46866; ONL 6261; ONL 6311; ONL 6438; ONL 6576 and O. UC 45702.

<sup>415</sup> An ostrakon depicted in Bruyère, *Rapport 1948-1951*, pl. XVIII (nr. 7); O. ARTP 99/29; O. BTdK 545; O. Cairo JE 46857; O. Cairo CG 25270; ONL 6259; ONL 6474; ONL 6551; ONL 6569 and ONL 6581. Note that the classification of O. Cairo CG 25270 is uncertain because the three marks are incorporated in a hieratic text. Moreover, in contrast to Amenemope (x) referred to by mark □, mark ☞ may or may not belong to a workman of the right side depending on the date of the ostrakon.

<sup>416</sup> O. BTdK 454, O. BTdK 551 and ONL 6448.

<sup>417</sup> O. BTdK 494; ONL 6248; ONL 6358 and O. UC 39620.

<sup>418</sup> ONL 6430, ONL 6470, ONL 6483, ONL 6506 and ONL 6508.

these ostraca document exactly. Since the marks are not arranged in an ordered sequence the ostraca could be private accounts.

*Ostraca with rows of marks and with hieratic numerals*

Apart from O. Cairo CG 25569, the marks on the ostraca in this category are inscribed in accordance with ordered lists of the right side. Two ostraca were found at the village of Deir el-Medina, the other three were discovered in the Valley of the Kings. O. Cairo CG 25569 contains only three marks for workmen of both sides of the crew. The hieratic inscription on this piece records the issue of wicks to the crew members. It is therefore plausible that the numerals connected with two of the marks, eight and ten, refer to quantities of wicks. The two marks added to hieratic ostrakon O. DeM 32 are situated in subsequent positions in the turnus of that time, and the numerals 750 and 350 might record wood deliveries. In both documents the marks and numerals may be quick notes added to hieratic accounts. In the ordered lists of O. Berlin P 10842 and O. Cairo JE 96328 the majority of the marks are connected with the numeral 100. In the latter ostrakon, mark  $\text{𓆎}$  for the foreman is accompanied by the numeral 200. It appears that on this ostrakon the foreman is allotted a portion that is twice as big as that of the other crew members, suggesting the document records a distribution of goods. In O. Berlin P 10842 on the other hand the first recorded mark is that of Harshire, who is allotted a quantity of 60. His portion thus is smaller than that of the other crew members, and we do not understand why. O. Cairo JE 96321 is probably a similar account of the distribution of goods, but the much smaller quantities indicate that it concerns a different commodity. Each workman is allotted either a quantity of seven or of ten. The total of 54 is given at the end of the second row of marks.

*Ostraca with rows of marks and with hieratic numerals or dots*

The meaning of O. BM 14214 is very unclear. It is inscribed with marks for workmen of both sides of the crew and the sequence of marks is not attested in an ordered list. Some marks are accompanied by dots and others by hieratic numerals. The numerals used are 'five' or 'ten', while the sets of dots range from one to presumably six. One of the hieratic numerals for 'five' is incorrectly orientated suggesting the scribe of the ostrakon was not very familiar with hieratic script. There is therefore a possibility that the dots are used instead of hieratic numerals to tally something, but it is completely unclear what the numerals and dots refer to.

*Ostraca with rows of marks in columns and with dots and vertical strokes*

There is at least one ostrakon from Deir el-Medina, O. Turin N. 57427, which belongs in this category, and another, ONL 6651, that we may attribute to it. O. Turin N. 57427 is an enigmatic ostrakon that displays a table consisting of 17 columns with at least one mark each. Some columns are subdivided into two or three section with another mark. Scores of dots and strokes feature below these marks, with the exception of the column with mark  $\text{𓆎}$ , which has only one stroke. At the bottom of this column we observe mark  $\text{𓆎}$ , which for unclear reasons is not inscribed in a separate section of the column. This mark too is accompanied by a single dot only. It is difficult to establish if the marks on O. Turin N. 57427 are listed in an ordered sequence because it probably dates to a period from which we do not possess many long ordered lists of marks. The organised lay-out of the ostrakon suggests that it records collective tomb administration. That is also suggested by the fact that it was corrected and perhaps reused, as evidenced by the erasure of dots and marks. Although fragmentary ostrakon ONL 6651 does not display as many dots or strokes, the marks on this piece are also arranged in a column and it may have been a similar document.

#### 4.3.4.3 Ostraca with marks not arranged in columns or rows

A smaller group of ostraca is inscribed with marks that are not arranged in columns or rows. Such documents are often rather difficult to interpret because many of them do not adhere to an ordered sequence. The following arrangements are attested:

- Marks not in columns or rows without additional signs (23)
- Marks with one dot to the right (1)
- Marks with dots to the right or left (1)
- Marks with dots or strokes in cells (1)
- Marks with dots and vertical strokes to the right or above (1)
- Marks with dots and hieratic numerals in cells (5)
- Marks with numerals to the left (1)
- Marks with numerals to the left or underneath (1)
- Marks with numerals to the right or left (1)
- Marks with numerals to the right and underneath (1)
- Marks with semi-hieratic numerals in compartmented sections (2)
- Marks with a separate group of numerals (1)

#### *Ostraca with marks not in columns or rows*

The 23 ostraca of this type display marks that are mostly scattered over the surface of the ostrakon. They were found both in the village as well as in the Valley of the Kings. Four, perhaps five ostraca in this category record marks of workmen of both sides of the crew that are not arranged in an ordered sequence.<sup>419</sup> It is completely unclear what purpose such ostraca may have served.

Four other ostraca found at the village are slightly easier to interpret because they are at least partly arranged in an ordered sequence despite their looser lay-out. ONL 6434, ONL 6458 and ONL 6572 record workmen of the right side, and ONL 6480 concerns workmen of the left side. These four ostraca are essentially the same sort of documents as ostraca with workmen's marks arranged in columns or in rows that conform to an ordered sequence. They probably played a role in the collective administration of the tomb and could be lists of workmen who were absent or present at the worksite. That may or may not be true for five other ostraca that record workmen of one particular side of the crew exclusively, although not in an ordered sequence. ONL 6425+, ONL 6537, ONL 6684 and O. Schaden 215 record men of the right side, and ONL 6243 men of the left side.

The two marks inscribed on the reverse of O. Ashmolean HO 68 are not arranged in a column or a row, but as demonstrated above they are clearly related to the hieratic text on the obverse and were probably added on the piece to summarise the subject matter.

The remaining ostraca in this group<sup>420</sup> contain no more than two or three marks. These documents are even more difficult to interpret. They may be small notes, or perhaps collective name stones. In the case of O. BTdK 136 the identification of the signs as marks is not certain.

#### *Ostraca with marks and with dots*

No more than two ostraca belong to this category. O. BTdK 540 was discovered at the settlement close to the tomb of Ramesses X, and O. Berlin P 14231 must have come from the village of Deir el-Medina. The latter ostrakon records workmen of both sides of the crew in black ink, and single reds dots were added to several of them. These dots could be check marks, but might perhaps also indicate presence or absence at the worksite. O. BTdK 540

<sup>419</sup> O. Cairo CG 25322, O. Keimer 54, O. WHTM 0692+, ONL 6264 and O. Turin N. 57353.

<sup>420</sup> O. BTdK 571, O. BTdK 572, O. BTdK 574, O. BTdK 577, O. BTdK 579, O. BTdK 580 and O. FES 01.34.

records members of the right side exclusively. A single dot is added to two of the marks, although one of them might in fact be two vertical strokes. Two marks are accompanied by two dots. This document must therefore be of a different nature than O. Berlin P 14231. The dots are most likely tallies, and because the ostrakon deals with workmen of one particular side they may count commodities distributed among the workmen. Such an understanding of the ostrakon is not at all certain because it does not explain the presence of the marks to which no dots have been added.

*Ostraca with marks and with dots or strokes in cells*

Only a single ostrakon, O. UC 45733, belongs in this category, the description of which is not completely accurate because many of the marks on this ostrakon are not inscribed in actual cells. Instead, the scribe appears to have drawn vertical and horizontal lines between the marks to separate the marks and the series of dots or strokes from the each other. The dots on this document are in all probability nothing else than shorter strokes, and nowhere do we observe a combination of dots and strokes. The number of strokes or dots per mark ranges from two to fifteen, but unfortunately it is unclear what the strokes tally exactly.

*Ostraca with marks and with dots and vertical strokes*

The marks preserved on fragmentary ostrakon ONL 6512 belong to workmen of the right side. Two strokes are added left of one particular mark, and a dot below the same mark may be a check mark. Because of the fragmentary nature of this account we cannot determine its exact meaning.

*Ostraca with marks and with dots and hieratic numerals in cells*

Five ostraca of this kind are known, four of which were found at the village of Deir el-Medina.<sup>421</sup> The provenance of O. Florence 2631 is unknown. The interpretation of these documents is primarily based on that of O. Florence 2631, which might record deliveries that took place in year 18 of Ramesses III and the workmen of the right side who were involved in these matters.<sup>422</sup> The other ostraca are far less comprehensible, and include members of the left side of the crew as well. The supposed mention of a donkey on O. IFAO no SA 284 supports the idea that these ostraca are concerned with deliveries.<sup>423</sup>

*Ostraca with marks and with numerals*

Three ostraca of this type were discovered at the village of Deir el-Medina and a fourth comes from the Valley of the Kings. The marks on ONL 6269 appear to be grouped in pairs and the ostrakon is in that respect similar to O. Cairo JE 46860. Each pair is connected with the numeral 120. The marks belong to workmen of the right side, and the arrangement of the marks is reminiscent of their positions in the ordered list. We may assume that this indicates that the ostrakon deals with the collective tomb administration. It may be an account of the distribution of goods.

The marks on O. DeM 34 all belong to workmen of the right side and together with the numerals they may be additions to the hieratic text inscribed on the ostrakon. The numerals could refer to quantities of wood delivered to the crew, perhaps with assistance of the workmen recorded by their marks. Otherwise the marks and numerals may record a distribution of goods. The marks on O. Turin N. 57350 also refer to members of the right side. The two vertical strokes juxtaposed with two marks are perhaps hieratic numerals

<sup>421</sup> O. IFAO no SA 284, ONL 6671, O. Turin N. 57144 and O. Turin N. 57145.

<sup>422</sup> See Appendix I, § 4.

<sup>423</sup> See Appendix I, § 4.



4. OSTRACA WITH MARKS OF THE 20<sup>TH</sup> DYNASTY. PART II























					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					

TABLE 87. SECTIONS OF MARKS ON O. UC 31939+

We observe that there is little overlap between the groups of marks within a single ostrakon, and the groups on O. Cairo JE 46862 do not correspond well to the groups on O. UC 31939+. There are some marks that appear in more than one section. This indicates that each section refers to a different event. Mark  is inscribed twice in the upper left section of O. UC 31939+, perhaps because no numeral is added to it in the first instance.<sup>424</sup> The marks are all accompanied by a semi-hieratic numeral that is composed in the same way as on O. Cairo JE 46858. These numerals range on both ostraca between one and 30, figures that are similar to those on O. Cairo JE 46858. We assume that the vertical strokes on O. UC 31939+ also represent units, although some of them look rather like semi-hieratic hundreds. Yet, their position left of numerals ‘ten’ and ‘twenty’ renders the latter reading problematic. Because both ostraca are concerned with one specific side of the crew, and because they assumedly record several instances of a certain event it seems likely that they are documents created for the collective tomb administration. They may deal with deliveries or the distribution of goods. We have seen that O. Cairo JE 46858 is probably a similar document, but rather records a single instance of such an assumed distribution or list of deliveries. That is also suggested by O. Cairo JE 46864, a document dated to the same period and discovered at the same site. The rather chaotic arrangement of the marks as well as the use of semi-hieratic numerals indicates they were composed by the same scribe. The reverse of this ostrakon suggests it deals with commodities stored in jars.<sup>425</sup>

*Ostraca with marks and with separate group of numerals*

The only ostrakon in this category is O. Cilli 156, which displays 10 marks referring to workmen of the right and left side. Above it two hieratic numerals are inscribed for 20 and 23, the latter incorrectly orientated. We may suppose that the numerals are related to the marks as they appear to have been inscribed by the same hand. The ostrakon is therefore an account of some sort, but its meaning escapes us.

<sup>424</sup> Alternatively the double mark refers to two family members with the same mark.

<sup>425</sup> See above, p. 371.

#### **4.3.4.4 Ostraca with marks combined with journal dates and signs for commodities and objects**

As discussed above, a group of 15 ostraca most of which were discovered at the Grand Puits may be interpreted as journal texts that record day dates in combination with workmen's marks and signs for commodities and objects.<sup>426</sup> These ostraca were probably created by the same hand. Because of the fragmentary state of these ostraca, some of which may actually have belonged to one single document, they are difficult to interpret. They are perhaps records of deliveries received by workmen on *wrš* duty.

#### **4.3.4.5 Ostraca with marks in a roster with dots and strokes and signs for festivals**

As discussed above, O. Louvre N. 699 is probably a calendar of sorts that records deliveries and inactivity for 12 days, or less likely for a complete year. In our corpus it is the only ostrakon of this type. Reportedly its provenance was the village of Deir el-Medina.

#### **4.3.4.6 Ostraca with marks and depictions of furniture and other objects**

Ostraca of this type have been analysed above in section 4.3.3.3. The number of ostraca in this category that were discovered in the Valley of the Kings is almost as great as the number of ostraca with marks from the village of Deir el-Medina. ONL 6262 belongs perhaps also in this category if the vessel in the left corner is not the identity mark  $\heartsuit$ .

#### **4.3.4.7 Ostraca with one or two marks**

Ostraca that display nothing else but one or two identity marks are most probably name stones. Their purpose has been discussed in section 4.3.3.4. There may be many more of such names stones, but their identification and their date is problematic. There are other ostraca which feature no more than two marks, but they are of a different nature. As discussed above,  $\square$  is the only mark within the hieratic administrative text of O. DeM 150+. Together with the hieratic numeral to its left this may be a brief addition to a delivery text.

There are two ostraca, O. BTdK 353 and O. BTdK 553, which are difficult to interpret because they are not completely preserved. In their current state they display only a single mark each, with one or two dots added to them. These dots are difficult to explain, and the ostraca were probably part of a larger document.

Ostraca O. Cairo CG 25326 a-i are each inscribed with a single workman's mark and a large amount of vertical strokes. These nine ostraca clearly belong together. It seems they were discovered in the Valley of the Kings as a group and are all written on limestone. Each mark is accompanied by a series of strokes, written in one, two, three or four lines. The number of strokes per ostrakon ranges from 11 to 42. The meaning of these ostraca is very obscure, but because they are evidently related to each other they could be short work notes that were at a later point consulted to compile another document, perhaps a hieratic account.


#### **4.3.4.8 Ostraca with an unclear lay-out**

A small number of ostraca do not quite fit into any of the categories discussed above. In most cases this is due to the poor state of preservation, and therefore these ostraca are incomprehensible. O. UC 39606 and O. UC 39661 display a row of signs but they cannot be securely identified as workmen's marks. ONL 6586 and ONL 6574 certainly date to the 20<sup>th</sup> Dynasty but are very damaged. They seem to belong to the category of ostraca with marks that are neither arranged in columns nor in rows. ONL 6523 probably does not display any workmen's marks, but the fragment may have belonged to a larger document that did. Enough signs on this piece are reminiscent of the duty and delivery ostraca from the first half of the


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<sup>426</sup> ONL 1409, ONL 6178, ONL 6179, ONL 6180, ONL 6181, ONL 6182, ONL 6183, ONL 6184, ONL 6185, ONL 6239, ONL 6242, ONL 6282, ONL 6685, ONL 6711 and ONL 6832.



20<sup>th</sup> Dynasty to relate ONL 6523 to the same category. The lay-out of O. DeM 10028 cannot be accurately determined because the sign below mark  is unclear. The mark may or may not be related with what appears to be a hieratic delivery account on the obverse. ONL 6660 might be a row of marks but only that of Harshire (i) is clearly visible. ONL 6258 could be a collective name stone if one accepts that it is partly written with cursive hieroglyphs. It contains a brief column that can be read as *p < n > -niw.t*:



To the left of it we observe mark , used for Nakhtmin (vi). This man is not related to a Penniut and we are unable to explain the occurrence of both men on this piece. O. BTdK 556 records the marks of at least three, perhaps four draughtsmen. The meaning of the strokes is not at all clear, the more so because several series of strokes are not connected with a mark. Since the document mentions a group of draughtsmen it could be a record of paint jobs on objects or within the royal tomb, but that is of course highly speculative. The hand in which the marks are inscribed is not evidently that of a trained draughtsman.

#### 4.4 SCRIBES AND SCRIBAL COMPETENCE

In chapters 3 and 4 we have discussed the total of 379 ostraca with marks that date to the 20<sup>th</sup> Dynasty. The real number of preserved ostraca from this time is presumably somewhat higher, because there exist several ostraca that are only broadly attributed to the Ramesside Period. The total of 379 ostraca includes so-called name stones (composed with marks) as well as ostraca that are also inscribed with hieratic. The amount of 379 ostraca is very small considering the span of the 20<sup>th</sup> Dynasty, and it is extremely low when compared to the estimated total of 12000 hieratic ostraca both published and unpublished from the Ramesside Period. The ratio of hieratic documentary ostraca to ostraca with marks can be investigated to some extent through the finds from the controlled excavations at the settlement of the huts near KV 18 carried out by the University of Basel that point towards very similar figures. The mission recovered 255 administrative texts and objects (including weights and name stones),<sup>427</sup> and 56 ostraca with marks (excluding jar stoppers and other objects incised or inscribed with (an) identity mark(s)),<sup>428</sup> indicating that of all 311 documents, c. 82% was written in hieratic and c. 18% was composed with marks.

Regardless of the absolute numbers of hieratic ostraca and ostraca with marks, it seems reasonable to assume that for every 10 ostraca that were ever composed, about two were inscribed with marks, and presumably even less. We may infer from this observation that certainly not the entire population of Deir el-Medina would have been in the habit of creating documents with the use of marks. This would in theory seem possible, but the number of ostraca with marks is far smaller than the number of texts created by the group of literati within the community. Still, the palaeography of the marks differs from ostrakon to ostrakon, suggesting we are not dealing with a select group of ‘scribes’ that employed marks.

We are of course curious as to who the individuals that created ostraca with marks were, but concrete indications are unfortunately lacking. It has been proposed that the duty and delivery ostraca from the first half of the 20<sup>th</sup> Dynasty was the ‘*smd.t* scribe’ Pentaweret (iii), but we know very little about this man. We have to some extent been able to demonstrate that although he certainly had some knowledge of hieratic script – particularly of uniliteral signs and numerals – he was not a professionally trained scribe. Apparently he compensated for his scribal incompetencies by inventing his own signs and combining them with

<sup>427</sup> Dorn, *Arbeiterhütten*, 142.

<sup>428</sup> O. BTdK 382, 407, 454, 475, 487, 494, 535 – 520; 552 – 575; 577; 583 – 580.

workmen's marks. In the case of this man, whose archive we can examine in detail, we are able to come to such conclusions, but for the majority of the other ostraca with marks this is not possible. It is extremely difficult to qualify whether a particular handwriting belongs to a professional scribe or an untrained individual. It is easier to identify hands that show signs of a professional at work than detecting the handwriting of someone who was not trained; a crude, sloppy manuscript with unattractive marks may also have been made by a trained scribe with a bad handwriting or by a trained scribe who was in a hurry. There are, however, instances in which one is able to recognise a scribe with very limited skills through the use of semi-hieratic numerals or mistakes in marks with hieroglyphic elements.

Still, it is in general a difficult and dangerous mission *to systematically and factually assess* a scribe's proficiency in writing. Ostraca O. ARTP 99/27 and O. Cairo JE 72491 (FIG.13) illustrate how handwriting, orientation, shape and lay-out of the marks in a particular document inform us about the level of scribal training of its author. Both of these well preserved documents are most likely lists of the entire left side of the workforce and date to the reign of Ramesses IV. O. ARTP 99/27 displays two columns of workmen's marks, the majority of which is orientated to the left, suggesting the direction of reading is from left to right. Yet it is clear that the right column was made before the left column, because it contains the mark of the deputy of the left side. Moreover, the marks are not all orientated to the left: marks  $\bar{\text{I}}$ ,  $\bar{\text{T}}$ ,  $\mathcal{A}$ , and  $\ddagger$  are orientated to the right, demonstrating that the author of the piece was not very attentive about the orientation of his signs. The scribe was for some reason not greatly concerned with the general lay-out of his document, and the columns of marks are not perfectly vertical. For example, there is a bend in the right column because the scribe preferred to align his marks to the edge of the ostrakon. Moreover, when the scribe finished his right column he did not continue at the top of the left column. As a comparison of the same sequence of marks on other ostraca indicates, the continuation of the right column begins with mark  $\text{𓆎}$  in the short column at the bottom of the ostrakon, which in turn is followed by mark  $\text{𓆏}$  heading the larger column at the left side of the ostrakon. Several features of the shape of the marks on O. ARTP 99/27 are rather unorthodox. Some demonstrate that the author of the ostrakon was not a trained scribe. That is most obvious in his allomorph of mark  $\text{𓆑}$ , probably referring to a workman with the element *m-hb* in his name, rendered by our scribe as *hb-m*. His unfamiliarity with script is also evident in his variant of  $\text{𓆒}$ , in which the semi-circular element on which the feather rests is inverted. Moreover, this scribe's variant of mark  $\text{𓆓}$  is vertically orientated. Mark  $\text{𓆔}$  has been written as if it were a hieratic ligature, but apart from its unconventional shape it is incorrectly orientated for a hieratic sign (FIG.14A). We may question the extent of the scribe's familiarity with the workmen's marks as well, because his allomorph of mark  $\text{𓆕}$ , the pentagram, becomes an otherwise unattested four-pointed star (FIG.14B). Other marks are not necessarily incorrectly shaped but do seem to indicate that the scribe's way of thinking was not embedded in script. The inspiration for some of his marks appears not to have originated from signs used in Egyptian writing, but from the actual objects. For example, the scribe's allomorph of mark  $\text{𓆖}$ , a hieroglyphic sign depicting a sistrum with the phonetic value *shm*, referring to a workman called *Merysekhmet*, is depicted as an actual *shm*-sistrum (FIG.14C). Similarly, the allomorph of  $\text{𓆗}$ , the neck support, is shaped as an actual block-shaped neck support (FIG.14D).<sup>429</sup>

<sup>429</sup> For examples of block-shaped neck supports from Deir el-Medina see Bruyère, *Rapport 1934-1935* III, figs. 117 and 118.

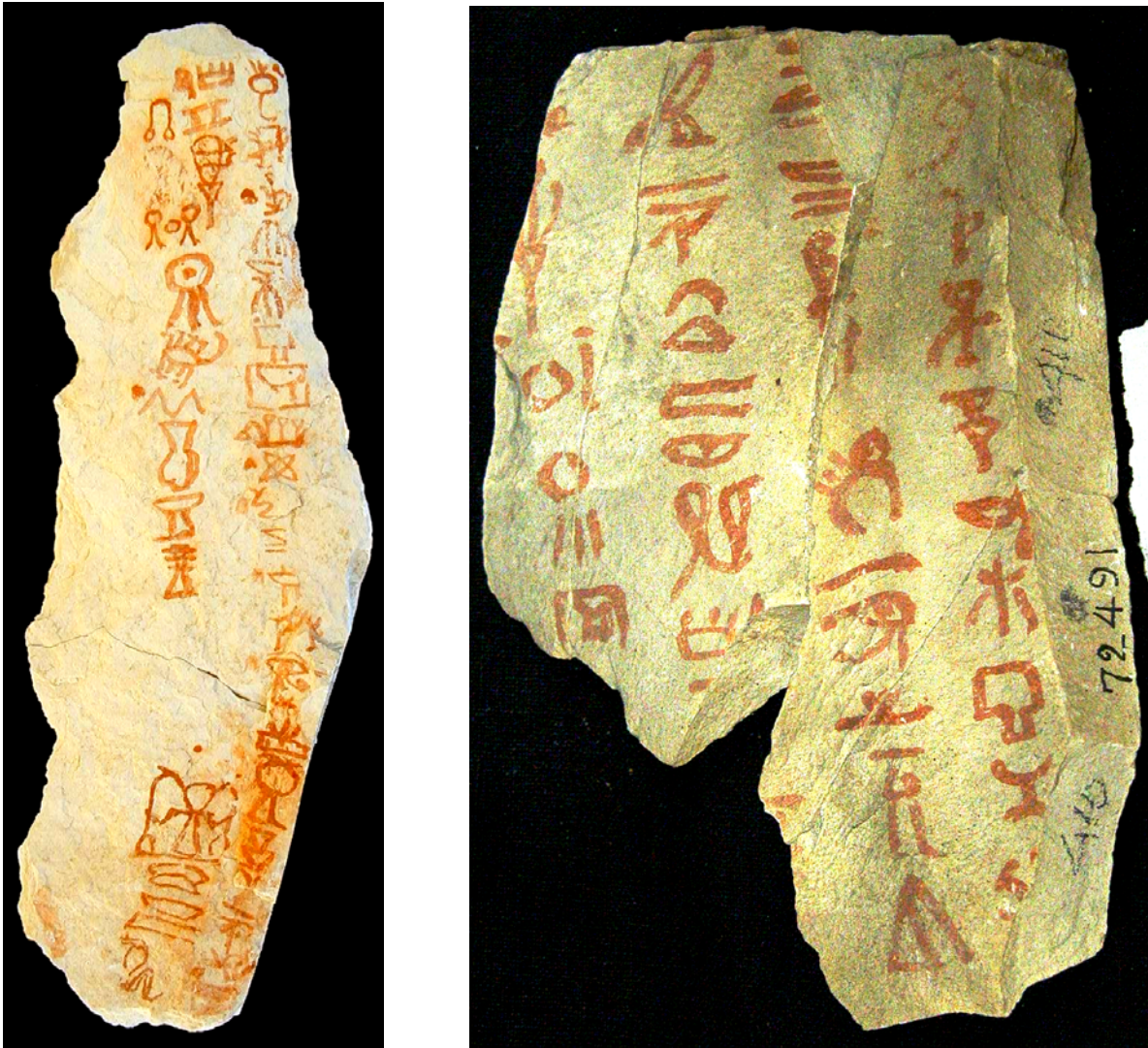


FIGURE 13.A-B O. ARTP 99/27 (LEFT) AND O. CAIRO JE 72491 (RIGHT)



FIGURE 14.A-D O. ARTP 99/27, DETAILS







The scribe evidently had difficulty with the execution of some of the marks, and his rendering of marks  and  resulted in very awkwardly formed specimens with uncertain strokes and unevenly proportioned elements (FIG.15A-B). Other marks such as  and  are exceptionally detailed, perhaps evidence that the scribe worked not with the swift strokes of an experienced author but laboured hard to produce clear marks (FIG.15C-D). Examining the shape of the marks we notice that the marks are of uneven size. Mark  for example is rather small, while  is relatively large (FIGS. 14B – 15C).



FIGURE 15.A-D O. ARTP 99/27, DETAILS

Turning to O. Cairo JE 72491, we find ourselves studying the work of a different man. Here, the majority of marks is orientated to the right, which is in agreement with the order in which the four columns of marks need to be read. However, on this ostracon too there are marks that are incorrectly orientated. The ostracon is inscribed with four straight columns of sufficiently and evenly spaced marks. All marks are of a conventional shape and do not contain erroneous elements. The scribe's acquaintance with cursive hieroglyphs is evident from his rendering of mark  $\overline{\text{𓆎}}$ , the straight line for the water ripple in mark  $\text{𓆎}$ , and the ligature for  $\overline{\text{𓆎}}$  (FIG. 16). All marks are inscribed with few, swift strokes, and all lines are steady and straight while all curves are fluid. His marks are all approximately of the same size.

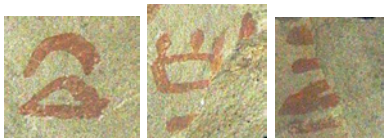


FIGURE 16.A-C O. CAIRO JE 72491, DETAILS


In many respects O. Cairo JE 72491 thus gives the impression of having been made by a professional scribe, trained in (cursive) hieroglyphic script, who created well-balanced columns of quickly but elegantly drawn marks. In contrast, O. ARTP 99/27 diverges from conventional scribal practices in a number of ways. The awkward shape of some of the marks as well as some 'writing' mistakes indicate that the individual who inscribed the ostracon was not a trained scribe. We find therefore that the shapes and the arrangement of marks on an ostracon can be indicative of the scribal proficiency of the creator of the document. Apparently this is not necessarily true for the orientation of marks on an ostracon, as marks written by the professional scribe of O. Cairo JE 72491 face both to the left as well as to the right. Yet, an assessment of the lay-out of a document, the size, shape and orientation of its marks, and the elements borrowed from hieratic and hieroglyphic script provide clues as to the scribal competence of the author. This approach is of course not unassailable. ONL 6297 illustrates the difficulties one faces when attempting to gauge the degree of literacy of a scribe on account of his handwriting. The marks on this ostracon are of even size, written in a fluid hand with steady strokes, and display all the hallmarks of having been made by a well-trained scribe. That is also suggested by the elaborate allomorphs of  $\text{𓆎}$  for  $\text{𓆎}$  and  $\text{𓆎}$  instead of  $\text{𓆎}$ . The marks are not all orientated to the same side, but as we had observed on O. Cairo JE 72491 this is not necessarily an indication of an untrained hand. Yet, despite the beautifully executed marks the scribe of ONL 6297 employed semi-hieratic numerals, which are hard to explain. One would think a professional hieratic scribe would only use proper hieratic numerals. On the other hand, the semi-hieratic numerals are more practical when one is counting and simultaneously noting down figures in a document. Alternatively, this ostracon is the work of a trained draughtsman with great expertise in hieroglyphic signs, but with a more restricted knowledge of hieratic script.

This dissertation is not the place to elaborately examine the handwriting of every single 20<sup>th</sup> Dynasty ostracon with marks and the degree to which its author was literate, but we may briefly remark on such issues. It can be reported that on the basis of the aspects pointed out above, 97 ostraca with marks from the 20<sup>th</sup> Dynasty can be discerned which could

well have been created by professional scribes or draughtsmen. In 52 ostraca the hand displays a hieratic ductus,<sup>430</sup> and in an additional nine ostraca it is very likely that the marks were inscribed by the same hand that wrote a hieratic text on the same document.<sup>431</sup> In 36 other ostraca we are fairly certain we recognise a hand that is trained in writing (cursive) hieroglyphs.<sup>432</sup> These 97 ostraca represent a quarter of the total of 379 ostraca with marks from the 20<sup>th</sup> Dynasty. How great the actual percentage of ostraca with marks made by professional scribes was, is very hard to determine, but it is evident that ostraca with marks of this period are certainly not exclusively the products of unschooled workmen.

The archive of duty and delivery ostraca made by a man of restricted literacy, perhaps ‘*smd.t* scribe’ Pentaweret (iii), has been discussed at length in the previous chapter. If our observations are correct, this individual was responsible for that particular type of documents over a period of about 18 years. His handwriting can however also be recognised in other ostraca. ONL 6523 is probably also related to the duty and delivery texts, but ostraca O. Cairo JE 96321 and O. Cairo JE 46860, probably from his hand as well, could be accounts of the distribution of goods. Like the duty and delivery records, they deal with the right side of the crew. That too can be said about three other ostraca ascribed to him, ONL 6684 and ONL 6462, and ONL 6420. This individual can thus be recognised as a man concerned with the supply and distribution of goods among the members of the right side, and in that occupation he created ostraca with marks over c. two decades.

If our tentative interpretation of the ostraca from the Grand Puits group is correct, we deal there with a similar administrator. This man too appears to be concerned with commodities and perhaps a duty roster. The hesitant understanding of these ostraca suggests that this scribe created these ostraca over the course of at least four years. His handwriting, mistakes in orientation of signs and use of semi-hieratic numerals indicate that he was not well acquainted with hieratic script, despite the use of some hieratic signs and sign groups. The use of semi-hieratic numerals in other ostraca such as O. Cairo CG 25329, O. Cairo JE 46858, O. Cairo JE 46862, O. Cairo JE 46864, O. MMA 09.184.784, ONL 307, ONL 6483, O. UC 31939+ and O. UC 31989 is perhaps indicative of limited knowledge of the hieratic script as well.

Interestingly, we can also follow the hand of the man who inscribed O. Cairo JE 72491 through time. O. Cairo JE 72491, dated to the reign of Ramesses IV, is the earliest recognisable document that we possess of this particular scribe, but his beautiful and distinctive marks are noticeable on much later documents too. The most evident case is O. Brooklyn 16118+, dated to the reign of Ramesses IX. Particularly the shape of mark  on

<sup>430</sup> O. Ashmolean HO 704; O. Ashmolean HO 999; O. Ashmolean HO 1123; O. Berlin P 12649; O. Berlin P 14231; O. BM 41649; O. BM 5642; O. Brooklyn 16118+; O. BTdK 539; O. BTdK 546; O. BTdK 589; O. Cairo CG 25315; O. Cairo CG 25318; O. Cairo CG 25319; O. Cairo CG 25324; O. Cairo JE 72491; O. Cairo JE 96529; O. Cairo JE 96581; O. Cairo JE 96647; O. DeM 32; O. DeM 264; O. Florence 2628; O. Florence 2629; O. Florence 2630; O. IFAO C 2470; O. IFAO C 7638; O. MMA 09.184.785; O. OIM MH 2666; O. OIM 19215; ONL 307 obverse (different hand on reverse?); ONL 533; ONL 6229; ONL 6246; ONL 6249; ONL 6251; ONL 6253; ONL 6256; ONL 6258; ONL 6261; ONL 6289; ONL 6290; ONL 6301; ONL 6450; ONL 6482 reverse (different hand on obverse?); ONL 6511; ONL 6548; ONL 6603; ONL 6670; O. Turin N. 57141; O. Turin N. 57523; O. Turin N. 57534; and O. UC 45702.

<sup>431</sup> O. Ashmolean HO 261; O. BTdK 545; O. Cairo CG 25270; O. DeM 150+; O. Glasgow D. 1925.72; ONL 300+ (partly); ONL 1371; ONL 6220 (possibly); and ONL 6737.

<sup>432</sup> O. Area K unnumbered; O. Ashmolean HO 68; O. BM 50731; O. BTdK 89; O. BTdK 447; O. BTdK 550; O. BTdK 554; O. BTdK 558; O. BTdK 561; O. BTdK 562; O. BTdK 572; O. Cairo CG 25317; O. Cairo CG 25320; O. Cairo CG 25323; O. Cairo CG 25325; O. Cairo JE 46865; O. Cairo SR 11303; O. Cairo SR 12218; O. DeM 10121; O. OIM 19130+; ONL 6243; ONL 6255; ONL 6268; ONL 6273; ONL 6303; ONL 6425+; ONL 6430; ONL 6438; ONL 6453; ONL 6478; ONL 6480; ONL 6502; ONL 6596; O. Turin N. 57008; O. UC 31987+; and O. WHTM 692+.

both documents (FIG. 17) is convincingly similar and allows us to attribute both ostraca to the same scribe.

















FIGURE 17.A-B O. CAIRO JE 72491 (LEFT) AND O. BROOKLYN 16118+ (RIGHT), DETAILS

O. OIM MH 2666 can most likely be ascribed to the hand of O. Brooklyn 16118+ on account of the shape of the marks, the pictorial list of objects and the use of the word *ps̄š* ‘distribution’. This ostrakon bears a hieratic inscription that demonstrates that the scribe possessed the capacities to write short texts. The same is suggested by the hieratic captions on O. Brooklyn 16118+. Other ostraca with marks that we can assign to this man are ONL 6273 and ONL 6480, and perhaps also ONL 6246, ONL 6596 and O. DeM 10121. All these documents are nearly exclusively concerned with members of the left side and date between the reign of Ramesses IV and the reign of Ramesses IX. This timeframe as well as the scribe’s ability to draw attractive workmen’s marks and write in hieratic fit the description of two draughtsmen of the 20<sup>th</sup> Dynasty: Harshire (i), the draughtsman turned scribe<sup>433</sup> and Amenhotep (vi) whose career path may have taken similar turns.<sup>434</sup>

The list of marks on the obverse of O. Turin N. 57008 and that on the obverse of O. BM 50731, and perhaps also the list of OL 170+ were probably created by a single scribe as well. That is suggested by the palaeography of the marks, but also by the style of the ostraca. All three ostraca contains columns of marks with dots and small hieratic numerals in the margins of the columns. The hieroglyphic ductus of the marks suggests that these documents too were made by a draughtsman.<sup>435</sup>

<sup>433</sup> Davies, *Who’s who*, 114-115. Avenues to explore the idea that Harshire may have created these ostraca with marks are hampered because there are no hieroglyphic inscriptions that can be attributed to his hand, see Černý, *Community*, 354.

<sup>434</sup> Davies, *Who’s who*, 112-113; 140. The handwriting of Amenhotep (vi) has been identified in a number of hieroglyphic inscriptions, see Cathleen A. Keller, ‘Un artiste égyptien à l’oeuvre: le dessinateur en chef Amenhotep’ in: Andreu (ed.), *Deir el-Médineh et la Vallée des Rois*, 85-114. Although this dissertation is not the place to pursue any palaeographic inquiries, some tentative and preliminary remarks in that direction will be made here that may serve as a starting point for future research. It can be reported that a quick look at the hieroglyphic signs on some of the texts assigned to Amenhotep (vi) would not directly speak against the identification of this man as the author of the ostraca with marks under discussion here: the sign groups  and  on the reverse of O. Cairo CG 25029 (Keller, ‘Un artiste’, 104, fig. 2) resemble marks  and ; like mark , sign  on O. Cairo CG 25117 (Keller, ‘Un artiste’, 106, fig. 6) consists of long rays that are not connected to the sun disk; sign  in KV 2 (Keller, ‘Un artiste’, 111, fig. 14) resembles mark  on OL 170+; and sign  in KV 9 (Keller, ‘Un artiste’, 111, fig. 15) is very wide like mark  on OL 170+. In contrast, the shape and ductus of the hieroglyphic signs of two more or less contemporaneous draughtsmen Nebnefer (ix) and Harmin (i), whose handwriting has been identified by Cathleen Keller, do at a first glance not quite resemble that of the marks on the ostraca of this group, see Cathleen A. Keller, ‘A family affair: the decoration of Theban Tomb 359’ in: William Vivian Davies (ed.), *Colour and Painting in Ancient Egypt* (London 2001), 73-93. The tomb of foreman Inherkhau (ii), TT 359 (see Nadine Cherpion, *La tombe d’Inherkhâouy (TT 359) à Deir el-Médina*. I-II. MIFAO 128 (Cairo 2010)) was for the most part decorated by this duo, and leaving through Cherpion’s publication one does not immediately recognise the handwriting of the scribe of the ostraca with marks. For example, the sign groups in pl. 31, fig. 49 are not reminiscent of marks , , , or .

<sup>435</sup> Proper palaeographic analysis will have to reveal whether this hand is the same as that of Brooklyn 16118+ and associated ostraca or not.

#### 4.5 CONCLUSIONS

The earliest ostraca with marks of the 20<sup>th</sup> Dynasty appear around the middle of the reign of Ramesses III. They continued to be created throughout most of the 20<sup>th</sup> Dynasty, and the latest datable pieces are attributed to year 20 of Ramesses XI, although only tentatively so.

The exact meaning and purpose of the majority of ostraca is unknown because of the implicit character of the documents. However, a close comparison to hieratic documents as well as the occurrence of writing on some of the 20<sup>th</sup> Dynasty ostraca with marks aid in exposing the meaning of these ostraca. The ostraca that record deliveries and duty rosters had already been analysed in the previous chapter. In chapter 4 we revealed more connections between identity marks and the deliveries that were transferred to the community. Marks are found in hieratic documents that record the delivery of vegetables, daily deliveries such as wood and beer, and probably also wicks and water.

The administrative purpose of many ostraca with marks can also be surmised from ostraca without hieratic inscription, which display check marks, corrections and revisions. Several ostraca with marks are arranged in an ordered sequence, and it is likely, sometimes even demonstrable, that such records were created as part of the collective necropolis administration. Numerous ostraca in which such an order is lacking do demonstrate a clear division of the workmen: they record workmen of one side of the crew exclusively, suggesting they are related to the administration of labour and distribution or delivery of commodities as well.

Besides the documentation of deliveries, identity marks were employed in the 20<sup>th</sup> Dynasty to record the distribution of goods and commodities, absence and presence at the worksite, and in all likelihood other matters that pertained to work on the royal tombs. Ordered name lists composed with identity marks are attested throughout the period. They may have been used for a number of purposes, including perhaps oral practices such as the daily roll-call. A very specific category of documents are the so-called 'furniture ostraca' that attest to the 'informal workshop'. It seems certain that some ostraca with marks record more private matters. O. MMA 09.184.785 for example lists several members of a single family, among which is a lady. Various name stones composed with identity marks are attested in this period as well. They are difficult to explain as countermarks, and it is proposed here that they served instead as the markers of space and property.

The ostraca from the 20<sup>th</sup> Dynasty appear in various formats. It is evident that the authors of the ostraca were not instructed to follow a particular lay-out. Instead each individual scribe had his own conventions and scribal habits. An arrangement of marks in columns is most common during the 20<sup>th</sup> Dynasty, and this was the preferred lay-out for ordered lists of workmen. In contrast, lines of marks are less common and less often used for ordered sequences. Ostraca with marks arranged in lines are somewhat more frequent at the village of Deir el-Medina than at the Valley of the Kings. Otherwise there is no apparent relation between location and lay-out or document type.

The number of ostraca from the 20<sup>th</sup> Dynasty is far greater than that of the 18<sup>th</sup> Dynasty, but the composition of such documents must still have been a marginal practice. It is clear that a diversified but small group of the necropolis workmen occupied themselves with such matters. The majority of ostraca with marks were probably made by workmen who were not educated in writing hieratic or hieroglyphic, as suggested by the ductus of the marks, the arrangement of the marks and the use of semi-hieratic numerals. The lack of scribal abilities may have prompted two individuals to invent their own system of notation, of which the documents of the duty and delivery rosters from the first half of the 20<sup>th</sup> Dynasty are best understood. The ostraca of this man were probably copied into hieratic records, and such a chaîne opératoire is conceivable for a small number of other ostraca with marks as well. The

list of absent and present workmen recorded with marks on O. Cairo JE 96647 suggests that the document was made by someone else than the senior scribes of the tomb because they were not at the worksite on that day.

Estimates suggest that about a quarter of the ostraca with marks from the 20<sup>th</sup> Dynasty were created by professional scribes or men with training in hieroglyphic script. Among these individuals there may well have been several draughtsmen. The hand of one draughtsman can be recognised in ostraca from the reign of Ramesses IV to the reign of Ramesses IX. Some professional scribes may have on occasion created a preparatory note with an individualised list of workmen before writing up a final hieratic account of rations and deliveries. On ostraca O. Glasgow D. 1925.72 and O. Ashmolean HO 68 an identity mark may have been added to a hieratic document by its author as a way of labeling the subject matter of the text. At other times, it would seem that a scribe made an ostrakon with identity marks so its content could be understood by persons with limited or no hieratic reading skills. This is, for example, suggested by the ‘furniture ostraca’ that could well have been composed by draughtsmen who had organised a pool of workmen to craft funerary objects.

The 20<sup>th</sup> Dynasty ostraca offer interesting perspectives on the usage of marks. The evidence appears to point out that not every workman that was introduced to the crew during the expansion in the reign of Ramesses IV was designated by an identity mark. On the other hand we have seen that one scribe used marks for a doorkeeper as well as for a chapel of the king. In addition it seems very plausible that the guardian Qaydjeret (i) possessed an identity mark as well. Scrutiny of O. ARTP 99/27 brought to our attention the fact that a single mark could simultaneously be in use for two different men, associated with different sides of the crew.

In the previous chapter it was demonstrated that the scribe of the duty and delivery ostraca with marks employed signs for members of the *smd.t* personnel. There are indications that a scribe from the very end of the 20<sup>th</sup> Dynasty may have developed a similar system, but ostraca such as O. DeM 264 show us that the *smd.t* agents probably did not possess a mark for their own use. In these documents the names of the *smd.t* agents are written in hieratic, while the workmen are represented by their identity marks.





## CHAPTER 5. OSTRACA WITH MARKS OF THE 19<sup>TH</sup> DYNASTY

### 5.1 INTRODUCTION

Having discussed the ostraca from the 18<sup>th</sup> and the 20<sup>th</sup> Dynasties, we can finally move on to the 19<sup>th</sup> Dynasty. In order to date ostraca from this period we will have to rely in part on our knowledge of the identity marks of the 20<sup>th</sup> Dynasty. We shall also be able to reveal the identity behind some the 19<sup>th</sup> Dynasties workmen's marks by comparing ostraca with marks to the hieratic administration of that time, as well as by examining the provenance of the ostraca and other objects inscribed with marks. It will become apparent that ostraca with marks from time of Ramesses II are best understood due to the existence of hieratic ostraca with ordered name lists and of ostraca with marks that are arranged in accordance with this ordered sequence as well. A comparison of both types of documents will result in the identification of a number of workmen's marks, and will provide important chronological anchor points. Unfortunately we do not seem to possess ostraca with ordered lists of workmen's marks from the second half of the 19<sup>th</sup> Dynasty, and comprehension of ostraca from this period is therefore restricted.

### 5.2 CHRONOLOGICAL OVERVIEW

#### 5.2.1 Objects and inscriptions with a proper name and a workman's mark

Through a happy stroke of fortune a number of objects were found in and around Deir el-Medina that bear both a proper name as well as an identity mark. Thanks to the inscription on a limestone seat discovered in hut J of the East group of the workmen's huts at the so-called *Station de la Repos du Col*<sup>1</sup>, we can connect the person of deputy Baki (i) with mark  $\overline{\text{A}}$ . Similarly, a limestone headrest from the Grand Puits<sup>2</sup> inscribed with the name of Baki (i)'s grandson and successor in the office of deputy Anuy (i) displays mark  $\overline{\text{A}}$ , and suggests that Anuy may have been represented with that particular mark. Another interesting find from the *Station de la Repos* is a pebble with mark  $\overline{\text{A}}$  found in hut G<sup>3</sup> belonging to a Nebenmaat. This man is perhaps Nebenmaat (ii) who lived during the reign of Ramesses II,<sup>4</sup> and indeed we shall encounter mark  $\overline{\text{A}}$  on ostraca datable to this period.

We are able to recognise other 19<sup>th</sup> Dynasty workmen's marks by looking at funerary contexts. Most straightforwardly identified is Neferabet (i), whose name is written in hieroglyphs immediately next to mark  $\overline{\text{A}}$  on pottery fragments from his tomb (TT 5).<sup>5</sup> Similarly, mark  $\overline{\text{A}}$  is attested on blocks used in the construction of the north and south walls of the court of the tomb of Sennedjem (i) (TT 1).<sup>6</sup> Interestingly, two out of three known pottery fragments from the tomb of a son of Sennedjem (i), Khabekhnet (i) (TT 2) are inscribed with a mark that resembles that of Sennedjem, mark  $\overline{\text{A}}$ , and suggest a relation between the tomb owner and this identity mark.<sup>7</sup> This is supported by the fact that the very

<sup>1</sup> Bruyère, *Rapport 1934-1935* III, 355, pl. XL. The seat was attributed by Andreas Dorn to a previously unidentified deputy, Baki (VII), attested on stela BTdK 194, Dorn, *Arbeiterhütten*, 195; 274. That this cannot be correct is demonstrated by the workman's mark on the same seat; we shall see below, 403, that this mark belonged undoubtedly to Baki (i), the person who lived during the first half of the 19<sup>th</sup> Dynasty.

<sup>2</sup> Bruyère, *Rapport 1948-1951*, 49-50, fig. 8 nr. 42.

<sup>3</sup> Bruyère, *Rapport 1934-1935* III, 357.

<sup>4</sup> Davies, *Who's who*, 236.

<sup>5</sup> Vandier and Vandier d'Abbadie, *La tombe de Nefer-Abou*, 54, fig. 32.

<sup>6</sup> Bruyère, *La tombe No. 1 de Sen-nedjem à Deir el Médineh*, 5. Some blocks with the same mark were discovered in tomb DM 1181 as well as in tomb DM 1182 situated in the court of TT 1.

<sup>7</sup> Bruyère, *Rapport 1927*, 115, fig. 77. More on this similarity, see chapter 6, 6.5.4.7.

same mark is incised on two ceramic jars from Sennedjem's tomb,<sup>8</sup> which may be funerary gifts presented by Khabekhnet to his father.

Other 19<sup>th</sup> Dynasty burials contain many more different identity marks on pottery fragments. A very important body of ceramic vessel fragments, many incised with workmen's marks, was recovered from two tombs, TT 359 (dating to the 20<sup>th</sup> Dynasty) and TT 360 (dating to the 19<sup>th</sup> Dynasty), and their vicinity.<sup>9</sup> Although the owners of both tombs are securely identified as respectively Iniherkhau (ii) and his father Qaha (i) – both at one time foreman of the left side of the crew – the exact provenance of the pottery from their tombs is ambiguous, as the content of one tomb was interspersed with that of the other.<sup>10</sup> Therefore, all material described by Nagel as pottery from tomb TT 359 should be regarded as objects from *either* that tomb *or* from TT 360. Some of the ceramic ware may even have come from the area north of both tombs and south of TT 1, as the French excavations explored that section during the same season as when TT 359 and TT 360 were unearthed.<sup>11</sup> Moreover, as was the case with many Ramesside tombs at Deir el-Medina, TT 359 and TT 360 are reused and enlarged sepulchres originally cut during the 18<sup>th</sup> Dynasty,<sup>12</sup> and some of the finds could date to the latter period.

Identifying the incised workmen's marks is sometimes difficult, because they are not all completely preserved, and it is sometimes difficult to determine whether a mark is an allomorph of a known workmen's mark or not. The overview below lists those marks attested on the pottery of both tombs that can be identified with a fair amount of certainty, omitting two damaged and unidentified marks. Many different forms of what seem to be allomorphs of mark  $\text{A}\delta$  have been taken to represent just that mark. Likewise, mark  $\text{AA}$  has been tentatively interpreted as an allomorph of mark  $\text{A}$ .<sup>13</sup> The following marks have been recognised:

$\text{A}\delta$	8 (?)	$\delta$	1
$\text{T}$	7, perhaps 10	$\text{H}$	1
$\text{R}$	7	$\text{O}\wedge$	1
$\text{E}$	5, perhaps 7	$\text{M}$	1
$\text{G}$	4	$\text{L}$	1
$\text{A}$	3, perhaps 4	$\text{A}\delta$ (?)	1
$\text{R}$	3	$\text{X}$	1
$\times$	3	$\text{Y}$	1
$\times\times$	1	$\text{Y}$	1
$\text{O}$	2, perhaps 3	$\text{I}$	1
$\text{P}$	2	$\text{H}$ (?)	1
$\text{WY}$	2	$\text{S}\text{I}$ (?)	1
$\text{E}$	1	$\text{O}$ (?)	1
$\text{W}$	1	$\text{E} + [\dots]$	1
$\text{W}\delta$ (?)	1		

<sup>8</sup> Cairo JE 27216 and JE 27284, Adel Mahmoud Abd el-Qader, *Catalogue of funerary objects from the tomb of the Servant in the Place of Truth Sennedjem (TT1): ushabtis, ushabtis in coffins, ushabti boxes, canopic coffins, canopic chests, cosmetic chests, furniture, dummy vases, pottery jars, and walking sticks, mainly from Egyptian Museum in Cairo and Metropolitan Museum of Art of New York*. DVD (Cairo 2011) 210-211; 218, nrs. 139 and 146.

<sup>9</sup> Nagel, *La céramique*, 14-51.

<sup>10</sup> Bruyère, *Rapport 1930*, 71; Nagel, *La céramique*, 14; Aston, 'Potmarks from Deir el-Medineh', 58.

<sup>11</sup> E.g. Bruyère, *Rapport 1930*, 91.

<sup>12</sup> Bruyère, *Rapport 1930*, 86.

<sup>13</sup> Note however that the double variant  $\text{AA}$  occurs on O. Hawass, see below, 5.2.2.6.

Some of the simpler marks, such as  $\gamma$  and  $\times$  could in fact be potter's marks and should be distinguished from the identity marks of Deir el-Medina workmen.<sup>14</sup> One of the most frequently attested marks is  $\bar{\text{L}}$ . In previous chapters we had already deduced that Iniherkhau (ii) must have been represented by mark  $\bar{\text{L}}$ , and that it was used for his son Qenna (i) at some point. Our assumption that  $\bar{\text{L}}$  was also the mark of Iniherkhau (ii) is supported by the fragments of pottery from his tomb.

Other frequently occurring marks are  $\overline{\text{U}}$  and  $\text{A}\delta$ . The relation between mark  $\bar{\text{L}}$  and Iniherkhau (ii) is logical, as the mark represents a hieroglyph for a phonetic element in the name of *Iniherkhau*. Associating Iniherkhau (ii) with  $\text{A}\delta$  is not probable because we have related this mark to Khabekhnet (i). Some of the ceramic material with this mark may be intrusive, because the tomb of Sennedjem (i) (TT 1) and Khabekhnet (i) (TT 2) are located just above TT 359 and TT 360. During the excavation of the latter tombs, material from TT 1 and TT 2 was discovered (perhaps to the north of these tombs).<sup>15</sup> It is therefore very plausible that ceramic vessels and vessel fragments with mark  $\text{A}\delta$  originate from the tomb of Sennedjem and are other instances of items belonging to Khabekhnet that he offered to the funerary equipment of the burial of his father. Alternatively the pottery fragments may have come from his own burial. A relation between Iniherkhau (ii) and mark  $\overline{\text{U}}$  is not likely either, because this mark appears to represent another individual. Of all published pottery fragments inscribed with workmen's marks from TT 356, the tomb of Amenemwia (i), mark  $\overline{\text{U}}$  is attested most frequently (four instances).<sup>16</sup> Once again, the predominance of a specific mark within a burial suggests a connection between the mark and the owner of the tomb.

In analogy with the other identified marks, there is a case for identifying mark  $\text{A}$  with the owner of TT 360, Qaha (i).<sup>17</sup> This mark certainly is not the most frequently attested mark within the pottery assemblage of TT 359 and TT 360, but it occurs more often than most other marks. We will explore this connection further below.<sup>18</sup>

In the case of TT 290, the tomb of Irynefer (i), we cannot determine such a connection with any certainty. Four unpublished shards with workmen's marks were recovered from this tomb, one of which is incised with  $\bar{\text{X}}$ . This mark, a hieroglyph readable as *wꜣd*, may be related to either Siwadjet (i), the father of Irynefer (i), to Irynefer's son Siwadjet (ii), or perhaps even to Irynefer (i) himself. We had already encountered mark  $\bar{\text{X}}$  in chapter 4 where we demonstrated that the mark was used for Siwadjet (iii) and his son Aapatjau (i). Not much is known about the parentage of Siwadjet (iii), but we may here propose a connection between him and an earlier individual, Siwadjet (ii), son of Irynefer (i).

<sup>14</sup> Aston, 'Potmarks from Deir el-Medineh', 64-65.

<sup>15</sup> Fragments of the pyramidion of TT 1, see Bruyère, *Rapport 1930*, 92, nr. 1; fragments of a lintel from TT 1, see Bruyère, *Rapport 1930*, 93-94, nr. 1; fragments of door jambs from TT 1, see Bruyère, *Rapport 1930*, 95-96, nr. 3; fragments of a door jamb from TT 2, see Bruyère, *Rapport 1930*, 96, nr. 4. The distance between tomb TT 2 and tombs TT 359 and 360 is considerable, but it should be kept in mind that the area may have been disturbed by local villagers (Bruyère, *Rapport 1930*, 28) and European visitors such as Lepsius (Lise Manniche, *Lost Ramessid and Post-Ramessid Private Tombs in the Theban Necropolis*. CNI 33 (Copenhagen 2011), 92, 96).












<sup>16</sup> Bruyère, *Rapport 1928* II, 113, fig. 63 and 117, fig. 64. The suspicion that mark  $\overline{\text{U}}$  refers to Amenemwia (i) will be confirmed below. In the previous chapter we had seen that mark  $\overline{\text{U}}$  was used for Seti (i) in the reign of Ramesses IV. This Seti (i) was a son of a man name Amenemone, identified as Amenemone (ii)/(iii), see Davies, *Who's who*, 212-214. Amenemone (ii)/(iii) was active in the late 19<sup>th</sup> Dynasty, see Collier, *Dating Late XIXth Dynasty Ostraca*, 130, and it should therefore at least be theoretically possible to equate this man with the guardian Amenemone (iv), son of Amenemwia (i), all the more since the parentage of Amenemone (ii)/(iii) is unclear. If this equivalency is correct, Seti (i) may have inherited his mark from his grandfather Amenemwia (i), or perhaps his father Amenemone.

<sup>17</sup> Cf. Aston, 'Potmarks from Deir el-Medineh', 58.

<sup>18</sup> See below, p. 422-423, O. Ashmolean HO 1120.

Finally, as we shall see at a later point, Theban Graffito 1233<sup>19</sup> is meaningful too. The graffito consists of two hieratic lines, each mentioning the name of a necropolis workman and his father. The second line reads “Pashedu; his father Hehnakht.” These two men can only be the 19<sup>th</sup> Dynasty individuals Pashedu (ii) and his father Hehnakht (ii). Below the hieratic lines, workman’s mark  $\square\perp$  has been incised, and we will be able to connect it with the person of Hehnakht (ii).

This assessment of the co-occurrence of workmen’s marks on an object or in a text or space attributable to a specific 19<sup>th</sup> Dynasty individual leads to the following, preliminary identifications:

Baki (i)	
Anuy (i)	
Nebenmaat (ii)	
Neferabet (i)	
Senedjem (i)	
Khabekhnet (i)	
Iniherkhau (ii)	
Qaha (i)	
Amenemwia (i)	
Siwadjet (i) / Irynefer (i) / Siwadjet (ii)	
Hehnakht (ii)	

## 5.2.2 Ostraca with workmen’s marks datable to the first half of the 19<sup>th</sup> Dynasty

### 5.2.2.1 Ostraca from the huts near the tomb of Amenmesses (KV 10) and related ostraca

Excavations carried out under the direction of Otto Schaden in the Valley of the Kings in the area around the tomb of Amenmesses (KV 10) uncovered a settlement of workmen’s huts that dates to the 19<sup>th</sup> Dynasty.<sup>20</sup> The excavators described the complex as consisting of an eastern and a western section. In one of the Western Huts, a jar docket inscribed with the name of Ramesses II was discovered. Among other objects found at the settlement was a series of ostraca with hieratic inscriptions as well as ostraca with workmen’s marks. One ostrakon, O. Schaden 96, is in fact a weight, and carries the following inscription: “Year 38, III *pr.t*, day 7. Weight of four spikes for the right side.” Obviously, year 38 can only refer to the reign of Ramesses II. Other material, predominantly from the Eastern Huts, could be dated to the reigns of Merenptah, Amenmesses and Seti II. The settlement may therefore have been in use during the second half of the reign of Ramesses II and the reigns of three of his successors.

#### *O. Schaden 16*

Apart from the date written on O. Schaden 96, we are interested in this object because it is also inscribed with four workmen’s marks, two of which we have connected with 19<sup>th</sup> Dynasty workmen:  $\star$ ,  $\perp$ ,  $\square$  and  $\equiv$ . At least three of these marks are also attested on another ostrakon from the settlement near KV 10, O. Schaden 16. This is a very valuable document, because it contains some of the marks that we have tentatively identified, as well as a number of marks that we recognise from the repertory of 20<sup>th</sup> Dynasty workmen’s marks. O. Schaden 16 is inscribed with two rows of workmen’s marks that were inscribed from right to left. This series of marks is attested – with minor differences – on other ostraca as well,

<sup>19</sup> Černý, *Graffiti 1060 à 1405*, 13, pl. 30.

<sup>20</sup> The huts are briefly mentioned in Schaden, ‘The Amenmesse Project’, 231. For a more detailed discussion of the excavation of the huts see the summaries of the activities of excavation seasons 1992 to 2006 available on [www.kv-10.com](http://www.kv-10.com).

suggesting this particular sequence of marks represents an ordered list of workmen. The fact that O. Schaden 16 is inscribed with 19 different workmen's marks, closely approximating the total of the 20 workmen who constituted one half of the workforce around the middle of the reign of Ramesses II,<sup>21</sup> points in the same direction.

In the upper row of our ostrakon the fourth mark from the right is  $\equiv$ , attested on the limestone seat of Baki (i) and attributed to his person. This man was the foreman of the left side during the reign of Seti I,<sup>22</sup> but he was succeeded in the reign of Ramesses II by Pashedu (x)<sup>23</sup> and Qaha (i).<sup>24</sup> We have two reasons to assume that it is unlikely that Baki (i) is represented by mark  $\equiv$  on O. Schaden 16. First of all the ostraca from the 19<sup>th</sup> Dynasty huts settlement probably date to the reign of Ramesses II, and secondly mark  $\equiv$  is not found at the head of the sequence where one would expect the mark of a foreman of the crew. Instead, we may propose that mark  $\equiv$  here refers to one of the sons of Baki (i) who, like so many individuals of the 20<sup>th</sup> Dynasty, had inherited his identity mark from his father.

In analogy with the interpretation of recurring sequences of marks from the 20<sup>th</sup> Dynasty, O. Schaden 16 thus appears to be an ordered list of workmen, dating to the time of Ramesses II, recording a son of Baki (i). We may therefore compare this ostrakon to hieratic ostraca from the reign of Ramesses II that contain ordered name lists.<sup>25</sup> One of the most famous documents of this type is O. BM 5634, inscribed with an ordered list of all workmen of the right side and a list of all workmen of the left side (excluding both foremen, deputies and scribe).<sup>26</sup> It turns out that this ostrakon records a list that compares well to that of O. Schaden 16. We come to this conclusion when examine what is nowadays called the obverse of O. BM 5634, which is inscribed with an ordered list of all workmen of the left side.<sup>27</sup> The third workman mentioned in this list is Siwadjet (ii). As suggested by a shard from TT 290, this man may have been represented by mark  $\text{𐀓}$ , and indeed it is this very mark that we find in the third position on O. Schaden 16. This promising agreement between the two documents invites us to compare the sequence of marks to the hieratic name list. The first four marks correspond relatively well to the names on O. BM 5634:

O. Schaden 16			O. BM 5634	
1	$\Psi$	=	1	Pendua (i)
2	$\Upsilon$		2	Harnefer (i)/(ii)
3	$\text{𐀓}$	=	3	Siwadjet (ii)

<sup>21</sup> Černý, *Community*, 106; Jac. J. Janssen, 'Absence from work by the necropolis workmen of Thebes' *SAK* 10 (1980), 107-152.

<sup>22</sup> Davies, *Who's who*, 2.

<sup>23</sup> Davies, *Who's who*, 2.

<sup>24</sup> Davies, *Who's who*, 12.

<sup>25</sup> For the usage of this term, see chapter 4, 4.1.

<sup>26</sup> Donker van Heel, 'Drafts', 18-21. The ostrakon was studied in detail by Jac. J. Janssen, 'Absence from work', 127-152. Many of the men recorded on this piece are discussed by Davies' *Who's who*, see the index on p. 308.

<sup>27</sup> Janssen, 'Absence from work', 131-132 struggled with the division of the workmen and was not even certain whether the names of the workmen were ordered according to the side of the crew they belonged to. Comparing O. BM 5634 to a very similar ostrakon, O. DeM 706, Grandet suggested that the column headed by workman Pendua (on the obverse of O. BM 5634) contained a list of all workmen of the right side because of the occurrence of workman Merysekhmet, as he seems to have belonged to this very side according to O. DeM 621, see Grandet, *Ostraca hiératiques* VIII, 1-2. Although this may be so, O. Fitzwilliam E.GA.6119.1943 proves beyond any doubt that the obverse of O. BM 5634 is a list of workmen of the left side. The former ostrakon is an ordered list of workmen as well, and it is headed by the foreman of the left side, Iniherkhau (ii). Listing scribe Qenherkhopshuf (i) in the second position, the ostrakon then enumerates a list of other workmen of the left side in a sequence that is almost identical to that of the list on the obverse of O. BM 5634. For a discussion of this piece see Fredrik Hagen, *New Kingdom Ostraca from the Fitzwilliam Museum, Cambridge*. CHANE 46 (Leiden and Boston 2011), 18-20.

## 5. OSTRACA WITH MARKS OF THE 19TH DYNASTY

4		=	4	Haremwia (i)
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TABLE 88. O. SCHADEN 16 COMPARED TO O. BM 5634

Although , the first mark of the ostrakon, has a rather abstract appearance, it may be interpreted as an allomorph of sign Gardiner A30, , readable as *dwꜣ* and thus related to , the name of *Pendua* (i). The mark of Baki (i), , is situated in the fourth slot and corresponds to Haremwia (i) who was indeed a son of the former<sup>28</sup> and could have inherited the mark of his father. Our comparison suggests that mark refers to the Harnefer<sup>29</sup> mentioned on O. BM 5634, but there is no further evidence for this equivalency.

The fifth name on O. BM 5634 is Amennakht, and it is at this point that the hieratic list and the list of workmen's marks begin to diverge a bit. It is possible that , the fifth mark, represents nr. 5 Amennakht or nr. 6 Wadjmose, but there is no evidence in favour of any of these assumptions. Yet, marks 6 to 10 compare very well to names 7 to 11:

O. Schaden 16			O. BM 5634	
5			6	Wadjmose (i)
6		=	7	Nebimentet (i)
7		=	8	Hehnakht (ii)
8		=	9	Nakhtmin (vi)
9			10	Pennub (ii)/(iii)
10		=	11	Aapehty (i)/(ii)

TABLE 89. O. SCHADEN 16 COMPARED TO O. BM 5634

The sixth mark is , and we have seen in the previous chapter that it was related to Penniut (i) and his grandfather Nebimentet (i). O. BM 5634 lists exactly the latter individual in position seven and thus confirms this assumption. O. BM 5634 and O. Schaden 16 suggest furthermore that Hehnakht (ii) was represented by mark , and this is in accord with Theban Graffito 1233. The next mark is coupled to the person of Nakhtmin (vi), which makes perfect sense because we know that the same mark was used in the 20<sup>th</sup> Dynasty for his grandson Nakhtmin (vi). In fact, we had already seen that there were indications for a connection between Nakhtmin (iv) and mark .<sup>30</sup> Moving on to the following mark, our comparison suggests a connection between mark and the workman Pennub (ii) or (iii) but unfortunately there is nothing to substantiate this identification.<sup>31</sup> Likewise we are not entirely certain about mark and the relation with Aapehty (i) or (ii), but perhaps the mark is to be interpreted as the hieroglyphic group that forms the first element in his name , Aapehty.

With marks 11 – 14 O. Schaden 16 appears to record a section of workmen that were introduced to the crew or moved up in the order at a moment after O. BM 5634 was written. They cannot be connected, securely or tentatively, with any of the names in the hieratic list. In contrast, marks 15 – 19 are to some extent related to names 13 – 16 on O. BM 5634:

O. Schaden 16			O. BM 5634	
15		≈	13	Amenmose ?
16		≈	14	Anuy (ii) ?
17		=	15	Wennefer (ii)

<sup>28</sup> Davies, *Who's who*, 2.

<sup>29</sup> Either Harnefer (i) or Harnefer (ii).

<sup>30</sup> See above, chapter 3, 3.2.3.1

<sup>31</sup> We know mark as allomorph of mark for Neferher (vi) during the 20<sup>th</sup> Dynasty, but this man was probably not related to Pennub (ii) or (iii), see chapter 6, 6.5.4.2.

18	𐤒			
19	𐤔	=	16	Buqentuef (i)

TABLE 90. O. SCHADEN 16 COMPARED TO O. BM 5634

Mark 𐤓 is here possibly related to Amenmose, which would suggest that mark 𐤔 is related to Anuy (ii). Some corroboration for the latter identification may be found in several shards inscribed or incised with both mark 𐤔 and mark 𐤕 belonging to Anuy (ii)'s brother Nebimentet (i).<sup>32</sup> The sequence of O. Schaden 16 then brings us to mark 𐤖, which could well be related to Wennefer (ii), the 15<sup>th</sup> name on the obverse of O. BM 5643. As discussed earlier, this mark referred to Khaemwaset (iii) and possibly his father Penamun (iii).<sup>33</sup> Since Wennefer (ii) is the grandfather of Penamun (iii),<sup>34</sup> assigning mark 𐤖 to the former workman is unproblematic. After this mark, O. Schaden 16 records mark 𐤒, which would then seem to relate to the workman Buqentuef (i). However, it makes more sense to skip over this mark to connect 𐤔, the 19<sup>th</sup> mark of O. Schaden 16, with this workman. We know mark 𐤔 to have belonged to Hay (vii) during the beginning of the 20<sup>th</sup> Dynasty, and because Hay (vii) was the grandson of Buqentuef (i) a connection between the latter and mark 𐤔 seems more likely.<sup>35</sup>

#### *O. Schaden 74*

Some form of confirmation of the suggested identifications is offered by O. Schaden 74, a column of eight marks, left of which mark 𐤒 is inscribed. Although the column contains marks 𐤒 and 𐤓, which are not attested on O. Schaden 16, it certainly is related to this piece because the other six marks appear in the same relative order: 𐤕, 𐤖, 𐤗, 𐤓, 𐤔, and 𐤖. The first two marks are clearly related to the first workmen of the ordered list of workmen, but marks 𐤒 to 𐤖 are related to workmen of the lower half of the sequence recorded on O. BM 5634. Interpreting mark 𐤒 as Gardiner sign F18 (𐤒) with phonetic value *ḥw*, and mark 𐤓 as an allomorph of Gardiner sign D4 (𐤓) used as a determinative in the verb *mꜣꜣ* 'to see', we may tentatively identify them as the workmen *Huy* and *Maaninakhtuef* (i) recorded on the left side of the crew on O. BM 5634:<sup>36</sup>

	O. Schaden 74		O. BM 5634
2	𐤒	18	Huy <sup>37</sup>
3	𐤓	17	Maaninakhtuf (i)
4	𐤕	11	Aapehty (i)/(ii)
5	𐤓	13	Amenmose
6	𐤔	14	Anuy (ii)
7	𐤖	15	Wennefer (ii)

TABLE 91. O. SCHADEN 74 COMPARED TO O. BM 5634

#### *O. Schaden 1*

Another ostrakon that is closely related to the ordered list of O. BM 5634 is O. Schaden 1. This ostrakon consists of a number of columns. The upper section of each column is inscribed with a workman's mark. The ostrakon is not preserved in its entirety, so we cannot be certain whether it recorded all workmen of the left side. The marks of the first two workmen of the

<sup>32</sup> Bruyère, *Rapport 1948-1951*, pl. XVI, nr. 66; pl. XVII, nrs. 53 and 54; WHTM 563.

<sup>33</sup> See chapter 3, 171; 187.


<sup>34</sup> Davies, *Who's who*, chart 2.

<sup>35</sup> Davies, *Who's who*, 63-64.

<sup>36</sup> Mark 𐤓 is also attested with what seems to be an allomorph of 𐤖 in a graffito that may thus date to the 19<sup>th</sup> Dynasty, see Černý and Sadek, *Graffiti de la Montagne Thébaine* III.3, pl. CLVII; Černý and Sadek, *Graffiti de la Montagne Thébaine* IV.2, 124.

<sup>37</sup> The name Huy is too frequently attested in the necropolis administration to identify in this context.



ordered sequence might have been lost and we begin with mark , the third position according to the sequence of O. Schaden 16. Comparison of the list of marks with the list of names on O. BM 5634 corroborates our previous identifications and allows us to suggest some new ones:






















O. Schaden 1			O. BM 5634	
3		=	3	Siwadjet (ii)
4		=	4	Haremwia (i)
5		=	5	Amennakht ?
6			6	Wadjmose (i)
7		=	7	Nebimentet (i)
8		=	8	Hehnakht (ii)
9		=	9	Nakhtmin (vi)
10			10	Pennub (ii)/(iii)
11				
12				
13		≈	14	Anuy (ii)
14		=	15	Wennefer (ii)
15		=	16	Buqentuef (i)
16		=	17	Maaninakhtuf (i)
17				
18	...			

TABLE 92. O. SCHADEN 1 COMPARED TO O. BM 5634

We observe that the suggested marks of Siwadjet (ii), Haremwia (i), Nebimentet (i), Hehnakht (ii), Nakhtmin (vi) and Pennub (ii)/(iii) occur in the same exact positions as their names on O. BM 5634. This is due to the fact that O. Schaden 1 records an additional mark between  and , which is , and if we follow the ordered sequence of the hieratic ostrakon it represents a workman called Amennakht. As we have seen in chapter 3 and 4, mark  was used in the 20<sup>th</sup> Dynasty for the workman Khaemnun (i). According to Davies, this man was the son of a workman called Neferhotep (xv). Davies' reconstruction is based on the fact that a Khaemnun was involved in a dispute that took place around year 21 of Ramesses III, and that he was a son of Neferhotep (xv).<sup>38</sup> Since Khaemnun (i), husband of Naunakhte (i), was also active around this time, Davies equated him with this son of Neferhotep (xv). There is nevertheless no irrefutable evidence for such a relation, and we may propose an alternative theory that stipulates the existence of Khaemnun son of Neferhotep as a different individual from his contemporary namesake Khaemnun (i) husband of Naunakhte (i). Information about the father of Khaemnun (i) is recorded in P. Turin Cat. 1891, which dates to the reign of Ramesses IV and mentions a '[Khaem]nun, son of Amennakht'. As established by Collier,<sup>39</sup> this Khaemnun cannot be Davies' Khaemnun (iii).<sup>40</sup> He must be Khaemnun (i),<sup>41</sup> the workman represented by mark . Therefore the Amennakht recorded in O. BM 5634 and represented by mark  on O. Schaden 1 is most probably the father of Khaemnun (i). O. Schaden 1 thus demonstrates that Amennakht, like so many other necropolis workmen, transferred his identity mark to his son.




From the 11<sup>th</sup> mark of O. Schaden 1 onward we lose the direct correspondence with O. BM 5634 because the supposed mark of Aapehty (i)/(ii) is not recorded. Yet, marks 13 to 15,



<sup>38</sup> Davies, *Who's who*, 250.

<sup>39</sup> Collier, 'The right side', 10.

<sup>40</sup> Davies, *Who's who*, 251 and n. 615.

<sup>41</sup> As determined earlier, see chapter 3, 173 and n. 36.

𐎓, 𐎔, and 𐎕, are in perfect accord with names 14 to 16, Anuy (ii), Wennefer (ii) and Buqentuef (i). The following mark , perhaps an allomorph of , is then of course related to name 17, *Maaninakhtuf* (i). The identification of the mark of the draughtsman Maaninakhtuf (i) is corroborated by a vessel from the Valley of the Kings with almost the same mark.<sup>42</sup> The vessel was used to mix blue paint in, which is something one would expect a draughtsman to do. The mark of Maaninakhtuf (i) is also reminiscent of that of his later namesake, Maaninakhtuf (iii), whose mark likewise included a sickle .


The last legible mark in the upper section of O. Schaden 1 is mark , which we have encountered in the 20<sup>th</sup> Dynasty where it referred to Iyerniutef (iii). There is a possibility to connect the mark on O. Schaden 1 with an earlier namesake of his, Iyerniutef (ii). This workman is recorded as a member of the right side of the crew in O. BM 5634, but O. Fitzwilliam E.GA.6119.1943 lists him on the left side. Interestingly, Iyerniutef (ii) is placed in the penultimate position in the latter document. Although it is not clear how many marks followed after  on O. Schaden 1, only one other mark is visible, suggesting a similar position for Iyerniutef (ii).<sup>44</sup>

#### **Excursus IV. The family of Anuy (ii)**

In the previous chapter it had been demonstrated that in the 20<sup>th</sup> Dynasty mark 𐎓 referred to Minkhau (i). This man was the son of a man named Hori, enumerated by Davies as Hori (iii).<sup>45</sup> Since mark 𐎓 was used for Huynefer (xi) before Minkhau (i), Collier made the very plausible suggestion that Hori (iii), father of Minkhau (i), should be equated with Hori (ii), son of Huynefer (xi). This would mean that Minkhau (i) took on the identity mark of his grandfather.<sup>46</sup> Now the parentage of Huynefer (xi) is unknown, but with the attribution of mark 𐎓 to Anuy (ii) we may venture another suggestion. Anuy (ii) is known to have had a son, Mose (viii). Davies had proposed to associate this Mose with Khnummose (i),<sup>47</sup> but we have seen that the ostraca with marks do not provide concrete indications for such an equivalency. Instead, Mose (viii) may be a contraction of another name. The name Mose (viii) may have been used for Thutmose (i), a man about whom we know very little.<sup>48</sup> He is perhaps mentioned in O. DeM 118, attributed to the reign of Ramesses II. It is clear that Thutmose (i) had a son, Huynefer (v), who must have been active towards the second half of the 19<sup>th</sup> Dynasty and perhaps the beginning of the 20<sup>th</sup> Dynasty. If it is indeed possible to identify Mose (viii) with Thutmose (i), Huynefer (v) could be the same man as Huynefer (xi), who had then inherited his mark 𐎓 from his grandfather Anuy (ii).

<sup>42</sup> Aston, *Pottery recovered*, 70, pl. 63.

<sup>43</sup> See chapter 3, 173.

<sup>44</sup> No family relations between Iyerniutef (ii) and Iyerniutef (iii) are known to the author, but it cannot be excluded that the latter was a grandson of the former, as the parentage of Iyerniutef (iii) is not known. Coincidentally both men are recorded to have been sculptors, see Davies, *Who's who*, 184-185. A wooden mallet, kindly brought to our attention by Rikst Ponjee, is incised with mark  and may have been used by the sculptors Iyerniutef (ii) or Iyerniutef (iii), see [http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details.aspx?objectId=119388&partId=1&searchText=5409&page=1](http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=119388&partId=1&searchText=5409&page=1).

<sup>45</sup> Davies, *Who's who*, 26 and n. 324.

<sup>46</sup> Collier, 'Integrating Hieratic and Marks Data', [9].

<sup>47</sup> Davies, *Who's who*, 272.

<sup>48</sup> Davies, *Who's who*, 18.

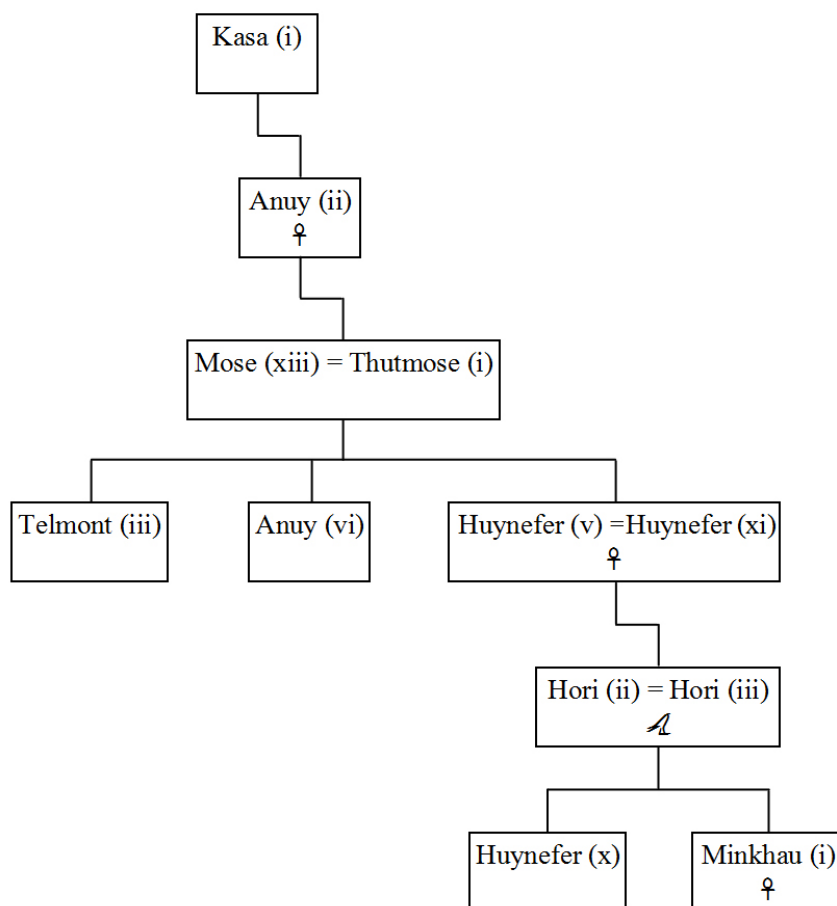


CHART 4. THE FAMILY OF ANUY (ii)

### 5.2.2.2 Ostraca related to O. Schaden 16 and O. Schaden 1

The ostraca with marks discussed so far in this section evidently record workmen who lived under the reign of Ramesses II. Four of these ostraca, O. Schaden 1, O. Schaden 16, O. Schaden 74 and O. Schaden 96, were discovered in the area of the huts settlement near the tomb of Amenmesses. Besides their style, several other ostraca with marks from the site can be dated to this period on the basis of the repertory and/or the sequence of marks they display. That is also true for some ostraca that were found elsewhere. One of these ostraca is ONL 6312 with a sequence comparable to that of O. Schaden 1 (𐀀, ♀, 𐀁, 𐀂, and 𐀃) on the obverse. Fragmentary ostrakon O. Schaden 145 records the same sequence as that of O. Schaden 1. The first legible mark is 𐀃, probably that of Amennakht, followed by marks 𐀁, 𐀂, 𐀄, and 𐀅. The marks on the reverse of O. Schaden 75 appear to have been listed according to their relative position in the same ordered sequence: 𐀃, ♀ and 𐀃. Other ostraca with marks are almost certainly related to O. Schaden 1, despite the fact that they are inscribed with marks that appear in a different sequence. It does not automatically follow that such documents date to the exact same period, and there are indications that some may be of a slightly later date.

#### *O. Turin S. 6863*

For example, O. Turin S. 6863 is inscribed with four marks of which 𐀀, 𐀂 and ♀ belong to workmen of the left side of the crew during the reign of Ramesses II. A fourth mark that we have not encountered on the ostraca discussed so far is 𐀆. We are well familiar with this mark, as it was used for Kasa (v)/(vi) and his son Penanuquet (iii) in the 20<sup>th</sup> Dynasty. It is possible that the same mark 𐀆 was used by an earlier namesake of his, such as Kasa (i) or Kasa (vii). We will encounter this mark further down on ostraca dated to the second half of

the 19<sup>th</sup> Dynasty, and we should therefore keep in mind that O. Turin S. 6863 could be of a later date as well.

*ONL 6394 and O. WHTM 765*

These two ostraca are datable to the reign of Ramesses II. Both documents are inscribed with the marks of workmen of the left side, and both record marks  $\equiv$  and  $\uparrow$  in adjacent positions. O. WHTM 765 demands us to reconsider sign(s)  $\boxplus$ , which we have treated so far as a single mark. The ostrakon is inscribed with marks that appear in an order reminiscent of the ordered sequence of O. Schaden 1:  $\boxplus$ ,  $\equiv$ ,  $\uparrow$ ,  $\boxplus$  and  $\uparrow$ . In the sequence of O. Schaden 1 these marks represent slots 8, 4, 7 and 13. Mark  $\boxplus$  is not found in the sequence of that ostrakon, but if we divert our gaze to the sequence of O. Schaden 16, we see that mark  $\uparrow$  is preceded by marks  $\boxplus$ ,  $\boxtimes$  and  $\boxplus$ . We had proposed that mark  $\boxplus$  was an allomorph of  $\boxplus$ , belonging to Nebenmaat (ii). However, this person was a workman of the right side of the crew. We should therefore ask ourselves if it is a coincidence that on O. Schaden 16 marks  $\boxtimes$  and  $\boxplus$  are situated in subsequent positions. Could both marks somehow have been united on O. WHTM 765, forming mark  $\boxplus$ ?

Alternatively, mark  $\boxplus$  may need to be interpreted as two separate marks  $\boxplus$  and  $\uparrow$ , and mark  $\boxtimes$  as marks  $\uparrow$  and  $\boxtimes$ . Indeed, marks  $\boxplus$  and  $\uparrow$  are attested in isolation on O. Schaden 1. Likewise, O. Schaden 96 displays marks  $\boxtimes$ ,  $\equiv$  and  $\boxplus$  that are situated in slots 3, 4 and 10 in O. Schaden 16, as well as mark  $\boxtimes$ , perhaps for one part of mark  $\boxtimes$ , in slot 14. Similarly, fragmentary ostrakon ONL 6395 is inscribed with a sequence of marks of which two marks are still discernable:  $\boxplus$  and  $\boxtimes$ . This sequence is reminiscent of that of O. Schaden 16 where we encounter  $\boxplus$  and  $\boxtimes$ . Should both ostraca be read as  $\boxplus - \uparrow - \boxtimes$ ? If the answer to this question is positive, that would make the correspondence between the sequence of O. Schaden 16 and the name list of O. BM 5634 less strong. Furthermore, we would then seem to lose the suggested identification of the mark of Nebenmaat (ii). Unfortunately we do not possess enough data to resolve the issue, but there does seem to be some sort of a connection between the three marks  $\boxplus$ ,  $\uparrow$  and  $\boxtimes$ . Perhaps these individuals were family members.

*ONL 6445 and O. Schaden 13*

The sequence of ONL 6445 is less problematic. It records a number of marks in an order that is related to their position in the sequence of O. Schaden 1 but includes a mark we have not yet discussed:  $\boxplus$ ,  $\boxplus$ ,  $\boxplus$ ,  $\boxtimes$  and  $\boxplus$ . The new mark is  $\boxplus$ , which is also inscribed on O. Schaden 13. Several sections of the obverse of O. Schaden 13 were erased by the scribe, but some of the remaining marks appear in a sequence that is similar to that of O. Schaden 16: mark  $\boxplus$  is followed by mark  $\boxplus$ , in turn followed by mark  $\boxplus$ , which is written over  $\boxplus$ . The latter mark follows after  $\boxplus$  in O. Schaden 16. Left of mark  $\boxplus$  O. Schaden 13 displays a damaged sign that is not necessarily a workman's mark. At the left end of the ostrakon we find mark  $\boxplus$ . On the reverse we observe more marks belonging to workmen of the left side of the crew:  $\boxtimes$  for Siwadjet (ii),  $\boxplus$  probably for Maaninakhtuf (i), mark  $\boxtimes$ , and mark  $\boxplus$ , perhaps an allomorph of mark  $\boxplus$  for Nebenmaat (ii).

*ONL 6530, ONL 6292 and O. Schaden 44*

Two other ostraca are evidently akin to O. Schaden 16, but seem to display an allomorph form of mark  $\boxplus$ . The first one of these two documents is ONL 6530. We clearly recognise marks  $\uparrow$ ,  $\boxplus$ ,  $\boxplus$ ,  $\boxtimes$  and  $\boxplus$ , all of which are listed according to their relative position in the lists of both O. Schaden 1 and O. Schaden 16. Mark  $\uparrow$ , situated in the second slot on O. Schaden 16, is preceded by a mark, which can only be mark  $\boxplus$  according to the sequence of the latter ostrakon. The mark on ONL 6530, unfortunately damaged at the top, does indeed resemble that mark but lacks the lower part that forms the legs of the worshipping man.

We probably encounter the same mark in its entirety on ONL 6292. It is inscribed with two groups of marks. The first group is not truly arranged in a column but can well be read as such, and we recognise marks 2, 3, 4, and 9 of the sequence of O. Schaden 16: 𐀀, 𐀁, 𐀂 and 𐀃. The second group too betrays the structure of the same sequence and lists marks 7, 8 and 16: 𐀄, 𐀅 and 𐀆. One mark, 𐀇, is situated at the top of this little column, and it is tempting to interpret it as an alternative mark used instead of mark 𐀈. Mark 𐀇 resembles the damaged sign on ONL 6530, and it may be a hieroglyphic sign *p*. It would thus seem that in contrast to mark 𐀈, which refers to the element *dwr* in the name of Pendua (i), mark 𐀇 represents the consonant *p* of the name *Pendua* (i). Perhaps the variant form was a result of intentional replacement or an unintentional mix-up of two similar signs.

Like the previous ostraca, O. Schaden 44 records workmen of the left side. It is inscribed with 𐀉 and 𐀊 on the reverse, while the obverse contains a sequence that is comparable to that of O. Schaden 1: 𐀋, 𐀌, 𐀍, 𐀎, 𐀏, 𐀐, 𐀑 and 𐀒. We find that here the supposed mark of workman Huy is positioned between 𐀌 and 𐀍.

*O. Schaden 44 and O. Schaden 15: the mark of Neferrenpet (ii)*

O. Schaden 15 too seems to be inscribed with marks of workmen that belonged to the left side of the crew, such as 𐀓, the mark of Buqentuf (i), mark 𐀔 perhaps of Harnefer (i)/(ii), mark 𐀕 of Amennakht, and unidentified marks such as 𐀖<sup>49</sup> and 𐀗. It also displays mark 𐀘. This mark may be an abbreviated variant of the fuller form of mark 𐀙, which is most probably related to (the family of) a workman called Neferrenpet. Indeed, a workman named Neferrenpet is attested on the left side of the crew in the later part of the reign of Ramesses II.<sup>50</sup> During the second half of the 19<sup>th</sup> Dynasty, three men of this name were active: Davies' Neferrenpet (ii), (iii) and (iv). It is impossible to determine with which of these individuals we are dealing, but there are reasons to give a slight preference to Neferrenpet (ii). Neferrenpet (ii) was a sculptor, and it appears that in the ordered sequences from the reign of Ramesses II some specialists such as sculptors and draughtsmen gravitated towards the bottom of the list.<sup>51</sup> For example, Iyerniutef (ii) in position 18 of the right side on O. BM 5634, was a sculptor. The man one slot down is called Nakhtamun, who may be the sculptor Nakhtamun (iii). Similarly, the Ipyu listed in position 18 of the right side in the list of O. DeM 706 could be the sculptor Ipyu (i).<sup>52</sup> Based on Neferrenpet's position on the same ostrakon in slot 19 of the left side, it is plausible that he is to be identified as sculptor Neferrenpet (ii).<sup>53</sup>

The mark of this Neferrenpet is also attested on ONL 6338, which is clearly related to the ostraca from the workmen's huts near KV 10. Moreover, this document too seems to record mostly workmen of the left side. We recognise marks 𐀚, 𐀛, 𐀜, 𐀝, 𐀞, 𐀟, 𐀠 and 𐀡. Not yet discussed is mark 𐀢, which is not elsewhere attested in the 19<sup>th</sup> Dynasty, and we may propose it is an elaborate allomorph of mark 𐀣. We cannot prove this, but we do expect mark 𐀣 on ONL 6338 if we consider the other marks that feature on the ostrakon. The marks all occur in the second half of the ordered sequence of O. Schaden 16 and O. Schaden 1. Mark 𐀠 is situated in slot 16 on O. Schaden 1 and apart from marks 𐀛 and 𐀢, the other marks of ONL 6338 are situated in position 12, 13 (if 𐀞 ≈ 𐀟), 14 (if 𐀚 ≈ 𐀛), 17 and 19, while mark 𐀣 is found in position 16.

<sup>49</sup> This is probably an allomorph of 𐀖 in O. Schaden 16, as it was in the 20<sup>th</sup> Dynasty.

<sup>50</sup> O. DeM 706.

<sup>51</sup> O. Ashmolean HO 57 suggests that the same phenomenon occurred in the later part of the 19<sup>th</sup> Dynasty as remarked by Collier, *Dating Late XIXth Dynasty Ostraca*, 19.

<sup>52</sup> Although it is also possible that the man is in fact the draughtsman Ipyu (vi).

<sup>53</sup> His name could have been recorded in slot 20 of the left side on O. BM 5634, see Grandet, *Ostraca hiératiques* VIII, 3.

*ONL 6541*

Marks 𐀀 and 𐀁, recorded in subsequent positions on ONL 6338, are found next to each other on ONL 6541. The latter ostracon displays several marks of workmen of the left side in the later part of the reign of Ramesses II and it must date to this period. Although its sequence of marks is not attested elsewhere, we recognise marks 𐀁 (perhaps twice ?), 𐀂, 𐀃, 𐀄, 𐀅 and 𐀆. The sign in the lower row may be the hieratic form for 𐀇, referring to a scribe. We have not yet come across mark 𐀈 in 19<sup>th</sup> Dynasty ostraca discussed so far, although we know this mark to have been used for Aanakhtu (i) = (iii) = (iv).<sup>54</sup> This man was active during the second half of the 19<sup>th</sup> Dynasty, but so was Davies' Aanakhtu (ii),<sup>55</sup> who may be a different man. An unidentified Aanakhtu is recorded in the later part of the reign of Ramesses II on O. DeM 706, but this man belonged not to the left but to the right side of the crew. We can therefore not establish with any certainty to whom mark 𐀈 referred on ONL 6541. This workman does appear to be related to the left side of the crew, and his mark is also attested on O. Schaden 11. This ostracon is hardly legible, but in the traces of ink we do distinguish marks 𐀉, 𐀊, 𐀋, 𐀌, 𐀍, 𐀎, and 𐀏.

*ONL 6488*

Marks 𐀁 and 𐀈 occur in subsequent positions as well in a column of marks inscribed on ONL 6488. The ink on this ostracon is unfortunately rather effaced and not all marks are legible, but once again we find ourselves looking at a document recording workmen of the left side. It is not clear if the marks are arranged in an ordered list, but we can demonstrate that the sequence is remotely akin to that of a number of ostraca from the huts near KV 10 (TABLE 93). Mark 𐀎, otherwise unattested, presumably is an allomorph of 𐀏, the well attested mark of Siwadjet (ii), member of the left side. We had already encountered mark 𐀐 on O. Turin S. 6863, while mark 𐀑 is attested on documents with workmen of the right side.

	<b>ONL 6488</b>	<b>O. Schaden 16</b>	<b>O. Schaden 1</b>	<b>O. Schaden 44</b>
𐀁	1	-	-	3
𐀂	2	2	[2]	-
𐀃 ?	3	11	-	-
𐀄	4	-	-	-
𐀅	5	8	9	8
𐀆	6	17	14	-
𐀇	8	3	3	2
𐀈	9	6	7	6
𐀉	10	-	-	-
𐀊	11	≈14	-	-
𐀋	12	7	8	7
𐀌	13	-	-	-
𐀍	14	5	6	5
𐀎	15	10	-	-
𐀏	16	-	-	-
𐀐	17	≈13	-	-
𐀑	18	18	-	-
𐀒	19	-	12	-
𐀓	21	-	-	-

TABLE 93. ONL 6488 COMPARED TO O. SCHADEN 16, 1 AND 44.

<sup>54</sup> See chapter 4, p. 292.

<sup>55</sup> Davies, *Who's who*, 39-40.

*ONL 6313, ONL 6447 and ONL 6526*

Related to ONL 6488 is ONL 6313, also inscribed with mark  $\sqcup$ , as well as  $\text{𐀀}$  and  $\text{𐀁}$ . A fourth mark is  $\text{𐀂}$ . The marks on ONL 6447 also associate it with ONL 6488, although we can only tentatively identify three marks:  $\text{𐀃}$ ,  $\text{𐀄}$  and  $\text{𐀅}$ , likely to be an allomorph of  $\text{𐀆}$ . Perhaps written by the same hand as ONL 6488 is another ostrakon with columns of marks, ONL 6526. It contains a list of at least 19 workmen's marks and could well be an ordered list. That is suggested by ONL 6280, discussed next, which displays partly the same sequence of marks. The order of ONL 6526 is to some extent reminiscent of that of O. Schaden 1, O. Schaden 16 and associated ostraca, but the list contains some marks we have not seen previously:

	ONL 6526	O. Schaden 16
$\text{𐀇}$	1	2
$\text{𐀈}$	2	-
$\text{𐀉}$	3	3
$\text{𐀊}$	4	4
$\text{𐀋}$	5	-
$\text{𐀌}$	6	7
$\text{𐀍}$	7	-
$\text{𐀎}$	8	8
$\text{𐀏?}$	9	-
$\text{𐀐}$	10	19
$\text{𐀑}$	11	13
$\text{𐀒}$	12	5
$\text{𐀓}$	13	-
$\text{𐀔}$	14?	[13 in O. Schaden 1]
$\text{𐀕}$	15?	-
$\text{𐀖?}$	16?	-
$\text{𐀗}$	17?	14
$\text{𐀘}$	18?	-
$\text{?}$	19?	-

TABLE 94. ONL 6526 COMPARED TO O. SCHADEN 16











Two marks we meet here for the first time in the 19<sup>th</sup> Dynasty. The first mark is  $\text{𐀍}$ , which resembles the hieratic sign of  $\text{𐀎}$ , with phonetic value *šd*. As we have seen previously the same mark was used in the 20<sup>th</sup> Dynasty for a man called Pashedu, and that seems plausible for the 19<sup>th</sup> Dynasty allomorph as well.<sup>56</sup> Another mark that we recognise from our discussion of 20<sup>th</sup> Dynasty marks is  $\text{𐀏}$ . Although we cannot verify it, it seems very likely that this mark refers to the Paherypedjet recorded on the left side of the crew on O. BM 5634 and O. DeM 706.<sup>57</sup> Both marks are not recorded on O. Schaden 16 and associated ostraca, but this may be

<sup>56</sup> Additional evidence comes to us in the form of ceramic vessel fragments inscribed with marks from the tomb of Amenemwia (i) (TT 356), one of which displays mark  $\text{𐀍}$  with Gardiner sign D46 as phonetic complement *d* underneath it, see Bruyère, *Rapport 1928* II, 113, fig. 63, nr. 039; also Bruyère, *Rapport 1948-1951*, pl. XVII, nr. 102. The combination *šd* + *d* is also attested on name stone ONL 1383, with sign  $\text{𐀏}$  in front of it. As far as we are aware, no individual is known from Deir el-Medina with a name that contains these two elements. ONL 1383 may therefore contain two workmen's marks, perhaps for a Pashedu and for Nefersenut (i), although the relationship between the two is unclear. Nefersenut (i) does not appear to have had a relative by the name of Pashedu, see Davies, *Who's who*, chart 28.











<sup>57</sup> It is not clear with which Paherypedjet we are dealing exactly, see Davies, *Who's who*, 9. The fact that he is positioned near the top of the list of ONL 6526 might suggest he was a man of some standing, which would weigh in favour of an identification with Paherypedjet (ii), brother of the foreman of the left side Qaha (i).

a coincidence because as discussed below, the mark of Paherypedjet is probably attested twice at the site of the 19<sup>th</sup> Dynasty workmen's huts.


#### ONL 6280





An ostrakon associated with ONL 6526 is ONL 6280, inscribed with two short columns, which should be read from left to right according to the sequence of ONL 6526. When we do so, we come to an order of marks that approaches the first part of the sequence of ONL 6526: , , , , , , and . The last five marks belong to workmen associated with the left side of the crew. Mark  occurs with workmen of the left side of the crew in the lower section of O. Schaden 1,<sup>58</sup> but mark  is attested for Iyerniutef (ii), who belonged to the right side. Interestingly, ONL 6280 records another familiar mark, , which was used to refer to the foreman of the right during the 20<sup>th</sup> Dynasty. It not clear if the mark has the same function on this 19<sup>th</sup> Dynasty ostrakon. In fact, it is the only instance of this mark on an ostrakon that can be securely dated to the 19<sup>th</sup> Dynasty. The same mark is once attested on a fragment of pottery discovered in front of the tomb of Siptah,<sup>59</sup> but like many other marks on ceramic from this area, it could date to the 20<sup>th</sup> Dynasty as well.

#### *O. Schaden 22 and O. Schaden 93: the mark of Paherypedjet*

An ostrakon related to ONL 6526 and ONL 6280 is O. Schaden 22. Like ONL 6526 and ONL 6280 it contains a mark that refers to a Paherypedjet. We are quite certain that the mark belongs to this man (or a successor of his) because on O. Schaden 22 a more elaborate allomorph of the mark, , is featured, which we can practically read: it is the hieroglyph  with phonetic value *hry* written above the bow  with phonetic value *pd.t*. Like ONL 6526, O. Schaden 22 displays mark  and like ONL 6280 it contains mark .<sup>60</sup> The mark of Paherypedjet is probably also found on O. Schaden 93. The marks of this piece appear to have been erased deliberately and are hardly legible. Still, marks , , and , presumably for workmen of the left side, can be distinguished. Other traces of ink might have been marks  and .

#### 5.2.2.3 ONL 6536 and related ostraca: mid-19<sup>th</sup> Dynasty delivery accounts?

The elaborate variant of the mark of Paherypedjet, , is attested on an ostrakon found in the Valley of the Kings, O. Cairo JE 96352. Only a part of the left half of this document is preserved, which must have contained at least two columns of marks with hieratic numerals inscribed next to it:



[...]	560		492
[...]	340		470
[...]	500		275
			270

We recognise all marks from 19<sup>th</sup> Dynasty sources discussed so far, suggesting the ostrakon dates to the time of Ramesses II or slightly later. A very similar type of account is visible on the reverse of a small ostrakon fragment from Deir el-Medina, ONL 6479:

<sup>58</sup> This does not necessary mean that this workmen also belonged to the left side of the crew. For a discussion of this piece see below, 5.3.2.2.

<sup>59</sup> Fragment 602, see Aston, *Pottery recovered*, 72, pls. 72 and 82.

<sup>60</sup> Other traces of ink on O. Schaden 22 are unclear.

<sup>61</sup> The mark is slightly damaged and the preserved traces might resemble mark , but in the light of the marks on the other ostraca of this group mark  seems more probable.



[...]  
 100  
 A  
 100  
 ✕  
 100

It is probably no coincidence that on this ostrakon marks A and ✕ are listed in the same sequence of O. Cairo JE 96352, as the arrangement with high numerals is similar as well. Another document in this style is the obverse of ONL 6518, which is very fragmentary but also inscribed with mark ✕:

[...]  
 [10 (?)]  
 600  
 ✕  
 [...]

A far bigger and better preserved ostrakon of similar content is ONL 6536. It resembles the previous three ostraca because it too is an account in which workmen's marks are connected with high figures and because it contains marks A and ✕. Moreover, it is very probable that ONL 6536, ONL 6518 and O. Cairo JE 96352 were written by the same scribe, because the shape of the hieratic numerals is absolutely congruent. The style is so characteristic that we recognise in it the hand of a hieratic scribe who wrote hieratic accounts such as O. DeM 333 and O. DeM 713+. <sup>62</sup> These accounts record deliveries, mainly of firewood and fish, which are made to the crew in year 35 and 37 of Ramesses II. It is possible that ONL 6536 and the previous three ostraca record similar information. We can decipher ONL 6536 to some extent:

#### Obverse

10:  $\overline{\text{A}}$  and  $\overline{\text{I}}$ : 500; A: 500  
 10:  $\overline{\text{A}}$ : 610;  $\overline{\text{A}}$  and  $\overline{\text{I}}$ : 506; ✕: 500 (+ x?) [ $\overline{\text{X}}$  ?]  
 [10:]  $\overline{\text{A}}$ : 1050;  $\overline{\text{A}}$  and  $\overline{\text{I}}$ : 400; A: 520; [... ✕ ?]  
 [10:]  $\infty$  and ✕: 893; A : 494; [ $\overline{\text{I}}$  ...]  
 10:  $\infty$  and ✕: 1180; A: 960;  $\overline{\text{A}}$ : 1000 (+ x?)  
 10:  $\overline{\text{A}}$ : 600;  $\overline{\text{A}}$  and  $\overline{\text{I}}$ : 300;  $\overline{\text{L}}$ : 980 [...]

#### Reverse

10:  $\overline{\text{A}}$ : 600; [unclear signs]; 660; [ $\overline{\text{L}}$  (?) ...]  
 10:  $\overline{\text{A}}$ : 642 [...]

The interpretation of this ostrakon is difficult. Every line of the account begins with the hieratic numeral 10. In the hieratic delivery texts made by the same scribe, each entry starts with a day date. Perhaps ONL 6536 is an account of deliveries, all of which were made on a day 10. Indeed, many of the deliveries recorded from year 3 of Seti I took place on day 10, 20 or 30, <sup>63</sup> but such a schedule is not known from the reign of Ramesses II. We are not even certain if the amounts mentioned in ONL 6536 concern deliveries in the first place. The

<sup>62</sup> Particularly the shape of the hieratic hundreds is very similar. For O. DeM 713 see Grandet, *Ostraca hiératiques* VIII, 112-115; for O. DeM 333 see the image accessible via <http://www.ifao.egnet.net/bases/archives/ostraca/?id=6672>.

<sup>63</sup> O. DeM 1-12; 14-18; 22-24; 28.

numerals are comparable to the quantities of wood recorded in the hieratic documentation, but how do we explain the presence of the workmen's marks? Let us turn to hieratic ostrakon O. DeM 713+ for a moment. This document lists the days of the month on which particular goods are said to have arrived through (*m-dr.t*) a particular person. The individuals mentioned are the scribe Meryre,<sup>64</sup> the scribe Amenemope,<sup>65</sup> Paherypedjet,<sup>66</sup> Pashedu, Bakenwerel,<sup>67</sup> Ahautiu, Amenemone,<sup>68</sup> Baki who is perhaps the same man as the Baki son of Amenemone also mentioned in the document,<sup>69</sup> Khaemtore,<sup>70</sup> and a man whose name is damaged and has been reconstructed as Djehutyemheb by Kitchen.<sup>71</sup> These men are generally thought to have been agents of the *smd.t* personnel. Indeed, the scribes Meryre and Amenemope mentioned in this text are clearly associated with the administration of deliveries,<sup>72</sup> and the majority of the other names are not included in O. BM 5634, the hieratic name list of year 40. Still, the status of these men is not unambiguous, because a Paherypedjet and a Khaemtore are present in the list of O. BM 5634. Moreover, a workman Pashedu, probably Pashedu (xv), is recorded among workmen on documents that predate O. BM 5634.<sup>73</sup> One of these ostraca also records an Amenemone.<sup>74</sup> Additionally, we should question the occupations of the scribes Meryre and Amenemope. Their profession was described by Davies as that of '*smd.t* scribe', "whose primary responsibility was to co-ordinate the supply of grain and other commodities to the workmen via the external services."<sup>75</sup> This seems correct, but the social standing of these men within the community of necropolis workmen at the time of Ramesses II is obscure. We do not know whether they lived and worked with the other inhabitants of Deir el-Medina, and whether they were considered to be members of the gang.<sup>76</sup> In fact, most of the '*smd.t* scribes' identified by Davies are not related to the families of workmen. This author pointed out that there are no houses, tombs, or graffiti that are securely connected with any of the '*smd.t* scribes'.<sup>77</sup> Of course it is extremely difficult to identify these scribes, not in the last place because the title '*smd.t* scribe', or *sš n pš hr n bnr* is only attested in two documents.<sup>78</sup> The scarcity of the title suggests it was not an official position. It seems rather that within the community of necropolis workmen there lived 'scribes' who were assigned, perhaps among other tasks, to document deliveries during a specific period. In order to distinguish these scribes from the scribe of the tomb, they may have occasionally been called '*smd.t* scribes' in the administration of the necropolis. In actuality, we may cast some doubt on the significance of the title 'scribe' applied for the Meryre and Amenemope in the account of O. DeM 713+. We know almost nothing about these men or their training as scribes. It is therefore worth considering the possibility that the '*smd.t* scribes' identified as Amenemope (xvi) and Meryre (iii) by Davies are synonymous with the workmen Amenemope (iii) = (ix)<sup>79</sup> and his son

<sup>64</sup> Meryre (iii) according to Davies, *Who's who*, 125.

<sup>65</sup> Amenemope (xvi) according to Davies, *Who's who*, 125.

<sup>66</sup> A member of the *smd.t* personnel according to Davies, *Who's who*, 9-10.

<sup>67</sup> Identified as the 'superintendent of supplies' Bakenwerel (ii) by Davies, *Who's who*, 219 and 220, n. 215.

<sup>68</sup> Identified as the guardian Amenemone (iv) by Davies, *Who's who*, 208.

<sup>69</sup> Baki (iii), a member of the *smd.t* personnel according to Davies, *Who's who*, 12.

<sup>70</sup> A member of the *smd.t* personnel to be distinguished from the contemporaneous Khaemtore (i) according to Davies, *Who's who*, 238 and n. 466.

<sup>71</sup> *KRI* VII, 179, 9; this man is not discussed in Davies, *Who's who*.

<sup>72</sup> Davies, *Who's who*, 125.

<sup>73</sup> O. CG 25627, O. DeM 852 and O. Turin N. 57082.

<sup>74</sup> O. Turin N. 57082.

<sup>75</sup> Davies, *Who's who*, 123.

<sup>76</sup> See above, chapter 3, 3.3.11.

<sup>77</sup> Davies, *Who's who*, 141-142. Note however that during the 20<sup>th</sup> Dynasty '*smd.t* scribe' Paser may have had a personal identity mark, suggesting he was a full member of the crew, see chapter 4, 4.2.12.

<sup>78</sup> O. Michaelides 66; P. Turin Cat. 1945+; cf. Ventura, *Living in a City*, 65; 68.

<sup>79</sup> Davies, *Who's who*, 152; Collier, *Dating Late XIXth Dynasty Ostraca*, 130-131.

Meryre (v), attested in name lists dated to the reign of Amenmesses<sup>80</sup> and later 19<sup>th</sup> Dynasty kings.<sup>81</sup> The father of Amenemope (iii) = (ix) was Pay (ii),<sup>82</sup> who was a draughtsman. In all probability this man must have had some knowledge of script and he could have instructed his son and perhaps his grandson in some basic writing skills.

The point of the discussion about the individuals in O. DeM 731+ is to determine the meaning of ostrakon ONL 6536. The men mentioned in the hieratic account are obviously associated with the external service personnel, but at the same time there are several contemporaneous individuals of the same name who are securely situated within the community of workmen. We cannot rule out the possibility that some of these persons simultaneously, or at an earlier or later point, held a position among the crew of workmen. Consequently they may have had a workman's mark. Very tentatively we may thus propose that the individuals recorded on ostraca O. Cairo JE 96352, ONL 6518, ONL 6479 and ONL 6536 are workmen who delivered wood to the crew, perhaps in the capacity of *smd.t* agents, if only temporarily.<sup>83</sup> Admittedly this seems farfetched, but some of the individuals on the ostraca with marks may also be mentioned in O. DeM 713+. The Paherypedjet and Pashedu recorded in this document could be referred to by mark  $\Xi$  on O. Cairo JE 96352 and by  $\infty$  on ONL 6536. Mark  $\text{𐀓}$  on ONL 6536 may represent the scribe of the tomb, as it did in the 20<sup>th</sup> Dynasty, but in analogy with O. DeM 713+ it refers perhaps to 'scribes' Meryre (iii (= v?)) or Amenemope (xvi (= iii = ix?)). All other marks are attested for workmen of the right and the left side of the crew at the time of Ramesses II, and even for a foreman.<sup>84</sup> Two marks on ONL 6536 are quite frequent and appear often in pairs:  $\text{𐀓}$  and  $\text{𐀔}$ . We know that the former mark belonged to a workman of the left side of the crew, Nakhtmin (iv), whose mark was also used by his grandson Nakhtmin (vi). In the 20<sup>th</sup> Dynasty, mark  $\text{𐀕}$  was used for the son of this Nakhtmin (vi), Nebnakht (viii), and therefore it is very likely the resembling mark  $\text{𐀖}$  on ONL 6536 represents his homonymous grandfather, Nebnakht (vi), son of Nakhtmin (iv).

#### 5.2.2.4 Ostraca from the huts near the tomb of Amenmesses (KV 10) with a small number of marks

Several more, smaller ostraca can be attributed to the middle of the 19<sup>th</sup> Dynasty because of similarities with the corpus of ostraca from the workmen's huts near KV 10. Moreover, a few ostraca from this area inscribed with a very small number of marks or just a single mark probably date to this period as well. Without any archaeological context they would be difficult to accurately date, but many of these marks are attested on larger pieces that we have discussed above and that are certainly datable to the 19<sup>th</sup> Dynasty. Moreover, their findspot among other 19<sup>th</sup> Dynasty ostraca as well as their style suggests they belong to the same body of ostraca dating to the reign of Ramesses II or his immediate successor:

O. Schaden 6:	$\text{𐀗}$
O. Schaden 35:	$\text{𐀘}$
O. Schaden 121:	$\text{𐀗}$
O. Schaden 133:	$\text{𐀙}$
O. Schaden 135:	an allomorph of $\text{𐀚}$ ?
O. Schaden 162:	$\text{𐀗}$ ; $\text{𐀛}$ ; $\text{𐀜}$ ; $\text{𐀝}$ ; $\text{𐀞}$

<sup>80</sup> E.g. O. Cairo Carnarvon 343; O. DeM 277.

<sup>81</sup> E.g. O. Ashmolean HO 57.

<sup>82</sup> Davies, *Who's who*, 150.

<sup>83</sup> Katherin Gabler, based on her forthcoming study on the *smd.t* personnel, agrees that this is a plausible theory, personal communication, 2015.

<sup>84</sup> Mark  $\text{𐀛}$  probably for Qaha (i).

Less certain are three other ostraca from the same area that probably date to the 19<sup>th</sup> Dynasty, but feature marks that are not attested on other documents or objects from the same period. Marks  $\equiv$  and  $\dagger$  on O. Schaden 61 do not contradict a 19<sup>th</sup> Dynasty date, the former attested as the mark for Haremwia and the latter probably belonging to a member of the right side.<sup>85</sup> However, the fragmentary piece also clearly depicts sign  $\mathcal{K}$ , which is not attested elsewhere as a workman's mark. We may propose it is part of a damaged hieroglyphic inscription. O. Schaden 152 is a similar case. The ostrakon is almost certainly a product of the 19<sup>th</sup> Dynasty because of the occurrence of  $\bar{\text{L}}$ <sup>86</sup> and  $\mathcal{A}$ . Yet, it also contains mark  $\text{L}$ , known from the 18<sup>th</sup> Dynasty, but not found elsewhere in a 19<sup>th</sup> Dynasty context. Ostrakon O. Schaden 161 is probably datable to 19<sup>th</sup> Dynasty but its interpretation is hindered because not all marks are well preserved. We will discuss it with a group of other ostraca below.<sup>87</sup>

### 5.2.2.5 Other ostraca attributable to the middle of the 19<sup>th</sup> Dynasty

There are other, smaller and often fragmentary ostraca, mostly from the village and its vicinity, that are attributable to the same period because the groups of marks are related to the ostraca from the huts settlement near the tomb of Amenmesses. These ostraca do not provide new information and are briefly discussed in Appendix I.<sup>88</sup>

### 5.2.2.6 O. Hawass, O. Cairo JE 96335 and O. Cairo JE 96336 and related ostraca

More ostraca with marks can be related to the list of O. BM 5634, and although the order of marks on these pieces is not exactly that of the ordered sequence it is often similar to it.

#### *O. Hawass, O. Cairo JE 96335 and O. Cairo JE 96336*

One significant piece is O. Hawass, which was discovered in the Valley of the Kings probably in the area of the workmen's huts between KV 7 (Ramesses II) and KV 8 (Merenptah). It displays two lines of marks, some of which we have encountered on O. Schaden 1 and O. Schaden 16, where they belonged to the left side of the crew. However, many of the other marks on O. Hawass seem to belong to workmen of the right side of the crew, and therefore it appears that the document is not a list of all workmen of one particular side. It is clear however, that three marks in the upper row,  $\overline{\text{L}}$  –  $\bar{\text{L}}$  –  $\mathcal{A}$ , are recorded in a meaningful order. That is suggested by the fact that they appear as such on O. Cairo JE 96335 and probably also O. Cilli 336,<sup>89</sup> and in almost the same sequence on O. Cairo JE 96336. At the beginning of this chapter we had identified the workmen referred to by these marks as Amenemwia (i), Iniherkhau (ii) and Neferabet (i).<sup>90</sup> When we turn to the reverse of O. BM 5634, we find exactly these three workmen in positions 2, 3 and 4 of the list of workmen of the right side. If the upper line of marks on O. Hawass is read from left to right, then the identity marks of these three individuals are listed in those three exact positions as well. One damaged mark precedes it, which could be mark  $\mathcal{K}$ . That is also suggested by ONL 6543, an ostrakon fragment which contains three marks in a comparable sequence:  $\mathcal{K}$  –  $\overline{\text{L}}$  –  $\mathcal{A}$  – [...]. The list of O. BM 5634 records a Huynefer, perhaps Huynefer (iii), for this slot. We have seen however that mark  $\mathcal{K}$  was used for the workman Buqentuef (i), who does not appear to have had any men called Huynefer in his family. Moreover, Buqentuef and his descendants such as the later deputies Amennakht (x) and Hay (vii) were mostly associated with the left side of the

<sup>85</sup> See above, p. 404, O. Schaden 16.

<sup>86</sup> For a member of the right side, as we will see below, 5.2.2.6.

<sup>87</sup> See below, p. 421.

<sup>88</sup> See Appendix I, § 1.

<sup>89</sup> This ostrakon may however date to a later period, see below, p. 439.

<sup>90</sup> See above, 5.2.1.

crew. Thus the first four marks on O. Hawass agree only to a limited degree with the list on the reverse of O. BM 5634.

We come to the same conclusion when we examine the fifth mark from the left in the upper row of O. Hawass. This is mark  $\Upsilon$ , which we have seen on O. Schaden 16 and which might be related to Harnefer (i)/(ii) according to a comparison with the obverse of O. BM 5634. The list of workmen of the right side inscribed on the reverse of the same piece mentions Paser (v) for this slot, a man who cannot be tied to the family of Harnefer (i)/(ii). Once again, we seem to have lost the connection between the list of men on O. Hawass and the ordered list on the reverse of O. BM 5634, and a comparison of the two documents does not lead to any new secure identifications but only to tentative suggestions. For example, right of mark  $\Upsilon$  on O. Hawass we find two signs that seem to constitute a single mark:  $\text{AA}$ . This mark is reminiscent of mark  $\text{A}$  for Qaha (i). According to the list of the right side on O. BM 5634 mark  $\text{AA}$  would be linked to a workman named Pakharu. Since Qaha (i) had a son called Kharu (i),<sup>91</sup> it is tempting to equate both names and to connect the mark with his person. However, Sennedjem (i) is known to have had a son called Pakharu (xii), who must have been active in the reign of Ramesses II,<sup>92</sup> and another Pakharu (ix) may have been active in the first half of the 19<sup>th</sup> Dynasty.<sup>93</sup> A connection between  $\text{AA}$  and Kharu (i) is therefore far from certain.

Depending on how the lines of O. Hawass are read, the 8<sup>th</sup> or 14<sup>th</sup> mark of the document is  $\text{K}$ . To some extent this mark is similar to mark  $\text{K}$  belonging to Nebenmaat (ii), who is recorded in the 12<sup>th</sup> position on O. BM 5634. It is, however, impossible to verify this equation. Likewise it is difficult to identify the other marks on O. Hawass, but we can make some suggestions regarding marks  $\text{H}$  and  $\text{P}$ . Data from the 20<sup>th</sup> Dynasty has made it abundantly evident that  $\text{H}$  was employed as the identity mark of the necropolis scribe. O. BM 5634 was written in year 40 of Ramesses II, when scribe Qenherkhopshef (i) had assumed this status, so the sign on O. Hawass could well refer to him. As for mark  $\text{P}$  we can exploit our knowledge of marks of the 20<sup>th</sup> Dynasty once more. During this period the sign was used for Pahemnetjer (ii), the grandson of Pahemnetjer (i) who was active in the second half of the 19<sup>th</sup> Dynasty.<sup>94</sup> Mark  $\text{P}$  may therefore well refer to the latter man.

	O. Hawass		O. BM 5634
1	[ $\text{K}$ ]	1	Huynefer (iii) ?
2	$\text{T}$	2	Amenemwia (i)
3	$\text{I}$	3	Iniherkhau (i)
4	$\text{A}$	4	Neferabet (i)
5	$\Upsilon$		
6	$\text{AA}$	6	Pakharu = Kharu (i)?
7	...		
8	$\text{K}$	12	Nebenmaat (ii)
9	$\text{H}$		
10	$\text{P}$		
11	$\text{P}$	19	Pahemnetjer (i)
12	$\text{H}$		
13	$\text{I}$		
14	$\text{H}$	-	Scribe Qenherkhopshef (i) ?

TABLE 95. O. HAWASS COMPARED TO O. BM 5634

<sup>91</sup> Although not necessary as a workman; Davies, *Who's who*, 13.

<sup>92</sup> Davies, *Who's who*, 44-45.

<sup>93</sup> Davies, *Who's who*, 206.

<sup>94</sup> Davies, *Who's who*, 95.

We have already briefly mentioned O. Cairo JE 96336 but it is worth returning to it. The sequence of marks recorded on this document is clearly not the same as that of ordered lists such as O. BM 5634 and O. DeM 706, but a comparison of names and marks does offer a few plausible identifications:
























	O. Cairo JE 96336		O. BM 5634
1		2	Amenemwia (i)
2		5	Paser (v)
3		3	Iniherkhau (i)
4		4	Neferabet (i)
5			
6		8	Nefersennut (i)
7		7	Seba (iii)?
8			
9	[O ?]	10	Khonsu (i)/(ii)

TABLE 96. O. HAWASS COMPARED TO O. BM 5634

Among the first four marks are those of Amenemwia (i), Iniherkhau (i) and Neferabet (i), all of whom are situated in the top four slots of the ordered list of O. BM 5634. The second mark of O. Cairo JE 96336 is , unmistakably the hieratic sign for , Gardiner A2. Marks that depict human figures are relatively rare. Among the corpus of 20<sup>th</sup> Dynasty identity marks we have seen  (probably for Paser (iii)),  for Qaydjeret (i) and  (probably for Akhpet (iii)). Apart from , we know mark  from the 19<sup>th</sup> Dynasty material. Each of these marks possesses a direct relation to the name of its owner. This is problematic for  because Gardiner A2 is not used as an ideogram or a sign with a phonetic value. Going through the list of workmen of the right side recorded on O. BM 5634, there is a single name that might be remotely connected with mark . It is the workman Paser (v), listed in the fifth position, whose name is written with Gardiner sign A21  for *sr*. A relation between his name and mark  is nothing more than an unsubstantiated guess, since the most characteristic feature of sign A21, the tall staff, is omitted in mark , but otherwise the two signs are quite similar in hieratic script.<sup>95</sup> The fact that Paser (v) is situated in a rather high slot in the ordered list of O. BM 5634 is also in agreement with his position on O. Cairo JE 96336.

The marks in position 6 and 8,  and , cannot be linked to any of the names on O. BM 5634. However, for marks 6  and 7  we may cautiously suggest that they refer to workmen numbers 8 *Nefersennut* (i) and 7 *Seba*.<sup>96</sup> Another hesitant guess would connect the damaged, circular mark O at the left end of O. Cairo JE 96336, otherwise seemingly unattested, with the workman *Khonsu* (i)/(ii) listed in position 10 on O. BM 5634 in analogy with the circular sign used in the 20<sup>th</sup> Dynasty duty rosters as an abbreviation for the *smd.t* agent *Bakenkhonsu*.<sup>97</sup>

O. Hawass and O. Cairo JE 96636 are thus relatively well dated. Together with other dated 19<sup>th</sup> Dynasty ostraca inscribed with many different marks such as O. Schaden 1, O. Schaden 16 and ONL 6526, they can be consulted to determine an approximate date for other pieces inscribed with the same marks. In fact, there are numerous other ostraca inscribed like O. Hawass with what appear to be marks of workmen of both the right and the left side of the crew. We shall here discuss a number of them in this section, while those ostraca that do not offer new information are briefly treated in Appendix I.<sup>98</sup>

<sup>95</sup> Compare Möller, *Hieratische Paläographie* II, 3, nr. 35 to 2, nr. 11; as intermediate shape, compare 1, nr. 1.

<sup>96</sup> Perhaps Seba (iii), see Davies, *Who's who*, 11.

<sup>97</sup> See chapter 3, 3.2.2.4.

<sup>98</sup> Appendix I, § 2.

*ONL 6411*

ONL 6411 must date to the 19<sup>th</sup> Dynasty because of the occurrence of mark  $\text{𓆎}$ . It displays well known marks for members of the right and the left side ( $\text{𓆎}$ ,  $\text{𓆏}$ ,  $\text{𓆐}$ ,  $\text{𓆑}$  and  $\text{𓆒}$ ). Mark  $\text{𓆓}$  is found on ostraca such as ONL 6526. But ONL 6411 also contains  $\text{𓆔}$  and  $\text{𓆕}$ . The latter mark was used for Merysekhmet (iii) in the 20<sup>th</sup> Dynasty, but he cannot have been recorded on this 19<sup>th</sup> Dynasty piece. Instead it must refer to an earlier Merysekhmet, either Merysekhmet (i) or (ii). The distinction between these two men is grounded on literary ostrakon O. DeM 1106<sup>99</sup> in which a Merysekhmet is called the master (*hr.y*) of a Nefersenut. Janssen<sup>100</sup> and Davies<sup>101</sup> argued that, because Nefersenut (i) is known to have been active in the second half of the reign of Ramesses II, his master Merysekhmet must have lived in the first half and should thus be differentiated from the Merysekhmet who is attested in the reigns of Amenmesses and Seti II, Davies' Merysekhmet (ii). However, neither Nefersenut nor Merysekhmet is securely attested before year 40 of Ramesses II. For all we know, Merysekhmet could have accepted Nefersenut as his apprentice in year 39, and therefore there is no necessity for distinguishing two Merysekhmets during the 19<sup>th</sup> Dynasty. Mark  $\text{𓆕}$  could thus represent Merysekhmet (i) = (ii), the great grandfather of Merysekhmet (iii) with the same mark. The reading of the second mark,  $\text{𓆔}$ , is not completely certain, and it could perhaps also be mark  $\text{𓆕}$  we saw earlier on O. Cairo JE 96636. Alternatively, the mark on that ostrakon could be  $\text{𓆔}$ , which we encountered already on ONL 6313.<sup>102</sup>

*ONL 6587 and ONL 6525*

Like ONL 6467, ONL 6587 is poorly preserved. The ostrakon is difficult to interpret and contains strange signs and depictions of a kind that are not found elsewhere. The disorganised nature is to some extent similar to that of ONL 6488. Some of the few securely identified marks of ONL 6587 are present on ONL 6488:  $\text{𓆖}$ ,  $\text{𓆗}$  and  $\text{𓆘}$ . The bird-shaped sign  $\text{𓆙}$  could perhaps be a mark. Indeed, a falcon-shaped bird is probably inscribed on O. Berlin P 14350, also inscribed with mark  $\text{𓆘}$  and definitely datable to the reign of Ramesses II on account of the hieratic text with which it is inscribed. However, we cannot rule out the possibility that on ONL 6587 the bird refers to an actual bird. Perhaps also inscribed on this ostrakon are some marks that we know from pieces such as O. Schaden 1, O. Schaden 16, O. Hawass and ONL 6526:  $\text{𓆚}$ ,  $\text{𓆛}$ ,  $\text{𓆜}$ ,  $\text{𓆝}$ ,  $\text{𓆞}$  and  $\text{𓆟}$ . Mark  $\text{𓆠}$  is perhaps a poorly executed specimen of  $\text{𓆡}$ . There are several more signs that could perhaps be workmen's marks. One of them resembles  $\text{𓆢}$ , the mark of Menna (i). We have encountered this individual already in the 20<sup>th</sup> Dynasty, but he may have been active as early as the reign of Siptah.<sup>103</sup> If his mark is indeed present on ONL 6587, it should date to a later period than the group of ostraca from the workmen's huts near KV 10 and associated documents. The author of ONL 6587 may have also composed ONL 6525, which is equally disorganised and also contains odd marks and signs. The only securely identified marks are  $\text{𓆣}$  and  $\text{𓆤}$ , both attested in the 19<sup>th</sup> Dynasty. ONL 6560 is equally

<sup>99</sup> Georges Posener, *Catalogue des Ostraca Hiératiques Littéraires de Deir el Médineh*. Tome I. Nos 1001 à 1108. DFIFAO 1 (Cairo 1938), pls. 54-54a.

<sup>100</sup> Jac. J. Janssen, 'Two Personalities', in: Demarée and Janssen (eds.), *Gleanings*, 116.

<sup>101</sup> Davies, *Who's who*, 161.

<sup>102</sup> The reverse of this ostrakon also displays an *udjat*-eye. Although this sign is attested as a workman's mark in the Ramesside period, the specimen on ONL 6411 does not appear to have been used in this sense because it is much larger than the other marks. Ostraca with drawings of *udjat*-eyes are not uncommon, compare e.g. O. DeM 3344, see Annie Gasse, *Catalogue des Ostraca Figurés de Deir el-Médineh*. Fascicule 5. Nos 3100-3372. DFIFAO 23 (Cairo 1986), pl. XXXVI; O. BM 5627; O. Berlin P 23972, see Emma Brunner-Traut, *Die altägyptische Scherbenbilder (Bildostraka) der Deutschen Museen und Sammlungen* (Wiesbaden 1956), 169, pl. XLIV.

<sup>103</sup> Davies, *Who's who*, 164.

enigmatic, inscribed with eyebrow raising lines, shapes and perhaps signs. A date in the 19<sup>th</sup> Dynasty may be considered on account of a shape that resembles  $\lambda$ .

#### *O. Schaden 161*

Similarly problematic is O. Schaden 161. It is inscribed with  $\Gamma$ , which we may assume is an allomorph of  $\Upsilon$ , and with  $\text{𐀓}$ . Both marks appear on O. Hawass. Left of mark  $\Gamma$ ,  $\text{𐀔}$  is inscribed, which could be a single mark, but is not securely attested anywhere else. Alternatively it could be mark  $\text{𐀕}$  with an unclear mark, sign or depiction above it. Marks  $\text{𐀕}$ ,  $\Upsilon$  and  $\text{𐀓}$  are also situated in adjacent positions on O. Hawass. The other marks on O. Schaden 161 are difficult to discern. One could be mark  $\text{𐀖}$ , the other resembles  $\text{𐀗}$ . While the former mark is definitely attested in the 19<sup>th</sup> Dynasty, the latter is not securely found in a 19<sup>th</sup> Dynasty context. Perhaps the traces of this mark are better interpreted as a hieratic variant of mark  $\text{𐀘}$  for the scribe of the necropolis, which, as it happens, is also attested on O. Hawass. In this light we may contemplate if the traces of the mark left of it are not  $\text{𐀖}$ , but mark  $\text{𐀙}$ . This reading of O. Schaden 161 would perfectly match the sequence attested in the second line of O. Hawass.

#### **5.2.2.7 Ostraca with the mark of Sennedjem (i)**

Sennedjem (i), famous for his marvellous tomb (TT 1), can be counted among the workmen who were active in the early 19<sup>th</sup> Dynasty. As famous as Sennedjem may be, his name is not often mentioned in the hieratic Deir el-Medina administrative records. His earliest testimony may be on O. BM 50728, attributed to year 2 of the reign Seti I by Helck.<sup>104</sup> The scarcity of attestations of his person seem to be due to the nature of the early 19<sup>th</sup> Dynasty official necropolis administration, which as it appears has left us relatively few hieratic ostraca. In this context it is perhaps appropriate to mention O. Berlin P 14261,<sup>105</sup> a hieratic ostrakon generally attributed to year 3 of Seti I, inscribed on the reverse by an isolated mark  $\text{𐀚}$ . If the attributed date is correct, the mark refers in all probability to Baki (i) who at the time was the chief workman of the left side.

There are a number of pieces that date to about the same time as O. Berlin P 14261 because they are inscribed with the mark of Sennedjem,  $\text{𐀛}$ , but three of these are ostraca inscribed with a single mark exclusively (ONL 6418, ONL 6270, ONL 6391) and do not feature any other workmen's marks.<sup>106</sup> ONL 6492 may originally have been a bigger document, but the fragment only displays Sennedjem's mark in connection with the hieratic numeral '6'. Fortunately ONL 6471 is better preserved and inscribed with other workmen's marks. We can probably date this piece to the reign of Ramesses II, because of the sequence  $\text{𐀜} - \text{𐀝} - \text{𐀞}$  that is also attested on O. Hawass. In analogy with the latter piece we may identify these marks on ONL 6471 as Amenemwia (i), Iniherkhau (i) and Neferabet (i), although we are not absolutely certain if all four men ever worked simultaneously alongside each other in the crew of workmen. It would seem that at least Neferabet (i) was active during the first half of the reign of Ramesses II.<sup>107</sup> Alternatively, mark  $\text{𐀜}$  could here refer to the father of Amenemwia (i), Amek (i), with whom Sennedjem is attested in two documentary texts.<sup>108</sup> Besides at least two illegible marks, the ostrakon also records mark  $\text{𐀟}$  and mark  $\text{𐀠}$ .

<sup>104</sup> Helck, *Die datierten und datierbaren Ostraka*, 39.





<sup>105</sup> Also known as O. DeM 13.

<sup>106</sup> ONL 6418, of unknown provenance, is a large rounded piece of limestone of about 15 cm high. It is inscribed in red ink, and displays an allomorph of  $\text{𐀛}$  where the *nfr* sign is inverted. Its classification as an ostrakon is perhaps not entirely accurate, because the appearance of the piece conforms to the descriptions of stones that were incorporated in the upper structures of the tomb of Sennedjem (TT 1) and tombs DM 1181 and DM 1182, see Bruyère, *La tombe No. 1 de Sen-nedjem à Deir el Médineh*, 5. It may thus have been used in the same way as so-called name stones. See below, 5.3.2.4.











<sup>107</sup> Davies, *Who's who*, 158.

<sup>108</sup> O. Ashmolean HO 89; O. BM 50728.




Another mark is only partly discernable but appears to represent the legs and right arm of a human figure. We may tentatively identify it as mark , which is attested together with , , and  on O. Cairo JE 96336. We had proposed to connect it with the workman Paser (v) and indeed, Sennedjem is recorded together with a Paser in an account from the early 19<sup>th</sup> Dynasty.<sup>109</sup>




### 5.2.2.8 Ostraca with the mark of Khabekhnet (i)

We have discussed some of the pottery fragments incised with marks that we have attributed to Khabekhnet (i), son of Sennedjem (i).<sup>110</sup> Khabekhnet appears to have joined the workforce after year 40 because he is not mentioned on the hieratic name list of O. BM 5634, but he is present on the name list of O. DeM 706. Ostraca with his mark are therefore tentatively dated to the middle of the 19<sup>th</sup> Dynasty, keeping in mind of course that it could have been transferred to a successor of his. ONL 6393 is solely inscribed with mark . On ONL 6347 Khabekhnet is probably recorded together with the marks of Neferabet (i) and Buqentuef (i), as well as mark . ONL 6281 features Khabekhnet's mark, probably together with other workmen of the right side. All preserved marks appear on O. Hawass as well, and as in that document, marks  and  are situated in adjacent positions. The mark of Khabekhnet is found furthermore on ONL 6279, which includes mark  for Iyerniutef (ii) and , a mark in the shape of a bird for an unknown workman. For unclear reasons, Khabekhnet's mark is added twice to ONL 6419. Like ONL 6279, this piece also records  for Iyerniutef (ii) and like ONL 6347 it is inscribed with what is probably . The other two marks are  and . We will return to the former mark below.<sup>111</sup> The other mark is probably that of Nebenmaat, with whom Khabekhnet is attested on hieratic ostraca.<sup>112</sup>

### 5.2.2.9 Ostraca with the mark of Anuy (i)

A number of ostraca are inscribed with , the mark that we have identified as that of Anuy (i).

#### *O. Ashmolean HO 1120*

The document appears to be a name list, which is headed by the marks of the foreman, scribe and deputy. Such a classification seems justified because we find mark  for the deputy of the left side Anuy (i) in the third position of a column of marks, and mark  assumedly for the scribe of the tomb in the second position. In analogy with 20<sup>th</sup> Dynasty name lists – either with marks or written in hieratic – it thus seems at a first glance that O. Ashmolean HO 1120 is an ordered name list of the entire left side of the crew. The mark at the top of the first column is damaged and barely identifiable. The traces of ink do allow for a reading of mark . This would conform to our expectations, because we have tentatively assigned this mark to the foreman of the left side of the crew, Qaha (i). Qaha (i) and his son Anuy (i) operated as respectively the foreman and deputy of the left side during the second half of the reign of Ramesses II.<sup>113</sup>

However, closer examination of O. Ashmolean HO 1120 contradicts our initial interpretation of the document. It is problematic to assert that the ostrakon records an ordered list of the complete left side, because the list apparently contains marks for workmen we know from either the right or the left side, as well as a number of yet unidentified marks:

<sup>109</sup> O. BM 50728.

<sup>110</sup> See above, 5.2.1.

<sup>111</sup> See below, 5.2.3.3.

<sup>112</sup> E.g. O. Ashmolean HO 199.

<sup>113</sup> Davies, *Who's who*, 15.

𐀓	Right side on O. Cairo JE 96336: position 1
𐀓?	?
𐀓𐀓	Left side on O. Schaden 16: position 2 Right side on O. Hawass ?
𐀓	Right side on O. Cairo JE 96336: position 2
𐀓	Left side on O. Schaden 16: position 3
𐀓	Right side on O. Cairo JE 96336: position 4
𐀓	Left side on O. Schaden 16: position 4
𐀓	Left side on O. Schaden 16: position 6
𐀓	?
𐀓?	?
𐀓	Left side on O. Schaden 16: position 13 Also on O. Hawass ?
𐀓	Left side on O. Schaden 16: position 18 Also right side (?) on O. Cairo JE 96336: position 8
𐀓	Left side on O. Schaden 1: position 12 Also on O. Hawass ?

TABLE 97. MARKS ON O. ASHMOLEAN HO 1120

Because of the weathered state of the ostrakon and because, some sections seem to have been erased by the scribe, several marks are very difficult to discern. Relying on pieces such as O. Cairo JE 96335, O. Hawass, O. Schaden 1 and O. Schaden 16 that we have also situated in the second half of the reign of Ramesses II, we do recognise marks 𐀓, 𐀓 and 𐀓 as those of workmen of the right side.

On the other hand, marks 𐀓, 𐀓, 𐀓, 𐀓, 𐀓, and 𐀓 would be members of the left side. With the mark of Anuy (i) and perhaps that of Qaha (i), the majority of individuals recorded on O. Ashmolean HO 1120 are associated with the left side. Moreover, the marks of the left side are listed in accord with their relative position on O. Schaden 16, where they fill positions 3, 4, 6, 13, 18, and 12 on O. Schaden 1. If double mark 𐀓𐀓<sup>114</sup> is related to mark 𐀓 in position 2 on O. Schaden 16, the correspondence to the ordered sequence of the middle of the reign of Ramesses II is strengthened even further. Analysing the marks of supposedly the right side, we find that they too are to some extent recorded on O. Ashmolean HO 1120 according to their position in the ordered list of O. Cairo JE 96336: slots 1, 2, and 4.

It can thus be demonstrated that O. Ashmolean HO 1120 was created with the ordered sequence of the middle of the reign of Ramesses II in mind. Frustratingly we cannot compare this list well to any hieratic lists other than O. BM 5634 and O. DeM 706. While O. Ashmolean HO 1120 contains a similar order of workmen, it does not correspond well enough to reveal the identity of some of the unidentified workmen's marks, such as 𐀓, 𐀓 and 𐀓 (?).

#### ONL 6487

Like O. Ashmolean HO 1120, ONL 6487 includes the mark of Anuy (i) (perhaps twice?) and that of the scribe. ONL 6487 is also similar to that ostrakon in that it displays marks for members of the right and the left side. Marks 𐀓 (most likely an allomorph of 𐀓 as in the 18<sup>th</sup> Dynasty), 𐀓, and perhaps 𐀓 are recorded on O. Cairo JE 96366, probably for workmen of the right side, although mark 𐀓 is also found on O. Schaden 16 as a member of the left side. That document also includes another mark we encounter on ONL 6487: 𐀓. The identification of mark 𐀓 on this document is uncertain. Theban Graffito 729 speaks in favour

<sup>114</sup> For a tentative explanation of this double mark see below, p. 429-430.

of such a reading, because it clearly includes mark  $\text{𓂏}$  and that of Anuy (i).<sup>115</sup> As in ONL 6487 we encounter in this graffito mark  $\text{𓂏}$ , the particular variant of  $\text{𓂏}$ . A fourth mark  $\text{𓂏}$  is that of Iniherkhau (i). Two hieratic inscriptions accompany the marks but it is unclear if they are contemporaneous. The mention of the “captain of the gang Nakhemmut” probably refers to either Nakhemmut (i) or Nakhemmut (vi), foremen who lived in the 20<sup>th</sup> Dynasty. The “scribe Neferhotep”, however, may have been the ‘*smd.t* scribe’ Neferhotep (vi), active around the middle of the 19<sup>th</sup> Dynasty.

#### ONL 6535

Anuy (i) is probably recorded among other workmen of the left side on weathered ostrakon ONL 6535. One damaged mark is probably  $\text{𓂏}$ . Together with mark  $\text{𓂏}$  it is also found in the list of workmen of the left side on ONL 6526. At the bottom of ONL 6535 mark  $\text{𓂏}$  reappears, which we had already seen on ONL 6527 between marks of other members of the left side.

#### O. ARTP 99/44, O. Ashmolean HO 1103, ONL 6412, ONL 6526 and ONL 6533

On O. ARTP 99/44 mark  $\text{𓂏}$  is likewise situated among workmen of the left side. Marks  $\text{𓂏}$ ,  $\text{𓂏}$  and  $\text{𓂏}$  are attested for members of the left side on O. Schaden 16, while marks  $\text{𓂏}$  and  $\text{𓂏}$  are found with workmen of the left side on ONL 6541, ONL 6526 and ONL 6488. The sequence of O. ARTP 99/44 does not reoccur elsewhere, but O. Ashmolean HO 1103 is perhaps related to it. This piece also lists workmen in columns and records  $\text{𓂏}$  and  $\text{𓂏}$  in subsequent positions. Because of the occurrence of the mark of Anuy (i) the ostrakon should date to the second half of the reign of Ramesses II. Indeed all other marks of O. Ashmolean HO 1103 fit into this timeframe, with marks  $\text{𓂏}$ ,  $\text{𓂏}$ ,  $\text{𓂏}$  and perhaps  $\text{𓂏}$  attested on O. Hawass and O. Cairo JE 96636, and  $\text{𓂏}$  and  $\text{𓂏}$  on ONL 6526 and associated pieces. A similar document is ONL 6412, inscribed in black ink with four marks, and with the mark of Anuy (i) scratched into the stone. Four out of the five marks could well belong to workmen of the left side. Anuy (i) was associated with that side, and marks  $\text{𓂏}$  and  $\text{𓂏}$  are listed for that side on documents such as O. Schaden 16. Mark  $\text{𓂏}$  occurs together with  $\text{𓂏}$  in the list of workmen of the left side inscribed on ONL 6526. However, mark  $\text{𓂏}$ , perhaps an allomorph of  $\text{𓂏}$ , possibly belonged to the right side according to our interpretation of O. Hawass. The mark of Anuy (i) is attested together with  $\text{𓂏}$  on ONL 6533. The latter mark is also recorded on O. Hawass, there perhaps for a workman of the right side. On the other hand,  $\text{𓂏}$  could be an allomorph of  $\text{𓂏}$  for Anuy (i)’s father Qaha (i).








#### ONL 6522 and O. UC 31989

A further attestation of the mark of Anuy (i) is on fragmentary ostrakon ONL 6522. It is there recorded together with mark  $\text{𓂏}$  and mark  $\text{𓂏}$ . The former mark is only sporadically encountered in 19<sup>th</sup> Dynasty ostraca with marks, but we have met with this workman already on O. Schaden 1 and ONL 6280. The latter mark may perhaps be an allomorph of mark  $\text{𓂏}$ , which we tentatively discerned on O. Ashmolean HO 1120. If this equivalency is correct, we may propose to cautiously ascribe mark  $\text{𓂏} = \text{𓂏}$ , readable as *ipt*, to the workman Amenemope (ix).<sup>116</sup> Unfortunately not much is known about the lifespan of this man, but he must have been active during the second half of the 19<sup>th</sup> Dynasty perhaps as early as the time of Amenmesses.<sup>117</sup> Some support for this identification is the fact that in the 20<sup>th</sup> Dynasty mark  $\text{𓂏}$  was used for Amenemope (x), a grandson of Amenemope (ix).








<sup>115</sup> Spiegelberg, *Graffiti*, 59 and pl. 78.








<sup>116</sup> This man is the same individual as Davies’ Amenemope (iii), cf. Collier, *Dating Late XIXth Dynasty Ostraca*, 130-131.

<sup>117</sup> Davies, *Who’s who*, 212.




Another instance of this mark is found on ONL 6657, perhaps datable to the 19<sup>th</sup> Dynasty as well. Mark  occurs also on O. UC 31989, an ostrakon of uncertain date. It is inscribed with a set of marks which are attested throughout the Ramesside Period and it could date to the 20<sup>th</sup> Dynasty. However, we may also consider a 19<sup>th</sup> Dynasty date, because marks , , , ,  and  are found on ostraca from the time of Ramesses II recording workmen of the right and the left side of the crew.

#### *ONL 6431 and ONL 6459*




ONL 6431 is also inscribed with mark , but the date of this ostrakon is hard to determine because of its fragmentary state. Two of its marks are only partly preserved. They are perhaps  and , but that is far from certain. Another mark somewhat resembles , which suggests a date in the 19<sup>th</sup> Dynasty. Yet, mark  is also present on ONL 6431 and is nowhere else attested in the 19<sup>th</sup> Dynasty. We may propose to interpret this as the first occurrence of the mark and date the ostrakon to the end of the 19<sup>th</sup> Dynasty. Alternatively, the mark we had tentatively identified as  could be a different mark or sign, and ONL 6431 may date to the 20<sup>th</sup> Dynasty on account of mark .

Marks  and  are also found on ONL 6459, which should probably date to about the same period as ONL 6487. It is similarly difficult to read as the ink is very much faded. We can just make out mark  for the brother of Anuy (i), Iniherkhau (i), and mark , which is also attested on ONL 6411. Perhaps another mark is , but the ink is not well enough preserved for a secure identification. Anuy (i)'s mark is additionally inscribed on an ostrakon which, like ONL 6459, is hard to understand. This piece is O. Schaden 152, where Anuy is probably attested again with mark  of his brother Iniherkhau (i). A third mark , however, is not elsewhere attested in the 19<sup>th</sup> Dynasty.

#### *Theban Graffito 1984*

To conclude, the mark of Anuy (i) is found in Theban Graffito 1984, where it seems to be accompanied by marks  and . It is not entirely certain if the latter sign is actually an identity mark, because the only other secure attestation is on O. Schaden 13, and perhaps also on enigmatic ostrakon ONL 6414. Still, like the graffito this ostrakon dates to the middle of the 19<sup>th</sup> Dynasty. Mark  is likewise attested on 19<sup>th</sup> Dynasty ostraca with marks of members of the left side of the crew, such as ONL 6256 and ONL 6451. Theban Graffito 1984 also contains the name of a man named Hay, and a “scribe Wennefer <in> the Place of Truth”. On account of the occurrence of the mark of Anuy (i), the graffito may be dated to the middle of the 19<sup>th</sup> Dynasty, which identifies this scribe Wennefer as Wennefer (vii) who is mentioned in several other graffiti.<sup>118</sup>

#### **5.2.2.10 Ostraca with the mark of Qaha (i)**

It has been pointed out that there are reasons to believe Qaha (i) was represented by mark , and the slightest bit of supporting evidence is found in O. Ashmolean HO 1120. There are other ostraca from the 19<sup>th</sup> Dynasty on which mark  is inscribed, of which we have already discussed O. Cairo JE 96352, ONL 6536 and ONL 6479. Nothing suggests that mark  represents a chief workman in these documents. On the contrary, if these ostraca are accounts of deliveries as we have tentatively proposed, one would not expect a foreman to have taken part in such activities. Therefore the mark is there conceivably also a reference to someone else than Qaha (i). Unfortunately none of the other ostraca offer complete clarification.

<sup>118</sup> Davies, *Who's who*, 99.

*O. Cairo JE 46859*

This limestone chip inscribed with marks fits our hypothesis but cannot verify it. The ostrakon is inscribed with a short column of four marks. The uppermost mark is  $\text{A}$ , followed by marks  $\text{Q}$ ,  $\text{D}$  and  $\text{R}$ . We do not know if the mark of Qaha is the first mark of the column because the upper part is not preserved, but considering the blank space to the left and underneath the column this may be so. If Qaha (i), foreman of the left side during much of the first half of the reign of Ramesses II,<sup>119</sup> is referred to in this document, it would not be too farfetched to interpret mark  $\text{Q}$  as that of his colleague on the right side, foreman Nebnefer (i). Along the same line of reasoning mark  $\text{R}$  for Amenemwia (i) could represent the deputy of the right side during the reign of Ramesses II. The deputy Amenemwia is not specifically identified by Davies, but it would make sense to equate Amenemwia (i) with this individual because he was a high-ranking workman of the right side according to name lists from the reign of Ramesses II.<sup>120</sup> All of these identifications are plausible, but not only are we unable to prove them, this analysis does not explain mark  $\text{D}$ . In the context of two foremen and a deputy of the right side one would expect the fourth mark to be that of the deputy of the left side. However, during the period of foremen Nebnefer and Qaha the deputy of the left was Anuy (i), whom we have connected with mark  $\text{A}$ . In fact, we have encountered mark  $\text{D}$  on O. Cairo JE 96336 where it is probably recorded as a workman of the right side of the crew.

*O. Cairo JE 96327*

The meaning of O. Cairo JE 46859 remains difficult to grasp,<sup>121</sup> even despite the existence of a somewhat similar ostrakon. This document is O. Cairo JE 96327, which is not inscribed with the presumed mark of Qaha but does include  $\text{Q}$ ,  $\text{D}$  and  $\text{R}$ . The only other mark that is preserved on this ostrakon is  $\text{H}$ , which may have been used for a foreman, to wit Hay (iv). However, Hay (iv), active as a foreman in the reign of Amenmesses up to and including the reign of Ramesses III,<sup>122</sup> could not have held that position during the time Nebnefer (i) was in office. It may therefore refer to another man named Hay, but it is even possible that O. Cairo JE 96327 does not date to the 19<sup>th</sup> Dynasty at all, as all four marks are attested for members of the left side during the reign of Ramesses III on ostraca such as O. ARTP 99/27 and associated pieces.

*O. ARTP 00/607 and ONL 6351*

We are similarly unsure about the date of two so-called name stones and some of the pottery fragments with mark  $\text{A}$ . The exact findspot of one of these pieces, O. ARTP 00/607, is not known but it could have been discovered in the area of the workmen's huts between KV 37 and KV 47 (Siptah) or in the area of the path between the tomb of Amenmesses and Ramesses III. The exact findspot of ONL 6351 inscribed only with  $\text{A}$  is unknown. Pottery fragments KV 580, 591 and 592 incised with the same mark were found near the tomb of Siptah.<sup>123</sup> None of these provenances point toward a date in the reign of Ramesses II. Therefore we need to keep in mind the possibility that Qaha (i)'s mark was transferred to or borrowed by a different individual of the second half of the 19<sup>th</sup> Dynasty.

<sup>119</sup> Davies, *Who's who*, 14.

<sup>120</sup> Cf. Černý, *Community*, 135.

<sup>121</sup> The ostrakon may even date to the 20<sup>th</sup> Dynasty, as its provenance in the settlement of workmen's huts near the tomb of Ramesses X would suggest.

<sup>122</sup> Davies, *Who's who*, 20-21.

<sup>123</sup> Aston, *Pottery recovered*, 71-72 and pls. 69-71; 81-82.

### ONL 6226, ONL 6319 and O. Cairo JE 72500

ONL 6226 is inscribed with marks that we can confidently date to the 19<sup>th</sup> Dynasty. Marks † and ✱ are found in adjacent positions, just as on O. Cairo JE 96336, which might also record mark ⊕. Supposedly these marks represent workmen of the right side of the crew during the reign of Ramesses II. Marks †, ✱ and ∩ on ONL 6226 could stand for members of the left side while mark ∩ refers probably to the scribe of the tomb. If mark ✱ refers to the foreman Qaha (i) on this document, we may compare the ostrakon to hieratic text O. Cairo CG 25573, dated to the middle of the reign of the Ramesses II. It records a Seba, a Nefersenut, the foreman Qaha (i), and the scribe Qenhirkhopshef (i), individuals that could correspond to ✱, †, ✱ and ∩. It also mentions a Ramose son of Reweben, who could be connected with mark ∩ on ONL 6226. A mark we encounter for the first time here is the combination of ∩ and ∩. We can ‘read’ it as the name Rehotep,<sup>124</sup> and indeed we know a draughtsman who belonged to the right side of the crew during the reign of Ramesses II, (P)rehotep (i).<sup>125</sup> Yet again, none of this can be proven, and ONL 6226 could also date to the second half of the 19<sup>th</sup> Dynasty, where ∩ ∩ may have been used for workman (P)rehotep (iii).<sup>126</sup> Indeed, hieratic ostraca such as O. Cairo CG 25523, O. Cairo CG 25526 and O. Cairo CG 25779 date to the reign of Amenmesses and Siptah<sup>127</sup> and record an Iyerniutef, Rehotep and Reweben as well. Attributing ONL 6226 to the second half of the 19<sup>th</sup> Dynasty would mean that we lose the connection between mark ✱ and Qaha (i). A similar ostrakon, ONL 6319, may well be related to the hieratic ostraca from the second half of the 19<sup>th</sup> Dynasty, because apart from marks ✱ and ∩, it is inscribed with ∩, ∩ (clearly an allomorph of ∩ ∩) and ∩. Another allomorph of mark ∩ ∩ may be ∩, attested on O. Cairo JE 72500. This odd piece is inscribed with four lines of marks, mostly repetitions of mark ∩ that we have identified as the mark of Neferabet (i). The meaning of the multitudes of this mark is utterly unclear, as are two incompletely preserved signs.

### ONL 6325 and ONL 6452

A more plausible attestation of Qaha (i) on an ostrakon inscribed with marks is ONL 6325. Five marks can be discerned of which ∩, † and ∩ could well refer to members of the left side, the side of Qaha (i), in accordance with O. Schaden 1. Mark ∩ on the other could be Nebenmaat (ii) of the right side. Similarly, ONL 6452 may refer to Qaha (i) by means of mark ✱ and date to the time of Ramesses II. Mark † could then refer to the sculptor Neferrenpet (ii) known from the time of Ramesses II. We also know marks ∩ and ∩ to have been used for individuals who lived in this period, and ∩ possibly refers to Ramose son of Reweben. ONL 6452 is inscribed with at least two more marks but they are no longer legible.

### ONL 6624

This ostrakon is difficult to date because of its fragmentary nature. It may be inscribed with marks ✱ and ✱ for Qaha (i) and perhaps his deputy Anuy (i), but they are not completely preserved. Clearly recognisable are the marks ∩ and ∩ of other member of the left side of the crew, to wit Buqentuef (i) and Siwadjet (ii). A fifth mark may be ∩.

<sup>124</sup> This mark is also attested incised on a ceramic fragment from the Grand Puits. From the same location comes a potmark that probably displays a more elaborate form of the same mark, ∩, which supports the attribution of the mark to Rehotep, see Bruyère, *Rapport 1948-1951*, pl. XVI, nr. 40 and pl. XVII, nr. 104. The same mark is also inscribed on ONL 6573 and perhaps ONL 6571.

<sup>125</sup> Davies, *Who's who*, 151.

<sup>126</sup> Davies, *Who's who*, 167-168.

<sup>127</sup> O. Cairo CG 25523: Collier, *Dating Late XIXth Dynasty Ostraca*, 70-72; O. Cairo CG 25526: Collier, *Dating Late XIXth Dynasty Ostraca*, 66-67; O. Cairo CG 25779: *KRI IV*, 211-216.

**5.2.2.11 O. OIM 25356: a hieratic name list with identity marks**

Valuable insights into the meaning and use of identity marks during the 19<sup>th</sup> Dynasty are offered by unpublished ostrakon O. OIM 25356, but as so often this document is as interesting as it is puzzling. It is inscribed with hieratic names as well as with workmen's marks and can be categorised as a name list:

Obverse

Scribe Pentaweret

Wawa son of // // // //

⤴

Anuy

⤵

Kasa

⌊

Scribe Anupemheb

// // // //

⌈

Paherypedjet (?)

Reverse

Huy

⤴

Amenemope

Siwadjet

⤵

Qaha

Neferhotep

Khau ⤵

Aanakhtu

—

The ostrakon is datable to the middle of the 19<sup>th</sup> Dynasty because of the occurrence of the duo formed by scribes Pentaweret (ii) and Anupemheb (i). They appear together on documents attributed to the reign of Ramesses II and Merenptah<sup>128</sup> and may still have been active in the reign of Seti II.<sup>129</sup> Two of the attestations of this pair of scribes<sup>130</sup> also record the chief workman of the right side, Neferhotep (ii), and he may be recorded on the reverse of O. OIM 25356 as well. The following name Khau is most likely an abbreviated form of Iniherkhau (i),<sup>131</sup> his counterpart as foreman of the left side. Both men were in office from year 40 of Ramesses II to at least the reign of Merenptah. Perusing 19<sup>th</sup> Dynasty hieratic name lists of the entire workforce, we find that no Amenemope, Kasa, Wawa, Qaha or Aanakhtu is recorded in year 40 of Ramesses II.<sup>132</sup> An Amenemope and an Aanakhtu are recorded in the list dated between years 40 and 63.<sup>133</sup>

The names are more or less written in two columns, and those on the reverse are even separated by a line. It would appear that the reverse is a continuation of the obverse, and that each column is headed by one of the scribes. As pointed out by Davies, Pentaweret (ii) and Anupemheb (i) were 'smd.t scribes' tasked with the administration of deliveries to the community. Anupemheb seems to have been concerned with the right side of the workforce, and Pentaweret with the left side.<sup>134</sup> This is an important detail, because the workmen in our text are probably listed according to the particular side they belonged to. The right column of both the obverse and the reverse would then represent the left side, and indeed Anuy, Huy, Amenemope and Siwadjet are recorded as workmen of the left in hieratic ostrakon O. DeM 706. The left column, supposedly for the right side, is somewhat more difficult to interpret. Paherypedjet – if that is indeed how this name is to be read – and Aanakhtu are indeed

<sup>128</sup> O. Cairo CG 25582; O. DeM 179; O. Strasbourg H 110; P. Ashmolean 1960.1283.

<sup>129</sup> Davies, *Who's who*, 91.

<sup>130</sup> O. DeM 179; P. Ashmolean 1960.1283.

<sup>131</sup> Cf. Davies, *Who's who*, 20.

<sup>132</sup> O. BM 5634.

<sup>133</sup> O. DeM 706.

<sup>134</sup> Davies, *Who's who*, 91.

workmen of the right side according to O. DeM 706. If our Neferhotep is the Neferhotep (ii), he is the man who directed the right side. We are not sure about the identity of our Qaha. If the name Khau refers to Iniherkhau (i), this foreman is listed in the wrong column.

Below and adjacent to some of the hieratic names we recognise the identity marks of workmen from the 19<sup>th</sup> Dynasty. Others are situated next to a blank space where a hieratic name may once have been inscribed, as some sections of the text have been erased. Some of the identity marks appear to correspond to the name written in hieratic they accompany. Evident examples are Kasa and mark  $\sqcup$ , and Siwadjet and mark  $\text{𐀓}$ . Depending on the date of the ostrakon, the latter could be Siwadjet (ii) whom we have connected with mark  $\text{𐀓}$ . Regardless of the exact identity of the Kasa on this ostrakon, we know that mark  $\sqcup$  was used by workman Kasa (v)/(vi) during the 20<sup>th</sup> Dynasty. The Kasa on O. OIM 25356 could be one of his ancestors, Kasa (iv) or perhaps Kasa (ix), and then mark and name would correspond well. However, a correspondence between the other marks and hieratic names is less certain, or even non-existent. The bird-shaped mark  $\text{𐀓}$  cannot represent Iniherkhau, who was referred to by mark  $\text{𐀓}$ . In fact, we know very little about mark  $\text{𐀓}$  because bird-shaped marks appear to be rare in the 19<sup>th</sup> Dynasty.<sup>135</sup> Similarly, mark  $\text{𐀓}$  below the name of Aanakhtu is odd, as we have tied this mark to the person of Paherypedjet and we do not know of anyone in his family who was named Aanakhtu. Marks  $\text{𐀓}$  and  $\text{𐀓}$  on the reverse may have been written adjacent to a name, but these are no longer legible. Mark  $\text{𐀓}$  is found after the name of a man named Anuy. If this hieratic entry refers to Anuy (i) or Anuy (ii), the mark relates to another workman because we know these two individuals to have been represented by marks  $\text{𐀓}$  and  $\text{𐀓}$  respectively. Moreover, mark  $\text{𐀓}$  was the mark of a man named Amennakht around the middle of the reign of Ramesses II.

The possibility exists nevertheless that mark  $\text{𐀓}$  and the name Anuy are connected, but it requires us to reconsider the prosopography of Amennakht (x). In reconstructing the family tree of Buqentuef (i), Davies distinguished four different sons of his: Qen (iii), Khaemope (ii), Nakhy (iv) and Amennakht (x).<sup>136</sup> Yet, Collier has rightly remarked that Nakhy (iv) and Amennakht (x) could well be one and the same person, the former name being an abbreviated form of the latter.<sup>137</sup> If we accept this equivalency, the consequence would be that Anuy (v), suggested to be a son of Nakhy (iv) on the basis of hieratic ostrakon O. CG 25796,<sup>138</sup> was a son of Amennakht (x) (CHART 5). We had established earlier that an Amennakht who was a member of the left side of the gang under Ramesses II was referred to by mark  $\text{𐀓}$ . If we equate Amennakht (x) with this very same Amennakht, we may assume that the Anuy on O. OIM 25356 is Anuy (v) and that he had inherited his mark from his father. This makes perfect sense, but there is one complication. We have also proposed that Khaemnun (i), the workman who demonstrably was represented by mark  $\text{𐀓}$  in the 20<sup>th</sup> Dynasty, was a son of the Amennakht who was a workman of the left side during the reign of Ramesses II. If we identify this Amennakht as Amennakht (x), his son Anuy (v) and Khaemnun (iii) would have been brothers who both used mark  $\text{𐀓}$  as their own. There is no way of telling if this would have been possible. As far as we have been able to determine so far it seems that only one son took over the mark of his father, leaving his brothers to take on their own mark. But this does of course not exclude the possibility that at one time two brothers made use of the same identity mark, despite conceivable ambiguity in administration and in daily life. As a matter of fact, we may explain the occurrence of double marks  $\text{𐀓𐀓}$  in O. Ashmolean HO 1120 in exactly this way: they could represent two brothers. Alternatively we could think of a scenario

<sup>135</sup> Another 19<sup>th</sup> Dynasty workmen's mark in the shape of a bird is found on ONL 6279, but looks very different from the mark on O. OIM 25356. See also O. Berlin P 14350 for a mark that is probably a falcon.

<sup>136</sup> Davies, *Who's who*, 64, 66.

<sup>137</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 7, 131, *passim*.

<sup>138</sup> Davies, *Who's who*, 15, n. 176; 67, n. 65; accepted by Collier, *Dating Late XIXth Dynasty Ostraca*, 131.



wherein Anuy (v) initially inherited mark  $\Leftarrow$  from his father, but passed away a childless man, to be succeeded by his brother Khaemnun (i). The latter could then have assumed his brother's identity mark. Although this is nothing more than conjecture, we can pinpoint Anuy (v) only to the period of the reign of Seti II and Siptah,<sup>139</sup> after which we possess no secured attestations of this man. He could thus, theoretically, have died as a young man. Additionally it is known that Khaemnun (i) served like his possible brother Anuy (v) on the left side of the crew<sup>140</sup> before year 23 when he transferred to the right side.<sup>141</sup>

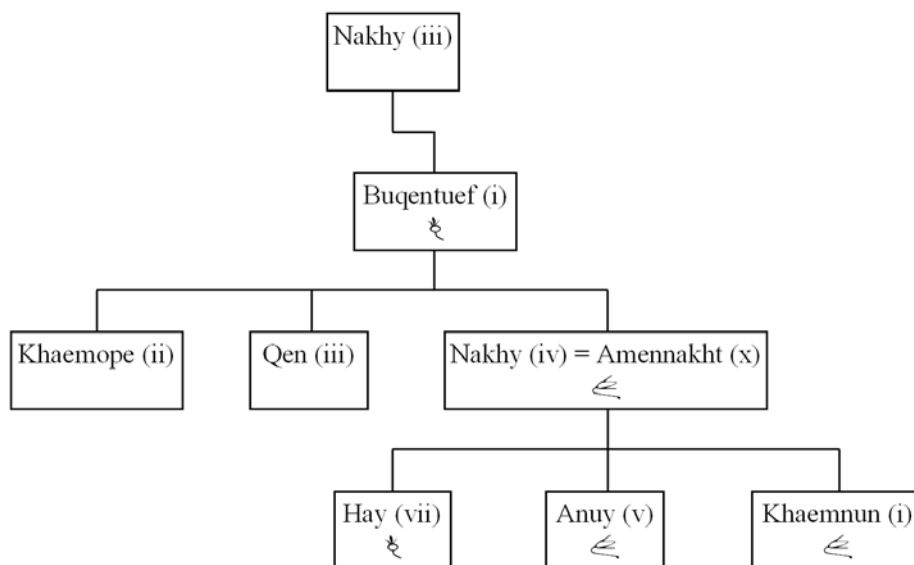


CHART 5. THE FAMILY OF NAKHY (iii)

If we entertain for the moment the hypothesis that O. OIM 25356 is inscribed with both the name and the mark of Anuy (v), he would be situated in the correct column because he was a member of the left side of the crew.<sup>142</sup> But not every mark on O. OIM 25356 fits the arrangement in two sides. Mark  $\Delta$  is here situated in the column of the left side, while the mark is attested for Neferabet (i) who was a member of the right side in the reign of Ramesses II. The mark of Paherypedjet features in the left column of the reverse, the column of the right side. Yet he is known to have been a member of the left side in the time of Ramesses II. Nakhtmin (iv), represented by mark  $\text{𓂏}$  in the column of the right side is recorded as a workman of the left side in O. BM 5634 and O. DeM 706. It can however not be excluded that he was transferred to the right side of the crew at some point, and indeed it is to this side that his son Nebnakht (vi)<sup>143</sup> and his grandson Nakhtmin (vi)<sup>144</sup> belonged.

Evidently O. OIM 25356 still holds some secrets, and it is not easy to suggest a date for the document. While it was obviously written during the middle of the 19<sup>th</sup> Dynasty, some of the names and marks are attested in the reign of Ramesses II while others occur in later periods. Considering the occurrence of scribes Pentaweret (ii) and Anupemheb (i) as well as perhaps Anuy (v), a date in the reign of Merenptah or even the reigns of Amenmesses or Seti II should be considered.

Theban Graffito 3009 is possibly datable to approximately the same time as O. OIM 25356. It consists of the name of an Anuy, and underneath it mark  $\text{𓂏}$  is added. Even lower

<sup>139</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 131.



<sup>140</sup> E.g. O. Turin N. 57432.

<sup>141</sup> O. Ashmolean HO 810; O. Turin N. 57026.













































<sup>142</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 131.

<sup>143</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 139.

<sup>144</sup> See chapter 3, p. 172.

down mark  for Paherypedjet is carved, although its classification as a mark is uncertain. Below this sign the hieroglyph *t* is written in between two short horizontal strokes. Together this group may be ‘read’ as a crude spelling of *pd.t*, probably still a reference to the workman Paherypedjet. This arrangement of names and marks is remarkably similar to the list of O. OIM 25356, where the mark of Kasa is also situated below the name and perhaps the mark of Anuy (v), while Paherypedjet is listed just opposite of these names in the adjacent column. It is therefore plausible that the graffito records the same individuals, although we can also propose a different explanation. The name of Anuy may perhaps be that of Anuy (ii), the workman known from the middle of the 19<sup>th</sup> Dynasty, whose father Kasa (i) could then have been represented by mark .

### 5.2.2.12 Overview of tentatively identified workmen’s marks

Aapehty (i)/(ii)	
Amenemope (ix)	 and 
Amenemwia (i)	
Amenmose	
Anuy (i)	
Anuy (ii)	
Anuy (v)	
Baki (i)	
Buqentuef (i)	
Haremwia (i)	
Harnefer (i)/(ii)	
Hehnakht (ii)	
Iniherkhau (ii)	
Iyerniutef (ii)	
Khabekhnet (i)	
Khonsu (i)/(ii)	
Maaninakhtuf (i)	 and 
Meryre (v)	
Merysekhmet (i) = (ii)	
Nakhtmin (vi)	
Nakhy (iv) = Amennakht (x)	
Nebenmaat (ii)	 and  ?
Nebimentet (i)	
Nebnakht (vi)	
Nebnefer (i)	
Neferabet (i)	
Neferrenpet (ii)	 and 
Nefersennut (i)	
Pahemnetjer (i)	
Paherypedjet (ii)	 and 
Pakharu = Kharu (i)?	
Paser (v)	
Pendua (i)	 and  ?
Pennub (ii)/(iii)	
(P)rehotep (i) or (iii)	 
Qaha (i)	
Ramose son of Reweben	

Seba (iii)	𐀓
Senedjem (i)	𐀓𐀓
Siwadjet (ii)	𐀓
Wadjmose (i)	𐀓
Wennefer (ii)	𐀓
A Huy	𐀓
A Kasa, perhaps (i) or (iv) or (ix)	𐀓 ?
A Pashedu	𐀓
Scribe of the Tomb	𐀓 ?

### 5.2.3 Ostraca with marks from the second half of the 19<sup>th</sup> Dynasty

With O. OIM 25356 we had already entered the period of the later 19<sup>th</sup> Dynasty, but there are more documents that we can attribute to this timeframe. To begin with, there is O. Ashmolean HO 810.

#### 5.2.3.1 O. Ashmolean HO 810

This limestone ostrakon is inscribed with a hieratic name list on one side<sup>145</sup> and with columns of workmen's marks on the other. This description sounds promising, but we will see that it is very difficult to determine to what extent the names and the marks are related. For one, this is due to the fragmentary state of the ostrakon. Both sides are very weathered and therefore the hieratic text is not perfectly understood. The text appears to consist of at least two day dates, each followed by a list of workmen of the left side. After Collier's translation<sup>146</sup> we read the following:

[Day 14 (?)]  
Hay  
Ipuy  
Nakhtmin  
Burekh[tuinef]

Day 15  
Khaemnun  
Hesysunebef  
[...]

The list was tentatively dated by Collier to the middle of the reign of Siptah. The reverse, inscribed with identity marks, may record an account that is similar to that of the obverse. On the reverse the marks are arranged in columns too, and if we suppose that each column represents a particular day, that would explain why marks 𐀓 and 𐀓 are each inscribed in two different columns. Despite the poor state of preservation of the ostrakon we can make out the following marks:

𐀓𐀓	𐀓𐀓	...
𐀓	𐀓	...
𐀓	𐀓	...
𐀓	...	...

<sup>145</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 88-89; unnumbered plate with photo at the end of the book.

<sup>146</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 88.

✕	...	...
...	...	☐
...	☐	☐

Supposing for the moment that obverse and reverse were created around the same time, O. Ashmolean HO 810 constitutes the first ostrakon with marks we can securely situate in the later 19<sup>th</sup> Dynasty. As such, it provides a much appreciated glimpse into the repertory of marks of this period. Unfortunately, we are not able to securely identify the workmen who are recorded by the marks, because O. Ashmolean HO 810 is not an ordered name list of the entire crew. The marks could have been arranged according to their position within the ordered sequence, but we are unable to verify such an assumption. Moreover, the names on the obverse do not appear to follow such a pattern.

Perhaps the only name on the obverse that we can securely relate to a mark on the reverse is Khaemnun (i) in line 6 and mark  $\Leftarrow$  in the first column. In the hieratic account Khaemnun (i) is followed by the name of Hesysunebef (i) and we may explore the possibility of a relation between this man and the mark following  $\Leftarrow$ , mark  $\boxminus$ . Such an examination is met with a lot of adversity. We know Hesysunebef, son of Neferhotep (ii) quite well, but the use and identification of mark  $\boxminus$  is problematic. It is only tentatively attested in the 19<sup>th</sup> Dynasty on an ostrakon we shall discuss further down.<sup>147</sup> We do recognise the mark from ostraca of the 20<sup>th</sup> Dynasty, and we had provisionally connected it with a workman of the left side called Khnumnakht.<sup>148</sup> Unfortunately we know nothing about the family ties of this man. On 20<sup>th</sup> Dynasty ostrakon O. ARTP 99/27 mark  $\boxminus$  is clearly used as an allomorph of mark  $\Upsilon$ . This mark is used in the 19<sup>th</sup> Dynasty as well, but we have only a speculative, uncorroborated identification for this mark: either Harnefer (i) or Harnefer (ii). There are no known connections between a Hesysunebef to a Khnumnakht or a Harnefer. And such a connection does not need to have existed at all, because there is no way of determining whether the hieratic column with the names of Khaemnun and Hesysunebef is at all related to the column with marks  $\Leftarrow$  and  $\boxminus$ .

Abstruse is the connection between the name of Hay and mark  $\lambda\lambda$  on the reverse. Collier preferred to identify the name of Hay not with Hay (iv), but with one out of three plausible workmen: Hay (v) = (iii), Hay (vii) or Hay (x).<sup>149</sup> In the previous chapter we had established that during the reign of Ramesses IV mark  $\lambda\lambda$  may have been used for Hay (v) = (iii), so an identification with this man is possible.<sup>150</sup>

Despite these uncertainties it is still likely that the marks on the reverse of O. Ashmolean HO 810 represent workmen of the left side who were active during the reign of Siptah. The marks in the rightmost column may in fact correspond partially to name list O. Ashmolean HO 57, composed in the first half of the reign of Siptah. In the list of members of the left side of the crew this document records in positions 18, 19 and 21 the workmen Nebnefer (vi), Anuy (v) and Khaemnun (i). The latter two individuals could have been represented by mark  $\Leftarrow$ , and it would be convenient to connect mark  $\Upsilon$  with a man called Nebnefer. We noted in the previous chapter that this mark was used in the 20<sup>th</sup> Dynasty by Bakenwerel (vii),<sup>151</sup> who may have had a father called Nebnefer. In the light of O. Ashmolean HO 810 and the hieratic list of O. Ashmolean HO 57 there is now some basis to propose that this man was Nebnefer (vi), a member of the left side during the second part of the 19<sup>th</sup> Dynasty whose offspring is not identified. One position higher in the list of O. Ashmolean

<sup>147</sup> ONL 6585, see below, p. 441.

<sup>148</sup> See chapter 4, 295.

<sup>149</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 88, 132.

<sup>150</sup> See chapter 4, 4.2.8.

<sup>151</sup> See chapter 4, p. 293-294.

HO 57 we encounter a Khaemseba. Davies and Collier were not positive about the identification of this man,<sup>152</sup> but there is a possibility he was Khaemseba (i), son of Qenhirkhopshef (ii) and Tanehsy (i). The latter was possibly a daughter of Qaha (i), the foreman who may well have been represented by mark  $\text{A}$ . With this detail in mind, we may speculate that, if there truly is a connection between the ordered list of O. Ashmolean HO 57 and the list of workmen's marks on O. Ashmolean HO 810, mark  $\text{AA}$  situated just above mark  $\text{A}$  refers to Khaemseba (i). His mark may then have been inspired by that of his illustrious grandfather. None of this can, however, be proven, and as proposed above, mark  $\text{AA}$  may at some point have referred to a Pakharu who is not necessarily related to the bloodline of Qaha (i).

Mark  $\text{A}$  situated at the bottom of the middle column on O. Ashmolean HO 810 is also found on O. Ashmolean HO 1120, as well as on other ostraca that may date to the 19<sup>th</sup> Dynasty. Let us begin with ONL 6227, which displays three marks:  $\text{A}$ ,  $\text{M}$  and  $\text{Q}$ . A possible allomorph of  $\text{Q}$ , mark  $\text{Q}$  is recorded on O. Ashmolean HO 810, suggesting ONL 6227 dates to the later part of the 19<sup>th</sup> Dynasty. ONL 6441 is likewise inscribed with at least three marks:  $\text{Q}$ ,  $\text{M}$  and  $\text{A}$ . The former mark is also found on O. Ashmolean HO 1120, so ONL 6411 should date somewhere between the second half of the reign of Ramesses II and the reign of Siptah. ONL 6215 could date to the same period. We discern marks  $\text{Q}$ ,  $\text{M}$ ,  $\text{A}$  and  $\text{Q}$ , two of which are recorded on O. Ashmolean HO 1120, and two on O. Ashmolean HO 810. On the other hand, all marks are attested in the 20<sup>th</sup> Dynasty as well, so the attribution is uncertain.

### 5.2.3.2 ONL 6690

Like O. Ashmolean HO 810, unpublished ostrakon ONL 6690 is inscribed with a hieratic text and with identity marks. The obverse contains two columns of hieratic names, some of which are lost or erased. The combination of names, two of which occur with filiation or a title, allow the name list to be dated to the period of year 5 – 8 of the reign of Siptah:<sup>153</sup>

[...]	Kasa (v)/(ix), son of Aap[ehty]
Burekhtuinef (i)/(ii)/(iii)	<u>Huynefer</u> (ix) <sup>154</sup>
[...].ef	
Reweben (iv) ·	<u>scribe Pashedu</u> (vi) ·
[erased]	
[erased]	
[erased] ·	
Ipuy ·	
Khamu (i) ·	








The reverse of the document displays four marks:  $\text{A}$ ,  $\text{M}$ ,  $\text{Q}$  and  $\text{Q}$ . Left of these marks the hieroglyphs of a bird and a reed leaf are written. The latter sign is not securely attested in the Ramesside period as a mark,<sup>155</sup> and the signs must therefore constitute a written word. The bird resembles  $\text{G39}$  (Gardiner sign G39), but in combination with the sign  $\text{I}$  for *i* the bird should probably be  $\text{G29}$  (Gardiner sign G29) forming the name *bꜣy*, attested elsewhere in more elaborate spellings as  $\text{G29}$   $\text{G39}$   $\text{G29}$   $\text{G39}$ . If we assume that the obverse and the reverse of this ostrakon were created around the same time, then this Bay is in all probability Bay (ii), scribe

<sup>152</sup> Davies, *Who's who*, 190-191; Collier, *Dating Late XIXth Dynasty Ostraca*, 136-137.

<sup>153</sup> The names occur in groups G, G+ and C of Collier, *Dating Late XIXth Dynasty Ostraca*.

<sup>154</sup> Underlining here represents actual underlining, and not the use of red ink.








<sup>155</sup> Admittedly a reed leaf is once attested on a 19<sup>th</sup> Dynasty ostrakon, ONL 6374, but this could be an allomorph of mark  $\text{M}$ , see Appendix I, § 2. The fact that the sign is not known from other Ramesside ostraca, graffiti or objects inscribed with marks suggests it is a hieroglyphic sign on ONL 6690.

of the tomb.<sup>156</sup> Mark , used for Baki (i) and Haremwia (i) during the reign of Ramesses II, could here refer to Haremwia (ii), the grandson of the latter who is attested during the second part of the 19<sup>th</sup> Dynasty.<sup>157</sup> Mark  should then refer to Nebnakht (vi), who was active around the same time as well.<sup>158</sup> Since our document seems to be situated in the reign of Siptah, mark  could refer to Buqentuef (i) but probably not to his son, the deputy of the left side Amennakht (x),<sup>159</sup> whom we have connected with mark . The fourth mark, , is not attested on any other ostraca of the 19<sup>th</sup> Dynasty and we cannot establish with any certainty to whom it belongs. It is plausible however that  referred to the workman Pamerihu (i) , whose name literally means ‘overseer of cattle’. Like Nebnakht and Haremwia, Pamerihu was a workman of the right side of the crew in the reign of Siptah.<sup>160</sup>

### 5.2.3.3 The marks on the pavement of the Hathor Temple and related ostraca

The pavement of the Ramesside temple of Hathor at Deir el-Medina demonstrates another use of workmen’s marks during the 19<sup>th</sup> Dynasty. Several of the limestone slabs that form the floor of the court of this sanctuary have brief inscriptions cut into them. These graffiti consist of the names and the marks of workmen. Judging from the amount of archaeological material datable to the reign of Ramesses II, Bruyère surmised that it was under this king that much of the Ramesside construction work on the temple had taken place. In his opinion the graffiti were left by individuals who lived under his reign. Bruyère saw the marks as signatures of the workmen who had built the temple, incised to function as ex-votos.<sup>161</sup> Haring suggested a date for the marks in the late 19<sup>th</sup> Dynasty.<sup>162</sup>

The graffiti were reproduced by Bruyère in his text and in a plate (FIG. 18), but unpublished photographs<sup>163</sup> of the actual slabs caution us not to take his copies at face value. It appears that they are not all accurate as the reading direction one copied inscription is incorrect, and one inscription has been omitted. With the limitations of Bruyère’s plates in mind, we note the following inscriptions:

	‘servant in the Place of Truth Qen, true of voice’
	‘Nakhtmin’
	‘Neferhotep’ <sup>164</sup>
	‘Paneb <true of> voice’
	unclear; perhaps workmen’s marks?
	unclear; perhaps workmen’s marks?
	unclear; perhaps workmen’s marks?

<sup>156</sup> Davies, *Who’s who*, 98.

<sup>157</sup> E.g. O. Ashmolean HO 37 and O. Ashmolean HO 57; see Davies, *Who’s who*, 12.

<sup>158</sup> Davies, *Who’s who*, 240-241.

<sup>159</sup> Davies, *Who’s who*, 36. Both men are listed as members of the left side on O. Ashmolean HO 57.

<sup>160</sup> Davies, *Who’s who*, 187.

<sup>161</sup> Bruyère, *Rapport 1935-1940 I*, 20; 83.

<sup>162</sup> Haring, ‘Workmen’s Marks on Ostraca’, 156.

<sup>163</sup> Kindly provided by Dr. Petra Andrassy. One of her photos is reproduced on the cover of Haring and Kaper (eds.), *Pictograms or Pseudo Script?*.

<sup>164</sup> These signs are also attested as workman’s mark  $\pm\frac{1}{2}$  in the 20<sup>th</sup> Dynasty, and we shall see that the same mark existed in the second half of the 19<sup>th</sup> Dynasty as well.

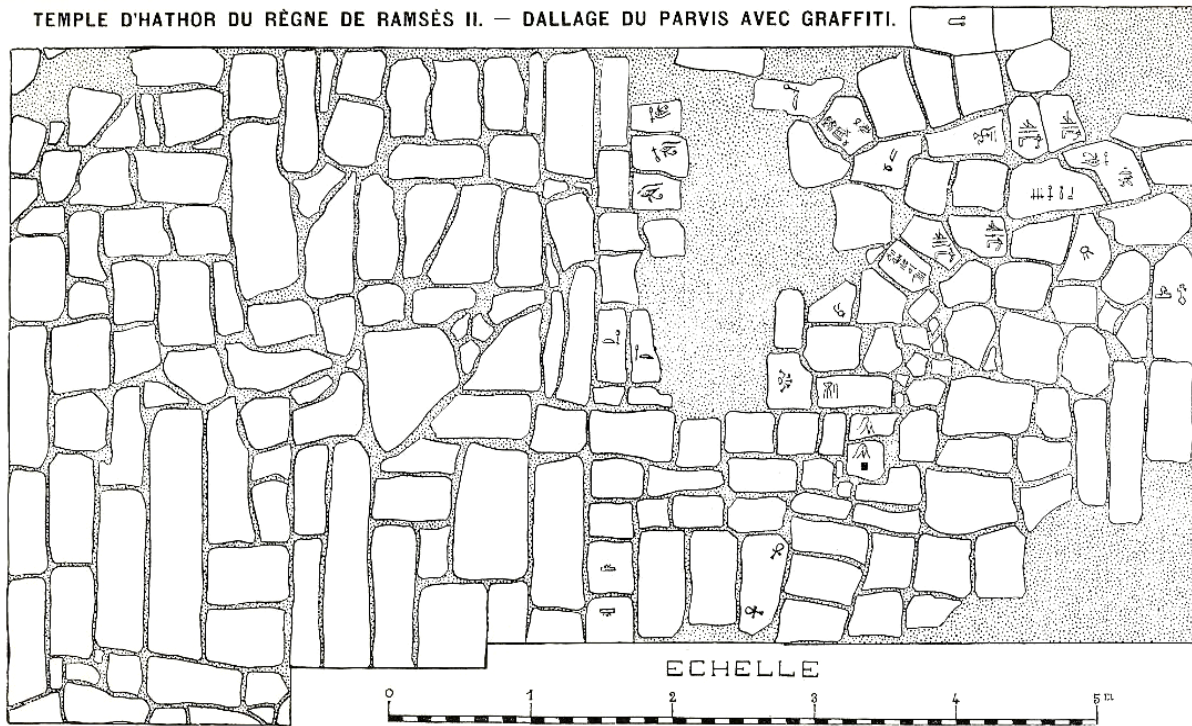


FIGURE 18. THE GRAFFITI ON THE PAVEMENT OF THE HATHOR TEMPLE OF DEIR EL-MEDINA

The reading of the last three inscriptions is problematic, and one wonders whether they were correctly copied by Bruyère. Indeed, a photograph of one instance of the inscription rendered by Bruyère as  $\delta\kappa\lambda$  allows for a reading as  $\delta\kappa\lambda$ . Both marks are attested on the reverse of ONL 6690, dated to the reign of Siptah. This supports the idea that sign  $\delta$  is indeed an identity mark on this ostrakon and on the pavement of the Hathor temple.

The other inscriptions record the names of members of the crew of necropolis workmen. The names of Nakhtmin and Neferhotep are attested throughout the 19<sup>th</sup> and 20<sup>th</sup> Dynasties, but that of Paneb is less common. He is most probably the well-known Paneb (i) who lived under the reign of Ramesses II and was promoted to the position of foreman of the right side under Seti II.<sup>165</sup> The name Qen is not very common at Deir el-Medina either, and this could be Qen (ii), the man who would later become a sculptor and who lived during the first half of the reign of Ramesses II.<sup>166</sup> However, as pointed out above, a man named Qen (iii) is attested in the second half of the 19<sup>th</sup> Dynasty.<sup>167</sup> Such a date agrees better with the marks that are inscribed on the pavement:

ⲟ	ⲛ	ⲙ
ⲛ	ⲛ	ⲛ
ⲛ	ⲛ	ⲛ
ⲛ	ⲛ	ⲛ
ⲛ	ⲛ	ⲛ

<sup>165</sup> Otherwise this is one of the less frequently attested family members of Paneb, Davies' Paneb (ii) or Paneb (iii).

<sup>166</sup> The obscure Qen (i) probably must have been active under Seti I and the early reign of Ramesses II, but is not securely attested with the title *sdm-ꜥꜥ*. Similarly, we do not know much about Qen (iii), but he must have been a contemporary of Qen (ii) and could also be the man who carved his name on the pavement of the Hathor temple. Qen (ii) is described by Davies, *Who's who*, 176 as a wealthy and pious individual.

<sup>167</sup> See above, 5.2.2.11.

We recognise the majority of these marks, and we have encountered marks  $\text{⤵}^{\dagger}$ ,  $\text{⤵}$  and  $\text{⤵}$  on O. Ashmolean HO 810. We come across mark  $\text{⤵}$  for the first time in the 19<sup>th</sup> Dynasty, although we know that it represented a workman of the left side during the first half of the 20<sup>th</sup> Dynasty. Even though we cannot verify it, it would make sense to interpret Bruyère's rendition of inscription  $\text{⤵}$  as marks  $\text{⤵}$  and  $\text{⤵}$ , in analogy with  $\text{⤵}$  and  $\text{⤵}$ . Marks  $\text{⤵}^{\dagger}$  and  $\text{⤵}$ , otherwise unattested, may be more elaborate allomorphs of marks  $\text{⤵}$  and  $\text{⤵}$ . The longer forms are interesting, because they may hold some phonetic value that could be connected with the name of the owners of the marks. Still it is not at all clear with which individuals we should connect them. We have seen that during the reign of Ramesses IV mark  $\text{⤵}$  was probably used for a workman named Hay of the left side,<sup>168</sup> yet the addition of mark  $\text{⤵}^{\dagger}$  is not helpful in determining which Hay this was exactly, or by whom the mark may have been used in the 19<sup>th</sup> Dynasty. We do know who was represented by mark  $\text{⤵}$ . During the reign of Ramesses II it probably belonged to Amennakht (x) = Nakhy (iv), and after him it was used by his son Khaemnun (i) and perhaps also Anuy (v). These identifications do not explain the additional sign  $\square$ . We may therefore propose that signs  $\text{⤵}^{\dagger}$  and  $\square$  are marks by themselves representing other individuals, although the latter is not elsewhere attested as a workmen's mark.

A parallel for this interpretation would be one particular slab that is inscribed with two marks:  $\text{⤵}$  and  $\text{⤵}^{\dagger}$ . The former is of course the mark of Pahemnetjer, probably Pahemnetjer (i). The latter mark we know as the elaborate allomorph of the mark of Neferher (vi) who lived during the 20<sup>th</sup> Dynasty. The juxtaposition of the two marks on the pavement of the Hathor temple is probably meaningful, and mark  $\text{⤵}^{\dagger}$  probably represents the father of Pahemnetjer (i), Neferher (iv).<sup>169</sup>

The marks on the pavement of the Hathor temple thus seem to date to the period between the end of the reign of Ramesses II and the reigns of Seti II and Siptah. Mark  $\text{⤵}$  carved into the pavement may there refer to Iniherkhau (ii), the man who was to become the deputy and subsequently the foreman of the left side but who is already attested as a workman under Siptah and perhaps as early as the reign of Seti II.<sup>170</sup> Many other marks from the temple represent workmen who are recorded in hieratic ostrakon O. Cairo CG 25779, generally attributed to year 1 of Amenmesses.<sup>171</sup> This account mentions Paneb (i) and a man named Qen, both attested in the graffiti, as well as Siwadjet (iv),<sup>172</sup> Pahemnetjer (i),<sup>173</sup> and Nakhy (iv)<sup>174</sup> = Amennakht (x). We have identified the marks of these men as  $\text{⤵}$ ,  $\text{⤵}$  and  $\text{⤵}$ ,<sup>175</sup> all of which are carved in the pavement of the temple. The ostrakon also records Nebnefer (vi),<sup>176</sup> whom we had tentatively connected with mark  $\text{⤵}^{\dagger}$ , which is found among the graffiti as well. We may similarly propose that the workmen Mose (viii)<sup>177</sup> and Reweben (iv)<sup>178</sup> of O. Cairo CG 25779 are represented in the temple by marks  $\text{⤵}$  and  $\text{⤵}$ .

In summary, there are three ostraca and a group of graffiti that constitute anchor points for dating identity marks from the second half of the 19<sup>th</sup> Dynasty. Still, these footholds are small and not very stable if we consider the number of marks in each source and the accuracy of our tentative dates:

<sup>168</sup> See above, chapter 4, 4.2.8.

<sup>169</sup> Neferher (vi) may well have been the grandson of Neferher (iv), see chapter 6, 6.5.4.2.

<sup>170</sup> Attestations listed by Collier, *Dating Late XIXth Dynasty Ostraca*, 137.

<sup>171</sup> E.g. *KRI IV*, 211-216; Davies, *Who's who, passim*.

<sup>172</sup> Davies, *Who's who*, 263, n. 759.

<sup>173</sup> Davies, *Who's who*, 95, n. 181.

<sup>174</sup> Davies, *Who's who*, 66, n. 53.

<sup>175</sup> See chapter 3, 228; chapter 4, 293.

<sup>176</sup> Davies, *Who's who*, 235, n. 424.

<sup>177</sup> Davies, *Who's who*, 273.

<sup>178</sup> Davies, *Who's who*, 181, n. 52.










5. OSTRACA WITH MARKS OF THE 19TH DYNASTY

Set	Marks	Date
O. OIM 25356	8	ca. end Rameses II, Merenptah, Amenmesses
O. Ashm. 810	9	Siptah
ONL 6690	4	Siptah
Hathor temple	16	c. end Rameses II – Amenmesses, possibly later

The dates of two of our anchor points have a broad range while the total number of marks of three of our sources does not exceed ten. When we compare the marks from these four sets to the marks attested on ostraca from the second half of the reign of Rameses II, for example O. Schaden 1 and O. Schaden 16, O. Hawass and O. Cairo JE 96636, and ONL 6526, it becomes clear that the repertory of the later 19<sup>th</sup> Dynasty, as far as we are able to identify it, is not very different from the earlier 19<sup>th</sup> Dynasty:

O. OIM 25356	O. Ashm. 810	ONL 6690	Hathor temple	O. Schad. 1 and 16	O. Hawass JE 96636	ONL 6526
			Nakhtmin			

TABLE 98. MARKS ATTESTED IN THE SECOND HALF OF THE 19<sup>TH</sup> DYNASTY COMPARED TO MARKS FROM THE FIRST HALF OF THE 19<sup>TH</sup> DYNASTY

Only few marks, such as , , and , can really be categorised as typical for the 19<sup>th</sup> Dynasty. This demonstrates the difficulty of dating 19<sup>th</sup> Dynasty ostraca with marks, and we should keep in mind that some of the ostraca which we have associated with ostraca from the second half of the reign of Ramesses II in previous sections could perhaps be of a slightly later date. The date of such pieces has mostly been based on similarity with the sequence of marks of ostraca O. Schaden 1, O. Schaden 16, and O. Cairo JE 96336, or the occurrence of marks such as , , , and . Indeed, these marks are far less frequent or not at all attested in the later 19<sup>th</sup> Dynasty, suggesting our tentative dates are correct. But to assign other ostraca to the second half of the 19<sup>th</sup> Dynasty, as we shall attempt below, will be a somewhat precarious and complicated task. A major obstacle in this process is the absence of an ordered list of marks for this period. Ostraca of this type were extremely helpful for dating records with marks from the period of Ramesses II, but frustratingly we lack such lists for the second half of the 19<sup>th</sup> Dynasty. This is ironic, because ordered name lists from this period do exist in the realm of hieratic administration. Two of these lists, O. Ashmolean HO 57 and P. Greg, have been effectively employed to date groups of hieratic administrative texts from the time of Seti II and Siptah.<sup>179</sup> Without a similar list composed with marks we are not able to do the same. In fact, as we shall see there is but a relatively small number of ostraca with marks that we can attribute to the second half of the 19<sup>th</sup> Dynasty. This is perhaps due to our ignorance of the marks of the period caused by the lack of accurately dated and well preserved ostraca.

On the other hand, the paucity of ostraca with marks during the final reigns of the 19<sup>th</sup> Dynasty may be a reflection of actual administrative practices. A point in case is the corpus of ostraca from the area of workmen's huts near the tomb of Siptah (KV 47). During the first decade of this century the Ägyptologisches Seminar of Basel University reportedly discovered 161 hieratic documentary ostraca of which the majority dated to the end of the reign of Siptah.<sup>180</sup> The absolute number of administrative texts from this findspot is unknown but considering that numerous administrative ostraca in the Egyptian Museum in Cairo excavated by Davies demonstrably originate from the same location,<sup>181</sup> the number must have been considerable. The excavations of the Basel mission also yielded some ostraca inscribed with marks,<sup>182</sup> but in far smaller numbers. Moreover, not all of these ostraca date to the reign of Siptah. We have already discussed some of these pieces that date to the 18<sup>th</sup> Dynasty<sup>183</sup> and the 20<sup>th</sup> Dynasty,<sup>184</sup> and above we had associated O. Cilli 336 with ostraca from the time of Ramesses II.<sup>185</sup> This last piece is thus a document of the 19<sup>th</sup> Dynasty and in the light of its provenance we may reconsider its date. We will also take into account O. Cilli 156, attributed to the early 20<sup>th</sup> Dynasty. These two pieces, as well as a small group of very fragmentary ostraca (O. Cilli 23a, 106a, 201, 271, and 291), could perhaps date to the reign of Siptah. Before examining these ostraca in more detail, it is wise to pause for a moment in order to compare the number of ostraca with marks, probably seven, to the number of hieratic documents from the same provenance, said to be 115. The figure of 115 ostraca includes texts of a literary genre as well, but even if we estimate that about half of this total, let us say 55 ostraca, is of a documentary nature, the percentage of ostraca with marks is still no more than c. 11%. It would thus seem that at this particular site relatively few ostraca with marks were

<sup>179</sup> Janssen, *Village Varia*, 99-130; Collier, *Dating Late XIXth Dynasty Ostraca*.

<sup>180</sup> Debora Cilli, 'A New Corpus of Hieratic Ostraca from the Valley of Kings (KV47)' in: Toivari-Viitala, Vartiainen and Uvanto (eds.), *Deir el-Medina Studies*, 8-9; see also Cilli, 'Delivery Ostraca', 95 and n. 3.

<sup>181</sup> Cilli, 'Delivery Ostraca', *passim*.

<sup>182</sup> Cilli, 'Delivery Ostraca', 95, n. 3.

<sup>183</sup> O. Cilli 278.







<sup>184</sup> O. Cilli 84; O. Cilli 111; O. Cilli 156; O. Cilli 335.

<sup>185</sup> See above, 5.2.2.6.










composed. Maybe this is true for other late 19<sup>th</sup> Dynasty sites as well. This would explain the small number of ostraca with marks attributable to the period.

Some of the ostraca with marks from the huts settlement near KV 47 have not yet been discussed, but unfortunately they are of limited significance for our purposes because of their incomplete nature. All things considered, this group of ostraca is not particularly elucidating. They are briefly discussed in Appendix I.<sup>186</sup> As it appears that few marks are typical for the late 19<sup>th</sup> Dynasty, we may cautiously consider the absence of marks from the middle of the 19<sup>th</sup> Dynasty as an indication of a later date as well. But we will in our further endeavours also encounter some new marks, as on O. Schaden 214.





#### *O. Schaden 214*

Examining the marks from the pavement of the Hathor temple we had noticed that quite a number of the attested individuals occur also on O. Cairo CG 25779, an ostrakon from the reign of Amenmesses. Another individual recorded in this document is Patjauemdiamun, and his mark is perhaps recorded on two ostraca that could well date to the 19<sup>th</sup> Dynasty. The first one is O. Schaden 214, which on account of its provenance is expected to date to the middle of the 19<sup>th</sup> Dynasty. It is inscribed with five marks, one of which is formed like a sail , and we may propose it represents Patjauemdiamun because the mark resembles  (Gardiner sign P5) with phonetic value *tꜣw*. O. Schaden 214 is also inscribed with three other marks we know from the 19<sup>th</sup> Dynasty, ,  and perhaps . A fifth mark resembles , a hieratic *p* over an *n*. This mark is not attested elsewhere on ostraca or objects from the 19<sup>th</sup> Dynasty. It refers perhaps to a workman whose name includes the element *pn*, like Pendua (v), recorded on O. Cairo CG 25779 as well.<sup>187</sup>

#### *O. Brock 33*

A related ostrakon is O. Brock 33, also inscribed with marks  and . It shares only one mark with the repertory attested on the temple floor, mark . A date in the second half of the 19<sup>th</sup> Dynasty is therefore not secured, but certainly plausible. It contains marks ,  and , which we know from the 19<sup>th</sup> Dynasty. A mark at the bottom of the right column could be  or . The former mark is not securely attested in the 19<sup>th</sup> Dynasty. We had connected  with Paser (v), attested in the reign of Ramesses II. It is not clear if the Paser who is attested in the second half of the 19<sup>th</sup> Dynasty<sup>188</sup> is the same man, but it is possible that reference to him or a namesake is made on O. Brock 33.

#### *O. Cairo JE 46861*

Relying on the graffiti from the Hathor temple we may be able to date O. Cairo JE 46861 to the second half of the 19<sup>th</sup> Dynasty. It is inscribed with at least two marks. The ostrakon is attributable to the 19<sup>th</sup> Dynasty on the basis of its lay-out.<sup>189</sup> Next to mark  it displays mark , also attested on the limestone slabs of the court of the Hathor temple. By association, we may tentatively date O. Cairo JE 46861 to the same period. The fact that this piece records , the particular variant of  that is also found on 19<sup>th</sup> Dynasty ostrakon ONL 6487 and Theban Graffito 729, might weigh in favour of our date.

<sup>186</sup> See Appendix I, § 3.

<sup>187</sup> Davies, *Who's who*, 65, n. 40.

<sup>188</sup> E.g. O. BM 50728; O. BM. 65930.

<sup>189</sup> See below, p. 461; p. 477.

### *An ostrakon from the Grand Puits*

An ostrakon from the Grand Puits near the village of Deir el-Medina,<sup>190</sup> inscribed with six identifiable workmen's marks, is also related to the set of marks from the pavement of the Hathor temple because it features marks  $\lambda\lambda$  and  $\tilde{\lambda}$ . The ostrakon has three marks in common with O. Ashmolean HO 810:  $\lambda\lambda$ ,  $\tilde{\lambda}$  and perhaps  $\square$ , which could be an allomorph of  $\square$ . The other marks,  $\square$  and  $\hat{\square}$ , are well attested in the 19<sup>th</sup> Dynasty, so the ostrakon dates most likely to the later part of this period.

### *ONL 6585*

ONL 6585 is probably attributable to the same period. It is a very interesting ostrakon because it is inscribed with a very large number of marks, but all marks are written in red ink, which has nearly faded away. We can only tentatively discern 20 different marks. The document must date to the 19<sup>th</sup> Dynasty because of the occurrence of mark  $\tilde{\lambda}$ , not securely attested in a 20<sup>th</sup> Dynasty context. Almost all of the marks on ONL 6585 are attested on ostraca from the middle of the 19<sup>th</sup> Dynasty. Still, the suspicion that the document is situated in the later 19<sup>th</sup> Dynasty can be substantiated through the occurrence of mark  $\pm\ddagger$ , also found on the pavement of the Hathor temple and not attested in the time of Ramesses II, and because of mark  $\curvearrowright$ , attested for the first time on O. Brock 33. Also featured on ONL 6585 is  $\square$ , known from O. Ashmolean HO 810. Mark  $\equiv$  is here encountered for the first time in the 19<sup>th</sup> Dynasty. We had already briefly discussed this mark in the previous chapter, where we established that it must have been used by Penamun (V) during the 20<sup>th</sup> Dynasty.<sup>191</sup> This man may well have taken over the mark from his father who was called *Wennefer* (iii). If our proposed date for ONL 6585 is correct we could be dealing with this very man, who was active as a workman of the right side in second half of the reign of Siptah.<sup>192</sup> We can probably identify more of the marks. For example, mark  $\tilde{\lambda}$  will here have been used of Iniherkhau (ii),<sup>193</sup> and mark  $\lambda$  is here probably already attested for the Meryre (v)<sup>194</sup> known from the 20<sup>th</sup> Dynasty material.

### **5.2.3.4 Ostraca tentatively attributed to the second half of the 19<sup>th</sup> Dynasty**

Up to this point we have had concrete indications to date ostraca with marks to the second half of 19<sup>th</sup> Dynasty. But there is a group of ostraca which *we would expect* to date in that period despite a lack of hard evidence.

### *ONL 1314*

A good example is ONL 1314. This ostrakon is inscribed with about 17 different identity marks that are difficult to pinpoint because they are attested both in the 19<sup>th</sup> Dynasty and in the 20<sup>th</sup> Dynasty. We cannot rely on ordered name lists because like ONL 6585, the marks on ONL 1314 have not been arranged in an ordered sequence. A date in the reign of Ramesses II would be plausible if it was not for the occurrence of mark  $\square$ , which we have connected with two individuals who were active during a later period, Amenemope (ix) and his grandson Amenemope (x). Indeed this mark is not securely attested in or before the reign of Ramesses II. We have encountered mark  $\equiv$  in the 19<sup>th</sup> Dynasty as well as in the second part of the 20<sup>th</sup> Dynasty. Again, a date in this latter period would be plausible, but in that scenario one would expect some marks that are typical for that specific period such as  $\curvearrowright$  or  $\lambda$ . In contrast, the marks on ONL 1314 are typical for early 20<sup>th</sup> Dynasty records of members on the right and left side. Many of these marks are, however, also found in the middle and the second half of

<sup>190</sup> Bruyère, *Rapport 1948-1951*, pl. XVIII, nr. 12.

<sup>191</sup> See chapter 4, 4.2.8.

<sup>192</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 145.

<sup>193</sup> Active in the reign of Siptah, see Collier, *Dating Late XIXth Dynasty Ostraca*, 137.

<sup>194</sup> Active in the reign of Siptah, see Collier, *Dating Late XIXth Dynasty Ostraca*, 138.

the 19<sup>th</sup> Dynasty, so an approximate date between the late 19<sup>th</sup> Dynasty and the first half of the reign of Ramesses III seems most accurate. This date is corroborated by the other side of the ostrakon, which is inscribed with a poorly preserved hieratic text.<sup>195</sup> It appears to record an accusation by Huynefer of someone who passed the “walls” around Deir el-Medina, as well as a quarrel with a Nebsemen, perhaps the father of the scribe who wrote the text. Additionally the ostrakon mentions *ḥtri* deliveries, and the absence of a Khamy. Much of the text is probably unrelated to the side of the ostrakon inscribed with marks. However, the *ḥtri* deliveries alluded to in the text could well be the subject of the other side. There, workmen’s marks are connected with depictions of commodities, mostly amphorae, and series of dots, and it is conceivable that it represents the distribution of the *ḥtri*.<sup>196</sup> A connection between obverse and reverse is also plausible because the text was dated to the late 19<sup>th</sup> Dynasty on the basis of the mentioned individuals, Nebsemen, Huynefer, Khamy and perhaps Nakhy.<sup>197</sup> Indeed these names are attested in the later 19<sup>th</sup> Dynasty. However, a Nebsemen (ii) is attested in the reign of Ramesses II,<sup>198</sup> as is the workman Huynefer (iii).<sup>199</sup> Nakhy is probably an abbreviated form of Amennakht, and he is probably identifiable with Nakhy (iv) = Amennakht (x), the man who was already active in year 40 of Ramesses II.<sup>200</sup> On the other hand, the mention of Khamy does point towards a date in the second half of the 19<sup>th</sup> Dynasty. This man must be Khamy (i), attested as a workman of the left side in the reigns of Seti II, Amenmesses and Siptah, and no Khamy is known from earlier times.<sup>201</sup> Another argument for a date in the late 19<sup>th</sup> Dynasty is the fact that Nebsemen (i), in all probability a later workman than Nebsemen (ii), is attested together with Nakhy (iv) = Amennakht (x) and Khamy (i) in O. Varille 26, attributed to the reign of Amenmesses.<sup>202</sup> Moreover, all three men are attested in ostraca belonging to Collier’s Group C, dating to the reign of Siptah.<sup>203</sup> The hieratic text of ONL 1314 is therefore best situated in his reign as well, which coincides with our suspicion of the date of the same document.

#### *O. Cairo JE 72462*

Meagre support for the date of ONL 1314 is offered by O. Cairo JE 72462. Like ONL 1314, this ostrakon is a piece of limestone. One side contains an account of commodities including oil, grain, basketry, copper items, fat and sandals. The text was very broadly dated to the period of the middle of the 19<sup>th</sup> Dynasty and later times.<sup>204</sup> The reverse of the ostrakon is poorly preserved, but like ONL 1314 it seems to have been inscribed with depictions of amphorae and identity marks. Still discernable is  $\text{𓆎}$  and perhaps  $\text{𓆏}$ . The latter mark probably referred to Wennefer (iii) on ONL 6585, dated to the second half of the 19<sup>th</sup> Dynasty. If O. Cairo JE 72462 dates to the 19<sup>th</sup> Dynasty, as proposed here, we may have yet another attestation of this man.

<sup>195</sup> Transcribed by Černý as O. IFAO 288, see NB 103.118.

<sup>196</sup> For a discussion see below, p. 461-462.

<sup>197</sup> *Deir el-Medina Database*.

<sup>198</sup> Davies, *Who’s who*, 62.

<sup>199</sup> E.g. O. BM 5436 and O. DeM 706.

<sup>200</sup> E.g. O. BM 5436.

<sup>201</sup> Davies, *Who’s who*, 256; Collier, *Dating Late XIXth Dynasty Ostraca*, 137; O. Turin N. 57082, which records a workman named Khamy, is probably best situated in the late 19th Dynasty, cf. Collier, *Dating Late XIXth Dynasty Ostraca*, 124-125 and see Davies, *Who’s who*, 257.

<sup>202</sup> *KRI VII*, 236-237; Helck, *Die datierten und datierbaren Ostraka*, 105.

<sup>203</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, *passim*.

<sup>204</sup> Abdel Samie, *Hieratic Documents*, 8.

### ONL 6497

One of the marks that feature on ONL 1314 is  $\text{𐀓}$ . It is unclear if this is an allomorph of  $\text{𐀔}$ , which is also inscribed on ONL 1314. Mark  $\text{𐀓}$  is not often attested, which may be taken as an argument for the assumption that it is a rare allomorph of  $\text{𐀔}$ . It may occur as a mark on an ostracon from the 20<sup>th</sup> Dynasty, O. DeM 556, where it is situated below a hieratic text, but its meaning on this piece is difficult to explain. On ONL 6497, however, the sign does evidently feature in the context of workmen's marks. Unfortunately only a small portion of this ostracon is preserved. The only other mark that is discernable is  $\text{𐀕}$ , also present on ONL 1314. On account of this similarity we may propose that like ONL 1314, ONL 6497 dates to the end of the 19<sup>th</sup> Dynasty.

### ONL 6221

Perhaps associated with ONL 1314 is fragmentary ostracon ONL 6221, although it may be of a slightly earlier date. The lay-out of ONL 6221 certainly is different from that of ONL 1314, but like this piece ONL 6221 records workmen's marks with depictions of objects and vessels and series of dots. Three marks that are securely identifiable are  $\text{𐀖}$ ,  $\text{𐀗}$  and  $\text{𐀘}$  or  $\text{𐀙}$ . A fourth mark could be  $\text{𐀚}$ . Additionally, a damaged mark on the left edge of the ostracon is possibly mark  $\text{𐀛}$ . The occurrence of  $\text{𐀖}$  confirms a date in the 19<sup>th</sup> Dynasty. Mark  $\text{𐀛}$  could then have been used for Amenemope (ix), which would suggest ONL 6221 was composed during the second half of this dynasty.

### ONL 6582 and ONL 432

Ostracon ONL 6582 is probably related to ONL 1314 as well. Like the previous ostraca, it is inscribed with red ink and depicts vessels that are juxtaposed with identity marks and series of dots. ONL 6582 is, however, incomplete and only marks  $\text{𐀜}$  and  $\text{𐀝}$  are preserved. Both marks are attested in the 20<sup>th</sup> Dynasty. Mark  $\text{𐀜}$  may here represent Neferher (vi) or perhaps his seemingly unrelated earlier namesake Neferher (iv), while we had identified  $\text{𐀝}$  as workman Qenymin (i)/(iii) on the basis of O. ARTP 99/27 and O. DeM 831.<sup>205</sup> Neferher (vi) and Qenymin (i)/(iii) are not securely attested before the reign of Ramesses III. Still, we cannot rule out the possibility that on the basis of similarity with ONL 1314, ONL 6582 dates to the very end of the 19<sup>th</sup> Dynasty. A date between the end of the 19<sup>th</sup> Dynasty and the early 20<sup>th</sup> Dynasty may also be considered for ONL 432. This small limestone chip, inscribed with a mark on the obverse and one on the reverse, is not more than 5 cm long and 2 cm wide but appears to be complete since one mark is written over the broken edge of the piece. One side displays mark  $\text{𐀔}$  and the other mark  $\text{𐀝}$ . This arrangement is undoubtedly meaningful: it records two brothers or a father and a son. As we saw in the previous chapter, mark  $\text{𐀔}$  was used in the 20<sup>th</sup> Dynasty for Apatjau (i), a brother of Qenymin (i)/(iii). However, if we situate the ostracon in the end of the 19<sup>th</sup> Dynasty, mark  $\text{𐀔}$  would refer to Siwadjet (iii), father of Qenymin (i)/(iii) referred to by mark  $\text{𐀝}$ .

### ONL 6524

Due to the possibility that mark  $\text{𐀝}$  for Qenymin (i)/(iii) occurs towards the end of the 19<sup>th</sup> Dynasty, ONL 6524 poses a dilemma. It is inscribed like several other 19<sup>th</sup> Dynasty ostraca with charcoal and displays  $\text{𐀞}$ ,  $\text{𐀟}$ ,  $\text{𐀠}$ ,  $\text{𐀝}$  and a damaged mark that could be  $\text{𐀡}$ . These five marks are well known from 20<sup>th</sup> Dynasty ostraca, but none of them are typical for this period, while we have observed that most of these marks occur on ostraca attributable to the late 19<sup>th</sup> Dynasty as well. Mark  $\text{𐀡}$  is not common in the 19<sup>th</sup> Dynasty but does feature on ONL 6526

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<sup>205</sup> See chapter 4, 4.2.8.

and ONL 6527. Without any further context ONL 6524 can only be dated to the period of the late 19<sup>th</sup> and early 20<sup>th</sup> Dynasty.

#### ONL 6472

Mark  $\overline{\text{T}}$  of Qenymin (i)/(iii) is attested furthermore on ONL 6472, a puzzling ostrakon that challenges our dating methods. Faint marks inscribed with charcoal that are distinguishable are:  $\text{t}$ ,  $\text{A}$ ,  $\text{Z}$ ,  $\text{L}$ ,  $\text{S}$ ,  $\text{M}$ ,  $\overline{\text{T}}$ ,  $\text{C}$ ,  $\text{R}$ ,  $\overline{\text{T}}$ ,  $\text{U}$ ,  $\text{O}$  and  $\text{A}$ . With two exceptions, all marks on this piece are found on O. Cairo JE 72491 and O. ARTP 99/27, lists of marks of workmen of the left side dating to the reign of Ramesses IV. Although many of the marks are also attested in the second half of the 19<sup>th</sup> Dynasty, mark  $\overline{\text{T}}$  is not securely attested in the 19<sup>th</sup> Dynasty. We assume this mark belonged to Paneferemdjedu (i), a man who is not known to have been active before the reign of Ramesses III.<sup>206</sup> Oddly enough, the ostrakon is also inscribed with  $\text{A}$ , the mark of Anuy (i), which does not occur on ostraca, graffiti or objects from the 20<sup>th</sup> Dynasty. Anuy (i) can no longer have been active in the reign of Ramesses III, as he is not recorded after the reign of Ramesses II.<sup>207</sup> No offspring of this man is identified either, and the presence of mark  $\text{A}$  in a document that also includes mark  $\overline{\text{T}}$  is inexplicable. Because the majority of the marks are firmly situated in the 20<sup>th</sup> Dynasty, we may hazard a guess that  $\text{A}$  is here not the mark of Anuy (i) but an otherwise unattested allomorph of  $\text{A}$ .<sup>208</sup>

#### ONL 6455

Marks  $\overline{\text{T}}$  and  $\text{A}$  may or may not feature on ONL 6455. The marks on this ostrakon, inscribed with charcoal, are barely discernable, and the reading of  $\text{A}$  is utterly doubtful. It may also be mark  $\text{A}$ , perhaps an allomorph of mark  $\text{A}$ . Other marks could be  $\text{F}$ ,  $\text{L}$ ,  $\text{Z}$ ,  $\text{L}$ ,  $\text{S}$  and  $\text{X}$ . Because of the tentative identification of this last mark, not securely attested before the reign of Ramesses III, a date in the 20<sup>th</sup> Dynasty is slightly more probable than a date in the 19<sup>th</sup> Dynasty.

#### ONL 6404 and ONL 6367

The date of two smaller ostraca is also dubious. One is ONL 6404, inscribed with a row of marks of which only  $\text{M}$ ,  $\text{U}$  and  $\text{C}$  are still legible. All three marks are attested in both the 19<sup>th</sup> and the 20<sup>th</sup> Dynasties. We have seen that the preferred lay-out of 20<sup>th</sup> Dynasty ostraca with marks is not an arrangement in rows of marks, which is more common for the 19<sup>th</sup> Dynasty.<sup>209</sup> But we cannot base a date for ONL 6404 on such criteria, since ostraca with rows of marks are attested in the 20<sup>th</sup> Dynasty as well. The provenance of this piece, indicated by the excavators as “S 3” would suggest a date in the 20<sup>th</sup> Dynasty. As pointed out by Demarée and Weiss, “S 3” probably refers to the third room in house S.O. IV that once belonged to Prehotep (i).<sup>210</sup> At the same location a group of oracle texts was discovered that was dated to the beginning of the 20<sup>th</sup> Dynasty,<sup>211</sup> as well as at least two other ostraca dating to the first half of the 20<sup>th</sup> Dynasty.<sup>212</sup> A date for ONL 6404 in that period would therefore be expected, if it was not for ONL 6514. This 18<sup>th</sup> Dynasty ostrakon inscribed with marks was reportedly discovered in the same house and indicates that its context is disturbed. Since the marks  $\text{M}$ ,  $\text{U}$  and  $\text{C}$  on ONL 6404 are also attested at the end of the 19<sup>th</sup> Dynasty, the date of this

<sup>206</sup> Davies, *Who's who*, 108-109.

<sup>207</sup> Davies, *Who's who*, 15.

<sup>208</sup> For the similarity of mark  $\text{A}$  and mark  $\text{A}$  see chapter 6, 6.5.4.6.

<sup>209</sup> See below, 5.3.3.2.










<sup>210</sup> *Deir el-Medina Database*; Lara Weiss, ‘Markings on oracle ostraca from Deir el-Medina – Conflicting Interpretations’ in: Haring and Kaper (eds.), *Pictograms or Pseudoscript?*, 221.

<sup>211</sup> Černý, ‘Nouvelle série’, 21.

<sup>212</sup> O. DeM 133 and O. DeM 204.

ostrakon is uncertain. Ostrakon fragment ONL 6367, which still preserves  $\text{𓆎}$  and  $\text{𓆏}$  is of an equally dubious date for the same reasons as ONL 6404.

### 5.2.3.5 Overview of tentatively identified workmen's marks

Haremwia (ii)	
Khaemseba (i)	
Mose (viii)	
Nebnefer (vi)	
Neferher (iv)	
Pamerihu (i)	
Patjauemdiamun	
Rewebeben (iv)	
Wennefer (iii)	

## 5.3 THE PURPOSE OF THE RECORDS WRITTEN WITH IDENTITY MARKS

What do 19<sup>th</sup> Dynasty ostraca inscribed with marks convey, what purpose did they serve, and by whom were they produced? In order to answer these questions, this section will examine ostraca inscribed with hieratic texts that also include identity marks. In addition, a number of different document types composed with marks will be distinguished. The following section contains an analysis of the lay-out of 19<sup>th</sup> Dynasty ostraca with marks which will allow us to make some observations about the purpose of the records.


### 5.3.1 Use of hieratic text on ostraca with marks


In the chronological discussion of 19<sup>th</sup> Dynasty ostraca with workmen's marks we had already noticed the existence of documents inscribed with hieratic in combination with marks. Here we shall examine some of them in more detail. We shall see that in most cases it is incredibly difficult to assess if there is a meaningful connection between the hieratic text and the inscribed marks. Fortunately this is not as difficult for O. Berlin P 14350, a list of workmen from the reign of Ramesses II,<sup>213</sup> which does not seem to have been arranged in an ordered sequence. Apart from this hieratic text, two workmen's marks were inscribed in the same colour of ink. Mark  $\text{𓆎}$  is situated between the middle and right column, mark  $\text{𓆏}$  above the right column. The marks are considerably larger than the hieratic signs, and are not clearly related to any of the names. We know that mark  $\text{𓆎}$  was used for Siwadjet (ii) in the reign of Ramesses II, but his name does not appear in the legible part of the ostrakon. Mark  $\text{𓆏}$  is one of the few instances of a bird-shaped mark in the 19<sup>th</sup> Dynasty. Although the mark is not completely preserved and the ink has faded a bit we can securely identify this bird as a falcon because of the neat handwriting of the scribe. It may have been used for a man named Hori, as in the 20<sup>th</sup> Dynasty, in which case Hori (i) would be a good candidate. Regardless of his identity, it seems likely that the marks are here somehow an addition to the hieratic name list, probably added by the scribe responsible for the hieratic text.

The hieratic name list on the obverse of O. Ashmolean HO 810, dated to the reign of Siptah, probably holds a relation to the columns of identity marks on the reverse. That is suggested by similarities in layout as well as the fact that both the hieratic text and the marks appear to refer to workmen of the left side of the crew. Unfortunately the exact meaning of this document is hard to grasp because of its poor state of preservation. According to Collier the names on the obverse may have followed a date. Nothing of the kind is preserved on the reverse, but the fact that two marks occur twice in different columns makes it plausible that


<sup>213</sup> Gutgesell, *Die Datierung I*, 99; *Deir el-Medina Database*.



the marks are arranged according to the same layout. This does not explain the connection between the obverse and reverse. The marks are evidently written in a trained hand, particularly indicated by the elaborate, well-balanced shape of mark . It is therefore possible that obverse and reverse were created by the same author. We may propose a number of explanations for the relation between the marks and the name lists, but this is nothing more than mere guesswork. It could be that the scribe wrote his hieratic list of names and then – for some reason – continued the same record on the other side using marks. In another scenario, the scribe could have made a draft of his hieratic text on one side with marks, and wrote out a neat version in hieratic on the other. Alternatively, the marks may be a ‘transcription’ of the hieratic text to a list of marks, which could be understood by literate and illiterate individuals alike.

A relation between the hieratic name list on the obverse of ONL 6690 and the workmen’s marks on its reverse is very plausible too. The ductus of the marks, particularly , betrays a hand well acquainted with hieratic. That is also suggested by the cursive hieroglyphs used to write the name of the scribe Bay (ii). The marks may have been added on the reverse as a later addition to the name list on the obverse.

The name list recorded on O. OIM 25356 has already been examined above. The marks are clearly incorporated into the hieratic text, which consists of nothing else but columns of names. We have observed that some of the marks correspond to the juxtaposed names written in hieratic, but we have not yet given it much thought why this was done. This is awfully difficult to explain, not in the first place because not every mark seems to correspond with a hieratic name. It should first be stated that there is again nothing that indicates that the marks were made by anyone else but the scribe of the hieratic text. The hieratic inscription of this scribe is not particularly elegant and the names seem to have been noted down with quick strokes. The same can be said of the identity marks. Secondly it is significant that based on the data available to us, O. OIM 25356, a document wherein a scribe added identity marks to corresponding hieratic names, is extremely exceptional. We must therefore not read too much into this text. The scribe could have added the marks to the proper names during a revision of the ostrakon. At that point he may have had to add a few individuals and did so by means of their identity marks. During this process he could have added the corresponding marks next to some of the names he had already written down. Otherwise we can here, as in our tentative suggestion about the previous ostrakon, again propose that the marks were added to the document in order to allow individuals not trained in hieratic script to understand the text. Alternatively our scribe added the marks next to their names to distinguish them from namesakes, instead of adding a filiation. If that would be true, it could be interpreted as an indication that the scribe himself was not sufficiently familiar with hieratic and preferred to employ marks instead of regular script.

The purpose of the entire document must probably be sought in the domain of deliveries. The text is not an ordered name list, but seems to record workmen according to the side of the crew they belonged to and in connection with the ‘*smd.t* scribe’ associated with it. The workmen may have assisted the scribes with the transportation of the supplies. In this respect, O. OIM 25356 is perhaps related to O. Cairo CG 25582. We have not yet discussed this hieratic ostrakon, which records an account of fish deliveries made by (*m-dr.t*) the same two ‘*smd.t* scribes’ Anupemheb and Pentaweret on different days in II *pr.t* and I *šm.w* of an unknown year. The document has been attributed to the reign of Merenptah,<sup>214</sup> which is plausible in view of the other attestations of these two scribes.<sup>215</sup> Our attention is directed to the reverse of the document, where in the right margin the sign  is added just before the

<sup>214</sup> KRI IV, 166-167; Helck, *Die datierten un datierbaren Ostraka*, 92.

<sup>215</sup> Davies, *Who’s who*, 91.

final hieratic line. In analogy with O. OIM 25356, which also dates to the middle of the 19<sup>th</sup> Dynasty and which also records the two ‘*smd.t* scribes’, this mark could refer to Anuy (v). On O. Cairo CG 25582, the mark is most probably related to these deliveries as well.<sup>216</sup> This strengthens the assumption that the names and marks of the workmen on O. OIM 25356 are recorded in relation to deliveries as well. Why the scribe chose to record this individual with an identity mark is again open to discussion. We may again put forward the suggestion that it was a minor addition to the text.

In the case of O. Berlin P 14261<sup>217</sup> it is certain that the deliveries of wood and pottery to the necropolis workmen are the topic of the hieratic text. The ostrakon, attributed to the reign of Seti I, is inscribed on the back with what is most likely mark  $\Rightarrow$  of the foreman Baki (i). It is impossible to determine whether the mark and the text were written by the same scribe, but that does not seem implausible. Like several sections on the obverse of the ostrakon, the mark appears to have been deliberately erased.<sup>218</sup> This would suggest the mark is connected with the text on the obverse, but it is not immediately clear what the purpose of this mark is. Again there is no way of ascertaining the mark’s exact function, but perhaps it is a reference to the author of the text, marked as a document belonging to his personal archive.

Although O. Cairo JE 72462 also records commodities, this hieratic text should be differently classified from O. Berlin P 14261. Whereas the former text is concerned with the delivery of goods to the entire community, O. Cairo JE 72462 could be an account of items in someone’s possession or an account of a payment or gift.<sup>219</sup> Among the commodities that are mentioned are oil and grain. This is significant, because the reverse of the same ostrakon displays besides one or two identity marks a depiction of a large amphora, suggesting obverse and reverse could be related. The presence of workmen’s marks could then represent the recipients in the distribution of these goods. Such an interpretation, however, is not certain. What is more, obverse and reverse do not necessarily date to the same period. There is a distinct possibility that the marks, which are written in charcoal, were inscribed by someone else than the scribe of the hieratic text, written in black ink. Alternatively, we may once more imagine a ‘transcription’ made of the written text onto the reverse with the help of workmen’s marks and drawings of commodities. Too little of the reverse has survived for a good understanding of the relation between the two sides of the ostrakon.

An ostrakon very similar to O. Cairo JE 72462 is ONL 342, because it is also inscribed with a list of commodities on one side and displays an interesting inscription on the other. The hieratic list is well enough preserved to read the following:

[...]	
<i>bd.t h3r 2 ip.t 2</i>	<i>sr[...]</i>
	<i>mḥ.w ḥnd.w</i>
<i>w3d 2</i>	<i>dsds</i>
<i>iwf ʿnh rwh3 / biḥ3 1</i>	<i>ʿš 10</i>
[...]	

<sup>216</sup> No photographs of the ostrakon are available. The facsimile does not clearly indicate whether the mark was inscribed by the scribe of the hieratic text, but it would at least seem plausible.

<sup>217</sup> Also known as O. DeM 13.

<sup>218</sup> Cf. <http://dem-online.gwi.uni-muenchen.de/fragment.php?id=242>.

<sup>219</sup> Compare hieratic ostraca O. BM 5630; O. Brunner; O. Cairo CG 25679; O. DeM 285; O. Prague H 22; O. Turin N. 57349.

Emmer: 2 <i>khar</i> and 2 <i>oipe</i>	[...] Twined wreaths <sup>220</sup> (?)
Vegetables <sup>221</sup> 2	<i>dss</i> fish
Goat meat ...	ϣ fish 10

The meat mentioned in the first column appears to be goat meat. It is as such not often attested in the records of Deir el-Medina, and Janssen pointed out that from the 19<sup>th</sup> Dynasty onward the word ϣ*nh* referred mostly to small cattle rather than to a goat.<sup>222</sup> Some allusions to goat meat are nevertheless attested in documents from the Theban Necropolis.<sup>223</sup> The reading of the word following ‘goat meat’ is unclear. Both types of fish mentioned in this text belong to as of yet unidentified species.<sup>224</sup> The *dss* fish is attested in a variety of different spellings. In the first half of the 19<sup>th</sup> Dynasty it appears as *tss*, while the variants of *dss* are found during the second half of the 19<sup>th</sup> Dynasty and the reign of Ramesses III.<sup>225</sup> The ϣ fish too occurs in several different spellings. This type of fish is not frequently attested in the records of the Theban necropolis, and Janssen pointed out that it only occurs among commodities that were gifted.<sup>226</sup> Like O. Cairo JE 72462, ONL 342 could therefore be an account of gifts. Moreover, ONL 342 is inscribed on the reverse with what appear to be depictions of commodities, as on O. Cairo JE 72462. We recognise a very similar drawing of an amphora, here with four dots added in front of it. No workmen’s marks seem to feature on the reverse of ONL 342, but this side is not preserved in its entirety. Still this ostrakon is important because besides the depiction of an amphora we observe other drawings, perhaps depictions of commodities as well. One drawing is of a rectangular shape and the other depiction is  $\square$ . Apart from the amphora, dots and perhaps strokes are added next to it. It seems probable that the dots indicate the quantity of the objects they are juxtaposed with, and thus the subject matter of the reverse could well be related to the hieratic text on the obverse. Determining the exact relation between the two sides of the ostrakon is hampered by the fragmentary state of the document, but once again we may imagine that the depictions of commodities are either a draft or a translation of the hieratic text on the obverse. Whether both sides were inscribed by the same person is very difficult to assess in this case.

The nature of the hieratic text on the reverse of ONL 6518 is unclear. The ostrakon is nothing more than a small limestone chip that must have been part of a larger document. The marks on the obverse can be related to ostraca such as ONL 6536 and seem to record workmen involved in the delivery of commodities. The few hieratic signs that can be discerned on the reverse are not immediately recognisable as belonging to a similar text. Legible are the following signs:



Two ostraca from the workmen’s huts near KV 10 with marks are also inscribed in hieratic. We had already remarked that O. Schaden 96, a weight, bears the inscription “Year

<sup>220</sup> Janssen, *Commodity prices*, 138-139.

<sup>221</sup> Janssen, *Commodity prices*, 359.

<sup>222</sup> Janssen, *Commodity prices*, 165. But see also Jac. J. Janssen, ‘Three Mysterious Ostraca’ in: Collier and Snape (eds.), *Ramesside Studies*, 248, A7.

<sup>223</sup> E.g. in O. Ashmolean HO 259, a list of commodities which includes *iwf m ϣnh* “meat as goat” (this reference was kindly provided by Rob Demarée); compare a very similar list attributed to the 19<sup>th</sup> Dynasty, O. Michaelides 36, which mentions *hps n ϣnh* “foreleg of goat” as well as *[s]ms n ϣnh*. For *sms*, see O. Ashmolean HO 156, 3, Gardiner, *Ancient Egyptian Onomastica* II, 240; translated as “Schlegel” meaning “round”, the hind part of pigs and beef by Helck, *Materialien* V, 842.

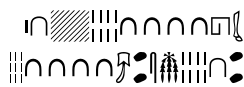
<sup>224</sup> Janssen, *Village Varia*, 50-51.

<sup>225</sup> Černý, ‘Deux noms de poisson’, 38-39; Janssen, *Village Varia*, 51, n. 99 and 100.

<sup>226</sup> Janssen, *Village Varia*, 51.

38, III *pr.t.*, day 7. Weight of four spikes for the right side.” On another side of the weight at least four workmen’s marks are inscribed in the same black ink as the hieratic text. The purpose of these marks is unclear. One might expect the marks to represent the four workmen to whom the four spikes belonged, but as we have seen these marks refer to workmen of the left side. Apart from the marks, the weight displays smudges of black ink and other indefinable shapes. Four vertical strokes added above the marks correspond perhaps to the four spikes, but this still does not explain why the inscription mentions the right side, whereas the marks belong to members of the left side. It is therefore possible that the marks are not related to the inscription.

While the text on O. Schaden 96 is written in flawless hieratic, the inscription in O. Schaden 11 is very abbreviated to say the least. The marks on O. Schaden 11 will be examined in depth below, and here we shall first focus on the text. To some extent the hieratic can be read:



*wḥm h<ɜw> 48[...] 11*

••18 *ms.t.y* 49

Repeating 48 [...] 11

••; 18 sacks 49

The signs of the inscription are unmistakably hieratic, but it is composed with a minimum of signs. The numerals are clear, as is the word *wḥm* ‘repeating’. The sign  $\square$  *h* that follows after *wḥm* might be an abbreviation, but its meaning is uncertain. One is reminded of the abbreviation *h* for *hɜw* ‘expense’, which is attested on an ostrakon from the reign of Ramesses II, there in relation to *sgnn* oil,<sup>227</sup> but this translation does not elucidate the meaning of the inscription on O. Schaden 11. During the 19<sup>th</sup> Dynasty, the term *hɜw* occurs in the hieratic administrative texts of the Theban necropolis mostly in the context of wick accounts,<sup>228</sup> but it is attested for wood and grain as well.<sup>229</sup> The second line records a quantity of *ms.t.y*-sacks,<sup>230</sup> written very summarily as well. As a consequence the relation to the marks on the same ostrakon is not straightforwardly explained. Both the hieratic lines and the marks appear to have been written in the same ink, so it is very plausible that entire document was created by a single author. The abbreviated hieratic inscription is interesting because like the use of workmen’s marks it constitutes a non-standardised form of administration.

In that respect the hieratic inscription on O. Schaden 11 is not unique, and this may be a good moment to examine some ostraca which are not all inscribed with identity marks, but are still of interest to our investigation of the use of marks. A key ostrakon of this kind is O. Schaden 17. This ostrakon displays some odd scribbles in the right margin. They are lines that are not hieroglyphic or hieratic signs, but they are not recognisable as workmen’s marks

<sup>227</sup> O. Cairo CG 25502. The sign *h* might have been used for the abbreviation of *hɜb* ‘to send’ on O. Clère 1, for a discussion see Weiss, ‘Markings on oracle ostraca’, 227. The word *hɜb* would, however, not be very appropriate in the context of our document.

<sup>228</sup> Examples dating and attributed to the reign of Ramesses II: O. Cairo CG 25540; O. Cairo CG 25631; O. Cairo CG 25813; O. Cairo CG 256816; O. Cairo JE 72458.

<sup>229</sup> Examples dating and attributed to the reign of Ramesses II: O. BM 50733+; O. Strasbourg H 110.

<sup>230</sup> Janssen, *Commodity Prices*, 403-406. The reading of the word *ms.t.y* was kindly suggested by Rob Demarée. According to Janssen, *Commodity Prices*, 458, n. 18, these sacks were used by the necropolis workmen during their construction work on the royal tomb.

either. Other aspects of the document are unusual as well. The hieratic lines are written in cells of a large table, which is not common in hieratic administration. But more importantly the hieratic inscription is once again very abbreviated. We can tentatively read it as follows:

	[...]	21 [...]
⋮	<i>šbd</i> 2 <i>pr.t</i>	7 • 8 (?) • 16 • 70 20 (+ x?) • [...] 20 7[00] 24 •
..	<i>šbd</i> 3 <i>pr.t</i>	5 • 5 • <sw> 8 • <sw> 21 • <sw> 26 • <sw> 27
⋮	<i>šbd</i> 4 <i>pr.t</i>	<sw> 3 <sw> 7 <sw> 8 (?) <sw> 14 <sw> 24 <sw> 23 8 <sw> 26
⋮	<i>šbd</i> 1 <i>šmw</i>	<sw> 15 <sw> 16 <sw> 17 (?) <sw> 24 <sw> 24 sw 10 (?)
⋮	<i>šbd</i> 2 <i>šmw</i>	sw 2 sw 4 sw 4 sw 7 sw 8 sw 13 sw 18
	<i>šbd</i> 3 <i>šmw</i>	

It is clear that the document lists dates, but what is being recorded exactly remains a matter of interpretation, because the text consists of nothing else than dates and numbers. Moreover, the table contains some inconsistencies. We can surmise that entries in the rows of III *pr.t*, IV *pr.t* and I *šmw* concern 9 day dates, not because of the use of the word *sw* ‘day’, which for some reason is omitted here, but because the numerals are of the horizontal kind used in hieratic writing for dates. That is confirmed by the row of II *šmw* where sign  $\bigcirc$  is suddenly used to convey the word *sw* ‘day’. In contrast, the numerals in the row of II *pr.t* are of the regular kind. It is unclear what is counted in this section of the document. Also peculiar is the fact that some days are repeated and not all days are written in the right order. Although O. Schaden 17 is written in hieratic, it records information in a non-standardised manner that is not easily understood. It is significant that the text does not display a convincing hieratic ductus, and the possibility exists that it was written by someone who was not fully trained in hieratic script.

The provenance of O. Schaden 17 suggests it dates to the middle of the 19<sup>th</sup> Dynasty. An attribution to this period would be in agreement with its similarity to related ostrakon O. Schaden 11. A third ostrakon, O. IFAO C 391 must date to the same time because it resembles O. Schaden 17 in many ways. The handwriting is very similar and it is conceivable that both texts were written by the same hand. Like O. Schaden 17 the text seems to have been written in a column of entries with some additional information in the right margin. We read the following:

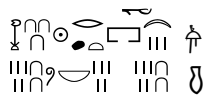
[...]	<i>šbd</i> 4 [...]
28	<i>šbd</i> 1 <i>pr.t</i> sw 4 $\square$ 10 <i>šbd</i> 1 <i>pr.t</i> sw 5 $\square$ 5 <i>šbd</i> 1 <i>pr.t</i> [sw] 6 $\square$ 5

This account of day dates is comparable to that of O. Schaden 17, but in O. IFAO C 391 the dates are of subsequent days. The sign  $\bigcirc$  is consistently used for *sw* ‘day’, but the word *pr.t* is written with the sign  $\square$  only. This is clearly another instance of a document written with a minimum of hieratic signs. Moreover, additional non-hieratic signs feature in the text. After

each day sign appears 𐦎 followed by a hieratic numeral. We know this sign from ONL 342 where it seemed to represent a commodity, and it appears to have the same function on O. IFAO C 391. That would classify this ostrakon as an account of the daily delivery of one particular commodity.<sup>231</sup>

Two other ostraca also display non-standard, or rather semi-hieratic texts, and their date in the middle of the 19<sup>th</sup> Dynasty is very probable. The first ostrakon is ONL 6517, which is perfectly legible. It is inscribed on two sides, the obverse dedicated to the right side of the crew, the reverse to the left side. This is indicated by the use of sign 𐦏, here doubtlessly an abbreviation for 𐦏𐦏𐦏 *wnmy*, as in numerous duty and delivery records composed with marks from the 20<sup>th</sup> Dynasty.<sup>232</sup> The other side is inscribed with sign 𐦏 which can best be explained as a reference to the left side of the crew, although we are not sure what the inspiration for this sign may have been. The sign does not appear to be related to sign 𐦏, which was used to refer to the left side in 20<sup>th</sup> Dynasty duty and delivery ostraca and is of mysterious origins as well.<sup>233</sup> Perhaps sign 𐦏 should be seen as hieroglyphic sign 𐦏 *s*. It does not closely resemble this hieroglyph because both vertical ends of the sign are almost of equal length but if we ‘read’ it as such, it would be an abbreviation for the word *smhy* ‘left’. Apart from non-hieratic sign 𐦏, sign 𐦏 is either a depiction of an actual vessel or an abbreviation of the word *hnq.t*. Either way, it is probably a reference to a commodity, in the same way that sign 𐦏 can be interpreted as a shortened spelling of *h.t* ‘wood’ or a depiction of an actual twig on ONL 6517. Along the same lines, sign 𐦏 may here not possess the phonetic value *nb*, but could instead be a depiction of an actual basket or a dish. It is however unclear what the actual shape<sup>234</sup> or the content of this vessel may have been. The inscription on this ostrakon reads:

obverse



*h.t*

*wnmy zbd 3 pr.t sw 30 1000*

[?] 25 5 [?] 125

Wood

Right side. III *pr.t* day 30: 1000

Jars: 25; 5, baskets: 125

reverse



<sup>231</sup> Ben Haring kindly pointed out that during the second half of the 19<sup>th</sup> Dynasty fairly regular deliveries of beer were sent from temples in Western Thebes in quantities of five *ds* jars, see Haring, *Divine Households*, 261-263. A connection between beer and sign 𐦎 is however not evident.

<sup>232</sup> See chapter 3, 3.2.2.3.

<sup>233</sup> Ibidem; also chapter 6, 6.5.4.7.

<sup>234</sup> For the different types of baskets known from the records of the Theban necropolis see Janssen, *Commodity Prices*, 133-145; 150-151; 160-163; for dishes: 407-408; 423-425; 426-428; 433-434.

*h.t*  
*s<mh> zbd 3 pr.t sw [...]*  
 1520

Wood  
 Left side. III *pr.t* day [...]  
 1520

The document is a note of deliveries of wood and probably jars of beer for the right and the left side of the crew that took place on one particular day. The second line of the obverse is best interpreted as a distribution of the jars along the lines of ostraca such as O. DeM 388 (dated to the 20<sup>th</sup> Dynasty).<sup>235</sup> The numeral 25 should then refer to all workmen of the right side, each one being conferred five jars resulting in a total of 125 jars.

ONL 335 is a very similar document and we can expect it to have been written by the same scribe. We read:

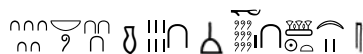
### Obverse



*h.t*  
*zbd 2 zh.t sw 11 3330*  
*wnmy*

Wood  
 II *zh.t* day 11: 3330  
 Right side.

### Reverse



*smhy zbd 2 sw 11 h.t 900 [?] 16 [?] 30 [?] 150*

Wood  
 Left side. II *zh.t* day 11: 900 ; [?]16; jars: 30; baskets: 150

Like the previous ostrakon, ONL 335 is a note of deliveries for the right and the left side of the crew on one particular day. Notable is the use of the vertical hieratic numerals instead of the horizontal ones usually employed in dates. The commodities that are recorded are wood, probably jars of beer, and an unknown commodity represented by the sign  $\Delta$ . It is delivered in a quantity of 16, but we can only guess as to the exact meaning of the sign. The second half of the line on the reverse is perhaps to be understood in the same way as the obverse of ONL 6517, but such a reading requires the addition of the numeral five after the numeral thirty.<sup>236</sup>

<sup>235</sup> An example from the 19<sup>th</sup> Dynasty, O. Berlin P 14842, concerns portions of grain rather than beer jars.

<sup>236</sup> Three other ostraca, ONL 6414, ONL 6584 and ONL 6567, are probably related documents and may, like ONL 6517 and ONL 335, well date to the 19<sup>th</sup> Dynasty. Both ostraca do not include workmen's marks but are

## 5.3.2 Well distinguishable document types

### 5.3.2.1 Records of attendance

We have seen that in the 20<sup>th</sup> Dynasty a few documents were composed on ostraca in which workmen's marks were combined with the sign  $\curvearrowright iw$  'coming' to record attendance at the worksite.<sup>237</sup> Hieratic records recording the attendance at the worksite of individual workmen are also known from the 19<sup>th</sup> Dynasty.<sup>238</sup> It is in this light that we have to examine two 19<sup>th</sup> Dynasty ostraca composed with marks. The first document, O. WHTM 765, was discovered in the area of the workmen's hut at the *Station du Col* and is dateable to the reign of Ramesses II on account of the combination of workmen's marks with which it is inscribed. The marks are not listed according to a known ordered sequence but all belong to the left side of the crew. Below each mark the sign  $\curvearrowright$  is added and O. WHTM 765 thus records attendance of workmen of the left side, probably on a single day. Below the sign  $\curvearrowright$  a vertical stroke is inscribed, the meaning of which is not immediately clear. It might be the hieratic numeral 'one', perhaps indicating a portion of grain measured in *khar*. Such an interpretation is based on hieratic ostrakon O. Cairo CG 25627, attributed to the reign of Ramesses II as well.<sup>239</sup> The reverse of this document lists the names of workmen in combination with an amount in *khar*, perhaps for grain, followed by the sign  $\curvearrowright iw$  for attendance.

O. Cilli 291 might be a similar list of workmen's marks combined with sign  $\curvearrowright$  but it is poorly preserved. In fact not a single workman's mark can be securely identified and a date for this document in the 19<sup>th</sup> Dynasty is solely based on its provenance in the area of the workmen's huts near KV 47 (Siptah). In contrast to O. WHTM 765, O. Cilli 291 is arranged in a column, a layout which indeed is suggestive of the second half of the 19<sup>th</sup> Dynasty. Although it is likely that O. Cilli 291 is another record in which workmen's marks are used to document attendance, it does not offer us many insights into this practice. In the following section we will see however that the combination of workmen's marks and sign  $\curvearrowright iw$  '(has) come' occurs in another type of document.

### 5.3.2.2 Delivery journals arranged in tables

A key ostrakon in the following discussion of ostraca that may be labelled as journal ostraca is O. Schaden 1. It is an informative document to which we will have to return in our treatment of other types of ostraca. We already have examined O. Schaden 1 at several occasions, but up to this point our attention was mostly directed at the ordered sequence of workmen's marks in the upper register of this table. The fact that O. Schaden 1 contains a large table is significant in itself. We have encountered similar tables in the corpus of ostraca from the 20<sup>th</sup> Dynasty, but this layout appears here for the first time in the domain of ostraca composed with marks.<sup>240</sup> The table of O. Schaden 1 consists of at least 16 columns and exactly two rows. Below the first 12 marks in the upper row a dot is added, presumably a check mark. Turning now to the lower register, we observe a combination of identity marks and other signs:

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composed with hieratic numerals and simplified hieratic inscriptions as well as other signs that probably refer to commodities.

<sup>237</sup> For this terminology see Janssen, *Village Varia*, 87-98.

<sup>238</sup> E.g. O. Cairo CG 25627 and O. DeM 340.

<sup>239</sup> *KRI* III, 572.

<sup>240</sup> The table of O. Schaden 1 is to some extent reminiscent of the large table inscribed on hieratic ostrakon O. Schaden 17.



5. OSTRACA WITH MARKS OF THE 19TH DYNASTY

[...]															

The workmen's marks in the lower register belong to workmen identified as members of the left side of the crew: ♀ perhaps for Anuy (ii), ♂ for Wennefer (ii), ♂ for Hehnakht (ii), ♂ for Pennub (ii)/(iii), ♂ for a man named Huy and ♂ for an unidentified member of the left side. Also present is mark ♂, known from other ostraca from the middle of the 19<sup>th</sup> Dynasty, but as of yet unidentified. It is clear that mark ♂ was used for a workman named Weserhat during the 20<sup>th</sup> Dynasty and it is tempting to relate the 19<sup>th</sup> Dynasty mark to a man of the same name. Such identification does require some investigation, because no Weserhat is mentioned in O. BM 5634 and O. DeM 706, the hieratic lists of the entire crew to which O. Schaden 1 compares rather well. Moreover, the name Weserhat is not at all common in administrative records of the 19<sup>th</sup> Dynasty. The name is, however, known from other sources. Weserhat (i) was active during the very beginning of the 19<sup>th</sup> Dynasty<sup>241</sup> and was probably deceased or too old to be active at the time O. Schaden 1 was composed. Instead, we may suggest that, if mark ♂ does indeed refer to someone named Weserhat, he was Weserhat (viii) who is attested without a title as a son of Kel (i) and must have been active in the second half of the reign of Ramesses II.<sup>242</sup> Since he is not known as a workman, we may very carefully entertain the hypothesis that although he was not a full member of the crew he did live at the village and might on occasion have performed odd jobs. At some point he may even have joined the workmen in the construction of the royal tomb as suggested by his presence in lists of workmen such as ONL 6280 and O. Schaden 22.

Besides identity marks, one cell in the lower register of O. Schaden is inscribed with sign ♂. This is unlikely to be an identity mark because it is not attested as such on ostraca, graffiti or objects. One might be inclined to read it as an Egyptian word, because the sign occurs in the hieroglyphic script for the consonants *mi*. It could be an abbreviation for *m mi.t.t*, and expression that means 'idem' and that occurs in O. BM 5634.<sup>243</sup> Yet, this expression would probably make little sense in the context of O. Schaden 1. If it were to be read as 'idem' it would repeat information recorded in the column right of it, which contains nothing else but two workmen's marks. We may instead take it as a representation of a jug carried in a net.<sup>244</sup> This would be in agreement with some of the other depictions in the lower register: in the fourteenth column from the right an amphora is depicted in the shape of ♂ with above it three water ripples. Together these signs could be a reference to a jar filled with

<sup>241</sup> Davies, *Who's who*, 2.

<sup>242</sup> Davies, *Who's who*, 275. There is a possibility that he is the same man as the Hat recorded making deliveries to the crew in ostrakon O. Cairo CG 25661, attributed to the first half of the 19<sup>th</sup> Dynasty, but see Dorn, 'Ostraka', 46-49 and n. 85.

<sup>243</sup> Janssen, 'Absence from work', 135.

<sup>244</sup> Gardiner, *Egyptian Grammar*, 529, W19.

water. A similar jar is depicted in the sixth column from the right but was deliberately erased. A third vessel is drawn in the 11<sup>th</sup> column from the right. Its exact shape is difficult to determine because of the lines inscribed just above it that may or may not be part of the same jar. If the lines form a single depiction one is inclined to interpret it as a large amphora suspended from two cords. But if the upper shape is interpreted as a separate group, it represents signs  $\text{ⓧ}$  above a jar of a shape that approaches sign  $\text{ⓧ}$ . In that case  $\text{ⓧ}$  could be an elaborate allomorph of mark  $\text{ⓧ}$ , well attested in the 19<sup>th</sup> Dynasty. More plausible however is an interpretation along the same lines as the depiction of the jar of water, where the signs above the jar indicate the contents of the vessel. When we take the signs to be hieroglyphs we read the group as  $\text{nhh}$  for  $\text{nhh}$  oil,<sup>245</sup> and indeed the shape of the vessel below it resembles the type of jar in which such oil was kept.<sup>246</sup> The identification of this jar gives us some confidence to interpret sign  $\text{ⓧ}$  in the thirteenth column from the right as a commodity as well. We know this sign from ostraca ONL 342 and O. IFAO C 391 where we already got the impression that it designated a commodity, and O. Schaden 1 supports this interpretation. What this commodity could be is unclear and in analogy with the depictions of vessels sign  $\text{ⓧ}$  is probably the container in which it came. Apart from depictions of commodities and workmen's marks we come across a different sign in the same column that contains the jar of  $\text{nhh}$  oil, which is also inscribed with sign  $\text{ⓧ}$ . In all other ostraca we have understood this to be an indication of presence – but not necessarily activity – at the worksite. The fact that it features here immediately next to a workman's mark would allow for the same interpretation on O. Schaden 1.

All in all it appears we comprehend the majority of the elements on O. Schaden 1. But what is the purpose of the document as a whole? The upper register of the ostrakon is an ordered list of workmen of the left side, perhaps – in analogy with O. Schaden 16 – excluding deputy and foreman. In contrast to the upper register, not every column of the lower register is inscribed with a workman's mark. Moreover, these marks do not feature in ordered lists, and some of them are not present in the upper register. Some columns in the lower register contain more than one mark. Therefore the lower register would appear to contain variable marks, whereas the upper register is governed solely by the ordered sequence. Some sort of relation thus exists between the commodities and workmen associated with them in the lower register on the one hand and the workmen listed in the sequence above on the other. The recorded commodities include water and oil. Whereas water is often recorded in the 19<sup>th</sup> Dynasty hieratic documentation among the commodities deliveries to the crew of workmen,<sup>247</sup>  $\text{nhh}$  oil is in the middle of the 19<sup>th</sup> Dynasty only mentioned in private transactions. The subject of O. Schaden 1 is unlikely to be a private transaction because one side of the crew is listed in its entirety. The ostrakon must therefore be a document that records deliveries to one particular side of the crew. Indeed, in at least one text from the second half of the 20<sup>th</sup> Dynasty  $\text{nhh}$  oil is mentioned as an item brought to and distributed among the workforce.<sup>248</sup> Moreover, it has been argued by Möller that  $\text{nhh}$  oil is a specification of a more general term  $\text{sgnn}$  for oil or

<sup>245</sup> Usually written  $\text{ⓧ}$  according to Janssen, *Commodity Prices*, 330. This type of oil may be olive oil, see Rolf Krauss, 'Nḥ(h)-Öl = Olivenöl' *MDAIK* 55 (1999), 293-298, but the identification is not entirely certain, see Matthias Müller, 'Es werde Licht? Eine kurze Geschichte von Öl & Fett in Deir el-Medina in der 20. Dynastie' in: Haring, Kaper and Van Walsem (eds.), *The Workman's Progress*, 180-181.

<sup>246</sup> Possibly the well attested *nm.t* jars, see David A. Aston, 'A Taste of Honey: *mnt*- and *mdqt*-Vessels in the Late Eighteenth Dynasty' in: Thomas Schneider and Kasia Szpakowska (eds.), *Egyptian Stories. A British Egyptological Tribute to Alan B. Lloyd on the occasion of his Retirement*. AOAT 347 (Münster 2007), 19-20 and fig. 3.3.

<sup>247</sup> E.g. O. DeM 351.

<sup>248</sup> P. Turin Cat. 1894.

unguent,<sup>249</sup> and the latter commodity certainly is attested in delivery records from the 19<sup>th</sup> Dynasty.<sup>250</sup>

All these observations allow for two different interpretations of O. Schaden 1. The first option would be to see it as a record of events that occurred on a single day. The upper register could be a list of workmen present at the construction site, with a dot indicating attendance. The lower register would then attest of other activities that took place that day. For example, Pennub (ii)/(iii) designated by mark  $\text{𐎢}$  would have delivered – or perhaps rather assisted in the delivery of – a jar in a net ( $\text{𐎠}$ ), while Anuy (ii) represented by  $\text{𐎡}$  was involved in the delivery of *nhh* oil, and Huy with mark  $\text{𐎣}$  supplied water ( $\text{𐎠}$ ). That is all the more likely because of the presence of mark  $\text{𐎢}$  in the lower register, perhaps a reference to a man named Weserhat. As mentioned, we have the suspicion he was not a full member of the crew of workmen. However, this reading of the ostrakon does not explain the relation between the upper and the lower register. Moreover, if O. Schaden 1 records the events of a single day, that would seem to mean that only Wennefer (ii) with mark  $\text{𐎡}$  had come to the work site, since only his mark is connected with sign  $\text{𐎠}$ .

The alternative interpretation is somewhat controversial but would explain most of the marks. Instead of reading O. Schaden 1 as a record of a single day, we may propose that it is a journal text recording several subsequent days. One would expect such a document to contain numerals for day dates, which O. Schaden 1 lacks, but perhaps the days are here represented by the workmen's marks in the upper register. Since the workmen are listed in an ordered sequence, we may propose that the columns represent *wrš* duties of individual workmen of the left side. According to this tentative explanation the upper register contains the workmen who stood guard, meaning that each column embodies a different day. The lower register then records the deliveries received by the person on *wrš* duty and the individuals who were involved in that process. It would thus appear that some workmen were responsible for bringing the goods to the settlement. This interpretation allows us to make some sense of the column that records the attendance of Wennefer (ii): on the day of the *wrš* duty of Anuy (ii) ( $\text{𐎡}$ ), *nhh* oil was delivered. This was done by Anuy (ii) himself, perhaps instead of Wennefer (ii) ( $\text{𐎡}$ ), because the latter was present at the worksite and was therefore not able to occupy himself with any deliveries.

Although the second interpretation aids in understanding the document caution is required. First of all, the absence of day numbers, or a date line for that matter, is odd. Additionally, it assumes that workmen themselves were involved – in the physical sense – in the transference of goods. Although four other ostraca with marks seem to hint at such practices<sup>251</sup> the hieratic documentation does not clearly attest to this.<sup>252</sup> But more importantly, this reading of O. Schaden 1 presupposes the existence of a *wrš* duty roster in the second half of the reign of Ramesses II, which is not attested in hieratic records from this time.

The system of *wrš* duties in the community of Deir el-Medina, well attested during the 20<sup>th</sup> Dynasty and discussed at length in chapter 3, must have been implemented already during the second half of the 19<sup>th</sup> Dynasty but when exactly this practice was introduced is very difficult to determine.<sup>253</sup> Perhaps the earliest attestation of workmen on *wrš* duty is in O.

<sup>249</sup> Müller, 'Öl & Fett', 181.

<sup>250</sup> E.g. O. Cairo CG 25502; Rob Demarée kindly informs us that among hieratic ostraca from the settlement of huts near KV 10 there are two accounts of oil deliveries.

<sup>251</sup> See above, O. Cairo JE 96352; ONL 6479; ONL 6518; ONL 6536.

<sup>252</sup> On the other hand this may be due to modern interpretation. For example, O. Ashmolean HO 195, an account of water deliveries (*rh* < .t > *n mw*) attributed to the reign of Rameses II (*KRI* VII, 197; Davies, *Who's who*, 10) contains a list of workmen, each seemingly bringing (*ini*) jars of water themselves instead of *smd.t* agents.

<sup>253</sup> Gutgesell, *Die Datierung* I, 67 mentions only the ostraca from the end of the 19<sup>th</sup> Dynasty.

BM 5635.<sup>254</sup> This document dates to a year 4, and we can agree with Davies<sup>255</sup> that this year fell in the reign of Merenptah, Seti II, or Amenmesses, based on the occurrence of Paneb as workman instead of foreman. All other names mentioned in the text are known from the middle of the 19<sup>th</sup> Dynasty, and it is impossible to propose a more precise date for the ostrakon.<sup>256</sup> To complicate matters even further, we are not sure of the exact date of the supposed duty roster on O. Schaden 1. It is therefore not at all clear how far O. Schaden 1 and O. BM 5635 date apart. Whatever the precise date of O. BM 5635 is, it is clearly earlier than most other duty ostraca of the 19<sup>th</sup> Dynasty, which date mostly to the reign of Siptah.<sup>257</sup> As such, it can be labelled an exceptional document, just as O. Schaden 1 is. As will be demonstrated below, ostraca like O. Schaden 1 are exceedingly rare. Hence we can state, if only with a large amount of restraint, that there is reason to believe that as early as the second half of the reign of Ramesses II and during the reigns of his immediate successors, duty rosters were recorded using identity marks and later using hieratic script.

In addition to O. Schaden 1, three other ostraca are composed in more or less the same format of the supposed duty roster. Like O. Schaden 1, they were deposited on the site of the workmen's huts near KV 10. The Valley of the Kings is perhaps not the first location where one would expect records of deliveries to have been deposited,<sup>258</sup> but Ramesside delivery texts certainly have been discovered there. The current version of the *Deir el-Medina Database*<sup>259</sup> lists 92 hieratic ostraca with a provenance in the Valley of the Kings that deal with deliveries, and in the previous chapter we have observed that to this number can be added several ostraca composed with marks. O. Schaden 1 and three similar ostraca might constitute additional records of this type. The three additional ostraca are O. Schaden 11, O. Schaden 13 and O. Schaden 15. The layout, palaeography and subject matter of these documents closely resemble that of O. Schaden 1 and it seems very likely that they were created by the very same author. Further evidence for this assumption is that fact that many sections on these ostraca were deliberately erased by the scribe of the document. Traces of erasure can also be detected on O. Schaden 1 in the upper and lower register. The first four marks in the upper register were clearly inscribed over traces of older marks, and signs or marks were also erased below marks ꜥ and ꜥ̄. In the second register of the column of mark ꜥ̄, traces of a depiction of an amphora are discernable, while sections of columns 8 – 11 were evidently wiped away by the scribe. The intentional erasure of signs suggests the ostrakon was reused.

The same suggestion of reuse is detected in O. Schaden 11. It is far less well preserved than O. Schaden 1 but the arrangement in columns is unmistakably similar. Apart from the semi-hieratic inscription on the obverse discussed above,<sup>260</sup> we discern the following marks and signs:

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<sup>254</sup> Cf. Haring, 'Between Administrative Writing and Work Practice' (forthcoming), [4].

<sup>255</sup> Davies, *Who's who*, 226 and n. 305.

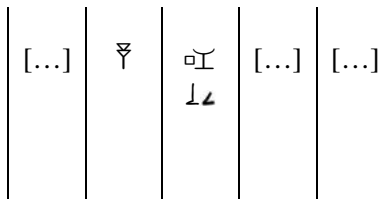
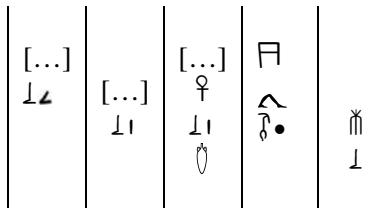
<sup>256</sup> Assuming that the Heh in O. BM 5635 is Hehnakht (ii), the document would appear to be related to documents from the middle of the 19<sup>th</sup> Dynasty because he is recorded in the list of O. DeM 706 (second half reign Ramesses II) as well as in O. Fitzwilliam EGA 6119.1943 (late Ramesses II / Merenptah). On the other hand men such as Nebsemen, Penamun (iii) = (iv) and Qen are not attested until later in the 19<sup>th</sup> Dynasty.

<sup>257</sup> Collier, *Dating Late XIXth Dynasty Ostraca*, 95-111.

<sup>258</sup> E.g. Donker van Heel, 'Drafts', 1, where it is stated that delivery texts were mostly found in and around the village of Deir el-Medina.

<sup>259</sup> Accessed on 24-3-2015.

<sup>260</sup> See above, p. 449.

ObverseReverse

In the second column from the right on the reverse of the document a note about presence at the worksite is inscribed. Perhaps this column is to be understood as “*wrš* duty of workman [𐙹], who was present at the worksite, therefore substituted by workman [𐙹]”. A depiction of an amphora is added to the third column from the right, although it is not quite clear if an identity mark was added for the person who delivered it. It may be Anuy (ii), whose mark 𐙹 does feature in the same column. Indeed, traces of ink above his mark could represent the mark of the workman who performed the *wrš* duty on that day. But we encounter a number of other signs in this document. Between the amphora and the mark of Anuy (ii) signs ⌊ can be read. They are also present in the column left of it, and we may assume that the signs ⌊ and ⌊ in other columns are variants of this group. We are immediately reminded of the duty and delivery ostraca composed with marks during the 20<sup>th</sup> Dynasty, which sometimes feature hieratic sign ⌊ for <w>*d3.t* ‘deficit’, and it seems more than likely that the same reading is valid for O. Schaden 11. With the hieratic sign ⌊ for *t*, the group ⌊ is perfectly readable as such. If our understanding of these signs is correct, the ostrakon records the individual deficits of workmen. Very similar matters are documented in hieratic ostraca such as O. Ashmolean HO 116 and O. Ashmolean HO 87 from the reign of Ramesses II, which are accounts of the deficit of water.<sup>261</sup> One does of course wonder whether it is then still possible to interpret the workmen’s marks in the upper part of each column of O. Schaden 11 as men on *wrš* duty. Comparing O. Schaden 11 to O. Ashmolean HO 116 would make this seem unlikely. However, in O. Ashmolean HO 87 deficits are recorded for three different day numbers, days 14, 15 and 18, suggesting that our original interpretation of each column as a different day should at least be considered. Unfortunately our interpretation of O. Schaden 11 does not make the enigmatic hieratic inscription on the same piece any more clear, but the fact that it mentions *mst.y* sacks strengthens the idea that the ostrakon is concerned with the delivery of supplies.

Very similar to O. Schaden 11 is O. Schaden 15:

<sup>261</sup> Haring, ‘Document headings’, 141.

Obverse

[...]  $\overline{\text{F}}$  [...]
   
 $\overline{\text{F}}$ 
  
 $\overline{\text{F}}$  [11]
   
 $\overline{\text{F}}$

Reverse

[...]	$\overline{\text{F}}$	$\overline{\text{F}}$	$\overline{\text{F}}$
	$\overline{\text{F}}$	$\overline{\text{F}}$	$\overline{\text{F}}$
	$\overline{\text{F}}$	$\overline{\text{F}}$	$\overline{\text{F}}$
	$\overline{\text{F}}$	$\overline{\text{F}}$	$\overline{\text{F}}$

If our reading of the previous ostrakon is correct, we find in O. Schaden 15 another instance of the workman represented by mark  $\overline{\text{F}}$  unable to perform his *wrš* duty as he was present at the worksite. The same information was probably inscribed in the third column from the right on the reverse, but these signs were erased by the scribe. No commodities are recorded in O. Schaden 15 and therefore we are not certain what sort of deficits are recorded.

O. Schaden 13 is evidently another document of the same type, but it is not well preserved. The obverse contains the following marks:

$\square$	[...]	[...]	[...]	$\overline{\text{F}}$	$\overline{\text{F}}$	$\overline{\text{F}}$	[...]
	///	///	///	$\overline{\text{F}}$	$\overline{\text{F}}$	$\overline{\text{F}}$	

10  
13  
25  
21

The ostrakon clearly underwent a lot of revision, because many of the column dividers have been erased, and smudges in the lower parts of the columns betray the presence of older signs and marks. A column of four hieratic numerals below the table is probably related to the deliveries the ostrakon once recorded, but their exact meaning is now obscure. The reverse of O. Schaden 13 may have once been inscribed according to the same design, but the column dividers have probably been erased. Remnants of the leftmost vertical line are still visible, and traces of ink below mark  $\overline{\text{F}}$  are probably to be read as  $\overline{\text{F}}$  for 'deficit'. Just below mark  $\overline{\text{F}}$  another mark, perhaps  $\overline{\text{F}}$  or  $\overline{\text{F}}$ , has been intentionally erased. The meaning of the three signs or perhaps rather shapes, above the columns is unknown.

We should here make mention of O. Schaden 44 as well. One side of this fragmentary ostrakon displays columns with workmen's marks in an order that closely resembles that of O. Schaden 1. In all probability these marks are listed here in an ordered sequence that either is earlier or later than that of O. Schaden 1:

𐎎	𐎏	𐎐	𐎑	𐎒	𐎓	𐎔	𐎕	𐎖	𐎗
								[...]	
								[...]	
								[...]	

No additional signs or marks are visible below these marks, but in the column of 𐎖 some traces of ink are discernable. The other side of the ostrakon also suggests a link between O. Schaden 44 and the other four supposed journal texts composed with marks, as it displays the marks of two workmen of the left side, 𐎏 and 𐎑, as well as the depiction of an amphora and sign 𐎎.<sup>262</sup> O. Schaden 44 clearly demonstrates that the ostraca which we have here tentatively identified as journal texts composed with marks were reused, as evidenced by the traces of older column dividers.

Two very small ostraca fragments, O. Schaden 166 and ONL 6496 may be ostraca of the same type, as suggested by lines around the marks resembling a table. O. Schaden 166 is inscribed with 𐎗 and 𐎏 or 𐎏 and 𐎎, and would thus concern workmen of the left side as well. On ONL 6496 mark 𐎖 seems to be the rightmost mark. If our interpretation of this ostrakon as a journal text is correct that would mean that Siwadjet (ii) had moved up in the ordered list to occupy position 1.

### 5.3.2.3 Ostraca with workmen’s marks and depictions of objects and commodities



The ostraca from the previous category present identity marks in tables in combination with depictions of commodities and objects. Such depictions feature on other, often less elaborately inscribed ostraca as well that can be dated broadly to the 19<sup>th</sup> Dynasty. A date in this period is evident in some cases which feature marks that do not appear in the 20<sup>th</sup> Dynasty. The opposite is true as well: there is not a single ostrakon of this type that is inscribed with a mark that is attested in the 20<sup>th</sup> Dynasty exclusively. A more precise date within the 19<sup>th</sup> Dynasty cannot be offered in most cases because ostraca of this type generally feature only a small number of marks. One piece that probably dates in or close to the reign of Ramesses II is O. Schaden 162, because it contains particularly close parallels to signs inscribed on the ostraca examined above. These similarities are probably related to the fact that the ostrakon was discovered at the same site, and perhaps it was even created by the same author. The reverse of the ostrakon displays to the following signs and marks:













We now understand that these marks refer to workmen of the left side of the crew, and probably to a deficit of a commodity kept in a jar in a net. Going back to the reverse of O. Cairo JE 72462, we may be able to identify the sign 𐎎 for ‘deficit’ as well in the faint inscription in charcoal, possibly related to the depiction of a vessel perhaps for a delivery of water.






The sign for deficit is not present on ONL 6321 but this ostrakon is another clear example of the use of identity marks in combination with depictions of commodities to record deliveries. One side is inscribed with five identity marks of members of the left side next to









<sup>262</sup> We notice that on O. Schaden 1, mark 𐎏 was associated with the commodity represented by 𐎎 as well, but this could be a coincidence, more so since it is rather mark 𐎑 that is inscribed in the proximity of this object on O. Schaden 44.

the depiction of a large jar, . A similar jar is drawn on the other side in addition to hieratic numeral 780 and sign . The latter sign could be an indication of the destination of this order of jars, i.e. the right side of the crew, but it could also be an identity mark for another member of the left side, Nebimentet (i). If we are right in assuming that this ostrakon documents the delivery of 780 jars, it would not be hard to understand why five or six workmen were needed for this job.

Yet in many other instances it is not exactly clear what the purpose of the document is. A good example is ONL 6321, inscribed with the workman's mark  and signs ,  and  for commodities. The ostrakon is probably preserved in its entirety, and does not record a quantity for these goods. Are we to assume that ONL 6321 documents only one item of each commodity? Nor do we have information about the nature of these commodities and their destination. The ostrakon might document the involvement of one workmen in the delivery of the recorded items to the entire crew. But it is equally possible that the document is an order letter given to the workman at the beginning of his *wrš* duty, informing him of the goods he was to transfer to the community. Alternatively, the ostrakon might not have anything to do with deliveries and could document the commodities in the possession of the workman represented by . All three scenarios are plausible and there are no hieratic parallels that illuminate the matter.

That is rather unfortunate, because there are several more ostraca of this type, none of which we can interpret with certainty. Fragmentary ostrakon ONL 6225 for example displays nothing else but a drawing of an amphora  and mark . In some fortunate cases we are able to identify workman and commodity, as in ONL 6417 with mark  for Nakhtmin (iv) and twice a depicted jar  as a representation of an amphora with content, possibly water. On this ostrakon vertical strokes are added inside and next to the jars, probably to indicate their quantity. The same is done on O. Cairo JE 46861,<sup>263</sup> while on ONL 6582 dots are added next to the depicted jars. ONL 850, an extremely small ostrakon measuring no more than c. 3 cm in width, is perhaps a similar document. One side is inscribed with what appears to be mark , while the other side displays a drawing of a jar and at least 11 strokes. Ostraca without marks that depict a jar with a set of strokes, such as ONL 6350, are probably records of a similar type.

The commodity represented by  features on several other, often fragmentary ostraca. On ONL 6648 it is seemingly inscribed in isolation on one side of a small limestone chip, while the other side displays three dots and a damaged sign. On ONL 6377 it is present together with hieratic numeral 'five' and what is probably workman's mark . The commodity is also connected with a workman's mark, , on ONL 6337 if we are correct in identifying sign  as an allomorph of .


On ONL 6413 five workmen's marks are inscribed, as are  and , and an object in the shape of . Perhaps this drawing represents a bundle of wood, or a brush. The same object appears to be depicted next to a jar shaped like  but without handles on ONL 6650, an ostrakon that may or may not have been inscribed with identity marks as well.<sup>264</sup> The use of depictions of jars on ostraca ONL 342 and ONL 1314 has already been touched upon. In both ostraca dots and strokes are used to convey the quantity of the vessels. ONL 342 also depicts the commodity  and , in all probability some commodity or object as well. The same object is perhaps depicted in ONL 1314, although there upside down: . The sign next to mark  could be the hieratic numeral 20, but it is not clear whether it refers to the quantity of the vessel right of the mark, or to something else. This ambiguity is characteristic for the





<sup>263</sup> Other unidentified objects or commodities are depicted on the reverse of this ostrakon.

<sup>264</sup> Bruyère, *Rapport 1934-1935* II, 62, fig. 32.15.



entire ostrakon, as it is often unclear which mark is associated with which depiction. As to the purpose of ONL 1314 and ONL 342 we had already remarked that in the light of the hieratic accounts written on the same documents, the marks and objects could well represent an account of personal possessions in the case of ONL 342, and an account of the distribution of *ḥtri* deliveries in the case of ONL 1314.

The trapezoid shape  is also depicted on ONL 6313. Like the rectangular shape below it, vertical strokes are written inside its contours. In that respect both objects are similar to depictions of clothing on ostraca, and this may be a good moment to discuss such pieces. A few ostraca with depictions of items of clothing and other objects, often combined with series of dots or strokes, featured in the excavation reports of Bruyère.<sup>265</sup> Janssen's suspicion that there might exist more ostraca of this type other than those made accessible through publications<sup>266</sup> was correct. In the French Institute for Oriental Archaeology in Cairo similar, unpublished ostraca have been identified.<sup>267</sup> Published ostraca with pictorial clothing lists were briefly discussed by Bruyère,<sup>268</sup> and have since been the subject of a few minor studies. They were analysed by Vogelsang-Eastwood, who was able to identify loincloths, bag-tunics and sashes on these ostraca. The dots and strokes added to the depictions were thought to represent the quantity of a specific item.<sup>269</sup> Janssen was more concerned with the significance of the dots and strokes, as well as with the purpose of these ostraca in general. He pointed out that some ostraca depict other objects besides clothing. In his opinion such ostraca belonged to a larger category of ostraca with representations of all sorts of objects.<sup>270</sup> We can only agree with Janssen on the basis of our examination of ostraca with marks combined with the depiction of objects and commodities.

Coming back to ONL 6313, we may propose that  and the rectangular shape below it are cloths, with vertical strokes indicating their quantity.<sup>271</sup> The cloth in the shape of  is perhaps also depicted on ONL 6277 together with shawls and a tunic.<sup>272</sup> On ONL 6313 at least four workmen's marks are inscribed in a column right of these two items. Left of each mark strokes are inscribed as well. The ostrakon is incomplete and therefore it is difficult to determine whether the total number of strokes next to the marks corresponds to the total number of strokes added to the cloths, but it is conceivable that the ostrakon records the distribution of two different types of cloths among a group of workmen. The hypothesis that the signs on the obverse are representations of cloths is supported by the inscription on the reverse, which displays the depiction of three pairs of sandals, items belonging to the realm of clothing as well. ONL 6277 resembles O. UC 33252, which also features depictions of items of clothing. Three cloths in the shape of  appear to be shawls, right of which two pairs of sandals are depicted. An indefinable shape at the lower part of the ostrakon is perhaps another cloth. Underneath the sandals mark  is depicted, perhaps for the owner of the depicted items.

<sup>265</sup> Bernard Bruyère, *Rapport sur les Fouilles de Deir el Médineh (1922-1923)*. FIFAO 1.1 (Cairo 1924), fig. 17; Bruyère, *Rapport 1934-1935 II*, fig. 32; Bruyère, *Rapport 1948-1951*, pl. XVIII. Note that Bruyère, *Rapport 1922-1923*, fig. 17.b = Bruyère, *Rapport 1934-1935 II*, fig. 32.5; Bruyère, *Rapport 1922-1923*, fig. 17.c = Bruyère, *Rapport 1934-1935 II*, fig. 32.4.

<sup>266</sup> Jac. J. Janssen, 'Pictorial clothing lists on Deir el-Medīna ostraca' *GM* 131 (1992), 55-56.

<sup>267</sup> To the same category of ostraca belong ONL 6211, ONL 6231, ONL 6234, ONL 6286, ONL 6645, ONL 6652, ONL 6653, ONL 6664, ONL 6665, ONL 6673, ONL 6677 and ONL 6681. O. UC 31992 is not kept in the IFAO but depicts items of clothing as well as pieces of furniture and two human figures, see <http://www.petrie.ucl.ac.uk>.

<sup>268</sup> Bruyère, *Rapport 1922-1923*, 69; Bruyère, *Rapport 1934-1935 II*, 61-63.

<sup>269</sup> Gillian M. Vogelsang-Eastwood, 'Deciphering a pictorial clothing list' *GM* 128 (1992), 105 and *passim*.

<sup>270</sup> Janssen, 'Pictorial clothing lists', 56-57.

<sup>271</sup> Perhaps comparable as well is ONL 6667, inscribed with 19 squares with four dots inside of each shape.

<sup>272</sup> Depicted (upside down) in Bruyère, *Rapport 1934-1935 II*, 62, fig. 32.2.



FIGURE 19. ONL 6263, AFTER BRUYÈRE, *RAPPORT 1934-1935 II*, 62, FIG. 32.7

On ONL 6277 we observe left of the sandals signs ☉ and ☽. It is not quite obvious what these drawings represent, but perhaps they are loaves of bread. That is suggested by ONL 6285,<sup>273</sup> which displays depictions of a head rest, two pairs of sandals, as well as what appear to be loaves of bread. One loaf is round and the other is somewhat T-shaped. Both loaves have markings in the middle. A comparable combination of clothing and loaves of bread is attested on ONL 6263 (FIG. 19), which depicts two items of clothing, a jar, two rounded loaves, a T-shaped bread, and triangular-shaped loaves that look like sign  $\Delta$ . The latter type of bread could be  $\Delta \overline{\text{t}} \text{hd}$  ‘white bread’, well attested at Deir el-Medina.<sup>274</sup> The drawing of ☉ could represent a type of round loaf decorated with circles and dots in the centre formed by piercing and cutting the dough, which has been found in tombs at Deir el-Medina.<sup>275</sup> Specimens of bread in the shape of ☽ have been discovered as well,<sup>276</sup> and a T-shaped loaf was part of the funerary equipment of the burial of Kha.<sup>277</sup> It thus seems that the ostraca with depictions of items of clothing are different from the numerous hieratic laundry lists that are known from Deir el-Medina. These hieratic texts record the items of clothing that a household would send with a laundryman to be cleaned. Related documents are plain lists enumerating different types of garments, analysed by Janssen.<sup>278</sup> Such lists are only occasionally given the heading ‘list of garments’. Most frequently attested are kilts, loincloths, shawls, underpants, sleeves and tunics. Unlike the ostraca that depict garments as well as identity marks, the hieratic laundry lists – logically – do not mention sandals or loaves of bread.<sup>279</sup> The ostraca with depictions of garments are more akin to hieratic documents such as O. DeM 242, O. Brunner, O. Turin N. 57261 and O. DeM 131. These ostraca record items such as textile, bread and sandals that were sent, paid, or to be paid to someone. There appear to be no pictorial lists of garments exclusively that are also inscribed with workmen’s marks.

There are several more ostraca with small depictions of different types of loaves of bread,<sup>280</sup> sometimes in combination with series of dots or strokes,<sup>281</sup> or together with

<sup>273</sup> Bruyère, *Rapport 1948-1951*, pl. XVIII.

<sup>274</sup> Jac. J. Janssen, ‘The daily bread. A contribution to the study of the ancient Egyptian diet’ *BES* 13 (1997), 25-26; 36.

<sup>275</sup> Bruyère, *Rapport 1934-1935 II*, fig. 52, lower row; for specimens from the tomb of Kha (TT 1) see Anna Maria Donadoni Roveri (ed.), *Egyptian Civilization. Daily Life* (Turin 1988), fig. 61.

<sup>276</sup> Bruyère, *Rapport 1934-1935 II*, fig. 52, left, middle row.


<sup>277</sup> Schiaparelli, *La tomba*, 151, fig. 135, centre.




<sup>278</sup> Jac. J. Janssen and Rosalind M. Janssen, ‘The Laundrymen of the Theban Necropolis’ *AO* 70.1 (2002), 8-9.




















<sup>279</sup> One exception perhaps is O. DeM 551, which also makes mention of items such as incense, leather, flowers, bread and paint which were delivered to the village by a laundryman, see Janssen and Janssen, ‘The Laundrymen’, 10. Importantly, however, this text does not concern the washing of garments.

<sup>280</sup> ONL 6493.

<sup>281</sup> ONL 6672.

depictions of vessels.<sup>282</sup> A neatly organised roster inscribed with ink on O. DeM 3348 + O. IFAO C 294<sup>283</sup> contains depictions of amphorae as well, and the document has every appearance of an administrative document. A very detailed ostrakon is ONL 6663, which depicts a variety of items among which are a pair of sandals, a bundle of some sort, the object shaped as , and perhaps loaves of bread.<sup>284</sup> None of these ostraca contain any workmen's marks. This could mean that the depicted items belonged to the owner of the ostrakon himself, or that the items were yet to be distributed among workmen.

Workmen's marks are inscribed on ONL 6221, a document which is divided into at least five different compartments. Each compartment contains at least one workman's mark as well as a depiction of an amphora with a series of dots within its contours. The upper right section contains besides an amphora the sign , with below it a circle and the hieratic numeral 'ten'. The last two signs can be read as *sw* 10 'day 10', but in that case one does wonder why no date is added to the other compartments. Perhaps the circle is instead a depiction of a loaf of bread with a numeral to record its quantity. The depiction of  in the compartment below it, which is not accompanied by a numeral, would then represent a different type of bread. Two sections also display , probably some sort of object, the nature of which escapes us. As to the meaning of the ostrakon as a whole, we may best interpret this ostrakon as a record of the distribution of goods among different workmen.

An interpretation of O. Cairo JE 96334 is more complicated. In its current fragmentary state it contains but one mark, , belonging to a workman whom we have not been able to identify. The convex side of the ostrakon is inscribed with rows of dots and rows of strokes that are not evidently connected with workmen's marks or objects. On the concave side we encounter a plethora of objects and commodities represented by small drawings. Some of them are easily identified, such as a large amphora  with the hieratic numeral 'five' within its contours probably indicating its quantity. There are several circular and lenticular shapes, , , , and , which probably represent different types of bread. Other shapes are less well defined or have not been identified yet. Two triangular shapes  are perhaps representations of dates as in the 20<sup>th</sup> Dynasty delivery texts composed with marks. On the right end of the ostrakon a larger triangle is possibly an undergarment, while a depiction right of it could be a wooden chest. What  and  refer to is not evident, but in the context of the rest of the document it seems likely that they are different sorts of bread, or perhaps items of furniture. Alternatively,  is perhaps a depiction of a piece of meat with ribs. Hieratic numerals ('1'; '3'; '10'; '11') are written to the right of some of the objects and commodities. Remarkably, the scribe made a mistake in the writing of , which he rendered as , and we might take this as an indication of the scribe's lack of proficiency in hieratic script. In the right upper corner O. Cairo JE 96334 displays sign, , a chisel or drill. At least six but probably more vertical strokes were inscribed to the right of it. Below the chisel we see , with seven vertical strokes below it. Whether it is to be read as *nb* 'each' is not clear, as it does not seem likely that each workman received seven chisels. The sign may therefore be a reference to actual baskets. In favour of this interpretation is ONL 6318, inscribed with mark  and , as well as two drawings of  and a shape that is tentatively identifiable as a jar in the shape of . If that interpretation is correct  is best taken as a depiction of a basket or bowl.<sup>285</sup>

<sup>282</sup> O. IFAO C 7567; O. IFAO Inv. 6228 (= Bruyère, *Rapport 1934-1935* II, 62, fig. 32.16); perhaps also ONL 6245; ONL 6265; ONL 6252 (= Bruyère, *Rapport 1934-1935* II, 62, fig. 32.17).

<sup>283</sup> Bruyère, *Rapport 1934-1935* II, 62, fig. 32.12-13; Gasse, *Ostraca Figurés*, 46, pl. XXXVI.

<sup>284</sup> A comparable ostrakon is ONL 6647.

<sup>285</sup> Compare also ONL 6517 and ONL 335, see above, 5.3.1.

O. Cairo JE 96334 thus deals with a great variety of different objects, including food, liquids, basketry, tools, and perhaps clothing. Since only a single workman's mark is written on this piece one might think the document to be an inventory of items in the possession of one individual. Yet, the ostrakon includes at least six chisels. These tools were state property and were distributed to the workmen by the administration.<sup>286</sup> Their presence on this ostrakon would therefore seem to indicate that it is concerned with a distribution of objects and commodities, although the recipients have not (yet?) been added.

Chisels have also been drawn on other ostraca with workmen's marks, and therefore they deserve a bit more of our attention. Hieratic necropolis documents refer to two types of tools that may be described as 'chisels'. According to Janssen there is the *ḥz* 'spike' used for "splitting stone", and there is the *mdz.t*, a smaller "mortising chisel".<sup>287</sup> Unfortunately it is not quite clear to which tool  $\perp$  refers exactly. We may propose to identify it as the *mdz.t*, which, as opposed to the *ḥz*, had a wooden handle that could correspond to the upper element in the depiction of  $\perp$ .<sup>288</sup> The drawing of a chisel appears on ONL 6338 together with nine workmen's marks, referring to workmen who were active during the reign of Ramesses II. Mark  $\text{𓆎}$  is probably used for Neferrenpet (ii) who is known to have been a sculptor,<sup>289</sup> and he would therefore have used a chisel on a daily basis. The other identity marks, however, could well refer to regular workmen, and indeed Wennefer (ii) with  $\text{𓆏}$  and Buqentuef (i) with  $\text{𓆐}$  are not attested as sculptors. ONL 6338 nevertheless suggests that these men were given a chisel, and even though these workmen may not have been specialists it is well conceivable that they were involved in the process of excavating the royal tomb. On two other ostraca, ONL 6366 and ONL 6271, a single identity mark is juxtaposed with  $\perp$ . ONL 6271 displays mark  $\text{𓆑}$ , an allomorph of  $\text{𓆒}$ , here perhaps for Amenemwia (i), who was a regular workman. The mark on ONL 6366, if it is indeed correctly classified as such, is  $\text{𓆓}$ , perhaps an allomorph of  $\text{𓆔}$ . We cannot ascertain the date of these ostraca, but since the only securely dated ostraca with  $\perp$  are from the 19<sup>th</sup> Dynasty, a date in this period is plausible. There is a possibility that fragmentary ostrakon ONL 6411, inscribed with at least five marks, also contains a sign for a chisel but of a different shape. Rather than  $\perp$  with the handle up, this sign could depict a chisel with the handle down. The identification of the drawing as a chisel is nevertheless tentative because it is not completely preserved, and might also be an identity mark such as  $\text{𓆕}$ . Ostraca ONL 6411 and ONL 6338 are probably similar to hieratic records of the issue of copper tools,<sup>290</sup> but ONL 6366 and ONL 6271, each with a single mark, are different. They could constitute brief notes about the issue of a chisel to a single workman, or perhaps these small ostraca are the countermarks submitted by workmen in exchange for a chisel according to a theory of Grandet and Dorn.<sup>291</sup> The findspots of both pieces in the Kom Sud and the Grand Puits respectively does not shed much light on the matter. The only objection one may raise to the latter idea is that one would expect to have more of such pieces since great numbers of workmen would need countermarks if they had existed.<sup>292</sup>

A final category of ostraca with marks we encounter are pieces with depictions of fish.

<sup>286</sup> Janssen, *Commodity Prices*, 312.

<sup>287</sup> Janssen, *Commodity Prices*, 312-313.

<sup>288</sup> Janssen, *Commodity Prices*, 318.

<sup>289</sup> Davies, *Who's who*, 183.

<sup>290</sup> Examples from the 19<sup>th</sup> Dynasty are O. Cairo CG 25828 (attributed to the first half of the 19<sup>th</sup> Dynasty); O. Cairo CG 25509 (attributed to reign of Seti II); O. Cairo CG 25811 (attributed to the end of the 19<sup>th</sup> Dynasty). A 19<sup>th</sup> Dynasty hieratic ostrakon documenting the issue of chisels to a group of workmen was reportedly also discovered in the area of the workmen's huts near KV 10, see [www.kv-10.com](http://www.kv-10.com), summary of excavation season 2004.

<sup>291</sup> Grandet, *Ostraca hiératiques* VIII, 4; Dorn, *Arbeiterhütten*, 142-143.

<sup>292</sup> See also chapter 4, 4.3.3.4.

ONL 6533 is inscribed with two marks,  $\text{AA}$  and  $\text{A}$ , below which a small fish is drawn. The ostrakon is incompletely preserved and traces of ink suggest that a third mark may have been inscribed on the right half of the ostrakon where the hind part of a fish is still visible. The fish is very schematically drawn and it is not possible to define the species. It does not appear to have been the scribe's intent to depict a particular type of fish, but rather he wanted to convey that specific workmen had a connection to some sort of fish in general. What this connection is, is difficult to determine. If the ostrakon was a record of deliveries we would expect the quantities of fish to have been specified. The same problem arises when we categorise the ostrakon as an account of a distribution of goods among the workmen. Still our ostrakon is very likely to be either an account of deliveries or of distribution. We can only suggest that the quantities of fish were to be specified at a later stage.

Three other ostraca also display a depiction of a fish but are inscribed with a single workman's mark. Two of these pieces were published in drawing by Bruyère.<sup>293</sup> The most elaborate of the two displays a sketch of a fish that can be identified as *Synodontis* (schall),  $\text{wh}^c$  in Egyptian. It appears to have been referred to as  $\text{s}^3r$  on weights.<sup>294</sup> Just below it mark  $\text{A}$  for Anuy (i) is depicted, and the vertical lines in front of it may be read as  $\text{||s}$ , probably an abbreviation for  $\text{s}^3r$ , in the exact same fashion as on a weight inscribed with a hieratic inscription from Deir el-Medina.<sup>295</sup> In the upper right corner sign  $\angle$  is inscribed, which is not an identity mark because it is nowhere attested as such. The same mark features also on the other ostrakon in Bruyère's publication, in combination with the depiction of a similar  $\text{s}^3r$  fish and mark  $\text{A}$ . It is also added to ONL 6545, with a depiction of possibly the same type of fish as well as mark  $\text{A}$ . It is quite unclear what the meaning of this sign is, but we do get the impression that the previous three ostraca are weights. They are all limestone chunks, probably of considerable size. Weights with hieratic and sometimes hieroglyphic inscriptions that also depict the type of fish the weight was used for are well known from Deir el-Medina.<sup>296</sup> Personalised weights inscribed with proper names are also found in large numbers.<sup>297</sup> Examples of weights with both a name as well as a depiction of a fish are also known.<sup>298</sup> Therefore, on the three pieces discussed above the depicted fish can only specify the type of fish against which the piece was weighed, while the identity mark indicates the owner of the weight. This interpretation does not immediately answer the question as to what the meaning of sign  $\angle$  is. One is tempted to take the sign as a measure of the weight of the piece, normally expressed in *dbn*, but it is impossible to read the sign as the hieratic sign for  $\text{=}$ . It does resemble the hieratic sign  $\text{A}$ , which designates half an oipe, but this unit is used for the measure of volume. The sign remains therefore problematic, and a comparison with weights inscribed with hieratic is not elucidating.

#### 5.3.2.4 Name stones

A total of fourteen complete ostraca are inscribed with a single identity mark. Some can be attributed to the 19<sup>th</sup> Dynasty on account of their provenance, while others feature a mark that it not attested in other periods. Like ostraca from other periods with a single mark, the pieces are best interpreted as so-called name stones.<sup>299</sup> The marks on these pieces were inscribed in different ways, using red ink, black ink, or charcoal. Name stones with marks were recovered

<sup>293</sup> Bruyère, *Rapport 1948-1951*, pl. XVIII, bottom right.

<sup>294</sup> Janssen, *Village Varia*, 49 and n. 90; Černý, 'Deux noms de poisson', 35-37.

<sup>295</sup> Černý, 'Deux noms de poisson', 35-36 and fig. 1.

<sup>296</sup> Bruyère, *Rapport 1931-1932*, 90, fig. 60; Bruyère, *Rapport 1934-1935 III*, 220, fig. 108.

<sup>297</sup> Valbelle, *Catalogue des poids*, *passim*.

<sup>298</sup> E.g. Weight DeM 5229 with the depiction of a fish below the hieratic name of Paser, see Valbelle, *Catalogue des poids*, pl. 31-31a.

<sup>299</sup> We have explored the purpose of such objects in chapter 4, 4.3.3.4.

at the site of workmen's huts in the Valley of the Kings. Four name stones with marks were discovered at the settlement of the workmen's huts near KV 10 and one at the settlement at the *Station du Col*.

O. Schaden 6	♀
O. Schaden 35	☞
O. Schaden 121	♀
O. Schaden 133	☞
O. WHTM 808	☞

O. Schaden 6 and O. Schaden 121 are both inscribed with the same mark. It would seem that the workmen's huts near KV 10 were used over a longer period of time so it is possible that one piece was used by Anuy (ii), active in the reign of Ramesses II, and the other by one of his successors.

The other nine ostraca must have been discovered in the village and its vicinity. Like their exact provenance, their date is not always very clear. In five instances the piece was found somewhere in or near Deir el-Medina. The other four ostraca were recovered from the Grand Puits, which does not tell us much about their purpose. ONL 6270 and ONL 6418 are stones of considerable size, and may well have functioned in the same way as hieratic name stones.<sup>300</sup>

ONL 6270	♠†
ONL 6351	♠
ONL 6391	♠†
ONL 6393	♠‡
ONL 6418	♠†
ONL 6559	♠♠
ONL 6571	☉
ONL 6573	○☉
ONL 6642	☞

We had already discussed some of the 19<sup>th</sup> Dynasty name stones above, and it was pointed out that ONL 6418 may have been used as a stone in the construction of the tomb of Sennedjem. ONL 6573 is incompletely preserved, and signs ○☉ may refer there to workman (P)rehotep (i) or (iii). Perhaps an allomorph of this mark is ☉, attested on ONL 6571, although that is far from certain. The date of another name stone, ONL 6642 is not entirely clear. Mark ☞ occurs in the 18<sup>th</sup> and 20<sup>th</sup> Dynasty as well, but the particular specimen on ONL 6642 is very reminiscent of the specimens of the same mark on O. Hawass and name stone O. Schaden 133.

There are numerous other ostraca inscribed with only one identity mark, which are difficult to date without proper context. One example is ONL 1383, the meaning of which is not very evident. The ostrakon is inscribed with sign † followed by the hieratic group ☞. Together the signs make little sense, and no name Nefershedu is attested elsewhere. We are therefore not even sure about the date of ONL 1383, although mark † does occur in the 19<sup>th</sup> Dynasty.<sup>301</sup> Two more fragmentary ostraca should be considered as possible name stones. O. Cilli 23a is perhaps a name stone with an elaborate form of mark ☉, while ONL 6387 could be inscribed with mark ♠♠.

<sup>300</sup> Ibidem.

<sup>301</sup> See also above, p. 412, n. 56.

### 5.3.3 Analysis of lay-out

The 19<sup>th</sup> Dynasty ostraca inscribed with workmen's marks can be classified on the basis of their lay-out. The majority of the distinguished categories are attested both in the Valley of the Kings as well as at the village of Deir el-Medina. Like the ostraca from the 20<sup>th</sup> Dynasty we see that a very strict differentiation of the lay-out does not result in an overview of documents with a different function. The lay-out of ostraca with workmen's marks is very fluid and in many cases the scribe did not follow a standardised template. Even a division into ostraca with columns of marks and rows of marks is not necessarily meaningful, and we shall see that 19<sup>th</sup> Dynasty ordered name lists composed with marks occur in columns as well as in rows. A case in point is ONL 6479. The reverse of this piece is the only 19<sup>th</sup> Dynasty document that lists marks one above the other, each with a hieratic numeral underneath. In an earlier discussion of this piece we have seen that it is related to three other ostraca of a different lay-out. The marks on ONL 6479 are arranged in a column, but it appears to belong to a group of ostraca that record rows of marks in combination with hieratic numerals.<sup>302</sup> Hence it should be remembered that the following overview is nothing more than an examination of the different ways in which marks are arranged on ostraca during the 19<sup>th</sup> Dynasty, and in many instances it will not be representative of different types of documents. An analysis of the different forms of lay-out is still deemed useful for dating purposes, as it will be demonstrated that some compositions are typical for the 19<sup>th</sup> Dynasty.

#### 5.3.3.1 Ostraca with columns of marks

Strictly speaking 19<sup>th</sup> Dynasty ostraca with workmen's marks arranged in columns of marks can be divided into 10 different classes:

- Ostraca with columns of marks without additional signs (16)
- Ostraca with columns of marks with vertical strokes to the left (2)
- Ostraca with columns of marks with vertical strokes to the left and underneath (1)
- Ostraca with columns of marks with vertical strokes to the right (1)
- Ostraca with columns of marks with vertical strokes and hieratic signs for 'presence' to the right (1)
- Ostraca with columns of marks with vertical strokes to the left and depictions of objects (1)
- Ostraca with columns of marks with dots to the left (1)
- Ostraca with columns of marks with dots to the right and left (2)
- Ostraca with columns of marks with dots above and to the right (1)
- Ostraca with columns of marks with dots inside, underneath and above (1)
- Ostraca with columns of marks with hieratic numerals underneath (1)

The small number of ostraca that constitute each class indicates that they are probably artificial and do not reflect authentic differences in document types. We shall therefore divide the ostraca in broader categories.

#### *Ostraca with columns of marks without additional signs*

Sixteen ostraca are inscribed with marks that are arranged – more or less – in columns. They were discovered at the village as well as in the Valley of the Kings. Three ostraca, ONL 6528, ONL 6292 and ONL 6674, display a sequence of marks that approaches that of O. Schaden 16 and can be said to have been composed in an ordered sequence. The same could be true for ONL 6280, which partially conforms to the sequence of ONL 6526. Two of these four ostraca

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<sup>302</sup> See below, p. 472.

are completely preserved, and as their total number of marks does not approach 20 it is safe to state that they do not document an entire side of the crew. Therefore they cannot have functioned as master name-lists in the same way O. BM 5634 and O. DeM 706 might have.<sup>303</sup> Perhaps they are records of the workmen who were present at the worksite at a particular day. Alternatively they may not be related to official administration at all, although their adherence to the ordered sequence would suggest this.

The other ostraca with columns of workmen's marks do not feature a known ordered sequence, and their purpose is difficult to ascertain. In fact, the marks on O. Cairo JE 96327 and ONL 6218 are hardly arranged in neat columns, while the marks inscribed on O. Schaden 105 are very unclear. We have already had a look at some of the other ostraca in this category. On the basis of the hieratic inscription on the obverse of O. Ashmolean HO 810, we proposed that the rows of marks on the reverse could represent groups of workmen associated with different day-dates. The ostrakon may perhaps have recorded absence at work. O. OIM 25356 is inscribed with marks of members of the right and left side of the crew and seems to be related to deliveries to the crew. The remaining ostraca are difficult to interpret. O. Brock 33 could be a list of workmen belonging to the right side of the crew, while O. ARTP 99/44 seems to record members of the left side exclusively. ONL 6347 and ONL 6419 include workmen of both sides. ONL 6433, ONL 6274 and ONL 6325 are rather fragmentary pieces.

#### *Ostraca with columns of marks and with vertical strokes*

No more than four ostraca, one from the settlement of huts near KV 10, two from the village of Deir el-Medina and one of unknown provenance, combine columns of marks with vertical strokes. In each case the number of strokes connected with a particular mark does not exceed three. The marks on O. Schaden 74 are arranged according to their relative position within the ordered list, and one or two strokes are added to them. As such the ostrakon could be an administrative document recording the distribution of grain among a group of workmen, the strokes representing *oipe*,<sup>304</sup> or an account of water supplies wherein each stroke stands for an amphora of water.<sup>305</sup> O. Ashmolean HO 1103 may also follow an ordered sequence because the order of marks is similar to that of O. ARTP 99/44. The former ostrakon displays three columns of marks, which are separated from each other by column dividers. Each mark appears to be connected with one, perhaps two or three strokes and therefore we may interpret it in the same ways as O. Schaden 74.

The marks on ONL 6535 are very unclear but each individual is connected with one or three strokes. The ostrakon could be of the same type as O. Schaden 74 as well. O. Cairo JE 46859 is perhaps a similar document. The identity marks are possibly those of the foremen and deputies of the crew. This is perhaps also reflected in the fact that the number of strokes associated with a single mark is higher: two or three, as opposed to one or two in O. Schaden 74. There is no evidently meaningful difference between the placement of strokes underneath or to the left of a mark on this document.

#### *Ostraca with columns of marks and with vertical strokes and hieratic signs for 'presence'*

Although poorly preserved, O. Cilli 291 seems to be a record of attendance at the worksite in which workmen's marks are combined with sign  $\curvearrowright$  *iw* for 'attendance'. Hieratic records of this type are well attested. Our interpretation of O. Cilli 291 finds some support in the fact that it was discovered in the Valley of the Kings near tomb KV 47.

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<sup>303</sup> Donker van Heel, 'Drafts', 18-21.

<sup>304</sup> Compare e.g. 19<sup>th</sup> Dynasty hieratic ostrakon O. IFAO 1086 (see Černý NB 110.54), a list of workmen and their portions of grain, each receiving either one or two *oipe*.

<sup>305</sup> Compare e.g. 19<sup>th</sup> Dynasty hieratic ostrakon O. Ashmolean HO 195, a list of workmen each 'bringing' one, two or three water jars.



*Ostraca with columns of marks and with vertical strokes and depictions of objects*

Only one example of this category of ostraca is known: ONL 6313, discovered in the Grand Puits near the village of Deir el-Medina. The four workmen's marks in this document are not listed in accordance with any known ordered sequence. As discussed above, the ostrakon might be a record of the distribution of cloths among workmen.

*Ostraca with columns of marks and with dots*

We count five ostraca of this type, all discovered in the village of Deir el-Medina. Two clear examples are ONL 6488 and ONL 6526. The former ostrakon makes a rather disorganised impression at first sight. We have seen, however, that the sequence of marks inscribed on this piece is related to the ordered list. That is also true for ONL 6526. Another common factor is the large number of marks, and it is well possible that the documents record one complete side of the crew. We can only guess as to the meaning of the dots, written in the same colour of ink as the marks. They are added to the greater majority of the marks and could therefore be check marks, possibly recording attendance at the worksite.

The marks on ONL 6522 are therefore probably of a different nature. They are not arranged in an ordered sequence, and the dots are unlikely to be check marks because more than one is added to at least one mark. The fragmentary state of the ostrakon prevents us from fully comprehending it. Ostraca ONL 6505 and ONL 6500 are only barely better preserved. These marks do not appear in an ordered sequence and are connected with one, two or three dots and their meaning is obscure. The ostraca could be records of the distribution of goods but for all we know the dots count something else than commodities. The ostraca do not have a much organised appearance, yet it is theoretically possible that the documents note the number of days a group of workmen had worked.

*Ostraca with columns of marks and with hieratic numerals underneath*

Only the reverse of ONL 6479 falls into this category and as pointed out earlier this document, probably a record of deliveries, is closely related to delivery texts.

**5.3.3.2 Ostraca with rows of marks**

An arrangement of marks in rows is more frequent in the 19<sup>th</sup> Dynasty than arrangements in columns. This stands in analogy with hieratic accounts of grain rations and records of absence of the same period, which are more often written in continuous lines than in columns.<sup>306</sup>

A close analysis distinguishes the following categories:

- Ostraca with rows of marks without additional signs (34)
- Ostraca with rows of marks with hieratic numerals to the left (5)
- Ostraca with rows of marks with hieratic numerals and dots to the left (1)
- Ostraca with rows of marks with vertical strokes to the right (1)
- Ostraca with rows of marks with vertical strokes to the left (1)
- Ostraca with rows of marks with vertical strokes underneath (6)
- Ostraca with rows of marks with vertical strokes underneath and to the right (1)
- Ostraca with rows of marks with vertical and horizontal strokes above and underneath (1)
- Ostraca with rows of marks with vertical strokes and hieratic signs for 'presence' (1)
- Ostraca with rows of marks with dots underneath (2)
- Ostraca with rows of marks with dots to the left (1)
- Ostraca with rows of marks with dots above (3)

<sup>306</sup> Haring, 'Document headings', 136; 145.

- Ostraca with rows of marks with dots above and underneath, to the right and left (2)
- Ostraca with rows of marks with dots and vertical strokes above (1)
- Ostraca with rows of marks in a table (7)

Once more it is apparent that the lay-out of ostraca with marks is rather flexible, and the position of strokes, dots and numerals added to the workmen's marks differs from ostrakon to ostrakon. A classification in broader categories is therefore justified.

*Ostraca with rows of marks without additional signs*

We can tentatively place 34 ostraca in this category. The majority of these pieces were found at the village of Deir el-Medina, but at least eight documents came from the Valley of the Kings. A few ostraca are arranged in an ordered sequence that is attested on other pieces. A clear example is O. Schaden 145, inscribed with marks of members of the left side of the crew. The ostrakon is however incompletely preserved, and it is possible that it once displayed a table with marks along the lines of several other ostraca from the settlement of huts near KV 10, which we have interpreted as journal texts. Three rather fragmentary ostraca, O. Cilli 336, ONL 6476 and ONL 6543, record a sequence of marks that is associated with the right side of the crew during the reign of Ramesses II. The purpose of these small pieces is unclear but must probably lie in the administrative domain. Ostraca ONL 6215, ONL 6324, ONL 6445 and perhaps ONL 871 and ONL 6395 also list marks in an order comparable to sequences that are attested elsewhere and which are suggestive of an ordered sequence. The latter two ostraca are very fragmentary, but the first piece is preserved in its entirety. It is inscribed with the marks of only a small portion of what is probably the left side of the crew, and the function of the document is not immediately evident. The use of an ordered sequence does allude to an administrative use, and the ostrakon may be a list of workmen who were present or absent.

As far as we can tell, there does not appear to be a difference between ostraca with an ordered list of marks arranged in columns and ostraca with rows of marks in an ordered sequence. Nor can such a distinction be made for ostraca with marks, in columns or in rows, which do not adhere to an ordered sequence. There are numerous examples of these documents. Some record only the marks of members of one particular side. ONL 6467, O. IFAO C 7641, ONL 6412 and O. Schaden 75 all probably record workmen of the left side, while ONL 6476 and ONL 6479 most likely contain marks of members of the right side exclusively. We can therefore probably label these pieces as administrative documents, despite their fragmentary nature and the fact that the marks are not arranged in an ordered sequence. We had seen above that the four marks on O. Schaden 96 are those of workmen of the left, but their connection with the hieratic inscription that identifies the piece as a weight of spikes for the right side is utterly unclear.

Other ostraca in this category, such as ONL 6374 and O. Turin S. 6863 do not seem to make the distinction between the two sides of the crew. The remaining ostraca,<sup>307</sup> mostly from the village of Deir el-Medina, are small incomplete documents that are difficult to interpret. Three additional ostraca might need to be classified differently. One of them is ONL 6459, with marks that are only faintly visible. Not all signs are discernable and therefore the meaning of the ostrakon escapes us. The fact that some marks recur in different lines suggests that each line records a different event, perhaps deliveries made on a specific day. O. Schaden 135 is also problematic. It appears to be inscribed with repetitions of one and the same mark,  $\Psi$ , and is therefore perhaps better interpreted as a name stone. But doubt is cast

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<sup>307</sup> ONL 950; ONL 6279; ONL 6306; ONL 6367 (with a sequence comparable to ONL 6404); ONL 6404 (with a sequence comparable to ONL 6367); ONL 6431; ONL 6447; ONL 6471; O. Schaden 152; O. Schaden 153; O. Turin S. 9654.

upon this suggestion when we compare O. Schaden 135 to O. Cairo JE 72500. The latter ostrakon contains at least four lines with repetitions of mark  $\Delta$ , but also features other marks as well as one unidentified sign or mark. The meaning of the ostrakon is highly enigmatic and might need to be sought outside of the administrative domain.

*Ostraca with rows of marks and with hieratic numerals*

It is not completely clear if the marks on damaged ostrakon O. Cairo JE 96352 are arranged in rows or in columns, but there is no doubt that the right half of the ostrakon that is now lost contained more marks. We shall list this piece here, together with the reverse of ONL 6479 with marks arranged in a column, as they are clearly related to the other ostraca in this category. These other documents are ONL 6536 and ONL 6518. All four documents, above examined in detail,<sup>308</sup> appear to be records of men involved in the delivery of goods, probably wood. These men are designated by identity marks that occur on other ostraca among the identity marks of workmen of the crew. The precise status of the men is unclear, but they were apparently also employed in the transport of commodities.

ONL 6491+ may be explained in the same way. It contains at least three lines which records events in which five workmen of the left side of the crew were involved, referred to by marks  $\Upsilon$ ,  $\text{𐎓}$ ,  $\text{𐎔}$ ,  $\text{𐎕}$  and  $\text{𐎖}$ . Four of these marks occur twice, suggesting that each line documents a different event. Each mark is connected with a hieratic numeral, either '10' or '12', suggesting ONL 6491+ is a record of the delivery of one particular commodity over the course of three different points in time, perhaps three days.

*Ostraca with rows of marks and with hieratic numerals and dots*

ONL 6492 is the only ostrakon that belongs to this category. It is very fragmentary and therefore its meaning is uncertain. Left of mark  $\text{𐎖}$  hieratic numeral six is inscribed, below which two dots were added in the same ink. The placement of the two dots below the numeral may have been necessary because the scribe appears to have reached the left edge of the ostrakon. It is therefore possible that we should read the two dots as *oipe* and the hieratic numeral 'six' as an amount of *khar*. The ostrakon could then be an account of grain rations, but this is nothing more than a tentative reading.

*Ostraca with rows of marks and with vertical strokes*

Nine ostraca of this description can be recognised. We have already referred to one of them, O. Schaden 16, on many different occasions because of the ordered sequence with which it is inscribed. Indeed, this piece probably documents the entire left side during the second half of the reign of Ramesses II. Underneath each mark two or three vertical strokes were added, but like many other ostraca from the settlement of huts near KV 10, the scribe purposely erased sections of the document. Some of the erased strokes are still visible and it is often difficult to ascertain if a stroke was erased or whether the ink has simply faded away. We can therefore not determine if the semi-hieratic numeral inscribed on the lower half of the ostrakon records the total of the strokes added to individual workmen, but this does seem likely. We may confidently label the numeral as semi-hieratic, because it consists of the sign for the numeral '20', right of which six vertical strokes are added. Together the inscription is likely to be read as '26', but in a proper hieratic text the numeral '6' would have been written with a single sign placed right of the numeral '20'.<sup>309</sup> The meaning of the 12 or more dots on the left end of the ostrakon is unclear. We have no clear indication of the purpose of O. Schaden 16, but

<sup>308</sup> See above, 5.2.2.3.

<sup>309</sup> This may be another indication that O. Schaden 16 was produced by the same 'scribe' who was to a limited extent acquainted with hieratic script and may have created the majority of the ostraca with marks from the settlement near KV 10.

since it is an ordered list of workmen it is likely that the ostrakon was created as part of the collective tomb administration. The number of strokes, two or three per mark, can be interpreted as hieratic numerals. What is being counted is uncertain, but the amounts are similar to those recorded in 19<sup>th</sup> Dynasty accounts of grain rations and water deliveries.<sup>310</sup>

ONL 6406 could be a document of the same type. Its marks are difficult to discern but their sequence is comparable to that of O. Schaden 1. The exact number of strokes added to each mark cannot be ascertained either. Similarly difficult to read but probably of the same type is O. Schaden 93, which may document members of the left side exclusively, each connected with one, two or three strokes.

Another much discussed ostrakon in this category is O. Hawass. As we have seen, it appears to adhere in part to the ordered sequence of the right side of the crew during the reign of Ramesses II but could well have been inscribed with marks of members of the left side as well. To almost every mark two vertical strokes are added, while there are two marks with only one stroke. Remarkably, marks  $\Delta$  and  $\text{𐀓}$  were not connected with strokes. This ostrakon may therefore be of a different nature than O. Schaden 16. Alternatively, these two individuals may for some reason have been exempted from the task of transporting commodities, or did not receive any. Associated with O. Hawass is O. Cairo JE 96336, which may well document the ordered sequence of the right side during the same period. As in O. Hawass, a stroke was added to only a few of the workmen's marks. It is absent for the first three workmen. Since O. Cairo JE 96336 probably displays an ordered list, the first three marks represent the most senior workmen of the right side. Considering our tentative interpretation of 19<sup>th</sup> Dynasty ostraca with lists of marks connected with a small number of dots or strokes, the explanation of these documents as accounts of water deliveries along the lines of hieratic ostrakon O. Ashmolean HO 195 is perhaps the most plausible. It is conceivable that the older workmen of the crew were influential enough to be excluded from such menial tasks. O. Hawass, in which no stroke was added to the mark of Neferabet (i), situated in the fourth position in the list of O. BM 5634, and to the mark of the scribe of the crew, could be interpreted in the very same way. The only unsolved problem with this suggestion is that it does not explain why these men, not involved in any deliveries, were recorded in these documents in the first place.

Ostraca O. Schaden 161 and ONL 6487 are both inscribed with marks of members of both the right and left side of the crew, and do not display any trace of an ordered sequence. One, two or three strokes are added to each mark, which may count commodities or something completely different. Their provenance, the settlement near KV 10 and Deir el-Medina respectively, does not elucidate their meaning. Even more mysterious is fragmentary ostrakon ONL 6624, which is only cautiously attributed to the 19<sup>th</sup> Dynasty. It is different from the other ostraca inscribed with marks and strokes, because the strokes seem to be added left of the mark rather than underneath it. Moreover, the number of strokes is far larger. Because of the fragmentary state of the piece it is unclear how many strokes were added to each mark, but it is estimated to exceed five. Such figures are reminiscent of bundles of vegetables distributed among the workmen in the 19<sup>th</sup> Dynasty,<sup>311</sup> but this may be a mere coincidence.

Different is also ONL 6527, inscribed with four workmen's marks, left of which feature four vertical strokes. While it could well be that the four strokes are related to the marks, perhaps counting the total of workmen, the meaning of the document escapes us.

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<sup>310</sup> Cf. some of the ostraca inscribed with marks and dots discussed above, p. 470.

<sup>311</sup> Compare e.g. O. Varille 16, attributed to the reign of Ramesses II.

*Ostraca with rows of marks and with vertical and horizontal strokes*

ONL 6281 is inscribed with at least two rows of marks. Like most of the ostraca in the previous category, one or two vertical strokes were added below each mark. One mark however constitutes an exception. Below mark  $\text{\AA}$ , perhaps referring to foreman Qaha (i), one vertical stroke was added with left of it three short superimposed horizontal strokes. It is the only 19<sup>th</sup> Dynasty ostrakon with workmen's marks in which this notation occurs, and its meaning is not immediately clear because it is not known from hieratic script. The notation is, however, similar to the combinations of vertical strokes, horizontal strokes and dots in the margin of the semi-hieratic inscription on O. Schaden 17. We may propose that it was the scribe's way of writing '1 *khar*, 3 *oipe*', using horizontal strokes instead of dots. This reading suggests the vertical strokes added below the other marks represent quantities measured in *khar* as well, which would mean ONL 6281 is most likely an account of the distribution of grain rations. On the other hand there is the possibility that the notation with horizontal strokes represents a numeral higher than two. That would not be unexpected if mark  $\text{\AA}$  is here indeed used for foreman Qaha (i). How the numeral should then be read exactly is unclear.

*Ostraca with rows of marks and with vertical strokes and with hieratic signs for 'presence'*

Not more than one ostrakon, O. WHTM 765, can be placed in this category. It lists workmen according to their relative position in the ordered sequence of the left side during the reign of Ramesses II. As pointed out above,<sup>312</sup> this document is comparable to hieratic ostrakon O. Cairo CG 25627 from that very same period, and may record individual attendance at the worksite as well as grain rations.

*Ostraca with rows of marks and with dots*

Of the eight ostraca in this category, seven were discovered in the village of Deir el-Medina. One fragmentary ostrakon, O. Cairo JE 96335, was discovered in the Valley of the Kings. It is inscribed with the marks of workmen of the right side in a sequence that seems to be ordered. Unfortunately it is unclear if the document once recorded the complete right side or not. Likewise we cannot ascertain if the dots added to the marks, one or two per mark, function here in the same way as the vertical strokes added to marks in the ostraca discussed above. There is, however, nothing that indicates that the dots should be interpreted differently. This ostrakon too could therefore record deliveries or the distribution of goods, but any other interpretation may be possible as well. ONL 6451, probably inscribed with marks of members of the left side exclusively, may be interpreted in the same way as O. Cairo JE 96335 although it is not certain if dots are added below the marks or not.

On fragmentary ostraca ONL 6226 (with a sequence comparable to that of O. Cairo JE 96336) and ONL 6394 (probably comparable to the sequence of O. Schaden 16) only a single dot is added to each mark. Here another interpretation is possible. These dots could be check marks, and if the complete ostraca once included all marks of a single side they may have recorded the presence of workmen at the worksite. ONL 6585 and ONL 6541 may be explained in the same way. Although we do not recognise the sequence of marks from other ostraca, both documents record a large number of workmen, possibly an entire side or even the entire crew. The majority, if not all of the workmen's marks are marked with a single dot that could be a check mark indicating presence at the worksite.

Other ostraca with rows of marks and dots are less clear. The date and function of ONL 6607 for example is uncertain. It could date to the 19<sup>th</sup> Dynasty and represent foremen Nebnefer and Iniherkhau.<sup>313</sup> It seems likely that the ostrakon is completely preserved. This

<sup>312</sup> See above, 5.3.2.1.

<sup>313</sup> Nevertheless a date in the 20<sup>th</sup> Dynasty is equally plausible, and the two marks are found in subsequent positions in the ordered list of workmen of the left side recorded on O. BM 5642.

would mean that the document records nothing else but the marks of two foremen. In this case the dots can hardly be check marks. Perhaps the dots are not meaningful at all on this ostracon. The dots on ONL 6497 may be check marks but this cannot be verified due to the fragmentary nature of the ostracon.

*Ostraca with rows of marks and with dots and with vertical strokes*

In a single instance, ONL 6319, dots may have been connected with some marks, and strokes to others. We cannot be sure if there is a difference between what is counted by strokes and what is tallied with dots, but perhaps there is none because the quantities are comparable: one mark is accompanied by four dots, the other marks by three, four or five strokes. The meaning of the ostracon remains unclear.

*Ostraca with rows of marks in a table*

Ostraca of this type are O. Schaden 1, O. Schaden 11, O. Schaden 13, O. Schaden 15, O. Schaden 44, and O. Schaden 166, all discovered at the settlement near KV 10 and probably created by a single individual. Our examination of these pieces indicates that they may represent a roster of individual *wrš* duties combined with a record of commodities received on specific days, as well as the attendance of individual workmen at the worksite and deficits of particular commodities. Small fragment ONL 6496 may be the only instance of this type that was produced at Deir el-Medina. A vertical line left of mark  $\text{𓆎}$  could be a remainder of a larger table, but that is mere speculation.

### **5.3.3.3 Ostraca with marks not in rows or columns**


The documents in this section are ostraca inscribed with identity marks which unlike the previous ostraca are not arranged in rows or in columns. They are, as a rule, not inscribed according to a known ordered sequence. Three out of these thirteen ostraca were discovered in the Valley of the Kings while the other pieces come from the village of Deir el-Medina. The function of these thirteen ostraca is not quite clear. The majority of ostraca are inscribed with marks of members of both the left and the right side of the crew. The arrangement of marks not in rows or columns makes a rather disorganised impression and suggests that these ostraca are ad-hoc notations. An administrative purpose can neither be demonstrated nor excluded.

In the case of ostraca O. Cairo JE 96573, ONL 6227, ONL 6452, ONL 6472, ONL 6598, O. Schaden 137 and an ostracon from the Grand Puits<sup>314</sup> we may propose that these documents are quick notes, possibly needed for the collective tomb administration, made on the spot. The use of charcoal for three of these pieces is in support of this suggestion. But we can only guess as to the reason why these men are recorded.



Four other ostraca are more elusive because they are very fragmentary. The nature and date of ONL 6473, ONL 6777 and ONL 6199 is insecure because these pieces only display a small number of marks. ONL 6192 is of a slightly different design. The obverse of the piece seems to display two columns created by vertical and horizontal lines, in which vertical strokes are added. The right column is inscribed with two of such strokes. Above the columns mark  $\text{𓆎}$  is repeated three times, in addition to another damaged sign or mark. In the current fragmentary state of the ostracon the meaning of all this is unclear. The reverse displays another horizontal line, perhaps a remainder of a similar table. Its relation to the group of marks above it, not arranged in columns or rows, is not clear. ONL 6657, perhaps a 19<sup>th</sup> Dynasty ostracon as well, displays only a single mark adjacent to four columns of dots, separated by column dividers. The reverse displays similar columns with strokes. The

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<sup>314</sup> Bruyère, *Rapport 1948-1951*, pl. XVIII, nr. 12.

document is clearly an account of some sort, perhaps a private account of a distribution or transaction of items in which the workman represented by mark  was involved.

The marks on ONL 6525 are very faintly inscribed and seem to feature among signs or depictions of unclear meaning. The attribution of O. Schaden 61 to the 19<sup>th</sup> Dynasty is based solely on its provenance, but the meaning of the signs with which it is inscribed is incomprehensible. Some signs are attested as workmen's marks in the 19<sup>th</sup> Dynasty, but what is recorded on this piece remains very enigmatic.


In this context we should also make mention of ONL 6690. It is not counted among the previous thirteen ostraca because the marks on this piece are accompanied by one or two dots. We had already discussed ONL 6690 above because the obverse of this piece contains an important hieratic name list. Interestingly, five of these names written in hieratic are accompanied by a single black dot as well. The meaning of these dots is not clear. They may be check marks. One would like to explain the dots added to the marks on the reverse in the same way, but mark  has two dots. Perhaps the second dot is added for the mark immediately next to it, mark , which is not accompanied by any dots. If we are correct in suggesting that the dots added to the hieratic list of names have the same function as the dots accompanying the marks on the reverse, we may see the marks as a continuation of the hieratic list. Why marks were used for the reverse is unclear, but the reverse may have been inscribed by a second scribe.

#### 5.3.3.4 Ostraca with marks and depictions of objects and commodities

Strictly speaking we have already examined ostraca inscribed with marks as well as with depictions of objects and commodities. ONL 6313 probably displays cloths, and the presumed 19<sup>th</sup> Dynasty journal ostraca contain several pictorial references to commodities. Besides these documents there are all sorts of ostraca that depict items, some of which have been identified in our discussions above.

##### *Ostraca with marks and depictions of objects and commodities*

The documents in this category are concerned with a wide variety of topics. In most cases a set of items is associated with one or more individuals, but it is often impossible to determine what this relationship entailed exactly.

In the case of the O. Schaden 44 obverse, the marks and items are probably related to the deliveries recorded in the journal text on the reverse of same piece. The occurrence of sign  for 'deficit' in combination with depictions of commodities and workmen's marks on O. Schaden 162 and O. Cairo JE 72462 suggests that these documents too record deliveries.

We may offer the same explanation for ostraca ONL 6225, ONL 6321, ONL 6337, and ONL 6422, each inscribed with a single mark and one or more depicted commodities, but it remains odd that no quantities for these goods are recorded. Possibly these small ostraca may have been brief notes used as *aides mémoires*. ONL 6413 display signs for three different commodities as well as at least five different workmen's marks. Again no quantities are recorded for the commodities, and we cannot ascertain if the workmen were involved in the transport of these goods or not.

ONL 6338 probably records the issue of chisels to eight different workmen. A chisel is also depicted on ONL 6271 and ONL 6366, on each ostrakon connected with a single workman's mark. These two pieces could perhaps be countermarks, but the need for such pieces is debatable.<sup>315</sup> Instead these ostraca could be interpreted as brief notes about the issue of a chisel to a specific individual.

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<sup>315</sup> See chapter 4, 4.3.3.4.

O. UC 33252 is a pictorial list of items of clothing and two pairs of sandals connected with a single workman's mark. The document is perhaps an inventory of items in the possession of the workman referred to by the mark. Alternatively it records items that were made by, to be made by, paid to, or owed by the owner of the mark.

Ostrakon ONL 6545 and two ostraca from the Grand Puits<sup>316</sup> are mostly likely personalised weights used for measuring quantities of a particular type of fish. Fish are also depicted on ONL 6533, accompanied by workmen's marks. Because of the absence of any quantities the nature of this ostrakon is unclear, but in all likelihood it is an account of the delivery or the distribution of fish. Numerals could have been added at a later stage.

The inscription on O. Cilli 271 is not quite clear. It features a basket  $\cup$  as well as what is probably a round loaf of bread  $\odot$ , and perhaps traces of workmen's marks as well.

#### *Ostraca with depictions of objects and/or commodities and with marks and vertical strokes*

Ostraca of this type are best explained as accounts of distribution of goods or records of deliveries, depending on how many marks are inscribed on the ostrakon. This is often difficult to determine as the ostraca are not completely preserved. O. Cairo JE 46861 is a large ostrakon, inscribed with at least three identity marks accompanied by depictions of large amphorae and series of strokes. The signs on the reverse possibly depict commodities. The large number of strokes per mark, ranging from eight to at least 11, and the small number of workmen's marks suggest that O. Cairo JE 46861 records the delivery of a commodity kept in large amphorae, perhaps water, delivered by three workmen.

The meaning of ONL 6318 and ONL 6417 is even more difficult to assess. The former depicts baskets and a jar as well as two identity marks, the latter displays two different jars with strokes added within the contours and a single workman's mark. It is possible that these items were owned, paid, delivered, produced or owed by the workmen involved.

ONL 6411, inscribed with at least five marks and a sign that could be a depiction of a chisel accompanied by three strokes is possibly a note about the issue of copper tools to a group of workmen.

The meaning of ONL 6532 is unclear because the identification of the signs other than the workmen's marks is very uncertain. It seems to be inscribed with two identity marks, one perhaps accompanied by the depiction of a bowl, the other perhaps with a depiction of a loaf of bread. Series of vertical strokes may indicate quantities. Ostrakon O. UC 31989, of uncertain date, also falls into this category and could be an account of the distribution of an unidentified commodity.

#### *Ostraca with depictions of objects and/or commodities and with marks and hieratic numerals*

One ostrakon of this type, O. Cairo JE 96334, was discovered in the Valley of the Kings. We have discussed this document in quite some detail.<sup>317</sup> It is inscribed with a single identity mark and depictions of a variety of commodities and objects, including different types of bread, jars, baskets, chisels, and perhaps dates. One object is very tentatively identified as a wooden chest. The quantities of some of the items are recorded with vertical strokes and hieratic numerals. The document probably lists items that were to be distributed among the workmen by the administration of the tomb. The actual distribution is not recorded here as the items are not connected with workmen. The ostrakon may therefore be a preparatory note that could be consulted by the scribe who was to draw up the document of the actual distribution, or by the person who would distribute the items among the workmen. The function of the workman's mark  $\times$  on this ostrakon is not clear as it is not evidently connected with any of the items.

<sup>316</sup> Bruyère, *Rapport 1948-1951*, pl. XVIII, bottom right.

<sup>317</sup> See above, 5.3.2.3.



The other two ostraca come from the village of Deir el-Medina. ONL 6312 is in all probability a note about the involvement of five members of the left side in the deliveries of 780 jars destined for the left side of the crew at some occasion. ONL 6377 is a small ostrakon fragment of uncertain date. It appears to connect a single workman's mark with five units of the commodity represented by  $\square$ , but the purpose of the record is uncertain.

*Ostraca with depictions of objects and/or commodities and with marks and numerals and dots*  
On fragmentary ostrakon ONL 6582, found in Deir el-Medina, at least two identity marks are accompanied by depictions of jars and series of dots. In all probability these dots function in the same way as the vertical strokes on ostraca that display marks with depictions of commodities: they indicate quantity. But as with these ostraca, we are not sure what ONL 6582 means exactly. It could be a record of deliveries, an account of the distribution of goods, or an account of a private transaction.

*Ostraca with depictions of objects and/or commodities and with marks and hieratic numerals in cells*

A single ostrakon is inscribed with depictions of commodities, marks, dots, and hieratic numerals situated in different compartments. This piece is ONL 6221, discovered in Deir el-Medina. As discussed above, each compartment records a number of items that were probably distributed to a single workman, either as payment by the collective tomb administration or as part of a private transaction.

#### **5.3.3.5 Ostraca inscribed with a single mark**

Fourteen ostraca inscribed with a single mark<sup>318</sup> are most likely pieces that were used as name stones, the function of which we have pondered on in previous chapters.

#### **5.3.4 Scribes and scribal competence**

In this chapter we have proposed a date in the 19<sup>th</sup> Dynasty for 160 different ostraca inscribed with workmen's marks. There may certainly exist more ostraca of this kind that were created in the 19<sup>th</sup> Dynasty among the ostraca and ostraca fragments that are of an undefined Ramesside date. Moreover, additional unpublished ostraca with marks from the 19<sup>th</sup> Dynasty may surface or may continue to be discovered in the Valley of the Kings or Deir el-Medina. Nevertheless, the figure of 160 ostraca is extremely small considering a timespan of more than a hundred years. For our current intentions it would be interesting to determine the ratio of hieratic documentary texts from the 19<sup>th</sup> Dynasty to ostraca with marks from the same period. But this is a complicated question because the exact total of these ostraca – published and unpublished – is not known. As a case study one may take the controlled excavations carried out in a small section in front of the tomb of Amenmesses under the direction of Otto Schaden. Against the 17 19<sup>th</sup> Dynasty ostraca with workmen's marks stand 82 hieratic ostraca, all seemingly of a 19<sup>th</sup> Dynasty date as well.<sup>319</sup> At this particular site the ostraca with marks thus seem to constitute about 20% of all documentary ostraca, indicating that hieratic was far more often employed than workmen's marks.

<sup>318</sup> ONL 6270; ONL 6351; ONL 6391; ONL 6393; ONL 6418; ONL 6559; ONL 6571; ONL 6573; ONL 6642; O. Schaden 6; O. Schaden 35; O. Schaden 121; O. Schaden 133; O. WHTM 808.

<sup>319</sup> Information about the hieratic documents from these excavations was kindly provided by Rob Demarée. Although many of the hieratic ostraca are very fragmentary, the documents can be subdivided into different categories: an ostrakon that only mentions "Amun-Re", an ostrakon that contains the measures of a room, a weight, two letters, 12 name stones, 21 administrative accounts, 34 jar docketts, and 10 ostraca of an unclear nature.

The available evidence suggests furthermore that ostraca with marks are not evenly spread over the timeline of the 19<sup>th</sup> Dynasty. There are seemingly less ostraca that are securely attributable to the late 19<sup>th</sup> Dynasty, while there appears to be a peak of ostraca with marks in the second half of the reign of Ramesses II. This may be due to local Deir el-Medina scribal practices of the 19<sup>th</sup> Dynasty and the increasing number of literati. Haring has pointed out that the fact that we possess more documentary texts from the second half than from the first half of the 19<sup>th</sup> Dynasty is mainly due to an increase in the number of texts concerned with private matters and judicial affairs, while the output of records of the collective administration must have remained more or less stable.<sup>320</sup> This development was explained as the result of a growing number of literati in the community of necropolis workmen accompanied by a trend towards the transformation of oral practice to written conventions.<sup>321</sup> The use of workmen's marks to create documentary records may fit into this picture. Around the time of the early to the middle of the 19<sup>th</sup> Dynasty, when the number of scribes was relatively low and scribal practice was mostly concerned with collective administration, there may have been a need for individuals without formal scribal training to assist necropolis scribes in the documentation of matters such as deliveries and the distribution of goods, by employing workmen's marks in combination with dots, strokes and sometimes numerals. Additionally, the desire to record private matters such as transactions or inventories may have emerged around the same time, and the marking system allowed untrained 'scribes' to produce such documents. In contrast, towards the end of the 19<sup>th</sup> Dynasty such things may have been increasingly more often entrusted to professional scribes who appear to have extended their repertoire during this period. The necessity for the use of identity marks to create ostraca would then have been reduced. If this reconstruction is accurate, scribal practices of the late 19<sup>th</sup> Dynasty were quite different from those of the first half of the 20<sup>th</sup> Dynasty when the rise in hieratic documentary texts is paralleled by the great body of ostraca with marks.

The small influence of script and the limitations of scribal practices during the 19<sup>th</sup> Dynasty are reflected in the corpus of ostraca with marks. The use of hieroglyphic or hieratic signs and sign groups is not frequent in ostraca from the 19<sup>th</sup> Dynasty. The number of instances of hieratic numerals on 19<sup>th</sup> Dynasty ostraca with marks is relatively low. Out of a corpus of 160 ostraca with marks there are no more than 14, perhaps 15 documents that feature hieratic numerals.<sup>322</sup> Notably, two of these ostraca, O. Schaden 16 and O. Cairo JE 96334 contain semi-hieratic numerals, probably from the hand of a scribe without formal training. Hieratic signs for *wḏ3.t* 'deficit' are attested in only five ostraca,<sup>323</sup> hieratic sign *iw* 'attendance' is likewise found in no more than five instances,<sup>324</sup> and perhaps in one document with marks  $\hat{h}$  is used for *wnmy* 'right side'.<sup>325</sup> In addition we have seen that authors of ostraca with marks preferred to create pictorial lists of commodities and objects, rather than to create signs for them as in the first half of the 20<sup>th</sup> Dynasty, or to use hieratic writing to record

<sup>320</sup> Haring, 'From Oral Practice to Written Record', 254-255.

<sup>321</sup> Haring, 'Document headings', 181; Haring, 'Scribes and Scribal Activity', 110-111.

<sup>322</sup> Excluding ostraca with vertical strokes, some of which could theoretically represent hieratic numerals one to four. The ostraca are O. Cairo JE 96334, O. Cairo JE 96352, ONL 1314, ONL 6221, ONL 6312, ONL 6377, ONL 6479, ONL 6491+, ONL 6492, ONL 6518, ONL 6536, ONL 6582, O. Schaden 13, O. Schaden 16 and perhaps O. Cilli 201.

<sup>323</sup> O. Cairo JE 72462, O. Schaden 11, O. Schaden 13, O. Schaden 15 and O. Schaden 162.

<sup>324</sup> O. Cilli 291, O. Schaden 1, O. Schaden 11, O. Schaden 15 and O. WHTM 765.

<sup>325</sup> ONL 6321.

specific commodities.<sup>326</sup> O. Schaden 1 is the only record in which hieroglyphs are used to refer to words *mw* ‘water’ and *nḥḥ* ‘*nḥḥ*-oil’.

We observe moreover that the hand of a hieratic scribe is rare in our material. We know of six ostraca where the author of a hieratic text also used workmen’s marks.<sup>327</sup> It is not clear if the author of the inscription on weight O. Schaden 96 is the same man who noted down the four workmen’s marks on the same piece, as the inscriptions are not clearly related. While it is possible that the written inscription on O. Schaden 11 was made by the same hand that added the workmen’s marks, this hieratic text is not exactly exemplary of a well-trained hieratic scribe.

Before returning to the scribe of O. Schaden 11 and O. Schaden 96, we should discuss ostraca with marks wherein we may recognise the hand of a professional scribe despite the absence of hieratic inscriptions. It has already been explained in the previous chapter<sup>328</sup> that it is an extremely precarious task to demonstrate if a scribe was well acquainted with hieratic script judging only from the hand in which he drew identity marks on an ostrakon, and there is in this work no space for the extensive palaeographic analysis that this inquiry necessitates. Instead we shall only provide some suggestions that later research may be able to verify or refute. Hence it is with due reservations that we propose, on account of the elongated tails of the elegantly written hieratic numerals for hundreds in ostraca O. Cairo JE 96352, ONL 6518, ONL 6536 and perhaps also ONL 6479, that these documents may have been made by the professional scribe who also wrote hieratic delivery texts O. DeM 333 and O. DeM 713+ that display very similar numerals and date to the same period. In favour of the identification of this hand as that of a professional scribe speaks the fact that the reverse of ONL 6518 contains a hieratic inscription. On account of the hieroglyphic ductus of marks and signs, a professional scribe may also be considered for ostraca O. Ashmolean HO 1103, O. Hawass, ONL 6274, ONL 6306, ONL 6321, ONL 6324, ONL 6347, ONL 6445 and ONL 6528. A more hieratic ductus is observed in the marks on O. Cairo JE 96336 and ONL 6313.

The number of ostraca with marks that may have been written by a professional scribe is thus rather low. Together with ostraca inscribed with hieratic as well as marks, we come to a tentative total of about 17 to 19 ostraca in the corpus of 160 ostraca with marks. These figures would suggest that the greater majority of 19<sup>th</sup> Dynasty ostraca with marks were created by individuals who were not formally instructed in hieratic writing. This does not necessarily mean that the authors of such documents were completely illiterate. On the contrary, there are reasons to assume that several ostraca with marks from the settlement near KV 10 were composed by a man with some knowledge of hieratic and hieroglyphic script. The assumed journal ostraca from this site were all created according to the same format, using the same type of ancillary hieratic signs, seemingly dealing with the left side of the crew exclusively and considering the style and shapes of the marks probably created by one and the same scribe. One of these ostraca, O. Schaden 11, is also inscribed with a short and very abbreviated hieratic inscription. The concise nature of this text is barely comprehensible because it is far from explicit and does not contain any standard phraseology. In that respect it is very similar to O. Schaden 17, the large ostrakon inscribed with very summarily written day dates. In this text too we lack any context as the topic of the record is not explicated. Three other similarly abbreviated hieratic ostraca<sup>329</sup> are of an equally unorthodox character because

<sup>326</sup> Compare the contrast between the pictorial lists from the 19<sup>th</sup> Dynasty to the 20<sup>th</sup> Dynasty list of ONL 1371, which blends workmen’s marks and words written in hieratic. Even the scribe of the highly pictorial 20<sup>th</sup> Dynasty ostrakon O. Brooklyn 16118+ added hieratic captions to several of his drawings.

<sup>327</sup> O. Ashmolean HO 810; O. Berlin P 14261; O. Berlin P 14350; O. Cairo CG 25582; O. OIM 25356; ONL 6690.

<sup>328</sup> See chapter 4, 4.4.4.

<sup>329</sup> O. IFAO C 391, ONL 6517 and ONL 335.

the author used the wrong hieratic numerals for one of his dates and employed sign  $\square$  to refer to a commodity. These records can hardly have been the work of a professional scribe, but they may well have come from the same hand that wrote the hieratic inscriptions on O. Schaden 11 and O. Schaden 17, and therefore also the journal ostraca composed with marks. If one accepts this hypothesis, we get the impression that a member of the workforce of the middle of the 19<sup>th</sup> Dynasty was involved in the collective administration of the tomb despite the fact that he was not a professional scribe. He was nevertheless able to produce very simple hieratic inscriptions, although he does not seem to have been familiar with standard phraseology. His documents are mainly concerned with deliveries to the workforce, and we may therefore assume he was one of the so-called ‘*smd.t* scribes’. The ostraca made by this man therefore parallel the 20<sup>th</sup> Dynasty duty and delivery texts composed with marks, which we assume were made by a ‘*smd.t* scribe’ as well.

There may well have been more workmen like this individual who, without extensive knowledge of hieratic or hieroglyphic script, picked up a pen to jot down series of workmen’s marks, either to create records that may have served some purpose for the collective tomb administration, or for private bookkeeping. Unfortunately it remains extremely difficult to identify such cases, but it is along these lines that we have to consider the majority of ostraca with workmen’s marks.

#### 5.4 CONCLUSIONS

Ostraca with marks datable to the 19<sup>th</sup> Dynasty occur perhaps as early as the reign of Seti I. Several ostraca are clearly datable to the middle of the 19<sup>th</sup> Dynasty. Some documents can be dated to the reign of Siptah, and others most probably date to the very end of the 19<sup>th</sup> Dynasty or the beginning of the 20<sup>th</sup> Dynasty. There are however indications that ostraca with workmen’s marks are less common towards the end of the 19<sup>th</sup> Dynasty. Ostraca with marks from the later 19<sup>th</sup> Dynasty may have simply not survived, but we suspect that the rise in the number of trained scribes could have reduced the need for records with marks during this period.

Although there are only few hieratic ostraca that are also inscribed with identity marks they offer some insight into the type of documents in which marks are used. We do not encounter identity marks in legal texts, personal letters, or in religious contexts such as oracular decisions. Instead they appear in records of predominantly mundane matters that pertain to activities at the worksite and the supply and distribution of commodities and objects, such as name lists, accounts of deliveries, a list of privately owned items or items to be distributed among the crew of workmen, and a weight of spikes.

This view coincides with the different types of documents that were created using identity marks. Even though the meaning and purpose of many of the 19<sup>th</sup> Dynasty ostraca is unclear, often due to their fragmentary state, we do get a sense of what these documents convey in general. In the corpus of the 19<sup>th</sup> Dynasty we discern private administrative records or rather objects such as name stones, weights for fish, and lists of objects and commodities that may be inventories or accounts of payment or distribution. On the other hand we encounter ostraca that were created as part of the collective tomb administration, such as journal records recording *wrš* duties, deliveries and attendance at the work site. Other documents of this category concern the issue of chisels to a group of workmen, the delivery of items such as wood, oil and probably water, name lists that may record attendance at the worksite or actual work activity, and the distribution of grain rations or water. The administrative nature of ostraca with workmen’s marks is in some cases noticeable through sequences of marks that are inscribed in an ordered sequence. Moreover, many ostraca seem to record workmen of one particular side of the workforce exclusively.

## 5. OSTRACA WITH MARKS OF THE 19TH DYNASTY

The ostraca with marks from the 19<sup>th</sup> Dynasty probably constitute only a small fraction of the administration of that time. Some ostraca, particularly those inscribed with charcoal rather than with ink, are best explained as quick ad-hoc notes made as *aides-mémoires*. They may have been created at times when the necropolis scribes were absent. The marks and signs inscribed on two ostraca that also contain a hieratic text are tentatively explained as drafts, or perhaps as transcriptions of the text that would be understandable to illiterate workmen. Several other ostraca with marks were probably created by workmen who were not trained in hieratic writing and may represent private accounts.

A group of ostraca inscribed with marks from the Valley of the Kings demonstrates that a turnus for *wrš* duties dates back as far as the middle of the 19<sup>th</sup> Dynasty, thus predating the earliest indications for this practice in hieratic texts from the second half of the 19<sup>th</sup> Dynasty. The documents provide a glimpse into the organisation of the delivery of commodities such as water and oil. There is the distinct possibility that the workmen themselves rather than an external service personnel were involved in the transport of these commodities.

## CHAPTER 6. CONCLUSIONS

### 6.1 THE MEANING OF OSTRACA INSCRIBED WITH IDENTITY MARKS

The ostraca with marks from the 18<sup>th</sup> Dynasty are least well understood, but an administrative function is evident for the majority of these documents. Many records will have pertained to the activities of the crew at the construction site and may record attendance or the individual output of workmen during a day's work. It seems likely that other ostraca deal with the distribution of tools, supplies and rations. In this period occur for the first time ostraca, of limestone as well as pottery, which are inscribed with a single mark. Similar pieces display a double instance of the same mark, or two different marks. Their exact meaning is doubtful, but they seem to have been used in the settlements in the Theban Valleys as well as in the village of Deir el-Medina. Particularly the larger examples may have been set up in a designated space as a means to convey ownership of property. Others may have had a votive function, as may some ostraca inscribed with a series of marks.

A votive function cannot be dismissed for some Ramesside ostraca, but there is no uncertainty that the greater majority of the ostraca with marks are of a documentary nature. The ostraca with marks from the Ramesside Period are occasionally concerned with supplies and tools for the construction of the tomb, but more often they record the delivery and distribution of commodities, goods and rations. In addition, many of the ostraca from the 19<sup>th</sup> and 20<sup>th</sup> Dynasties are lists of workmen, regularly arranged in an ordered sequence, like their 18<sup>th</sup> Dynasty counterparts. These documents too will have played a role in oral or scribal administrative practices, connected most probably with the documentation of attendance at the worksite. There is a significant number of ostraca with marks from the middle of the 19<sup>th</sup> Dynasty and from the first half of the 20<sup>th</sup> Dynasty that record the turnus of workmen who partook in the delivery system wherein commodities were transferred to the community. In the 20<sup>th</sup> Dynasty more than in the 19<sup>th</sup> Dynasty ostraca can be recognised that pertain not to the collective necropolis administration, but that are private accounts. The subject of such records is also exclusively of a material nature. They include what seem to be inventories of private property and records of transactions. A particularly 20<sup>th</sup> Dynasty document type records workmen who are involved in the production and decoration of items, mostly furniture but also i.a. coffins and statuary, for the funerary equipment of individuals outside of the Theban necropolis and perhaps even the royal burial.

When identity marks are used in combinations with hieroglyphic or hieratic script, these texts deal with practical, mundane matters, related to work on the tomb, and mostly to the supply and distribution of commodities, as well as private transactions. Significantly, identity marks were not incorporated in any of the literary ostraca that were composed in Deir el-Medina during the Ramesside Period. Likewise, they do not occur in documents with medical texts, magical texts, or hymns.<sup>1</sup> We do not know of private letters between two correspondents that feature marks, and they are not found on ostraca that record court proceedings either. It would thus seem that ostraca that do contain identity marks – whether combined with script or not – are mostly concerned with matters of everyday life, with a focus on the work on the tomb, rations and personal property.

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<sup>1</sup> The only exception is perhaps O. BTdK 547, which has been interpreted as an invocation to the god Amun-Re, but the connection between the mark on the bottom of the piece and the text on another side of the stone is unclear, see chapter 4, 4.3.1.

## 6.2 THE CONTINUITY OF THE PRACTICE OF CREATING OSTRACA WITH MARKS

Ostraca with identity marks were created throughout the history of the Theban necropolis. A few brief periods may mark a drop in this practice, but these moments of decline aside, the ostraca are attested more or less continuously from the reign of Thutmose III to the reign of Ramesses XI.

### 6.2.1 Ostraca with identity marks of the 18<sup>th</sup> Dynasty

The exact moment that the identity marks were introduced in the community of necropolis workmen is unknown, but the first datable ostraca with marks originate from the reign of Thutmose III. It is during this period that we may for the first time speak of a ‘community’, because archaeological evidence suggests that under Thutmose III or Hatshepsut the crew was permanently settled at Deir el-Medina. We know next to nothing about the origins of these early necropolis workmen, but in view of the occurrence of marking systems in the context of construction projects at other times and other locations in Egypt, it is tenable that the usage of identity marks was established by workmen who were familiar with such systems from previous work elsewhere. Before the reign of Thutmose III workmen of the Theban Royal Necropolis may already have marked their property with identity marks, but the archaeological material is not dated accurately enough to draw substantiated conclusions.

### 6.2.2 Ostraca with identity marks of the end of the 18<sup>th</sup> Dynasty

Ostraca with marks are attested throughout the reigns of Thutmose III, Amenhotep II, Thutmose IV and Amenhotep III. Only a few instances of workmen’s marks are known from the end of the 18<sup>th</sup> Dynasty after the reign of Amenhotep III. These late examples appear not on ostraca but mostly on ceramic ware.<sup>2</sup> It is therefore unclear if the practice of composing ostraca with marks was abandoned or not. This is not unambiguous proof of a transfer of the Theban necropolis workmen to Amarna. The continued use of identity marks at Deir el-Medina during and immediately after the Amarna Period, as well as the construction of various monuments and tombs of workmen from that time indicate that several workmen had remained in Thebes. Supposing that only a segment of the original Theban crew had moved to Amarna, the custom of marking property with identity marks as well as the creation of ostraca with identity marks does not seem to have been maintained at the new location. To be sure, groups of marks are attested at Amarna, but they are not evidently the identity marks of the Theban workmen. One might even be inclined to interpret the lack of ostraca with identity marks at Amarna, and the absence of marks that are related to the Theban crew as a signal that no resettlement of a significant scale had taken place.

### 6.2.3 Ostraca with identity marks of the beginning of the 19<sup>th</sup> Dynasty and the reorganisation of the crew

Ostraca with identity marks are again recognisable in the archaeological record of the Theban Royal Necropolis in small numbers in the reign of Seti I and the first half of the reign of Ramesses II. The reappearance provokes the question as to what had happened in the necropolis at the turn of the 18<sup>th</sup> Dynasty. It has often been stated that the administration of the tomb building project was reorganised under Horemheb.<sup>3</sup> Hieratic ostraca O. BM 5624

<sup>2</sup> Discovered in the Valley of the Kings, see chapter 2, 2.2.14.

<sup>3</sup> Davies, *Who’s who*, 1; Valbelle, *Les ouvriers*, 4-5;160-163; Häggman, *Directing Deir el-Medina*, 60-61; Haring, ‘Scribes and Scribal Activity’, 109; Haring, ‘Workmen’s Marks and the Early History of the Theban Necropolis’, 88-89; Dorn, ‘Ostraka’, 37. Valbelle, *Les ouvriers*, 160 and Häggman, *Directing Deir el-Medina*, 60, placed the reorganisation of labour on the Royal Tomb in the context of several other administrative changes that were imposed under the reign of Horemheb. For these policies see Jean-Marie Kruchten, *Le Décret d’Horemheb. Traduction, commentaire épigraphique, philologique et institutionnel*. Université Libre de

and O. Toronto A 11 seem to refer to year 7 of this king as the starting point of a new phase in the Royal Necropolis, that could have entailed such a restructuring. The reign of Horemheb has for that reason been connected with the extension of the enclosure wall around the village and an enlargement of the residential sector,<sup>4</sup> which in turn has been interpreted as an increase in the number of workmen. Häggman suggested the reorganisation of the administration of the necropolis also meant that a new crew of necropolis workmen was installed.<sup>5</sup> Still, for reasons unknown this reorganisation does not reverberate in the administrative records until the reign of Seti I, as no documentary texts – composed with marks or written in hieratic – from the reigns of Horemheb and Ramesses I have been identified.<sup>6</sup> Only after the reign of the latter king, hieratic accounts in the form of ostraca that mention the delivery of provisions emerge, indeed indicating important changes in the administration of the work on the royal tomb.<sup>7</sup> It would thus seem that it took the newfound tomb administration several years before written documentation was kept or discarded on site.

If the crew was indeed reorganised, why then did the marking system reappear at the beginning of the 19<sup>th</sup> Dynasty? That question can to some extent be addressed by advancing the same argument used to explain the emergence of the marking system of the 18<sup>th</sup> Dynasty: the new workmen of the 19<sup>th</sup> Dynasty had previously laboured at construction sites where marks had been used as well. While this is certainly imaginable, it does not account for the reintroduction of the habit of creating ostraca with identity marks, which appears to be a phenomenon characteristic of the community of Deir el-Medina. The picture that comes to the fore is that of a number of the original 18<sup>th</sup> Dynasty workmen, or some of their descendants, who must either have continued or reinstated the practice of inscribing marks on limestone chips and ceramic fragments. Indeed, there are at least four workmen who were incumbent on the gang during the first years of the 19<sup>th</sup> Dynasty that are related to men that were in all likelihood active as necropolis workmen at the end of the 18<sup>th</sup> Dynasty. They are listed below (TABLE 99)<sup>8</sup> with their titles, as well as the names and titles of their predecessors:

Name	Title	Period	Attestation
Neferhotep (i) son of Neferhotep (iv)	Chief workman of Djoserkheperure- [setepenre] (Horemheb)	Horemheb – Seti I	Offering table, <i>Rapport 1923-1924</i> , pl. XII
Neferhotep (iv)	Servant in the Place of [...]	Horemheb	Graff. nr. 3305
Buqentuef (i) son of Nakhy (iii)	Servant in the Place of Truth	First half Ramesses II	St. Stockholm MM N.M.E. 28
Nakhy (iii) son of Didi (i)	- Servant of the West - Servant in the Place of Truth on the West of Thebes - Chief Draughtsman in the Place of Truth	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	- St. BM 360 - St. Turin CG 50010 and st. BM 281 - St. Stockholm MM N.M.E. 28

Bruxelles. Faculté de Philosophie et Lettres 82 (Brussels 1981); Barry J. Kemp, *Ancient Egypt. Anatomy of a civilization*. 2<sup>nd</sup> ed. (London and New York 2006), 305-306.

<sup>4</sup> Bonnet and Valbelle, 'Le Village', 433-434; Bonnet and Valbelle, 'Le Village (suite)', 325-328; Valbelle, *Les ouvriers*, 161; cf. Haring, 'Scribes and Scribal Activity', 109.

<sup>5</sup> Häggman, *Directing Deir el-Medina*, 61. In the same vein, Davies, *Who's who*, 149.

<sup>6</sup> As seems to be the case for the 18<sup>th</sup> Dynasty, such records may have never been stored at the necropolis itself, and drafts of the texts may not have been produced. The absence of documentary texts from the reign of Horemheb speak in favour of a reign of 15 rather than 20 + years, compare Dorn, 'Ostraka', 37 and n. 49.

<sup>7</sup> Janssen, 'Literacy and letters', 86 and n. 24; Davies, *Who's who*, 1; Haring, 'Scribes and Scribal Activity', 109; Dorn, 'Ostraka', 31; 38-41.

<sup>8</sup> For the sake of brevity, TABLE 99 as well as TABLES 102 and 103 mention only the names of the crew members in combination with the identification number attributed to them in Davies' *Who's who*, where they can be retraced and where the primary literature of the attestations are given.



## 6. CONCLUSIONS

Didi (i)	- Great sculptor in the Place of Truth on the West of Thebes	Late 18 <sup>th</sup> Dynasty	St. BM 1629 + fragm., <i>Rapport 1933-1934</i> , 119, nr. 2
Nebdjefa (i) son of Amennakht (xiii)	'Great of Arm'	Horemheb – Seti I	St. <i>Rapport 1934-1940</i> II, 47, 98
Amennakht (xiii)	Servant in the Place of Truth	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	Graf. nr. 2187
Baki (i) son of Wennefer (i)	- Great one of the gang in the Place of Truth - Chief of the gang in the Place of Truth	Horemheb – Seti I	- St. Turin CG 50055 - TT 298
Wennefer (i)	- Servant of the Lord of Both Lands in the Place of Truth on the West of Thebes - Servant in the Place of Truth	Horemheb, and earlier?	- TT 298 - St. Turin CG 50051

TABLE 99. EARLY 19<sup>TH</sup> DYNASTY DESCENDANTS OF LATE 18<sup>TH</sup> DYNASTY WORKMEN

Men like Neferhotep (i), Nakhy (iii),<sup>9</sup> Nebdjefa (i) and Baki (i) could still have witnessed the practice of inscribing ostraca with marks as young boys, or would at least have been aware of this custom. It is plausible that the tradition lived on into the Ramesside Period by virtue of their endeavours. In addition, 19<sup>th</sup> Dynasty workmen may have been inspired by 18<sup>th</sup> Dynasty ostraca that were discarded in and around the village and the Valley of the Kings.

The epigraphic evidence from Deir el-Medina thus suggests that only very few workmen with family ties that hark back to the 18<sup>th</sup> Dynasty can be identified. This is of course partially due to the state of the archaeological documentation. The period of the late 18<sup>th</sup> Dynasty and the early 19<sup>th</sup> Dynasty is simply not well recorded. However, support for this view is found when we compare the set of identity marks known from the time of Amenhotep III to the marks attested in the early 19<sup>th</sup> Dynasty. We notice that there is little overlap between the two sets. Naturally, caution is in order. The period between, let us say, the middle of the reign of Amenhotep III (c. 1371 BCE) and the middle of the reign of Seti I (c. 1285 BCE) spans c. 86 years. We therefore lack data of about two generations of workmen. Nevertheless, the analysis of identity marks of the 18<sup>th</sup> Dynasty has demonstrated that during the c. 80 years between the middle of the reign of Thutmose III (estimated at 1452 BCE) and the middle of the reign of Amenhotep III the repertory of marks did not change drastically. It certainly expanded, but older marks were still employed towards the end of the reign of Amenhotep III: 17 of the 24 marks found in core group A are still attested in core group C. In other words, about 70% of all marks inscribed on ostraca attested on ostraca securely dated to Thutmose III were still in use in the reign of Amenhotep III. We expect therefore that if all crew members of the early 19<sup>th</sup> Dynasty descended from their 18<sup>th</sup> Dynasty forefathers, many of their identity marks would still be in use in the Ramesside Period. The evidence, however, suggests otherwise. When we compare the marks attested on the earliest ostraca from the 19<sup>th</sup> Dynasty to the set of marks known from ostraca dating to the entire 18<sup>th</sup> Dynasty (TABLE 100), we notice that out of 41 marks, 15, perhaps 18 marks – representing about 40% of the entire set – are also found in the 18<sup>th</sup> Dynasty.

<sup>9</sup> For the use of identity marks in the family of Nakhy (iii) see below, 6.5.4.5.

Early 19 <sup>th</sup> Dyn.	18 <sup>th</sup> Dyn.
	✓
	✓
	✓
	✓
	✓

Early 19 <sup>th</sup> Dyn.	18 <sup>th</sup> Dyn.
	✓
	✓
	≈  ?
	✓
	✓
	≈  ?
	?
	✓
	≈  ?
	✓
	✓
	✓
	✓
	✓
	✓
	✓

TABLE 100. MARKS ATTESTED ON EARLY 19<sup>TH</sup> DYNASTY OSTRACA COMPARED TO MARKS FROM THE 18<sup>TH</sup> DYNASTY

This percentage is significantly lower than the percentage of Thutmoside marks that survived into the reign of Amenhotep III. Moreover, the marks that are attested in the early 19<sup>th</sup> Dynasty as well as in the 18<sup>th</sup> Dynasty, such as , , , and are very common marks that were in use at other sites at different times as well.<sup>10</sup> It may thus be a coincidence that these marks occur in the 18<sup>th</sup> Dynasty as well as in the subsequent period. Studying the ostraca of the reign of Amenhotep III, it would seem that many workmen's marks that were in use at the time had disappeared in the early 19<sup>th</sup> Dynasty. OL 6788, the ostracon that records the entire crew of workmen at some point in the reign of Amenhotep III serves as a good example. Out of 42 different marks in this document, only seven or perhaps nine marks (c. 19%) are still attested during the early 19<sup>th</sup> Dynasty (TABLE 101).

OL 6788	Early 19 <sup>th</sup> Dyn.
	✓
	✓
	≈  ? <sup>11</sup>
	✓
	✓

OL 6788	Early 19 <sup>th</sup> Dyn.

<sup>10</sup> Compare the corpora of marks in Excursus I; in Haring and Kaper (eds.), *Pictograms and Pseudo Script*; in Andrassy, Budka and Kammerzell (eds.), *Non-Textual Marking Systems*.

<sup>11</sup> For a possible relationship between mark and mark see below, 6.5.4.5.

## 6. CONCLUSIONS

𓄏		𓄏	
𓄏	✓	𓄏	✓
𓄏		𓄏	
𓄏		𓄏	
𓄏		𓄏	
𓄏	≈ 𓄏 ?	𓄏	
𓄏	✓	𓄏	
𓄏		𓄏	
𓄏		𓄏	
𓄏		𓄏	

TABLE 101. MARKS ATTESTED ON OL 6788 COMPARED TO MARKS FROM THE EARLY 19<sup>TH</sup> DYNASTY

The identity marks from this period therefore agree with previous ideas about the crew of the early 19<sup>th</sup> Dynasty. A minority of necropolis workmen descended from individuals that were involved in the construction of the tomb of Amenhotep III, and some of them could have inherited from them their identity marks.<sup>12</sup> Yet, the fact that so many 18<sup>th</sup> Dynasty marks were no longer in use during the early 19<sup>th</sup> Dynasty combined with the introduction of several new marks at that time conforms to the idea that new workmen had been transferred to the Royal Necropolis of Thebes.

This development can be seen as a reflection of the assumed reorganisation of the crew and its administration under Horemheb. Circumstantial evidence for the installation of new crew members during the beginning of the 19<sup>th</sup> Dynasty has been advanced by several authors. McDowell for instance remarked the following:

“New arrivals seem to have been most common in the community’s early days, although this impression may be due to the greater number of Nineteenth Dynasty tombs and stelae, which furnish the most useful genealogical information.”<sup>13</sup>

A few insightful comments on this matter were made by Davies,<sup>14</sup> and a very important though brief overview was presented by Bogoslovsky.<sup>15</sup> Both scholars brought into focus the fact that the origin of some of the 19<sup>th</sup> Dynasty necropolis workmen lay outside of Deir el-Medina. As point of departure for further investigation we turn to the career of one of the first identifiable necropolis scribes of the Theban necropolis, Amenemope (i).<sup>16</sup> The many monuments of this man<sup>17</sup> attest of a great variety of titles:

Royal Scribe in the Place of Truth, Overseer of the gang in the Place of Eternity  
 Royal Scribe in the Place of Truth, Count in the Necropolis (*sp3.t nhh*)  
 Royal Scribe, Scribe of the Cattle in the Place of Truth  
 Royal Scribe of Silver and Gold, Overseer of the gang in the Place of Truth  
 Royal Scribe of the West (*im.y-wr.t*)  
 Royal Scribe of the Treasury in the Place of Truth  
 Royal Scribe in the Tomb in the Place of Truth  
 Overseer of Work in the Place of Truth  
 Confidant of the King in the Secret Place

<sup>12</sup> Compare the case of the ancestors of Buqentuef (i) below, 6.5.1.

<sup>13</sup> Andrea G. McDowell, ‘Contact with the Outside World’ in: Leonard H. Lesko (ed.), *Pharaoh’s Workers. The Villagers of Deir el Medina* (Ithaca and London 1994), 42.

<sup>14</sup> Davies, *Who’s who*, 76; 149; 274.

<sup>15</sup> Evgeni S. Bogoslovsky, review of Alain-Pierre Zivie, *La tombe de Pached à Deir el-Médineh [No. 3]*. MIFAO 99 (Cairo 1979) in: *CdE* 57 (1982), 276-277.

<sup>16</sup> Černý, *Community*, 194-195; Davies, *Who’s who*, 76; Haring, ‘Scribes and Scribal Activity’, 109.

<sup>17</sup> *KRI* I, 381-389.

It seems hardly plausible that the titles truly represent different administrative offices. Instead it is likely that Amenemope (i) ringed together self-appropriated epithets. All titles seem to point to one and the same role: that of administrator of the construction of the royal tomb and of the affairs related to its workmen. One exception is formed by the last title of the list above. It informs us that before Amenemope was stationed in the Royal Necropolis, he was affiliated with the temple of Amun in Kush at Gebel Barkal. It is very likely that this title can be taken at face value, as the father of Amenemope, called Nakht, is similarly mentioned as *wab* priest of Amun, Lord of the Thrones of Both Lands in Kush on the statues of Amenemope.<sup>18</sup> Amenemope thus seems to have been transferred from Kush to Thebes,<sup>19</sup> where he became a necropolis scribe.

Amenemope is not the only 19<sup>th</sup> Dynasty member of the crew who hailed from a location other than Deir el-Medina, as will be demonstrated below. First some caution is in order. We know that the recruitment of workmen from other sites is not a uniquely early 19<sup>th</sup> Dynasty phenomenon. A perfect example is the famous scribe Ramose (i), who was introduced to the crew in year 5 of Ramesses II after his career in Thebes had taken off.<sup>20</sup> His case and a few others indicate that in the period following the reigns of Horemheb, Ramesses I and Seti I, external workmen were occasionally attracted. However, during the remainder of the Ramesside Period positions on the gang of necropolis workmen were *in general* hereditary.<sup>21</sup>

It is therefore noteworthy that several workmen from the early phase of the 19<sup>th</sup> Dynasty are the sons of men who had been active outside of the Theban necropolis. These workmen are presented below (TABLE 102) with their titles and those of their predecessors:

Name	Title	Period	Attestation
Pay (i) son of Ipu(y) (v)	Draughtsman of Amun in the Place of Truth	Horemheb – Seti I	- Graff. nr. 817 - St. Turin CG 50048
Ipu(y) (v)	Draughtsman of Amun in the Southern City	Horemheb (?)	St. Turin CG 50048
Kel (i) son of Simut (i)	Stonemason of Amun in the Southern City	Seti I (?) – early Ramesses II	TT 330
Simut (i)	Stonemason of Amun in the Masonry Work	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	TT 330
Maaninakhtuef (i) <sup>22</sup> son of Pashedu (vii)	- Servant of the Place of Truth, Draughtsman of Amun - Draughtsman of Amun	Ramesses II	- St. BM 269 - TT 323
Pashedu (vii) son of Amenemhat (i)	- Draughtsman of Amun in the Mansion of Sokar	Early 19 <sup>th</sup> Dynasty;	- TT 323

<sup>18</sup> Berlin 6910, see *KRI I*, 386-388.

<sup>19</sup> For the connection between the temples of Amun in Gebel Barkal and those in Karnak during the New Kingdom, see Timothy Kendall, 'The Origin of the Napatan State: El Kurru and the Evidence for the Royal Ancestors' in: Steffen Wenig (ed.), *Studien zum antiken Sudan. Akten der 7. Internationalen Tagung für meroitische Forschungen vom 14. bis 19. September 1992 in Gosen/bei Berlin*. Meroitica 15 (Wiesbaden 1999), 55-56.

<sup>20</sup> Davies, *Who's who*, 79.

<sup>21</sup> Valbelle, *Les ouvriers*, 111-113.

<sup>22</sup> Maaninakhtuef (i) was not a great grandson of Amenemhat (i) as stated by Davies, *Who's who*, 156, but a grandson of the latter man. Davies seems to have confused Pashedu (viii) and Amenemhat (i) on accident.

## 6. CONCLUSIONS

	- Draughtsman of Amun in the Place of Truth - Chief draughtsman	contemp. Didi (i) on stela from TT 359 ( <i>Rapport 1930</i> , 91, nr. 11)	- St. from TT 323 - St. Hermitage 8726
Amenemhat (i)	Draughtsman in the Mansion of Sokar	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	TT 323
Amennakht (xxi) son of Nebenmaat (i)	- Servant in the Place of Truth (on the West of Thebes) - Servant in the Place of Truth on the West of Thebes, [one who summons monuments of Amun] on [sic] the Southern City - One who summons (ꜥš) monuments of Amun in Opet, Servant in the Place of Truth	First half Ramesses II	TT 218
Nebenmaat (i)	One who summons (ꜥš) monuments of Amun in the Southern City	c. Seti I – Ramesses II	TT 218
Pashedu (x) son of Menna (iii)	- Servant in the Place of Truth (on the West [sic]) - Servant ( <i>bꜥk</i> ) of the Workshop of Amun in the Southern City - Servant in the Place of Truth on the West of Thebes, servant ( <i>bꜥk</i> ) of the Workshop of Amun, Stonemason of Amun in Karnak - Great one of the gang in the Place of Truth - Chief of the workshop of Amun	Early Ramesses II	- TT 3  - Sarcophagus fragm., Černý, <i>Répertoire</i> , 43.  - TT 326  - St. Cairo JE 36671
Menna (iii)	Servant ( <i>bꜥk</i> ) of Amun	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	TT 3
Amenemope (xvii) son of Mose (vii)	- Servant in the Place of Truth	First half Ramesses II	St. Louvre C. 280
Mose (vii)	- Servant in the Place of Truth - Stonemason of Amun in the work at Opet	Early 19 <sup>th</sup> Dynasty	- St. Louvre C. 280 - doors, Pushkin Museum I. la. 4867 a/b
Sennedjem (i) son of Khabekhnet (iii)	Servant in the Place of Truth	Seti I – Ramesses II	TT 1
Khabekhnet (iii)	One who summons (ꜥš) of ( <i>n(y)</i> ) Amun in the Southern City	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	TT 1

TABLE 102. EARLY 19<sup>TH</sup> DYNASTY DESCENDANTS OF MEN ACTIVE OUTSIDE OF THE ROYAL NECROPOLIS

The overview demonstrates that fathers of these early 19<sup>th</sup> Dynasty workmen were employed at several Theban institutions connected with the cult of Amun. They are simply recorded as servant (*bꜥk*) of Amun, or as stonemason of Amun, but other titles refer to Amun in the Southern City (Thebes). Amenemhat (i), Draughtsman in the Mansion of Sokar, was perhaps related to the cult of Amun as well, because his son was a Draughtsman of Amun in the

Mansion of Sokar. Several of the early 19<sup>th</sup> Dynasty workmen themselves may have begun their careers in one of the institutions of Amun at Thebes, as their titles relate them to the cult of Amun.<sup>23</sup> This notion agrees with Bogoslovsky's statement that "[i]n the early period of the XIXth dynasty quite a number of workers retained their relation to the economy of the temple of Amun from which they were transferred after the reorganisation of the necropolis on the 7<sup>th</sup> year of the reign of Horemhab."<sup>24</sup> With this knowledge, we may propose a similar career path from the East bank of Thebes to the West bank for three workmen, about whose parentage we possess little information:

Piay (ii) <sup>25</sup>	- Sculptor of Amun - Sculptor in the Place of Eternity	Horemheb – Seti I	- Graff. nr. 817 - St. Bankes 8
Amek (i) son of Pakharu (viii)	- Servant in the Place of Truth, 'Great of Arm' in the Place of Eternity - Servant ( <i>bꜣk</i> ) of Sobekre	Seti I	- St. Bankes 5  - doorjamb, <i>Rapport 1948-1951</i> , 51-52
Pakharu (viii)	<i>No title attested</i>	End 18 <sup>th</sup> Dynasty – Early 19 <sup>th</sup> Dynasty	
Pashedu (xv) son of Harmose (i)	- Servant of the Place of Truth - Stonemason of Amun in the Temple of Karnak	Ramesses II	- doorjamb TT 339
Harmose (i)	<i>No title attested</i>	Early 19 <sup>th</sup> Dynasty	

TABLE 103. EARLY 19<sup>TH</sup> DYNASTY WORKMEN ASSOCIATED WITH THE CULT OF AMUN

Piay (ii) and Pashedu (xv) bear titles that connect them both with the Royal Necropolis as well as to sanctuaries of Amun in Thebes. Whether Amek (i) was previously affiliated with a sanctuary of Sobekre elsewhere is unclear. Apart from this individual, all men, including the scribe Amenemope (i) from Kush, were related to the cult of Amun. Like the men discussed above, they were very probably installed at Deir el-Medina during or just after the reorganisation in the reign of Horemheb. At the new location they will have been introduced to the marking system that prevailed in this community, although they could well have been familiar with similar customs from other construction sites. They adopted an identity mark of their own, or used a mark that they had employed elsewhere. Hence we possess ostraca from

<sup>23</sup> Pay (i); Kel (i), whose title does not associate him with the Royal Necropolis, but the fact that he was buried at Deir el-Medina (TT 330) is evidence that he surely was a member of the crew; Maaninakhtuef (i); Amennakht (xxi); Pashedu (i), whose attestations are confusing. It is plausible that the workman Pashedu, owner of TT 3, is the same man as the chief workman Pashedu who owned TT 326. For this discussion, see Alain-Pierre Zivie, *La tombe de Pached à Deir el-Médineh [No. 3]*. MIFAO 99 (Cairo 1979), 120-130; Bogoslovsky, review of Zivie, *La tombe de Pached*, 276; Kenneth A. Kitchen, *Ramesside Inscriptions Translated and Annotated. Notes and Comments. I. Ramesses I, Sethos I and Contemporaries* (Oxford and Cambridge 1993), 270-280. It is evident that at least one of the owners of the two tombs had come from outside of Deir el-Medina; Pashedu (xv).

<sup>24</sup> Bogoslovsky, review of Zivie, *La tombe de Pached*, 276.

<sup>25</sup> The father of this man is unknown. Davies, *Who's who*, 178, appears at this point to have gotten lost in his own arguments. He suggested after Jaroslav Černý, *Egyptian Stelae in the Bankes Collection* (Oxford 1958), nr. 8, that there is a possibility that the father of Piay (ii) is mentioned on Bankes Stela nr. 8. This is however not what Černý proposed. Instead, Černý identified the two men on the stelae as Piay (ii), the sculptor known from the Royal Necropolis, and his son – not his father – of the same name. The latter Piay, who is mentioned as Piay (iii), son of Piay (ii) in Davies' chart 14, bears the title 'sculptor of Amun'. On account of this title Černý thought Piay (iii) would not have worked on the royal tomb, but in view of several sculptors attested in the Royal Necropolis with the same title, that can be disputed.

the early 19<sup>th</sup> Dynasty with few marks that appear in the 18<sup>th</sup> Dynasty with several previously unattested marks.

#### **6.2.4 Ostraca with identity marks of the 19<sup>th</sup> Dynasty**

Identity marks are abundantly attested on ostraca from the middle of the 19<sup>th</sup> Dynasty, and particularly the second half of the reign of Ramesses II is well documented. There are relatively few ostraca with identity marks that can be dated to the end of the 19<sup>th</sup> Dynasty. Finds from the excavations near the tomb of Siptah (KV 47) support the perceived decline in the number of ostraca with marks, but it cannot be stated categorically that the motivation behind the creation of ostraca with marks had waned. Instead, the smaller number of ostraca from this period may be due to the absence of informative anchor points for this period, and our inability to recognise late 19<sup>th</sup> Dynasty ostraca with marks because its repertory does not diverge much from that of the earlier 19<sup>th</sup> Dynasty. Be that as it may, the practice of employing identity marks to compose administrative records and notes is attested from the early 19<sup>th</sup> Dynasty to as late as the end of the reign of Siptah.

#### **6.2.5 Ostraca with identity marks of the 20<sup>th</sup> Dynasty**

No ostraca are attributed to the beginning of the reign of Ramesses III, a situation that is mirrored by the paucity of hieratic documentary texts from the first part of his reign. Nevertheless, there is no cause for doubt about the continuation of the use of identity mark from the end of the 19<sup>th</sup> Dynasty into the next dynasty, as they return in our scope around the middle of the reign of Ramesses III. Throughout the 20<sup>th</sup> Dynasty numerous ostraca with identity marks were created. Relatively little documentation in the form of hieratic administrative texts is known from the period between year 2 of Ramesses IV and the beginning of the reign of Ramesses IX. This gap is partially bridged by ostraca with marks. In particular they record deliveries and duty rosters from the time of Ramesses IV and Ramesses V. Ostraca with marks continued to be produced well into the reign of Ramesses IX, and there are strong indications that this custom persisted even after this period in the reign of Ramesses XI. The last datable ostraca with marks are dated to the closing years of his reign. Around this period, the deterioration of the tomb administration had begun, and it is likely that the habit of composing ostraca was abandoned.

### **6.3 THE PHENOMENON OF OSTRACA WITH MARKS IN THE CONTEXT OF LITERACY**

The usage of a marking system at Deir el-Medina appears to have been one out of a plethora of systems that had been developed throughout the New Kingdom. These marks are attested in the context of large scale building, quarrying, the construction of coffins, the production of textile and pottery, and the keeping of cattle. The majority of the individuals involved in the activities were labourers and craftsmen who, like many of the necropolis workmen of the 18<sup>th</sup> Dynasty, were not trained as scribes. The feature that sets the usage of marks in Deir el-Medina apart from other systems is their application in the creation of documentary records. As far as we know, ostraca inscribed with identity marks appear to have been produced in ancient Egypt only in the community of royal Theban necropolis workmen. What may have inspired the workmen of the 18<sup>th</sup> Dynasty to embrace this practice is unclear, but it is paralleled by their interest in and affinity to hieroglyphic script. Despite their lack of formal scribal training the workmen took to decorating tomb walls and coffins with poorly written, but comprehensible hieroglyphic texts. In that respect the 18<sup>th</sup> Dynasty community of Deir el-Medina seems to have been rather unique as well, and we suspect that their involvement in the decoration of royal tombs, the audits by a scribe of the kings, and perhaps even the workmen's involvement in the burial of the king may have stimulated their attraction to script

and practices akin to writing. We surmise that the usage of identity marks was not influenced by script, but the idea to compose ostraca with series of marks probably was.

It is improbable that the custom of recording data with marks was imposed by higher authorities, although policies of this nature are not inconceivable. In contemporary narratives illiteracy has often been viewed as a sign of deficiency and as a disadvantage that requires remedying.<sup>26</sup> This idea has prompted numerous studies that investigated the perceived problem, some of which proposed a solution in the form of communication through signs. Two recent papers, for example, advocate the development of “visual” or “symbol-based” address books in mobile telephones, for “low-literate users”.<sup>27</sup> The Theban authorities of the 18<sup>th</sup> Dynasty will not have embarked on a comparable campaign to battle illiteracy. For them it sufficed to send a scribe to the Royal Necropolis in order to monitor the progress on the tomb. If this man had instructed the workmen to record information with the aid of identity marks, we would expect more aspects of formal scribal practice in the documents, such as hieroglyphic or hieratic numerals. The marking system thus must have been an initiative of the necropolis workmen themselves. Empirical evidence indicates that it is not impossible for illiterate or semi-literate individuals to develop notation systems in a society wherein script plays an important role. To keep to the topic of telephones, one of the studies that suggested introducing visual phonebooks on mobile phones records that a number of “low-literate or illiterate” shop keepers and small-scale farmers in the villages of Chinchavli and Ukara (c. 100 km from Mumbai, India) had created their own phone books. They noted names and phone numbers in notebooks, often incorrectly spelled. Others employed Latin alphabetic characters to refer to a name, such as A for someone named Atul.<sup>28</sup> Similarly, artist Yto Barrada wrote the following about the phonebooks of her grandmother (FIG. 20):

“These are the notebooks of Z.A.B. She was my grandmother and was illiterate. She gave birth to twelve children, of whom ten lived. To keep in touch with them all she made herself a telephone directory from an old recipe notebook. To identify each member, she made a coded drawing: the one with spectacles, the one with four sons. The corresponding telephone numbers were recorded as a series of little lines [...]. She had someone else write the name as well.”<sup>29</sup>

In the 18<sup>th</sup> Dynasty community of Deir el-Medina, a similar wish to note things down will have occurred, and a lack of scribal training did not prevent them from composing their own form of documentation. All the ingredients for it were after all well available: the idea of identity marks had existed in the context of labour for ages; the writing material, limestone chips and fragments of pottery, was ubiquitous; and in the presence of draughtsmen and occasionally an administrative scribe ink and pens will have been accessible too.

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<sup>26</sup> James Collins, ‘Literacy and literacies’ *ARA* 24 (1995), 83.

<sup>27</sup> Anuradha Bhamidipaty and Deepak P., ‘SymAB: Symbol-Based Address Book for the Semi-literate Mobile User’ in: Cécilia Baranauskas, Philippe Palanque, Julio Abascal *et al.* (eds.), *Human-Computer Interaction – INTERACT 2007. 11th IFIP TC 13 International Conference. Rio de Janeiro, Brazil, September 2007. Proceedings*. Part I. Lecture Notes in Computer Science 4662 (Heidelberg and New York 2007), 389-392; Anirudha Joshi, Nikhil Welankar, Naveen Bagalkot *et al.*, ‘Rangoli: A Visual Phonebook for Low-literate users’ in: Henri ter Hofte, Ingrid Mulder and Boris de Ruyter (eds.), *Mobile HCI 2008. Proceedings of the 10th International Conference on Human-Computer Interaction with Mobile Devices and Services* (New York and Amsterdam 2008), 217-223. Compare also the use of symbols in hospitals in the United States, see Jamie Cowgill and Jim Bolek, *Symbol usage in health care settings for people with limited English proficiency*. Part I. *Evaluation of use of symbol graphics in medical settings*. *Hablamos Juntos Report 1* (Scottsdale 2003).

<sup>28</sup> Joshi, Welankar, Bagalkot *et al.*, ‘A Visual Phonebook’, 217-218.

<sup>29</sup> <http://www.sharjahart.org/projects/projects-by-date/2011/the-telephone-books-barrada>. This work was kindly brought to our attention by Janko Duinker.



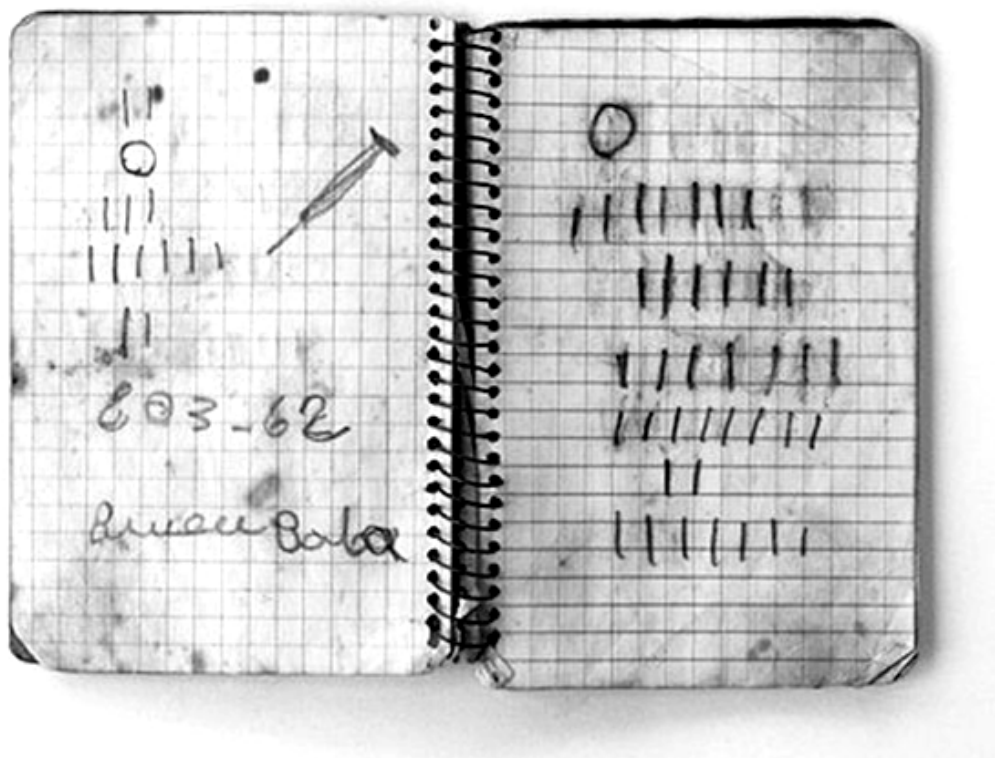


FIGURE 20. 'THE TELEPHONE BOOKS' – YTO BARRADA

The palaeography of the 18<sup>th</sup> Dynasty ostraca with marks demonstrates that several different individuals were responsible for their creation. The majority of these men were clearly not trained in the writing of script, as evidenced by the absence of numerals or phrases written in hieratic or hieroglyphic, with perhaps the single exception of O. Cairo JE 96285. Several ostraca provide insights into the different approaches to recording information by these untrained scribes: inscribing marks along the edge of an ostrakon, writing in *boustrophedon*, writing in lines and the – seemingly – random distribution of marks across an ostrakon. The heterogeneity of specimens of a single mark, as well as of the orientation of marks reveals their inexperience in noting down signs with a pen. The number of ostraca that display the hand of an individual that was educated in the usage of script is tentatively estimated to be about 20%. The ductus of the marks as well as the absence of any hieratic phrases indicates that these men were no hieratic scribes, but it is likely that they were draughtsmen.

The practice of composing ostraca with marks was apparently persistent enough to survive even after a period of diminished activity at the Theban necropolis during the Amarna Period. Moreover, the phenomenon was able to withstand the reorganisation of the administration of the Royal Necropolis in the reign of Horemheb, which brought a professional scribe into the midst of the necropolis workmen. The renewed administration would eventually bring about a trend towards standardisation of written administrative practice, and the number of functionally literate individuals would increase during the Ramesside Period. These developments did not expel the usage of identity marks. On the contrary, the usage of marks thrived under them, as evidenced by the increase over time in the number of ostraca with marks, and by the diversification of documents for which marks were used in comparison to the 18<sup>th</sup> Dynasty. The evidence therefore suggests that the installation of a necropolis scribe in Deir el-Medina at the beginning of the 19<sup>th</sup> Dynasty did not affect the older tradition of using identity marks. It only seems to have encouraged the

necropolis workmen in the usage of marks and in their interest in script, an interest that can be detected already during the 18<sup>th</sup> Dynasty when some individuals attempted to write funerary inscriptions to the best of their abilities.

Nevertheless, the practice of inscribing ostraca with marks was certainly not a widespread phenomenon. That is true for the 18<sup>th</sup> Dynasty, for which we know of 138 ostraca with marks for a period of c. 125 years, but also for the 19<sup>th</sup> Dynasty. We have identified only 159 ostraca with marks that can be attributed to the latter period, and ostraca with identity marks from the section of the workmen's huts in front of the tomb of Amenmesses represent a mere 20% of all ostraca from that site. A concise palaeographic survey suggests that about 10% of the 19<sup>th</sup> Dynasty ostraca with marks were made by an individual who was formally trained in hieratic or hieroglyphic script. This figure is somewhat lower than the estimated number of trained hands of the 18<sup>th</sup> Dynasty, but the ostraca with marks from the 19<sup>th</sup> Dynasty still attest to an increase in the level of literacy of its authors in several aspects. The orientation of individual marks is not as variable as during the previous period, because marks that are rotated 90 or 180 degrees are no longer attested. In terms of lay-out, marks are no longer written in *boustrophedon*, and marks are frequently presented in a more orderly fashion. For the first time, marks are arranged in orderly columns in some ostraca, and a tabular format is occasionally followed in the reign of Ramesses II. Another innovation of the period is the introduction of hieratic signs, hieratic numerals and brief hieroglyphic phrases, although such elements are far from frequent; ostraca with hieratic numerals represent c. 9% of the entire corpus.

The 19<sup>th</sup> Dynasty ostraca provide once again unique insights into the strategies of men who were not trained as scribes. We have seen the work of a man from the time of Ramesses II who had learned how to write a date line in hieratic. Apart from hieratic numerals he was able to use the sign for *ht* 'wood' and he used the uniliteral sign *s* for the word *smhy* 'left'. Hieratic numerals for '10', '20' and '100' seem to have been known to many of the non-professional scribes of ostraca with marks, but these signs were often used as if they were hieroglyphic numerals. We assume they did not know how to write higher numerals and therefore e.g. repeated the numeral '10' six times when they wanted to convey the figure '60'.

The 19<sup>th</sup> Dynasty also constitutes the period when the creators of ostraca with marks came up with solutions for creating more intricate documents than ostraca with lines of identity marks with series of tallies. Bypassing the – assumed – obstacle of their lack of scribal training, we observe that necropolis workmen begin to invent their own notation systems. Some are rather pictorial in nature, such as references to loaves of bread, chisels, and items of clothing. Other signs are – at least to our eyes – rather abstract. An example is  $\Delta$ , used in the 19<sup>th</sup> Dynasty to refer to an unknown commodity.

A total of 359 ostraca with marks has been attributed to the 20<sup>th</sup> Dynasty.<sup>30</sup> This figure is approximately twice as high as the total number of ostraca with marks from the 19<sup>th</sup> Dynasty. Nevertheless, the practice of inscribing ostraca with marks must still be regarded as a marginal custom. We estimate that, as in the 19<sup>th</sup> Dynasty, the ostraca with marks represent about 20% of all 20<sup>th</sup> Dynasty ostraca of a documentary nature. Although the ostraca show many different hands, these figures suggest that ostraca with marks were not habitually created by many of the necropolis workmen. The number of 20<sup>th</sup> Dynasty ostraca that, on account of a cursory survey of palaeographic details, orientation of marks, and the occurrence of textual phrases, has been attributed to an individual that was professionally trained in hieratic and/or hieroglyphic script represents about 25% of the entire corpus. This figure is

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<sup>30</sup> There may certainly be more documents from this period among the very fragmentary and poorly preserved ostraca for which an accurate date cannot be proposed, cf. above, Introduction, p. 17, n. 107.

higher than in the 19<sup>th</sup> Dynasty. Since the ratio of hieratic documentary ostraca to ostraca with marks during the 20<sup>th</sup> Dynasty is about the same as during the 19<sup>th</sup> Dynasty, this increase should not be explained as an indication that professional scribes systematically created more of their administration with marks. Instead, the larger number is probably reflective of the increase in the number of literati during the 20<sup>th</sup> Dynasty.

As in the 19<sup>th</sup> Dynasty, the majority of ostraca with marks was made by individuals without a formal training in hieratic or hieroglyphic script. The example *par excellence* is the scribe whom we have tentatively identified as the ‘*smd.t* scribe’ Pentaweret (iii). Despite the fact that he was not a professionally trained scribe, he prepared notes of the deliveries brought to the village. This man employed hieratic numerals and identity marks within a self-invented system of signs for commodities, *smd.t* agents, and months. There are strong indications that during the reigns of Ramesses III and Ramesses IV he cooperated closely with a professional scribe, perhaps Hori, who seems to have consulted and on occasion edited the records composed with marks to write hieratic accounts, details of which were sometimes included in larger necropolis journals. Towards the close of the 20<sup>th</sup> Dynasty a similar construction could have existed in which a man with very restricted knowledge of hieratic and hieroglyphic script seems to have recorded deliveries on ostraca by combining his own system of signs, semi-hieratic numerals and identity marks.

In many of the ostraca from the 20<sup>th</sup> Dynasty we see untrained ‘scribes’ at work. As in the 18<sup>th</sup> Dynasty, the scribe of O. ARTP 99/27, clearly not a professional, aligned one column of marks to the edge of the ostrakon. Another parallel can be drawn between the 18<sup>th</sup> Dynasty and the 20<sup>th</sup> Dynasty. In chapter 2 it was briefly mentioned that the artist of the early 18<sup>th</sup> Dynasty tomb TT 340 was a limitedly literate man, who preferred the use of uniliteral signs over multiliteral signs.<sup>31</sup> To some extent we notice the same predilection with the self-invented signs of the scribe of the duty and delivery texts from first half of the 20<sup>th</sup> Dynasty. It seems therefore plausible that individuals without a formal training in script would be able to recognise and employ more of these uncomplicated, easy to draw signs, rather than the often more elaborate biliteral and trilateral hieroglyphs.

Among the authors of ostraca with identity marks that were educated in hieroglyphic and/or hieratic script there were certainly draughtsmen. One of these created a number of such ostraca throughout the course of the 20<sup>th</sup> Dynasty, and he may have been Harshire (i) or Amenhotep (vi). We wonder why on a few occasions trained draughtsmen or scribes, having invested considerable time in crafting the art of script, would resort to the usage of identity marks to compose ostraca. No irrefutable answer presents itself, and there could be several reasons behind this matter. Importantly, emphasis must again be placed on the fact that ostraca with marks were only sporadically created by trained scribes or draughtsmen. It could be argued that draughtsmen may have been attracted to the pictorial nature of the workmen’s marks, and that they may have enjoyed drawing up the occasional list of workmen by noting down their identity marks. Additionally, it has been proposed on several occasions in this work that the scribes may have created a quick draft using marks and numerals before writing out the hieratic text proper. Some of 20<sup>th</sup> Dynasty accounts of grain rations with workmen’s marks come to mind. On such documents, the scribe could have calculated the individual rations of the workmen, making quick use of identity marks. Adding up their portions, he may then have used the total in his hieratic account. This could also explain the correspondence between the hieratic text on O. Cairo CG 25660+ and the partially corresponding column of marks to its left.

However, this and many other documents may also be transcriptions of a hieratic account, specifically created to serve workmen who were not able to read hieratic texts. In

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<sup>31</sup> Chapter 2, 2.6.1.












favour of the latter idea weigh the so-called furniture ostraca from the 20<sup>th</sup> Dynasty. We understand these pieces as accounts recording the individual tasks of a group of workmen related to the production of pieces of furniture. The particular stage of the production that is recorded by the ostraca is that of crafting rather than of decorating, tasks that were performed by 'regular' workmen. The ostraca may therefore be work sheets that explicate the individual responsibilities of different workmen. The ostraca were perhaps not created by the necropolis scribe, but the majority do display the steady hand and ductus of someone with knowledge of hieroglyphic and hieratic script, probably the draughtsman that coordinated the production of these objects. By composing a highly pictorial document in which identity marks were incorporated, workmen without knowledge of script that were involved in the operation could 'read' the work sheets. The coordinating scribe may have used it to explain the division of work. It is possible that the workmen consulted the ostrakon at a later moment, and through this document they could perhaps even be held accountable for an oral agreement about the production of items as recorded on the ostrakon.

The highly pictorial account of O. Brooklyn 16118+ attests perhaps to the same practice: a trained scribe or draughtsman created an ostrakon with marks with the aim of making information clear to workmen who did not read hieratic or hieroglyphs. That interpretation follows from several parallels between this ostrakon, which records the distribution of goods as well as what seems to be the performance of certain tasks by individual workmen, and the furniture ostraca. As so often, the ostraca document a collective of workmen. They are not records of singular events, such as a dispute between two individuals, or the visit of a high dignitary. Instead, the ostraca record matters in which a group of workmen hold a stake. It was in their interest to know about the distribution of the commodities listed in O. Brooklyn 16118+, as it was relevant to them to know which piece of furniture they were tasked with crafting. Like the furniture ostraca, O. Brooklyn 16118+ is very pictorial and will have been comprehensible to anyone within the community. Moreover, the usage of brief hieroglyphic and hieratic captions that accompany some of the drawings is proof that, like the scribes of several furniture ostraca, the author of O. Brooklyn 16118+ had knowledge of script. We suspect therefore that the ostrakon was made specifically so that it could be understood by workmen. The hieroglyphic and hieratic caption may not have been understood by all of them, but much of the document is explained through drawings and identity marks.

The majority of ostraca with marks that were created by a professional scribe or draughtsman – which appear to constitute only a relatively small portion of all ostraca with marks – can be explained in this manner. Still there may have been instances where a professional scribe wanted to preserve time by using marks rather than hieratic script. A case in point is perhaps ONL 1371. Although this ostrakon concerns a collective of workmen like O. Brooklyn 16118+ and the furniture ostraca, the scribe of the ostrakon employed, besides identity marks, several hieratic signs and sign groups that were entirely written in hieratic. It is likely that not every member of the community will have been able to completely decipher this amalgam.

Ostraca with identity marks thus reveal unknown aspects of the concept of literacy at Deir el-Medina. On the one hand they attest to the strategies of untrained 'scribes' in their quest to preserve data not in traditional writing, but through alternative ways. On the other, a much smaller group of ostraca seem to illustrate how individuals who were instructed in writing adapted to the needs of their colleagues by creating documents they would be able to understand. But on the basis of the identity marks themselves we may make some assumptions about the degree of literacy throughout the history of the community of workmen, and compare this to a previous assessment by Haring. Analysing the hieratic documentary texts from the Royal Necropolis, Haring was able to outline the scribal output

over time. A clear rise in the number of texts is visible from the early half of the 19<sup>th</sup> Dynasty to the middle of the 20<sup>th</sup> Dynasty, indicating that ever more villagers were occupied with writing.<sup>32</sup> The corpus of identity marks would seem to agree with this and provides additional data for the 18<sup>th</sup> Dynasty, although it must be admitted that the method through which one arrives at these results is of uncertain validity. The reasoning is based on the occurrence of marks that are borrowed from script and the marks that are not, thus taking an identity mark to be representative of the degree of literacy of its user.

Two aspects of this approach are problematic. Firstly, a mark that does not appear to be a character from script may in actuality be an abstract form of a character that is not recognised as such. Take for example the 18<sup>th</sup> Dynasty mark . This seemingly abstract mark, also attested by its allomorph , may in fact represent some sort of mammal, as suggested by mark  on ONL 6416 and  on O. Cairo JE 96603. If this interpretation is correct then variants  and  appear to depict a double-headed form of that mammal. Mark  could thus be the hieroglyph , a sign not included in Gardiner's list, perhaps because it only occurs in religious texts. The hieroglyph appears first in the Pyramid Texts for the word *hns* 'double doors',<sup>33</sup> or for the double bull deity,<sup>34</sup> and does not seem to be connected to the name of the god Khonsu.<sup>35</sup> In later times, however, the sign is used for other words as well. It is attested in the Coffin Texts for the spelling of the word *hns* 'to traverse',<sup>36</sup> and it is used as such in the New Kingdom<sup>37</sup> and many later texts.<sup>38</sup> The similar and perhaps related sign  is used in the Ptolemaic period for the name of the god Khonsu.<sup>39</sup> If a connection between mark  and hieroglyph  does exist, we have to assume that the individual who had chosen it as his personal mark or who assigned it to a particular workman was to some extent acquainted with religious texts. The sign may even have referred to the name of the god Khonsu in the proper name of this particular workman, or one of his predecessors. All of this is however far from certain, more so since no other 18<sup>th</sup> Dynasty mark is evidently borrowed from hieroglyphs used in religious texts.

Secondly, it is unclear to what extent an identity mark is telling of the scribal capabilities of its owner.<sup>40</sup> The method is thus far from secure, but nevertheless worth exploring by taking ostraca and ostracon groups that we believe are representative of the entire repertory of marks at a specific moment. For the reign of Amenhotep III, OL 6788 is selected (probably the entire crew); for the reign of Ramesses II we select O. Schaden 16, O. Schaden 1, and O. Hawass and O. Cairo JE 96336 (together more or less representative of the right and left sides of the crew; O. BM 50716 and O. ARTP 99/27 record almost the entire right and left side from the time of Ramesses IV-Ramesses V; and jointly O. BM 5642 and OL 170+ present a good indication of the entire right and left sides of the reign of Ramesses IX.

<sup>32</sup> Haring, 'From Oral Practice to Written Record'; Haring, 'Scribes and Scribal Activity', 107, 111.

<sup>33</sup> Rami van der Molen, *A hieroglyphic dictionary of Egyptian Coffin Texts*. PdÄ 15 (Leiden, Boston and Cologne 2000), 395.

<sup>34</sup> Van der Molen, *Egyptian Coffin Texts*, 394. For this word in the Coffin Texts see Dirk van der Plas and Joris F. Borghouts, *Coffin Texts Word Index*. PIREI 6 (Utrecht and Paris 1998), 228. For this deity see Brigitte Altenmüller, *Synkretismus in den Sargtexten*. GÖF 7 (Wiesbaden 1975), 166.

<sup>35</sup> U. Paradisi, 'La doppia protome di toro nell'arte rupestre sahariana e nella tavolozza predinastica egiziana della caccia al leone' *Aegyptus* 43 (1963), 269-277; Georges Posener, 'Philologie et archéologie égyptiennes' *Ann CdF* 65 (1966), 339-346.

<sup>36</sup> Van der Plas and Borghouts, *Coffin Texts Word Index*, 228.

<sup>37</sup> *WB* III, 299, 10.

<sup>38</sup> See e.g. Christian Leitz (ed.), *Lexikon der ägyptischen Götter und Götterbezeichnungen*. Band V. OLA 114 (Leuven 2002), 757, 758 and 761; Christian Leitz, *Quellentexte zur ägyptische Religion I. Die Tempelinschriften der griechisch-römischen Zeit*. EQÄ 2. 2<sup>nd</sup> ed. (Berlin 2006), 159, sign E177.

<sup>39</sup> Leitz (ed.), *Lexikon* V, 761.

<sup>40</sup> On this question, see also below, 6.5.1.

The marks on these ostraca are listed below (TABLE 104), counting only once the double marks on a single ostrakon (e.g. 𐀓 on OL 6788) or marks that occur on both sides of the crew (e.g. 𐀓 on BM 50716 and O. ARTP 99/27). Marks above the black line are (mostly) straightforwardly recognised as hieroglyphic or hieratic signs, marks below the line are not. Although hieroglyph 𐀓 was not included in Gardiner's sign list, this mark does belong to the group of scriptural signs because it possesses the phonetic value *imzḥ* and is used in writings of *mꜣꜣ* 'to see'.<sup>41</sup> A comparison of the signs leads to the following overview:

OL 6788	Amenhotep III	From script:	26	61.9%
		Not from script:	16	38.1%
O. Schaden 16	Ramesses II	From script:	30	78.9%
O. Schaden 1		Not from script:	8	21.1%
O. Hawass				
O. Cairo JE 96636				
O. BM 50716 (right)	Ramesses IV – V	From script:	57	86.4%
O. ARTP 99/27 (left)		Not from script:	9	13.6%
O. BM 5642	Ramesses IX	From script:	43	86.0%
OL 170+		Not from script:	7	14.0%

From the end of the 18<sup>th</sup> Dynasty to the middle of the 20<sup>th</sup> Dynasty the number of marks that occur as signs in script increases slightly, and the marks that do not seem to have been inspired by characters found in writing diminish.<sup>42</sup> The overview brings to light similar developments. In the 18<sup>th</sup> Dynasty, the only example of a mark that consists of more than one sign is 𐀓, readable as *nb tꜣwy*.<sup>43</sup> Such groups become more common over time. In the reign of Ramesses II we find 𐀓, 𐀓 and 𐀓, while around the time of Ramesses IV – Ramesses V we observe more than twice as many of such marks: 𐀓, 𐀓, 𐀓, 𐀓, 𐀓, 𐀓 and 𐀓. Striking is also the fact that it is in the second part of the 20<sup>th</sup> Dynasty that such sign groups are for the first time composed with hieratic signs: 𐀓 and 𐀓.

<sup>41</sup> Ben Haring, 'Nineteenth Dynasty stelae and the merits of hieratic palaeography' *BiOr* 67 (2010), 27-28.

<sup>42</sup> Compare preliminary but similar observations by Haring, 'On the nature', 127.

<sup>43</sup> With perhaps the exception of 𐀓 on ONL 6520.



These observations – whether valid or not – do coincide with the increase in scribal activity and an increase in literacy as signalled by Haring. They also agree with the perceived low levels of literacy during the 18<sup>th</sup> Dynasty. If there is any truth in this brief overview, we may suggest that despite the apparent decline in the production of hieratic texts during the second half of the 20<sup>th</sup> Dynasty,<sup>44</sup> the degree of literacy among the villagers remained in general constant.<sup>45</sup>

#### 6.4 THE PURPOSE OF IDENTITY MARKS AND OF OSTRACA INSCRIBED WITH IDENTITY MARKS

The identity marks must have been an essential constituent in the lives of the Royal Necropolis workmen. As markers of property they were ubiquitous in everyday life situations, featuring on ceramic vessels, tools and perhaps clothing.<sup>46</sup> Such items also accompanied the deceased in their tombs, while friends and colleagues donated funerary gifts with their own identity marks to the funerary equipment. The significance of the identity marks during the 18<sup>th</sup> Dynasty is demonstrated by the two notable instances of marks that were worked into valuable bronze vessels from the tomb of Kha.<sup>47</sup> It is evident that the identity marks were an important vehicle to distinguish one individual from another, both in everyday life situations in affairs of material or perhaps spatial ownership, and in lists of workmen recorded on a particular document. Nevertheless, no effort was made to eradicate any form of ambiguity. This is well illustrated by the use of mark 𓏏 for three different individuals during the reign of Ramesses IV. At this time, a workman of the right side called Mose (iv) was designated by this mark, as was an unidentified but different workman of the left side. Moreover, in the duty and delivery texts composed with marks, 𓏏 was also employed to refer to a *smd.t* agent, the woodcutter Ptahmose. The context of the identity mark is therefore crucial to its understanding, but in most cases it will have been absolutely clear which person was meant. There will have been no doubt whatsoever that 𓏏 for a workman recorded in a *wrš* duty was no other than Mose (iv), the member of the right side. If this mark were connected with a batch of commodities in the very same document, it could only have been *smd.t* agent Ptahmose. Similarly, it is inconceivable that anyone would have mistakenly interpreted mark 𓏏 in a list of workmen of the left side like O. ARTP 99/27 as a reference to Mose (iv) of the right side. It was perfectly clear which workman was meant, because the mark occurred within an ordered list of the left side of the crew.

Comparable examples occur already in the ostraca of the 18<sup>th</sup> Dynasty, where two instances of the same mark are occasionally found within a single document. We assume they refer to a senior workman and his assistant, but to the author of the ostrakon and perhaps its users it must have been crystal clear who was recorded. That can be deduced from the simple fact that double marks continue to occur throughout the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> Dynasties. If double marks would have led to administrative errors, this practice would have been

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<sup>44</sup> Haring, 'From Oral Practice to Written Record', 254; Haring, 'Scribes and Scribal Activity', 111.

<sup>45</sup> This statement is made with many reservations; it seems that during much of the 20<sup>th</sup> Dynasty the repertory of the workmen's marks changed very little, see below, 6.5.4.5, which could explain why the percentage of marks that are borrowed from script is almost as high as during the middle of the 20<sup>th</sup> Dynasty. On the other hand, the appearance of marks consisting of a hieratic sign group during the late 20<sup>th</sup> Dynasty does weigh in favour of a high degree of literacy at that time. If that assumption proves to be correct, the paucity of hieratic ostraca from the second half of the 20<sup>th</sup> Dynasty is not a symptom of reduced scribal activity. Instead, the administrators of the tomb may have employed papyri rather than ostraca at this period (see Eyre, *Employment and Labour Relations*, 44-47; Haring, 'Scribes and Scribal Activity', 111), which have not survived as well as ostraca, or which exist among the Theban papyri that remain to be published.

<sup>46</sup> The only examples of identity marks on clothing from Deir el-Medina come from the tomb of Kha (TT 8), where they are attested in numerous instances.

<sup>47</sup> Turin S. 8361 RCGE 19406, see Schiaparelli, *La tomba*, fig. 119; Turin S. 8218 RCGE 19799, see Schiaparelli, *La tomba*, fig. 118.



abandoned long ago. We may surmise from this that the ostraca with identity marks are to a great extent *aides-mémoires*: they record events to which the author himself was a participant or a witness, and therefore he required a minimum of marks (and other signs) to compose a comprehensible document. Of course the same can be said about much of the hieratic administration of the Theban necropolis, which includes numerous documents that cannot be understood without contextual knowledge. Yet, there are also scores of hieratic records that are very descriptive of their content (containing e.g. headings), while ostraca with marks as a rule are not.

The identity marks inscribed on objects must have functioned in the same manner as the marks on ostraca. Theoretically, the identity marks are not unambiguous, but in practice their meaning will not have been questioned. Let us imagine that during the reign of Ramesses IV an amphora marked with  $\aleph$  was stored in a workmen's hut in the Valley of the Kings. This mark could have referred to Hori (ii) = (iii), a member of the right side of the crew, but also to Nebnefer (ix) son of Hori (ix), a workman who belonged to the left side of the crew. It is the context of the marked amphora that lends the mark its significance. Any member of the crew of necropolis workmen would have known the location of the hut of Hori (ii) = (iii), and if anyone noticed mark  $\aleph$  in his hut, it would be clear that the amphora was in the possession of this Hori, and no one else.

This view contrasts somewhat with a preliminary idea of David Aston. In an attempt to explain the frequency of identity marks on pottery from the community of the Royal Necropolis workmen he remarked the following: “[W]ith the Deir el-Medineh workforce we have a group of men who went away from their village to work in the Valley of the Kings for periods of ten days at a time, where in a more communal, and probably more regimented working environment, certain individuals may have felt the need to mark their own property, otherwise just like Goldilocks and the three bears there will come the question ‘Who has been eating out of my dish?’”<sup>48</sup>



FIGURE 21. WOULD GOLDILOCKS'S TALE HAVE ENDED DIFFERENTLY WITH IDENTITY MARKS? (MARGARET W. TARRANT, *MOTHER GOOSE NURSERY TALES* (LONDON, 1925) 20).

It is suggested that it was necessary for the workmen in the Valley of the Kings to mark vessels to prevent inappropriate use of its content, whether deliberate or not. Some comments on this statement are in order. First of all it is evident from the large numbers of workmen's marks on vessel fragments from the village of Deir el-Medina that the marking of property is not a practice that is typical for the temporary settlements in the Valley of the Kings. Secondly, building on Aston's use of the tale of Goldilocks, would the story have ended any differently if the three bears had marked their bowls of porridge? Probably not. Supposing that Goldilocks would have recognised the marks of the bears, she would have been informed about the owners of the bowls, but it would have had no effect on the motivations for her actions. With or without identity marks on the bowls, Goldilocks knew she was stealing a spoonful of someone else's porridge. It is therefore doubtful

<sup>48</sup> Aston, 'Theban Potmarks', 54.

if the use of marks would avoid or discourage theft or misuse. In a cohesive community that laboured together on a daily basis, we may assume each member to have possessed his own hut<sup>49</sup> in which he would have stored his possessions. Accidental misappropriation is then not expected to be a common problem, and theft would certainly not have been averted by the use of identity marks.

In that sense, the identity marks inscribed on property are *not necessary per se*. The commentary on the Goldilocks-comparison underlines moreover what we had already established: to a great extent identity marks derive their meaning from knowledge a member of the community already possessed. The required conditions for a mark on an object to have any significance are that one is embedded in the community and thus knows 1) which mark belonged to which workmen, and 2) which space belonged to which workman.

If the identity marks were not required to avoid misappropriation and theft, what then is the motivation behind the usage of marks? It is perhaps inherent in the nature of research of ancient civilisations to seek the reason behind particular phenomena. We, in the year 2015 CE, observe a group of workmen who lived together c. 3500 years ago, and ask them: “Why would you pick up these limestone fragments and inscribe them with marks?” in the hope that anyone will reply with well laid out arguments for his actions. But instead, one of the workmen may answer back: “Well, why wouldn’t I? There are limestone pieces all around, and I have a pen and some ink.” There is perhaps no purely practical reasoning behind all of the uses of identity marks, whether employed as markers of property or inscribed in series to form a documentary record, in the same way that there is no completely rational motivation behind every textual inscription.

Take for example the hieratic graffito carved in a mountain wall in the Valley of the Kings by the famous 19<sup>th</sup> Dynasty scribe Qenherkhopshef (i).<sup>50</sup> The graffito reads ‘The seat of the scribe Qenherkhopshef’ and it was inscribed by this individual just over a recess in the rock where he had apparently made a bench for himself. To the modern egyptologist this text is of course very convenient, and without it we would have never known by whom the seat was used. But if we evaluate the inscription in terms of practicality, it seems extremely futile and superfluous. First of all, we assume that the majority of workmen would not have been well enough acquainted with hieratic script to decipher the hieratic characters. Secondly, the entire crew would have been well aware of the fact that this particular bench was the spot Qenherkhopshef always sat in, and it is likely that throughout most of the day the workmen would have seen Qenherkhopshef sitting on that very bench! Like many of the vessels that were inscribed with an identity mark, the inscription is *not necessary*, but it is nevertheless meaningful.<sup>51</sup>

Apart from graffiti, the motives behind administrative practices are not necessarily sensible or efficient. We are once again reminded of Eyre’s words, who remarked that it is a characteristic of most bureaucracies that some records become an end in themselves instead of a means to an end.<sup>52</sup> Janssen touched upon the same topic, noticing that many of the hieratic administrative documents created in the Royal Necropolis during the Ramesside Period occasionally contain inaccuracies and mistakes, while some accounts are evidently incomplete.<sup>53</sup> The records therefore do not appear to be reliable, which lead Janssen to

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<sup>49</sup> Sometimes shared with a family member or colleague; see Dorn, *Arbeiterhütten*, 71-72.

<sup>50</sup> Theban Graffito nr. 1400, see Černý, *Community*, 334; Černý, *Graffiti 1060 à 1405*, 28, pl. 76.

<sup>51</sup> Most hieratic graffiti left by the necropolis workmen in the Theban valleys are not of an administrative or purely religious nature, but appear to have been made to commemorate individuals, see Rzepka, *Who, where and why*, 257-274; 276.

<sup>52</sup> Eyre, *Employment and Labour Relations*, 1-2.

<sup>53</sup> Janssen, ‘Accountancy at Deir el-Medīna’, 148-156. Some of the errors noted by Janssen may be explained as the result of careless copying. See chapter 3, 3.3.19.

## 6. CONCLUSIONS


question the value of the documents: could these inaccurate texts be of any significance to the higher Theban authorities, and if not, why would the scribes continue to put such efforts in their production?<sup>54</sup> Janssen was unable to provide an explanation.

For all we know, the necropolis scribes themselves had no straight answer to these questions either. Administrative practices may have grown out of a habit to occasionally record particular events without a specific need for such texts. In our times we also encounter examples of administrative practices that after some scrutiny seem to make little sense. This is illustrated by the rather entertaining cleaning rosters that are present in the public bathrooms of the Matthias de Vrieshof building of the University of Leiden (FIG. 22). The roster is instantly comprehensible to the visitor of the bathroom. It consists of a table with a column that lists the five working days of the week, and the two columns to its right each represent a cleaning round. One round is conducted around 9.15 in the morning, the second one around 13.45 in the afternoon. The moment one round is completed, the cleaner signs the corresponding cell of the table. As self-explanatory as the roster is, on closer inspection one wonders what its purpose is, and for whom it is meant. If the roster was collected at the end of a week and submitted to the supervisor of the cleaners, what does the document factually demonstrate? It only attests of the cleaner's presence in the building, but it does not prove if he or she had cleaned the bathroom, and if so, how well the bathroom was cleaned. Moreover, a colleague of a cleaner who had skipped work could have covered for the other and forged his or her signature. Therefore, the roster has little meaning as an administrative document that records the accomplishment of specific tasks. One may suggest that the roster has another function, which is to inform the visitor that the bathroom had recently been cleaned. But in that case our previous objections remain valid: the roster itself is no evidence that the toilet truly has been cleaned. Moreover, it is disputable if a signed roster on a bathroom wall is more of a warrant of the toilet's standard of hygiene than the perception of the toilet by one's own physical senses. We can therefore make the case that the roster does not serve an exclusively practical function. In addition, the use of this roster appears to be far from efficient. When asked about the roster, the cleaning lady responsible for the morning round fumed in a rant about how time consuming and useless the upkeep of the roster was.

Purely practical matters aside, the cleaning roster may serve another function. It can be argued that its sheer presence operates as an incentive or at least a reminder to the cleaners to perform their tasks. On the other end of the spectrum, it may provide the supervisor with a sense of control, real to some extent, but largely imagined. It may be this perceived sense of control that stimulated trained scribes, partially literate and illiterate workmen alike to compose ostraca with identity marks. A brief *aide-mémoire* created with marks of a specific event, important to a certain extent, may in part have provided the illusion of the ability to regulate the outcome or consequences of that event.

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<sup>54</sup> Janssen, 'Accountancy at Deir el-Medīna', 157.

Matthias de Vrieshof  Universiteit Leiden

	tijd/paraaf	tijd/paraaf
	Ronde 1	Ronde 2
Maandag	9.10 b. 9/10	JAN
Dinsdag	9.20 b. 9/10	JAN 1345
Woensdag	9.30 b. 9/10	JAN 1345
Donderdag	9.40 b. 9/10	JAN 1345
Vrijdag	9.15 b. 9/10	JAN 1340

FIGURE 22. CLEANING ROSTER IN PUBLIC BATHROOM AT LEIDEN UNIVERSITY

Returning to the Royal Necropolis, we have proposed several different purposes for the ostraca with marks. The majority served a role in the administration of the construction of the royal tombs, the provision of the workmen and private transactions. It has even been shown that the delivery ostraca composed with marks may well have been an important link in the chain of copying and accumulating data that was eventually submitted to the authorities. The available data are in support of these interpretations, but the examples mentioned above illustrate that several ostraca, whether composed with marks or written in hieratic, need not have served any other purpose beyond the notation of certain events.

## 6.5 THE ACQUISITION OF IDENTITY MARKS

### 6.5.1 The conception of new identity marks


Numerous identity marks of the Ramesside Period are demonstrably connected with proper names. Such identity marks comprise of a sign or a sign group taken from hieroglyphic or hieratic script, the phonetic value of which represents either an element of the individual's name, or the name in its entirety. Some evident examples are:


†	sign F12 with phonetic value <i>wsr</i>	<i>Weserhat</i>
⊖	signs W3 and Aa15 with phonetic values <i>m</i> and <i>hb</i>	<i>Amenemheb (?)</i>
𓏏	sign F31 with phonetic value <i>ms</i>	<i>Mose</i>
⊕	signs V30 and F35 with phonetic values <i>nb</i> and <i>nfr</i>	<i>Nebnefer</i>





The dearth of data from the 18<sup>th</sup> Dynasty precludes the possibility to make such statements about the identity marks from that period. Marks 𓏏, † and †, are somewhat tentatively attributed to Heqanakht, Nekhunefer and Kha respectively, and in these three instances the mark seems unrelated to the corresponding name. Still, it seems at least plausible that some marks, in particular hieroglyphic signs such as ⊖,<sup>55</sup> Δ, 𓏏, †, † and ⊖, are references to (elements of) the proper names of the owners of the marks, or the names of predecessors from whom they were inherited. In the case of marks that we do not immediately recognise as signs borrowed from script, such as X, ⊖, ||, †, and ⊖, a relation between the mark and





<sup>55</sup> Compare the possible allomorph ⊖ recorded on ONL 6520, perhaps used for a man named Maaninakhtuef.

proper name of the referent is not evident, but cannot be excluded either. As demonstrated in chapter 2, two marks that appear to be abstract geometric shapes may have been based on hieroglyphs as well.<sup>56</sup>

It is also not certain if an individual's choice – supposing for the moment that a workman was free to adopt any mark he preferred<sup>57</sup> – for an abstract mark is any indication of his affinity with writing. Vice versa, a fully literate person would not necessarily have taken on a mark that derives from script. We may consider for instance the mark of Kha, the 18<sup>th</sup> Dynasty overseer of work on the royal tomb, who was an official with close connections with high-ranking Theban dignitaries such as the overseer of the treasury Amenmes.<sup>58</sup> In addition Kha was the recipient of very valuable status objects produced in royal workshops, presented to him by the king as a reward for his achievements.<sup>59</sup> Among other epithets, Kha bore the title Royal Scribe,<sup>60</sup> and two scribal palettes and a writing board were included in his funerary equipment.<sup>61</sup> All of this could be taken as strong indications that Kha was educated as a scribe and that he was a functionally literate person. Yet, his personal identity mark  was not a sign borrowed from hieroglyphic or hieratic script.

Another example is the case of Harshire (i), a man who certainly had performed scribal duties,<sup>62</sup> and who must have been proficient in hieratic script as well as hieroglyphic script. He must have been to a considerable measure a literate person, actively involved in inscribing tomb walls with hieroglyphic texts as well as in the creation of hieratic administrative records. One could make the case that his scribal capabilities are reflected in his identity mark , which is indeed a character from hieroglyphic script. However, as far as we are able to determine, this sign (with phonetic value *hbs*; also used as a determinative in words related to clothing) is in no manner connected with the name of Harshire. It is therefore completely unclear what the motivations were behind what seems to have been Harshire's own choice for this particular identity mark. Both examples serve as a warning against the assumption, however plausible in itself, that an individual's identity mark is indicative of the level of literacy of that person.

Besides drawing on proper names, identity marks were occasionally modelled after nicknames that were bestowed upon workmen. The clearest instance is mark  for Amennakht (vi)/(xii) nicknamed Pawonesh. The name Amennakht was enormously popular at Deir el-Medina, and one can imagine why nicknames will have played an important role in differentiating contemporaneous workmen. It is assumed that marks  and  were similarly derived from nicknames, and in the case of the former mark that is probable because of the rare attestations of a draughtsman called Pa-imypherhedj. It is plausible that this man as well as the individual with the mark that reads *tsty* 'vizier' were in fact named after high officials of their time, a vizier and a treasurer, perhaps after a memorable visit by these notables to the village. The necropolis workmen may have light-heartedly styled their nicknames and marks after these dignitaries. These examples of marks that were inspired by nicknames all originate from the 20<sup>th</sup> Dynasty. Three of them are identifiable because they are highly textual in nature. A lack of data prevents an exhaustive analysis, but it is feasible that other identity marks may have come into existence through the same principle. Letting one's imagination run wild it could be proposed that during the 18<sup>th</sup> Dynasty e.g. mark ,

<sup>56</sup> See the discussion of marks  and , as well as  and , chapter 2, p. 89, ONL 6461; p. 106, ONL 6465; and p. 108-109, ONL 6266; p. 130, O. Cairo JE 72492.

<sup>57</sup> On this matter, see below, 6.5.3.

<sup>58</sup> Russo, *Kha*, 32-33; 36-37.

<sup>59</sup> Russo, *Kha*, 10-13; 23-31.

<sup>60</sup> Russo, *Kha*, 67.

<sup>61</sup> Schiaparelli, *La tomba*, 81, fig. 48; 85, fig. 53; Russo, *Kha*, 33. One palette was a gift from the overseer of the treasury Amenmes.

<sup>62</sup> Davies, *Who's who*, 114-117.

representing a razor, could have been used by a workman nicknamed The Razor because he was known for his ‘razor-sharp’ comments.<sup>63</sup>

A more reasonable, although uncorroborated guess would be that this man, besides performing his duties as a necropolis workman, had taken on the role of the crew’s barber. While there is no textual evidence for barbers in support of this view, it is evident that the creation of several identity marks was not motivated by an individual’s proper name but rather by his role or function within the crew.<sup>64</sup> The clearest example is the use in the Ramesside Period of mark  $\text{𓆎}$  to refer invariably to the scribe of the tomb, regardless of the name of the individual that held that office at a specific time. A mark existed also for a less formal but nevertheless respected occupation, that of the so-called scorpion controller.<sup>65</sup> For this job mark  $\text{𓆏}$  was employed, and like mark  $\text{𓆎}$  it referred to whoever occupied the position at a specific moment, without a connection with the name of that person. Although we cannot offer any proof it is plausible that in the same vein mark  $\text{𓆑}$ , readable as *w<sup>c</sup>b*, was used by a member of the community who held the title of *wab* priest in one of the local cults,<sup>66</sup> a position that likewise may have evoked a higher social status than that of regular workmen.<sup>67</sup> It is similarly likely that the famous draughtsman Amenhotep (vi) had personally chosen the hieroglyphic sign  $\text{𓆒}$  (*qd*), once perhaps even  $\text{𓆓}$ , as his identity mark, as a reference to his profession (*sš-qd*). There are indications that the villagers may have simply called him ‘the draughtsman’, because he appears to be listed as such in P. Turin Cat. 2084+.<sup>68</sup>

Interestingly, mark  $\text{𓆔}$  appears at some point in the Ramesside Period to have become synonymous with the position of the foreman of the right side of the workforce.<sup>69</sup> Whether the bee, the hieroglyph with the phonetic value *bi.t*, was somehow connected with the word *bi.t.y* ‘king’<sup>70</sup> to reflect the sovereignty of the position of the foreman is unclear. The significance of the mark is however wonderfully illustrated in documents from the reigns of Ramesses III and Ramesses IV that demonstrate that workmen were able to change identity marks during their careers. Workman Nakhemmut (vi) possessed mark  $\text{𓆕}$  during the first years of his professional life, but when he was promoted to the position of foreman of the right side, he abandoned it to take on mark  $\text{𓆔}$ .

### 6.5.2 ‘Marks’ for non-crew members

During the 20<sup>th</sup> Dynasty some of the users of the marking system had invented new marks that are not related to fellow necropolis workmen, but to other individuals associated with labour in the Royal Necropolis. These ‘marks’ are the conventions of a single person, and ostraca such as O. DeM 264 and O. DeM 10121, which feature names of *smd.t* agents suggest these men were not consistently referred to by means of a mark. The practice was exploited at great lengths by the author of the duty and delivery texts composed with marks, the man whom we have tentatively identified as the ‘*smd.t* scribe’ Pentaweret (iii). In his documents he used marks to refer to a number of woodcutters and fishermen. There are no

<sup>63</sup> The verb *h<sup>c</sup>q* ‘to shave’ is used metaphorically in P. Anastasi I = P. BM EA 10247, l. 25.1, seemingly denoting a scribe who critically cut short the end of a letter, see Hermann Grapow, *Die bildlichen Ausdrücke des Ägyptischen. Vom Denken und Dichten einer altorientischen Sprache*. [2<sup>nd</sup> ed.] *Mit einem Vorwort zum Nachdruck von Hellmut Brunner* (Darmstadt 1983), 173.

<sup>64</sup> Hence the objection against the term “*Namenszeichen*” for the identity marks from the Theban Necropolis, see Daniel Soliman, review of Dorn, *Arbeiterhütten*, in: *BiOr* 69 (2012), 485, n. 5.

<sup>65</sup> Janssen, *Village Varia*, 27-29.

<sup>66</sup> Valbelle, *Les ouvriers*, 328-331; for  $\text{𓆑}$ , a mark with perhaps a similar origin, see below, 6.5.4.2.

<sup>67</sup> Barbara S. Lesko, ‘Rank, Roles, and Rights’ in: Lesko (ed.), *Pharaoh’s Workers*, 23.

<sup>68</sup> See above, chapter 4, 4.2.16.

<sup>69</sup> A mark for the chief workman of the left side of the crew may have existed as well, see below, p. 522-523.

<sup>70</sup> *WB* I, 435, 2.

reasons to assume that these marks were employed by these persons themselves. Like the signs for commodities, month names and the two sides of the crew, the marks for *smd.t* agents sprung in all probability from the mind of the '*smd.t* scribe'. Comparable marks were invented by another scribe during the second half of the 20<sup>th</sup> Dynasty. In order to be able to include the doorkeeper in what are most likely lists made for the distribution of grain rations, mark  $\text{𓂏}$  was employed. In contrast to the marks for *smd.t* agents, the mark refers to the function of this man rather than to his person. One ostrakon (O. Cairo CG 25317) that also records a doorkeeper uses mark  $\text{𓂏}$  in two different manners: once to refer to a necropolis workman, and once to designate a royal chapel.

### 6.5.3 Personal selection

There are no indications that identity marks were assigned to the individual workmen by one of the captains of the crew,<sup>71</sup> although it is conceivable that this had happened at two formative moments in the history of the Theban Royal Necropolis: the first time the gang was assembled somewhere in the 18<sup>th</sup> Dynasty, and perhaps some time in the reign of Horemheb when the crew was reorganised and many new colleagues were introduced. But that remains mere conjecture. It is far from implausible that the workmen themselves had chosen their own identity marks. This assumption is likely in the view of the wide variety of identity marks ranging from highly textual in nature (e.g.  $\text{𓂏}$ ) to (seemingly) highly abstract (e.g.  $\text{AA}$ ). No restrictions in the choice for a particular mark can be detected, and marks that are borrowed from hieroglyphic script fall into each of the categories of hieroglyphs distinguished by Gardiner. Indeed, there were apparently no objections against the use of the perhaps sarcastic marks  $\text{𓂏}$  and  $\text{𓂏}$ . Moreover, there were moments when a single mark could designate two different workmen, one from the right and the other from the left side, which speaks against the idea of centrally attributed marks.

### 6.5.4 Transference of identity marks

Throughout this work it has been stated that identity marks were passed on from one man to another. In many instances such an event has been described as the 'inheritance' of a mark, but that word is only applied in the metaphorical sense. Many questions about the details of transference of marks remain unanswered. It is impossible to determine if a son freely chose to take over his father's mark, or whether the father bestowed it upon his son. We will come back to this matter below. In addition it is completely obscure at exactly what point a mark may have been transferred. The most logical explanation would be that a mark was transferred from a father to a son at the moment the former retired. Yet there are indications, for example from the 18<sup>th</sup> Dynasty, that fathers and sons were simultaneously designated by the same mark. Our knowledge of the workmen's community is not sufficiently complete for an exhaustive analysis of the different mechanisms behind the transference of a mark from one generation to another. Such an undertaking would ideally require the identification of the mark of each individual in a given family as well as their respective age and occupation, data we currently do not possess. In the sections below we shall therefore examine some cases that are thought to be representative of the possible practices.

#### 6.5.4.1 From father to son

A common procedure of the transference of marks occurred via a father and his son. The presence of twin marks, i.e. two instances of the same mark, in ostraca from the 18<sup>th</sup> Dynasty might be early examples of this custom. Several instances of this practice during the Ramesside Period have been pointed out in this work. We have seen for example that in the

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<sup>71</sup> But see below, 6.5.4.5.

19<sup>th</sup> Dynasty the foreman Baki (i) and later his son Haremwia (i) were represented by mark  $\equiv$ . In the 20<sup>th</sup> Dynasty, workman Kasa (v)/(vi) was represented by mark  $\sqcup$ , obviously related to his name. His son Penanuqet (iii) is attested with the same mark, and thereby the connection between the phonetic value of the sign that was used as a mark and the name of the user of the mark was lost.

A clear example of the transference of a mark from father to son is seen in the family of Siwadjet (iii) (CHART 6). This man utilised mark  $\text{𓂏}$ , and later it was used by his son Aapatjau (i).<sup>72</sup> It seems that this man in turn handed down the mark to his son Amenhotep (iii). The parentage of Siwadjet (iii) is unknown, but it is noteworthy that a homonymous Siwadjet (ii), active in the reign of Ramesses II, possessed the very same mark  $\text{𓂏}$ . We do not know if the two men employed the same mark  $\text{𓂏}$  (a sign with the phonetic value *wꜣd* and obviously connected with the name *Siwadjet*) simply because they had the same name. However, there is probably one generation between Siwadjet (ii) and Siwadjet (iii), who was active in the reign of Ramesses III. The latter man could therefore have been the grandson of the former.

A similar case presents itself in the family of Iyerniutef (iii) (CHART 7). This man possessed mark  $\text{𓂏}$  and he transferred it to his son Khons (iv). His other son Penmennefer (II) is known to have used mark  $\Delta$ . Two generations before Iyerniutef (iii), another man named Iyerniutef (i) was active under the reign of Ramesses II. This man too employed mark  $\text{𓂏}$ , yet he is not known to have been related to Iyerniutef (iii). It is theoretically possible that Iyerniutef (iii) was a grandson of Iyerniutef (i), because the parentage of the former man is unknown. Since both men possessed the same mark, a sign that is not evidently related to the name 'Iyerniutef', such a connection is quite possible.

The family of Wennefer (ii) (CHART 8) presents another interesting case. We know Wennefer (ii)'s mark to have been  $\text{𓂏}$ . This mark is not evidently related to the name of Wennefer (ii), and it is unknown what motivated him to utilise this mark. Although we do not know the mark of Wennefer (ii)'s son Khaemwaset (i), it has been established that his grandson Penamun (iv) = (iii) and his great grandson Khaemwaset (iii) employed mark  $\text{𓂏}$  as well. Since the mark is not evidently related to the names of these men either, we may propose that Khaemwaset (i) had possessed the mark as well. This would at least explain the chain of transference from Wennefer (ii) to Penamun (iv). In the same vein one could suggest that Wennefer (ii)'s father, Penamun (ii), had possessed mark  $\text{𓂏}$  as well. With Penamun (iv)'s son Wennefer (iii) a new line had begun, and he adopted for himself  $\text{𓂏}$ , a mark related to his name.

Surely not every identity mark was hereditary. This we see for example in the family of Aanakht (i) = (iii) = (iv) (CHART 9). His mark  $\text{𓂏}$  was not taken over by any of his two sons, who both employed a mark that was connected with their own proper names.<sup>73</sup>

It is furthermore worth noting that in a few instances in the reign of Ramesses V,<sup>74</sup> the scribe of a document referred to particular workman by writing down the mark of that man's father and adding the element  $\text{𓂏}$  for *šri* 'the young' or 'son' to it. We are not quite sure why this happened. It may be that these younger men did not (yet) possess their own identity

<sup>72</sup> It will require further research to determine why the mark was not passed on to Siwadjet (iii)'s other son Qenymin (i)/(iii), who was designated by mark  $\text{𓂏}$ .

<sup>73</sup> We may only speculate if the fact that the sons of Aanakhtu did not take over their father's mark is related to a bad reputation this man may have had after being punished for assaulting three men, see e.g. Davies, *Who's who*, 40.

<sup>74</sup> O. Cairo CG 25651; O. OIM 19125; ONL 323.



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mark.<sup>75</sup> It is also conceivable the father and the son made use of the exact same identity mark and the scribe of these particular documents made an effort to distinguish one from the other.

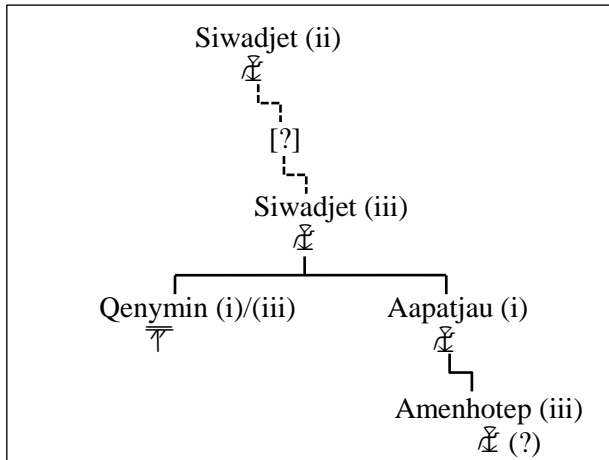


CHART 6. THE FAMILY OF SIWADJET (iii)

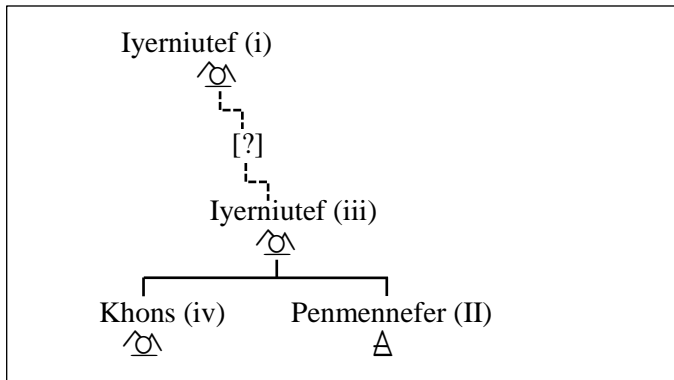


CHART 7. THE FAMILY OF IYERNIUTEF (iii)

<sup>75</sup> Perhaps they had been recently added to crew at the time of the enlargement of the crew under Ramesses IV, see below, 6.5.4.5.

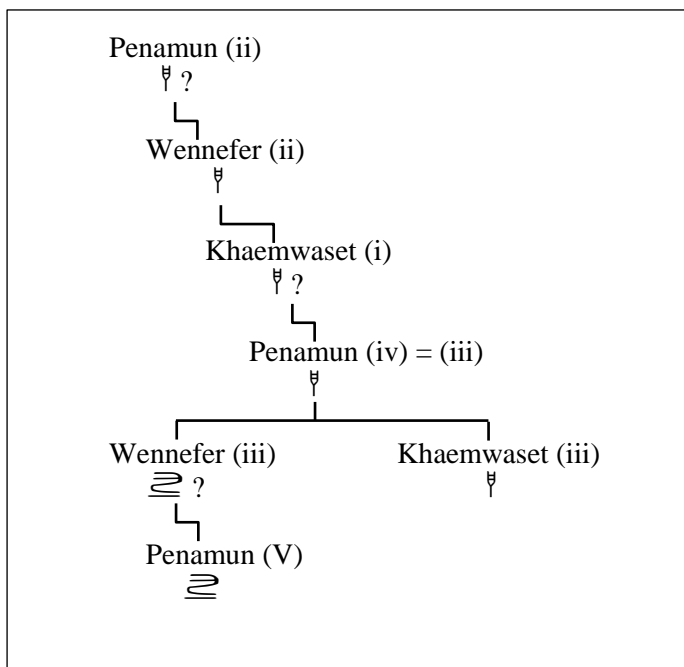


CHART 8. THE FAMILY OF WENNEFER (ii)

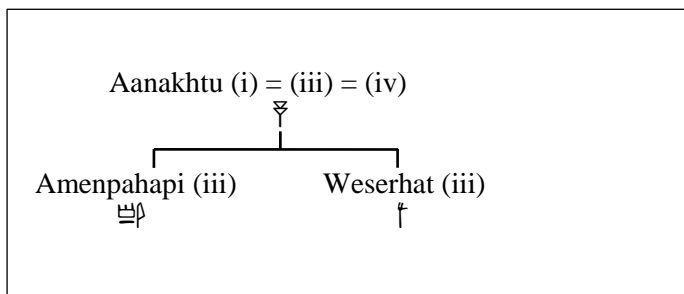


CHART 9. THE FAMILY OF AANAKHTU (i) = (iii) = (iv)

#### 6.5.4.2 From grandfather to grandson?

As in many cultures, Egyptian couples often named their son after the father of the child's father. Within a given family a proper name would thus be repeated each second generation. This tradition was customary at Deir el-Medina as well.<sup>76</sup> That identity marks were transferred along similar lines comes thus as no surprise. The practice is demonstrated by the three generations of men called Nakhtmin, all three attested with mark  $\overline{\text{𓂏}}$  (CHART 10). The family tree demonstrates that Nakhtmin (iv) passed on his mark to his son Khaemope (iv). Remarkably, one generation later it is Nakhtmin (vi), the son of Nakhtmin (iv)'s other son Nebnakht (vi), who uses mark  $\overline{\text{𓂏}}$ . Whether Nakhtmin (vi) had passed on the mark to his own son Pentaweret (viii) is unknown, but we do know that his grandson, Nakhtmin (vii) had taken over the use of the mark. Similarly we observe that the use of mark  $\overline{\text{𓂏}}$  passes over one generation from Nebnakht (vi) to Nebnakht (viii).

In the family of Neferher (iv) (CHART 11) the same phenomenon occurs: mark  $\overline{\text{𓂏}}$  of Neferher (iv)'s son Pahemnetjer (i) was also used for the grandson of the latter, Pahemnetjer (ii). Unfortunately we do not know if Painefer (i), grandson of Neferher (iv), had adopted

<sup>76</sup> Davies, *Who's who*, xxiii.

## 6. CONCLUSIONS

𓆎𓅓, the mark of the latter. The same mark is attested for Neferher (vi), seemingly unrelated to Neferher (iv). We may, however, argue that these two men were grandson and grandfather. Neferher (vi) is known to have been a son of Ipuy (iii), a workman who is attested during the reign of Ramesses III and perhaps the beginning of the reign of Ramesses IV. Besides workman, Ipuy (iii) bore the priestly title *ḥm-ntr* ‘prophet’,<sup>77</sup> and it is therefore plausible that we can equate him with the workman Pahemnetjer (i). This man was active in the second half of the 19<sup>th</sup> Dynasty and could well have been incumbent at the beginning of the 20<sup>th</sup> Dynasty. The proposed equivalency would mean that “Pahemnetjer” was a nickname or rather a honorary title for the man named Ipuy (iii). Ipuy (iii), whose parentage was so-far unknown, would then appear to have been a son of Neferher (iv), and Neferher (vi) son of Ipuy (iii) would have been named after his grandfather. In analogy, Neferher (vi) inherited the identity mark of his grandfather.

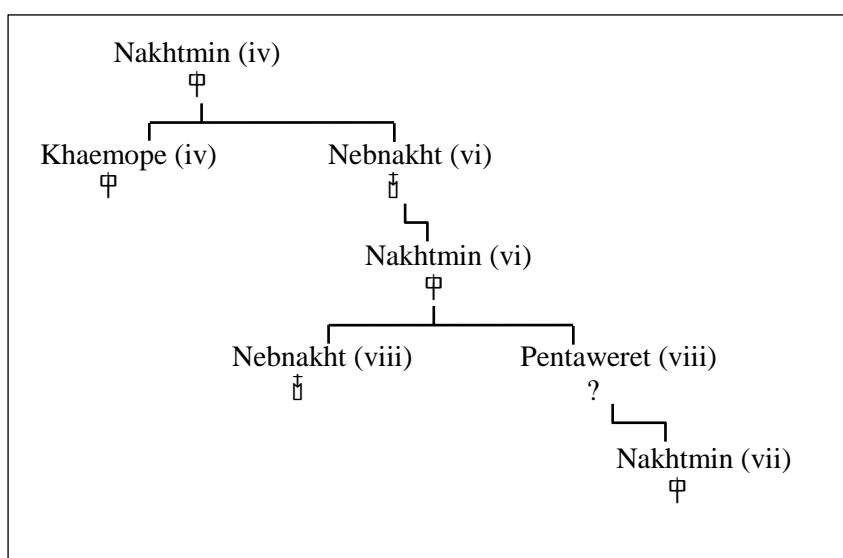


CHART 10. THE FAMILY OF NAKHTMIN (iv)

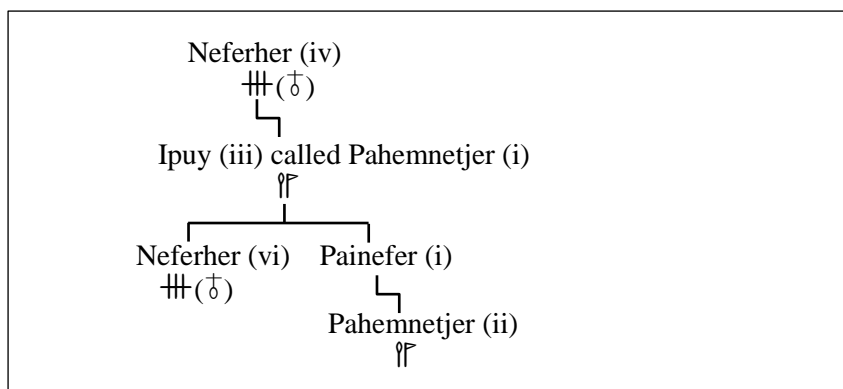

















CHART 11. THE FAMILY OF NEFERHER (iv)

<sup>77</sup> Davies, *Who's who*, 51-52; 152; Collier, 'The right side', 9.

### 6.5.4.3 Brothers with the same mark?

There are several ostraca with two instances of the same mark. We have encountered several of such documents in the 18<sup>th</sup> Dynasty, but there are examples from the Ramesside period as well.<sup>78</sup> Because we possess abundant evidence that marks could be transferred from a father to a son, such instances are mostly explained as documents that record an older workman and his son who were both active at the same moment. There are, however, indications that a father did not transfer his mark to only one, but to two sons. In theory this would mean that two brothers possessed the same mark at the same time. One possible example concerns the men Anuy (v) and Khaemnun (i), who are proposed in this work to have been brothers.<sup>79</sup> The same phenomenon may have occurred in the family of Amenemope (ix) = (iii). We can follow his interesting family tree rather well (CHART 12). A phonetic connection exists between the name of Amenemope (ix) – (iii) and his mark  /  (the latter mark is hieroglyph Gardiner sign O45 with phonetic value *ip.t*). His homonymous grandson Amenemope (x) used a very similar mark, while his son Meryre (v) took on a mark for himself. This mark too was related to his name: mark  (*mr*) for *Meryre*. Meryre (v)'s second son, Neferhotep (xi), did not inherit his father's mark. Instead he possessed mark , the inspiration of which escapes us. Meryre (v)'s mark  did not transfer to his son, but to one of his grandchildren. He had two grandchildren, one called Neferhotep (xii), the other called Meryre (vi), and it is interesting to observe that mark  did not come to be used for the latter. In our eyes it would make sense that both Meryre (v) and Meryre (vi), homonymous men, would have used mark . Yet, Meryre (vi) used mark , the mark of his father Neferhotep (xi). The reason for this seems to have been Meryre (vi)'s inheritance of his father's position on the right side of the crew when he retired.<sup>80</sup> The same explanation can be offered for Neferhotep (xii)'s appropriation of mark  used by his grandfather Meryre (v): he seems to have taken over his grandfather's position on the right side of the crew, and with it his grandfather's mark. The mark of Meryre (vi), , is possibly attested both for his son Panefer (i) and his son Pasennedjem (i). As in the case of Anuy (v) and Khaemnun (i), we do not know whether they used it simultaneously.

The usage of identity marks in the family of Reshupeteref (i) (CHART 13) provides tantalising data. Reshupeteref (i)'s mark  presumably stems from the name of his grandfather who was called Neferhotep. Unfortunately we possess no information about the mark of Reshupeteref (i)'s father, Hesysunebef (i), or of Reshupeteref (i)'s brother Neferhotep (v). That is unfortunate, because it would be interesting to see if Neferhotep (v) would have used mark  as well, which would make sense because he was named after his grandfather Neferhotep (ii). This might, however, not have been the case, because Reshupeteref (i)'s other brother Nesamun (III) apparently was assigned mark  when he took over Irsu's slot on the right side of the crew. The son of Reshupeteref (i), Amennakht (xxv) never seems to have used mark . He was designated by mark  and seems to have passed it on to his son Pakhayamun (i).

<sup>78</sup> E.g. O. Ashmolean HO 1120; O. MMA 09.184.784+; ONL 6576.

<sup>79</sup> See chapter 5, p. 429-430, CHART 5.

<sup>80</sup> See below, 6.5.4.5; compare Collier, 'Integrating Hieratic and Marks Data', [16].

6. CONCLUSIONS

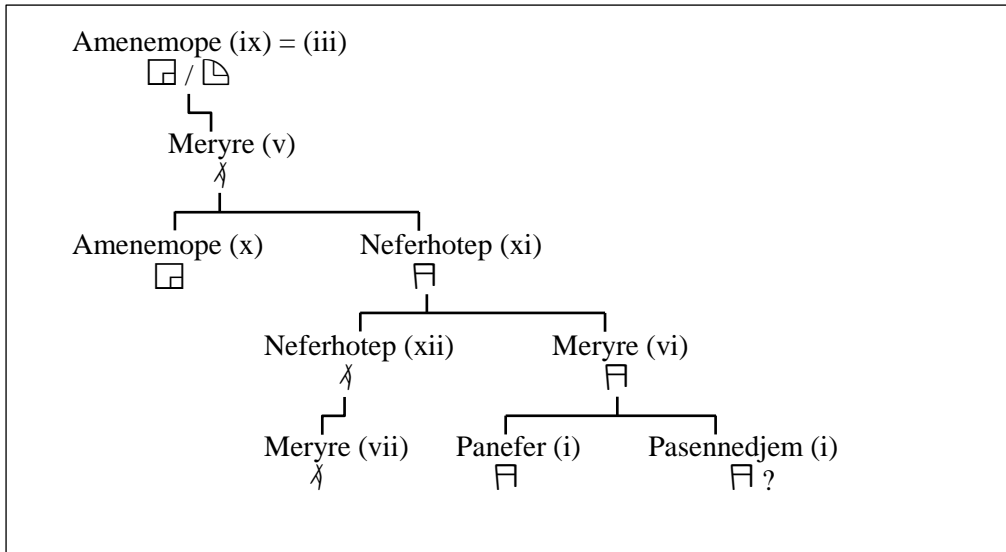


CHART 12. THE FAMILY OF AMENEMOPE (ix) = (iii)

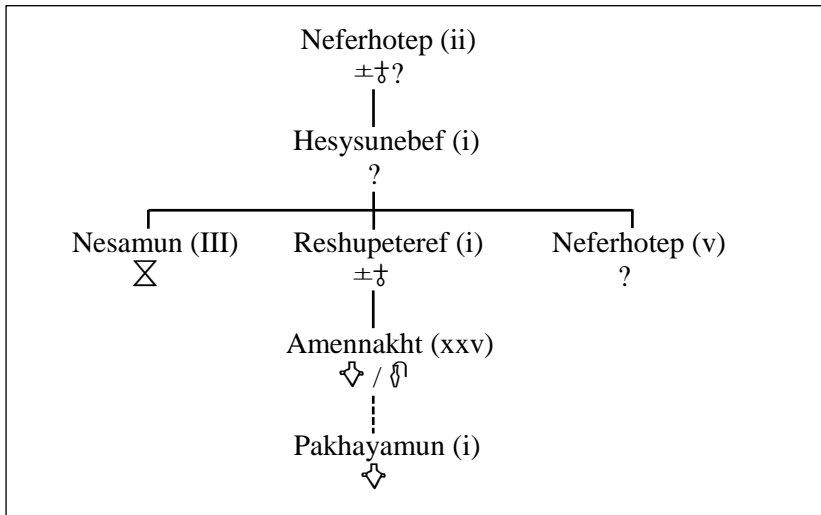


CHART 13. THE FAMILY OF RESHUPETEREF (i)

#### 6.5.4.4 The maternal line

In the case of Penniut (i) (CHART 14) it is evident that his identity mark had come down to him through the maternal line. His identity mark  $\hat{\text{p}}$  was not related to his father Khnummose (i), but to his grandfather on his mother's side, Nebimentet (i). Again we find a parallel for this form of transference of marks in the name-giving practices of the community. Occasionally parents would name their son after the child's maternal grandfather.<sup>81</sup> An example is provided by the family of Penniut (i) himself: his nephew Nebamun (iv) was probably named after the father of his mother, Nebamun (v). The case of Nebamun (iv) demonstrates an interesting discrepancy between the origin of his name and the origin of his identity mark  $\text{p}$ , which was not derived from the maternal line but instead was inspired by that of his father Wesekhnmstet (i) with mark  $\text{p}$ .

Another transference of a mark along the maternal line may have occurred during the 19<sup>th</sup> Dynasty. We have considered the possibility that Khaemseba (i) was represented by mark  $\text{A}$ , and if this connection is correct then his mark may well have been inspired by  $\text{A}$ , the mark of Qaha (i), his grandfather on his mother's side.<sup>82</sup>

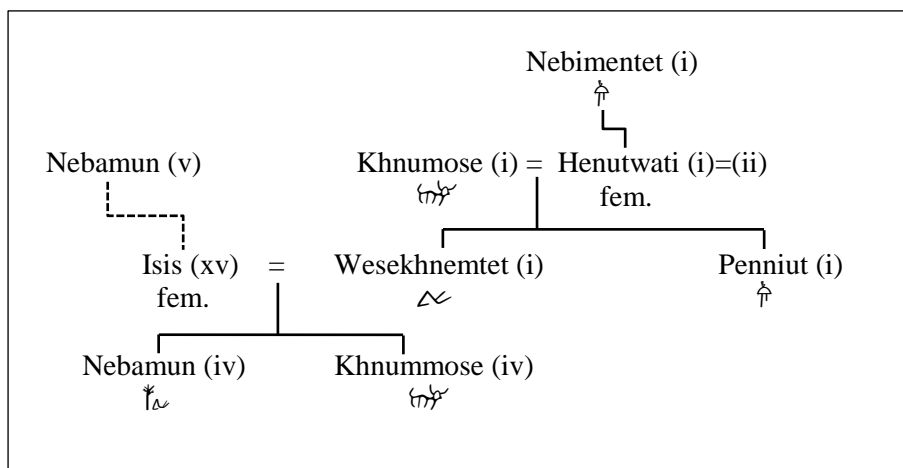















CHART 14. THE FAMILY OF NEBIMENTET (i)

<sup>81</sup> The practise of naming a son after his maternal grandfather is not uncommon in Deir el-Medina. This is well illustrated by the family of Iniherkhau (i) and his wife Henutdjuu (i) (see Davies, *Who's who*, chart 3): one of their sons, Qaha (ii), was named after the father of Iniherkhau (i), Qaha (i), but another son, Kel (ii), was named after the grandfather on his mother's side, Kel (i). Other examples of crew members that were named after their maternal grandfather are Nakhemmut (iii), see Davies, *Who's who*, 71; Nebwa (ii), see Davies, *Who's who*, 180; Nebnefer (iii), see Davies, *Who's who*, chart 6; and Amennakht (x), see Davies, *Who's who*, chart 8.

<sup>82</sup> See chapter 5, 5.2.3.1.

#### 6.5.4.5 The marks of Hay (vii) and his family members

It has been pointed out on several occasions that Amennakht (vi)/(xii)'s mark  was derived from his nickname Pawonesh, or 'the jackal'. The nickname is perhaps related to the literary topos of the *wnš dd* 'lustful jackal'.<sup>83</sup> Interestingly, Hay (vii), father of Amennakht (vi)/(xii), called himself a lustful jackal in a hymn to Amun-Rehorakhty composed by him.<sup>84</sup> It is worth exploring the possibility that this nickname is related to an ancestor of Hay (vii) and Amennakht (vi)/(xii) (CHART 15). The word *dd* 'lustful', written  or <sup>85</sup> is of Semitic origin,<sup>86</sup> and it seems to resonate in the name of Didi (i), great-great-grandfather of Hay (vii). The name of this early ancestor, written  *ddi*,<sup>87</sup> is a foreign name as indicated by sign  and probably derives from the same Semitic root.<sup>88</sup> Hay (vii)'s mention of the 'lustful jackal' could therefore be more than a literary topos: it may be a reference to his forefather who lived four generations earlier. Such retrospect is not wholly unexpected. Hay (vii)'s family was one of the oldest of the community, and Didi (i) was incumbent on the crew before the reorganization during the reign of Horemheb. This seems to have been a source of pride and perhaps of authority to Hay (vii) and his family members, as evidenced e.g. by the genealogy recorded on a stela dedicated by Hay (vii) in which his family tree is traced back to Didi (i).<sup>89</sup> On the stela Hay (vii)'s ancestors [Nakhy (iii)]<sup>90</sup> and Didi (i) are given the honorific title of deputy of the crew, although it is generally accepted that they never held this position.<sup>91</sup> It seems rather that one of the reasons for Hay (vii), himself a deputy, to erect the stela was to consolidate his claim to that office by exhibiting his ties to illustrious ancestors,<sup>92</sup> crew members who had been involved in work on the royal tomb almost two centuries before the careers of Hay (vii) and his colleagues. If it is true that Hay (vii)'s epithet 'the lustful jackal' harks back to his ancient forefather Didi (i), we may consider the possibility that Hay (vii)'s identity mark  is as old as well. Before him, the mark was in use by Hay (vii)'s grandfather Buqentuef (i). It is conceivable that Buqentuef (i) in turn received mark  from his grandfather, Didi (i). We have not securely identified the identity mark of Didi (i), who must have been active during the end of the 18<sup>th</sup> Dynasty (see TABLE 99), but ostraca dating to the reign of Amenhotep III do include mark <sup>93</sup>. We do not know what the mark depicts, but on ostraca like OL 6788 it is clearly distinguished from the flower-shaped mark . It is therefore theoretically possible that, like mark , mark  is a pomegranate, and that it belonged at one time to Didi (i). Would one accept this theory, then mark / is one of the

<sup>83</sup> Hans-Werner Fischer-Elfert, *Lesefunde im literarischen Steinbruch von Deir el-Medineh*. Kleine ägyptische Texte 12 (Wiesbaden 1997), 122-123; Dorn, *Arbeiterhütten*, 190, f and n. 674.

<sup>84</sup> For these texts see Dorn, *Arbeiterhütten*, 190.

<sup>85</sup> *WB* V, 419; Fischer-Elfert, *Lesefunde*, 123; Renata Landgráfová and Hana Navrátilová, *Sex and the Golden Goddess I. Ancient Egyptian Love Songs in Context* (Prague 2009), 128.

<sup>86</sup> Derived from the word *dwd* 'beloved', 'lover', also used in the erotic sense, see Wilhelm Gesenius, *Hebräisches und aramäisches Handwörterbuch über das alte Testament* (Leipzig 1921), 157.

<sup>87</sup> O. BM 8494, see Dominique Valbelle, 'Témoignages du Nouvel Empire sur les cultes de Satis et d'Anoukis à Éléphantine et à Deir el-Médineh' *BIFAO* 75 (1975), 135-138; O. Cairo CG 25573; O. Medelhavsmuseet MM 14126.

<sup>88</sup> Thomas Schneider, *Asiatische Personennamen in ägyptischen Quellen des Neuen Reiches*. OBO 114 (Freiburg and Göttingen 1992), 261, nrs. 561 – 564; James E. Hoch, *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period* (Princeton 1994), 378-379, nr. 568.






<sup>89</sup> O. BM 8494, see Valbelle, 'Témoignages du Nouvel Empire', 135-138.

<sup>90</sup> The name of Nakhy (iii) is lost but can be restored in the lacuna, see Morris L. Bierbrier, *Hieroglyphic texts from Egyptian stelae etc.* Part 10 (London 1982), 27; Davies, *Who's who*, 64.

<sup>91</sup> Davies, *Who's who*, 64 and n. 19.

<sup>92</sup> On the same stela Hay (vii) attempted something similar by claiming to be a son of the foreman Hay (iv), see chapter 4, 4.2.6.

<sup>93</sup> See chapter 2, 2.2.3; 2.2.9 (group C). The mark also appears on older ostraca, see chapter 2, 2.2.4; 2.2.10 (group D).

oldest marks of the workmen's community. This long-standing tradition may be the reason why during the late 20<sup>th</sup> Dynasty Amennakht (vi)/(xii) called Pawonesh appears to have discarded his original mark  to take on , the mark that belonged to his father and other ancestors. The assumed change may well have been connected to his aspirations to follow in his father's footsteps as deputy of the left side. Taking on mark  would create a closer association with deputy Hay (vii) as well as with his ancestors of old, along the same lines as Hay (vii)'s stela. Alternatively Amennakht's shift to mark  can be seen as a result of his promotion to the office of deputy or that of foreman. Having obtained that position, mark  may have lent Amennakht authority that would be beneficial in his role as (co-) director of the left side of the crew.

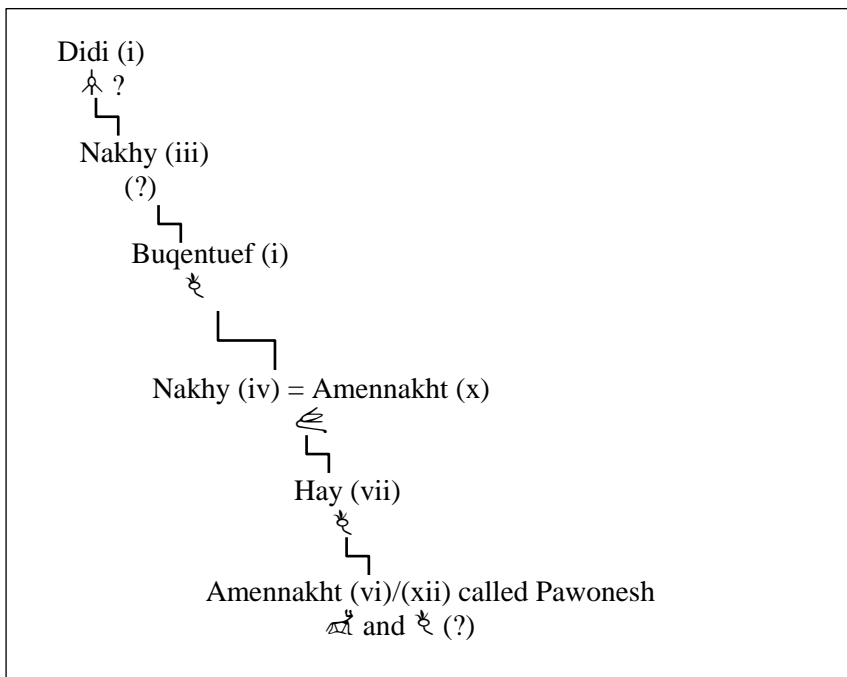


CHART 15. THE FAMILY OF DIDI (i)



#### 6.5.4.6 A position within the workforce

In chapter 3 we discovered that the transference of a mark was not always based on a family connection, but could be caused rather by the replacement of a workman in the duty roster of the right side of the crew.<sup>94</sup> When workman Irsu with mark  $\Sigma$  was replaced in the turnus by Nesamun (III) he took over Irsu's mark even though the two men were apparently not related by blood. The same happened when Nakhemmut (vi) was promoted to the position of chief workman. He abandoned his old mark  $\Delta\Delta$ , and when Pamedunakht (i) filled in his slot in the turnus he received Nakhemmut (vi)'s mark.

In fact, there are indications that certain marks were connected with a specific slot in the ordered list of workmen of one of the sides, regardless of the performance of any *wrš* duty.<sup>95</sup> It seems that in these cases, the moment a slot was freed at the occasion of the retirement or demise of an older workman the mark of the departing crew member was taken over by the novice who was introduced to the crew in his stead. This idea cannot be proven, but it does follow from an examination of mark  $\Sigma$  that features in the ordered list of workmen of the right side on O. BM 5642. This ostrakon must date to the reign of Ramesses IX, and because mark  $\Sigma$  is situated in the third position, the mark represents in all probability the deputy of the right side. At the time O. BM 5642 was composed this must have been Khons (vi). Much earlier in the 20<sup>th</sup> Dynasty, mark  $\Sigma$  was used by Nesamun (III). Since no family ties exist between Khons (vi) and Nesamun (III), it is very well plausible that the transference of the mark was based on Khons (vi)'s adoption of Nesamun (III)'s position on the right side of the gang.

A comparison of the marks that were in use by the regular workmen of the right side of the crew throughout the 20<sup>th</sup> Dynasty leads to the same conclusion (TABLE 105). Few new marks are introduced to the right side of the crew after Ramesses IV, and a large majority of marks that are attested in the reign of Ramesses IX were already in use under Ramesses IV. The exception is of course the period of Ramesses V, when the workmen who joined the crew after its enlargement in the reign of Ramesses IV become apparent in the documentation created with marks. These men, however seem to have taken their leave in subsequent years and much of the original set of marks remains. We thus get the impression that during the greater part of the 20<sup>th</sup> Dynasty many identity marks were connected with a particular position within one side of the crew.

If this theory is correct, we suspect that the inhabitants of the village did not possess their own identity mark before becoming a full crew member. Otherwise we would expect them to be represented in lists of marks by their own mark, and not by those of workmen whose positions they had filled. Prior to being assigned the identity mark of the workmen for whom they were substituted, such individuals may not have required a mark because they were still boys without many personal possessions and no income of their own. Alternatively, they may not have had a mark because they were employed elsewhere before they were added to the gang.

This idea also ties in with the apparent lack of identity marks for the women of Deir el-Medina. The word "apparent" needs to be underlined: identity marks *could* have been used by the wives and daughters of the necropolis workmen who resided at Deir el-Medina, and

<sup>94</sup> See also Collier, 'Integrating Hieratic and Marks Data', [16-17].

<sup>95</sup> The considerable number of ostraca that record one or both sides of the crew by ordering them in accordance with a particular hierarchical order suggests that Egyptologists have put too much emphasis on the sequence of the duty roster. The sequence of the duty roster seems to be merely one application of the ordered sequence of the sides of the crew. The ordered sequence was also used to record attendance and the distributions of commodities. The ubiquity of ordered lists from the middle of the 18<sup>th</sup> Dynasty to the end of the 20<sup>th</sup> Dynasty, as well as the many changes in the order that are attested in the duty rosters of the 20<sup>th</sup> Dynasty suggest that the sequence reflects an important reality in the organisation of the work on the tomb. See also chapter 4, 4.1; compare similar observations in Collier, *Dating Late XIXth Dynasty Ostraca*, x-xi.

we may simply not recognise them in the archaeological material. Having said that, ostrakon O. MMA 09.184.785 may be advanced in objection to any assumption that women possessed their own identity marks. This ostrakon is inscribed with the identity marks of several workmen, including Khaemnun (i) and his son Maaninakhtuf (iii). The ostrakon also mentions Wasetnakht (i), daughter of Khaemnun (i). In contrast to all of the workmen on the ostrakon, who are signified by their identity mark, the scribe wrote out her name in cursive hieroglyphs. The most logical explanation is that she did not have her own personal identity mark.

Involvement in the construction of the royal tomb may not even have been sufficient reason for the use of an identity mark. Not enough data is available at this point but there are indications that not every person among the 60 additional workmen that were assigned to work in the necropolis in the reign of Ramesses IV possessed his own identity mark. The reason for this could be that among the reinforcements were younger, unskilled boys, who were not individually included in the administration of the tomb as their tasks were not important enough.

6. CONCLUSIONS

Ram. IV	Ram. V	Ram. V - VI	Ram. VI - IX	Ram. IX
卅	𐀀		𐀀	𐀀
𐀁	卅		卅	卅
𐀂	𐀁		𐀂	𐀂
𐀃	𐀂		𐀃	𐀃
𐀄	𐀃	...	𐀄	𐀄
𐀅	𐀄	𐀅	?	AA
𐀆	𐀅	AA	AA	𐀆
𐀇	𐀆	𐀆	𐀇?	...
𐀈	𐀇	𐀇	𐀈	𐀈
𐀉	𐀈	𐀈	𐀉	𐀉
𐀊	𐀉	𐀉	𐀊	𐀊
𐀋	𐀊	𐀊	𐀋?	𐀋
AA	𐀋	𐀋	𐀋	𐀌
𐀍	AA	𐀍	𐀍	𐀍
𐀎	𐀍	𐀍	𐀎	𐀎
𐀏	𐀎	𐀎	𐀏	𐀏
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TABLE 105. ORDERED LISTS OF THE RIGHT SIDE OF THE CREW IN THE 20<sup>TH</sup> DYNASTY

#### 6.5.4.7 Family marks?

There are a few instances in which we get the impression that the mark of a workman is a modified form of that of his predecessors. One example is the mark of Nebamun (iv),  $\text{𓆎}$ . His mark is obviously inspired by that of his father Wesekhnetet (i), whose mark was  $\text{𓆎}$ . His son used the same mark with the added element  $\text{𓆎}$ . However, we are not quite sure how to interpret his compound mark, because Nebamun (iv) is also referred to in one document by  $\text{𓆎}$   $\text{𓆎}$ , which is perhaps not so much a mark but rather a reference that needs to be understood as ‘Wesekhnetet’s son’.<sup>96</sup> It is unclear if  $\text{𓆎}$  somehow conveys that very same message. Perhaps a slightly more plausible case is mark  $\text{𓆎}$ , tentatively related to Hori (xii). The attribution of this mark to him is partly based on the resemblance between this mark and that of Amenwa (i), father of Hori (xii), who possessed mark  $\text{𓆎}$ . On the other hand one could object that  $\text{𓆎}$  is not a modified mark but rather a more elaborate allomorph of  $\text{𓆎}$ .

The most convincing instances of marks that were modified concern identity marks that have as their ground form the shape  $\text{𓆎}$ . Marks of this kind occur in two longstanding family lines that produced several deputies and foremen. The two families are not clearly related and it is not evident why the marks are so alike. We turn first to the family of Sennedjem (i) (CHART 16). This famous workman was the owner of mark  $\text{𓆎}$ , and it is striking that the mark of his son Khabekhnet (i) is  $\text{𓆎}$ . The marks are very similar. Both consist of the element  $\text{𓆎}$  with a vertical sign adjacent to it,  $\text{𓆎}$  in the case of Sennedjem,  $\text{𓆎}$  in the case of his son. The similarity is all the more striking because four generations after Sennedjem (i), Nakhemmut (vi), the grandson of Nakhemmut (i), who in turn was the grandson of Sennedjem (i), was designated by mark  $\text{𓆎}$ . We have seen several instances where this mark was substituted by its allomorph  $\text{𓆎}$ .<sup>97</sup> The latter mark appears to hark back to the much earlier mark Sennedjem (i). Unfortunately we have been unable to reveal the identity marks of the generations between Sennedjem (i) and Nakhemmut (vi). Still it would seem that the resemblance between marks  $\text{𓆎}$ ,  $\text{𓆎}$  and  $\text{𓆎}$  or  $\text{𓆎}$  is not coincidental. Particularly Khabekhnet’s mark is a good example of the modification of the original mark of a predecessor.

Similar instances of the modification of an identity mark used in a particular family are attested in central Asian cultures.<sup>98</sup> It is a quite common feature of tamga-signs, originally emblems of tribes and clans used by Eurasian nomadic peoples, but later adopted by other cultures in which they came to be employed as personal identity marks.<sup>99</sup> More recent examples of this practice have been documented in fishermen’s communities in Gallaecia, northern Portugal, where identity marks are employed to this day. In the marking system of these villages a family makes use of derivatives of and variations on a particular mark (FIG. 20). An important difference between the creation of the marks in Deir el-Medina and in these communities is the fact that in Gallaecia the marks were created according to particular rules. Evans Pim explains:

“Within the family, every individual had their own mark that was derived through long-established rules adding certain modifying elements (*piques*, “slashes”), so that

<sup>96</sup> See also above, p. 509.

<sup>97</sup> The same allomorph was occasionally used for mark  $\text{𓆎}$ , see below, p. 522-523.

<sup>98</sup> The phenomenon occurs in the usage of identity marks by medieval stone masons in Western Europe, see Herman Janse and Dirk J. de Vries, *Werk en merk van de Steenhouwer. Het steenhoudersambacht in de Nederlanden voor 1800* (Zwolle and Zeist 1991), 55-56 and fig. 54; Jean-Louis van Belle, *Pour comprendre les signes lapidaires*. Collections Précisions 3 (Brussels 2014), 34-35 and fig. 8.

<sup>99</sup> Compare e.g. the tamga-signs used in medieval times by Turkic peoples in South Siberia, where a son or a grandson could alter the tamga-sign by adding “tails” or “legs” to the original sign of his father or grandfather, see Sergey A. Yatsenko, ‘Some Problems Related to Early Medieval Turkic Tamga-Sign Studies’ *re:marks* 1 (2013), 10-13; fig. 3.

## 6. CONCLUSIONS

anyone in the community could know exactly to whom a mark would refer. [...] The system could be described as [a] set of rules for individual and family identification wherein a relatively small set of radicals or root elements (the ‘ground form’) is modified by a series of prefixes, suffixes, affixes or desinences (variations) following basic rules of association.”<sup>100</sup>

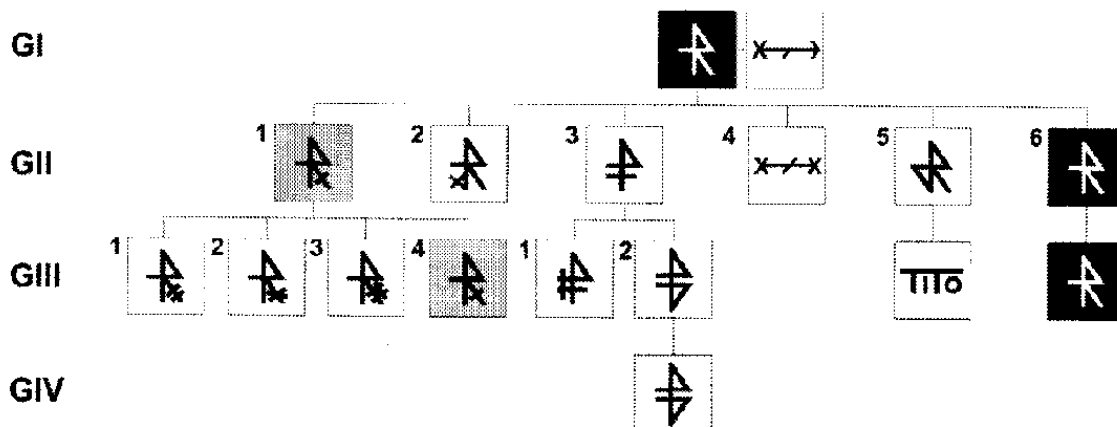
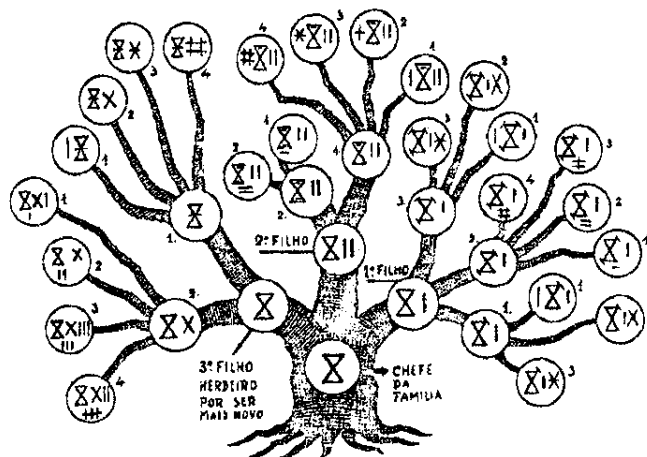


FIGURE 20. MODIFIED IDENTITY MARKS FROM GALLAECIA, PORTUGAL, AFTER EVANS PIM, ‘FROM MARKS TO OGHAM’, FIGS. 8 AND 9

At Deir el-Medina we lack the necessary data to ascertain the motives behind the apparent derivative forms used by later generations. In any case, the available data do not indicate that the practice was widespread, and it seems therefore that the practice of marking in the Theban necropolis followed rules different to those in Gallaecia.

A close parallel for this practice is observed in the family of Qaha (i) (CHART 17). This man was the foreman of the left side during the early 19<sup>th</sup> Dynasty, and we have identified his mark as  $\text{A}$ . The mark of his son, Anuy (i), deputy of the left side, is of a very similar shape:  $\text{A}$ . An allomorph attested for this mark is  $\text{A}$ , which resembles Qaha (i)’s mark  $\text{A}$  even closer: if the left element is incorporated with the right element this results in the shape of Qaha’s mark. One could say that Anuy (i) had deconstructed his father’s mark and employed the separated elements as a mark for himself. What happened to mark  $\text{A}$  after Anuy (i) is not clear. We have established that one of Qaha (i)’s most influential sons and his successor in the office of deputy of the left side, Iniherkhau (i), employed a mark different

<sup>100</sup> João Evans Pim, ‘From Marks to Ogham: Rethinking Writing in Gallaecia’ *re:marks* 1 (2013), 108.

from that of his father: his mark was  $\bar{\text{L}}$ , derived from his own name. Subsequent foremen of the left side were in turn descendants of Iniherkhau (i): Hay (iv) and Iniherkhau (ii), with a mark unrelated to that of Qaha (i). However, Harmose (ii), son of Iniherkhau (ii), also at one time foreman of the left side, may have been represented by mark  $\text{\AA}$  and its allomorph  $\text{\AA}$ . We wonder if this is a coincidence, or whether mark  $\text{\AA}$  and its variants were somehow after all these years still associated with the family of Qaha (i). We may suggest that such a connection had indeed existed. That would explain why the scribe of the duty and delivery texts composed with marks used sign  $\text{\AA}$  to designate the left side of the crew: it was the mark of the descendants of Qaha (i), the family that had directed the left side of the crew for generations. This may also explain our suspicion that during the 20<sup>th</sup> Dynasty mark  $\text{\AA}$  /  $\text{\AA}$  could have been used as the universal mark for the foreman of the left side of the crew, based on its position at the head of ordered lists of workmen's marks.

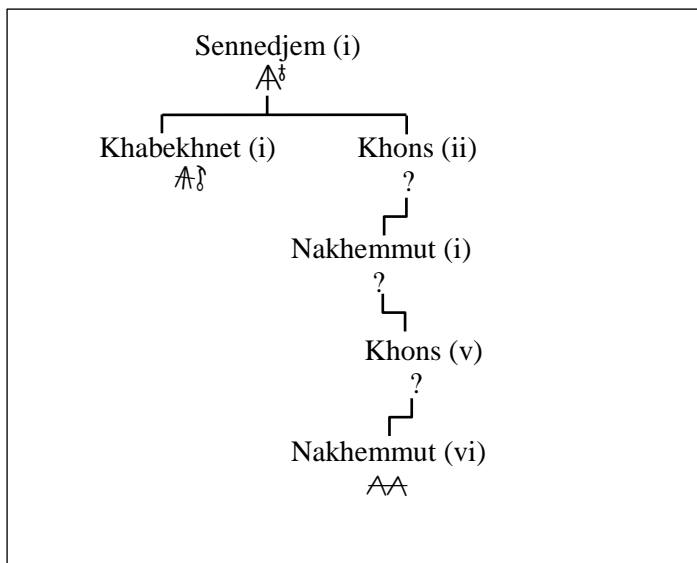


CHART 16. THE FAMILY OF SENNEJEM (i)

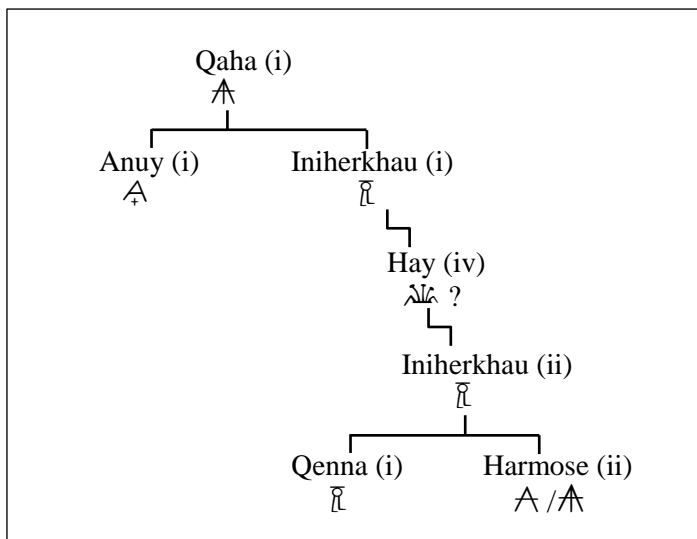


CHART 17. THE FAMILY OF QAHA (i)

**6.6 OVERVIEW OF NEW PROSOPOGRAPHIC AND HISTORIC DATA***Weserkhepesh (i)*

This man must have been deputy of the right side during the end of the reign of Ramesses IX, see chapter 4, 4.2.5.

*Aanakhtu (i), (iii) and (iv)*

Aanakhtu (iii) is probably the same man as Aanakhtu (i) and Aanakhtu (iv), see chapter 4, 4.2.7; 4.2.8.

*Nebnefer (vi) and Bakenwerel (vii)*

The father of Bakenwerel (vii) may have been Nebnefer (vi), see chapter 4, 4.2.8; 4.2.11; chapter 5, 5.2.3.1; chapter 6, chart 47.

*Henutwati (i) and (ii)*

Henutwati (i) is probably the same woman as Henutwati (ii), see chapter 4, 4.2.8; chapter 6, chart 14.

*Amenemone (ii), (iii) and (iv)*

Amenemone (ii) / (iii) may be the same man as the guardian Amenemone (iv), see chapter 5, p. 401, n. 16.

*Siwadjet (ii) and Siwadjet (iii)*

Siwadjet (iii) may have been a grandson of Siwadjet (ii), see chapter 5, 5.2.1; chapter 6, 6.5.4.1.

*Iyerniutef (ii) and Iyerniutef (iii)*

Iyerniutef (iii) may have been a grandson of Iyerniutef (ii), see chapter 5, p. 407, n. 43; chapter 6, 6.5.4.1.

*Amenemope (xvi), (iii) and (ix) and Meryre (iii) and (v)*

'Scribe' Amenemope (xvi) and 'scribe' Meryre (iii) may be equated with Amenemope (iii) = (ix) and his son Meryre (v), see chapter 5, 5.2.2.3.

*Merysekhmet (i) and (ii)*

Merysekhmet (i) may well be the same man as Merysekhmet (ii), see chapter 5, 5.2.2.6.

*Amenemwia (i)*

The deputy of the right side who was in office during the middle of the reign of Ramesses II may well have been Amenemwia (i), see chapter 5, 5.2.2.10.

*Pahemnetjer (i), Ipuu (iii) and Neferher (vi)*

The workman Ipuu (iii) is probably the same man as Pahemnetjer (i), hence Neferher (vi) was a grandson of Neferher (iv), see chapter 5, 5.2.3.3; chapter 6, 6.5.4.2.

*Thutmose (i) and Mose (viii)*

Thutmose (i) may have been the same man as Mose (viii), see chapter 6, Excursus III.

*Huynefer (v) and (xi)*

Huynefer (v) may have been the same man as Huynefer (xi), see chapter 6, Excursus III.

## ABBREVIATIONS

ÄA	Ägyptologische Abhandlungen
ÄAT	Ägypten und Altes Testament
AE	<i>Ancient Egypt and the East</i> . London.
<i>Aegyptus</i>	<i>Aegyptus: Rivista Italiana di Egittologia e di Papirologia</i> . Milan.
AH	Aegyptiaca Helvetica
<i>Ann CdF</i>	<i>Annuaire du Collège de France, Paris</i> . Paris.
AO	<i>Archiv Orientální. Quarterly Journal of African and Asian Studies</i> . Prague.
AOAT	Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments
ARA	<i>Annual Review of Anthropology</i> . Palo Alto.
ASAE	<i>Annales du Service des Antiquités de l'Égypte</i> . Cairo.
AV	Archäologische Veröffentlichungen
BBf	Beiträge zur ägyptischen Bauforschung und Altertumskunde
BdÉ	Bibliothèque d'Étude
BES	<i>Bulletin of the Egyptological Seminar</i> . New York.
BIFAO	<i>Bulletin de l'Institut Français d'Archéologie Orientale</i> . Cairo.
<i>BiOr</i>	<i>Bibliotheca Orientalis</i> . Leiden.
BMHS	Bulletin du Musée Hongrois des Beaux-Arts Supplément
BMSAES	<i>British Museum Studies in Ancient Egypt and Sudan</i> . London.
BSAE	British School of Archaeology in Egypt
CAA	Corpus Antiquitatum Aegyptiacarum, Lose-Blatt-Katalog ägyptischer Altertümer
Carter MSS	Howard Carter, <i>Journal of Lord Carnarvon's Excavations in the Valleys of the Tombs of the Kings. Giving the order and position of objects found</i> . Griffith Institute Archive, Oxford.
<i>CdE</i>	<i>Chronique d'Égypte. Bulletin périodique de la Fondation Égyptologique Reine Élisabeth</i> . Brussels.
<i>CdK</i>	<i>Les Cahiers de Karnak. Centre franco-égyptien d'étude des temples de Karnak</i> . Cairo.
CEDAE	Centre de Documentation et d'Études sur l'Ancienne Égypte. Collection Scientifique
Černý MSS	Jaroslav Černý, Unpublished manuscripts in the Griffith Institute Archive, Oxford.
Černý NB	Jaroslav Černý, Unpublished notebooks, with transcriptions of ostraca and papyri in the Griffith Institute Archive, Oxford.
CGC	Catalogue Général des Antiquités Égyptiennes du Musée du Caire
CHANE	Culture and History of the Ancient Near East
CNI	Carsten Niebuhr Institute of Ancient Near Eastern Studies Publications



ABBREVIATIONS

DAIKS	Deutsches Archäologisches Institut Abteilung Kairo Sonderschrift
DFIFAO	Documents de Fouilles de l'Institut Français d'Archéologie Orientale du Caire
EA	<i>Egyptian Archaeology. The Bulletin of the Egypt Exploration Society.</i> London.
EAO	<i>Égypte, Afrique et Oriente.</i> Paris.
EES EM	Egypt Exploration Society Excavation Memoir
EES OP	The Egypt Exploration Society Occasional Publications
EQÄ	Einführungen und Quellentexte zur Ägyptologie
EU	Egyptologische Uitgaven
FES	The Finnish Egyptological Society Index Number.
FESOP	Finnish Egyptological Society Occasional Publications
HÄB	Hildesheimer Ägyptologische Beiträge
HdO	Handbuch der Orientalistik
JEA	<i>Journal of Egyptian Archaeology.</i> London.
JEOL	<i>Jaarbericht van het Vooraziatisch-egyptisch Genootschap Ex Oriente Lux.</i> Leiden.
JESHO	<i>Journal of the Economic and Social History of the Orient.</i> Leiden.
GHPE	Golden House Publications Egyptology
GM	<i>Göttinger Miszellen.</i> Göttingen.
GÖF	Göttinger Orientforschungen, IV. Reihe, Ägypten
KRI	Kenneth A. Kitchen, <i>Ramesside Inscriptions. Historical and Biographical.</i> I – VIII. Oxford, 1969-1990.
KSG	Königtum, Staat und Gesellschaft früher Hochkulturen
LÄ	Wolfgang Helck and Eberhard Otto (eds.), <i>Lexikon der Ägyptologie</i> I-VII. Wiesbaden, 1975-1992.
LingAeg	<i>Lingua Aegyptia. Journal of Egyptian Language Studies.</i> Göttingen.
LingAeg SM	Lingua Aegyptia. Studia monographica
MDAIK	<i>Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo.</i> Mainz, Cairo, Berlin and Wiesbaden.
Memnonia	<i>Memnonia. Bulletin édité par l'Association pour la sauvegarde de Ramesseum.</i> Cairo and Paris.
Meroitica	Meroitica. Schriften zur altsudanesischen Geschichte und Archäologie
MIFAO	Mémoires publiés par les membres de l'Institut Français d'Archéologie Orientale du Caire
MMAEE	The Metropolitan Museum of Art Egyptian Expedition
OBO	Orbis Biblicus et Orientalis
OBOSA	Orbis Biblicus et Orientalis. Series Archaeologica
OL	Ostrakon littéraire, French Institute for Oriental Archaeology.
OLA	Orientalia Lovaniensia Analecta

<i>OMRO</i>	<i>Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden</i> . Leiden.
ONL	Ostrakon non littéraire, French Institute for Oriental Archaeology.
PdÄ	Probleme der Ägyptologie
PIAAS	Publications of the Institute for Asian and African Studies
PIHANS	Publications de l'Institut Historique et archéologique Néerlandais de Stamboul
PIREI	Publications Interuniversitaires de Recherches Égyptologiques Informatisées
<i>PM</i>	Bertha Porter and Rosalind L.B. Moss, <i>Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs and Paintings</i> . I – VII. Oxford, 1927-1951.
<i>RdE</i>	<i>Revue d'Égyptologie</i> . Paris.
<i>re:marks</i>	<i>re:marks. The Journal of Signum, International Society for Mark Studies</i> . [No location].
SAGA	Studien zur Archäologie und Geschichte Altägyptens
<i>SAK</i>	<i>Studien zur altägyptischen Kultur</i> . Hamburg.
<i>Serapis</i>	<i>Serapis: The American Journal of Egyptology</i> . Chicago.
<i>Ta-Mery</i>	<i>Ta-Mery. Jaarlijks magazine voor vrienden van het oude Egypte</i> . Leiden.
USE	Uppsala Studies in Egyptology
<i>VDI</i>	<i>Vestnik Drevnej Istorii</i> = Вестник Древней Истории (In Russian: <i>Journal of Ancient History</i> ). Moscow and Saint Petersburg.
WA	Society of Biblical Literature. Writings from the Ancient World
<i>WB</i>	Adolf Erman and Hermann Grapow, <i>Wörterbuch der ägyptische Sprache</i> . I – VII. Leipzig, 1926-1931.
<i>WorldArch</i>	<i>World Archaeology</i> . London.
WVDOG	Wissenschaftliche Veröffentlichungen der Deutschen Orientgesellschaft
<i>ZÄS</i>	<i>Zeitschrift für ägyptische Sprache und Altertumskunde</i> . Berlin and Leipzig.
<i>ZDMG</i>	<i>Zeitschrift der Deutschen Morgenländischen Gesellschaft</i> . Leipzig and Wiesbaden.



## BIBLIOGRAPHY

- Abd el-Qader, Adel Mahmoud, *Catalogue of funerary objects from the tomb of the Servant in the Place of Truth Sennedjem (TT1): ushabtis, ushabtis in coffins, ushabti boxes, canopic coffins, canopic chests, cosmetic chests, furniture, dummy vases, pottery jars, and walking sticks, mainly from Egyptian Museum in Cairo and Metropolitan Museum of Art of New York*. DVD. Cairo, 2011.
- Abdel Samie, Abdel Rahman Salah Hafez, *Hieratic Ostraca of the Ramesside Period in the Egyptian Museum in Cairo: Documentation, Classification and Commentary*. PhD Dissertation. Birmingham, 2009. Accessible via <http://etheses.bham.ac.uk/737/1/abdelelsamie10MPhil.pdf>
- Accetta, Kelly, Renate Fellingner, Pedro Lourenço Gonçalves *et al.* (eds.), *Current Research in Egyptology 2013. Proceedings of the Fourteenth Annual Symposium. University of Cambridge, United Kingdom, March 19-22, 2013*. Oxford, 2014.
- Altenmüller, Brigitte, *Synkretismus in den Sargtexten*. GÖF 7. Wiesbaden, 1975.
- Andrássy, Petra, Julia Budka and Frank Kammerzell (eds.), *Non-Textual Marking Systems, Writing and Pseudo Script from Prehistory to Modern Times*. LingAeg SM 8. Göttingen, 2009.
- Andreu, Guillemette (ed.), *Les artistes de Pharaon. Deir el-Médineh et la Vallée des Rois*. Paris, 2002.
- Andreu, Guillemette (ed.), *Deir el-Médineh et la Vallée des Rois. La vie en Égypte au temps des pharaons du Nouvel Empire. Actes du colloque organisé par la musée du Louvre les 3 et 4 mai 2002*. Paris, 2003.
- Arnold, Dieter, *Building in Egypt. Pharaonic Stone Masonry*. New York, 1991.
- Arnst, Caris-Beatrice, Ingelore Hafemann and Angelika Lohwasser (eds.), *Begegnungen. Antike Kulturen im Niltal. Festgabe für Erika Endesfelder, Karl-Heinz Priese, Walter Friedrich Reineke und Steffen Wenig von Schülern und Mitarbeitern*. Leipzig, 2001.
- Assam, Maria Helena, *Arte Egípcia. Museu Calouste Gulbenkian*. Lisbon, 1991.
- Assmann, Jan, Eberhard Dziobek, Heike Guksch *et al.* (eds.), *Thebanische Beambtennekropolen. Neue Perspektiven archäologischer Forschung. Internationales Symposium Heidelberg 9. – 13. 6. 1993*. SAGA 12. Heidelberg, 1995.
- Aston, David A., ‘A Taste of Honey: *mnt*- and *mdqt*-Vessels in the Late Eighteenth Dynasty’ in: Schneider and Szpakowska (eds.), *Egyptian Stories*, (2007), 13-31.
- Aston, David A., ‘Theban potmarks – nothing other than funny signs? Potmarks from Deir el-Medineh and the Valley of the Kings’ in: Haring and Kaper (eds.), *Pictograms or Pseudo Script?*, (2009), 49-65.
- Aston, David, *Pottery recovered near the tombs of Seti I (KV 17) and Siptah (KV 47) in the Valley of the Kings*. AH 24. Basel, 2014.

BIBLIOGRAPHY

- Aubert, Jacques-F., 'Les statuettes funéraires de la collection Omar Pacha' *CdE* 50 (1976), 58-71.
- Aubert, Jacques-F. and Liliane Aubert, *Statuettes Egyptiennes. Chaouabtis, Ouchehtis*. Librairie d'Amérique et d'Orient. Paris, 1974.
- Ayrton, Edward, 'The excavations during the winters of 1905-1906' in: Davis, Maspero, Norton *et al.*, *The Tomb of Siptah*, (1908), 6-8.
- Bács, Tamás A., Zahi Hawass and Gábor Schreiber (eds.), *Proceedings of the colloquium on Theban archaeology at the Supreme Council of Antiquities, November 5, 2009*. Cairo, 2011.
- Baines, John, and Christopher J. Eyre, 'Four notes on literacy' *GM* 61 (1983), 65-96.
- Baraize, Émile, 'Compte rendu des travaux exécutés à Deir el-Médineh' *ASAE* 13 (1949), 19-42.
- Baranauskas, Cécilia, Philippe Palanque, Julio Abascal *et al.* (eds.), *Human-Computer Interaction – INTERACT 2007. 11th IFIP TC 13 International Conference. Rio de Janeiro, Brazil, September 2007. Proceedings*. Part I. Lecture Notes in Computer Science 4662. Heidelberg and New York, 2007.
- Bell, Lanny, 'Only one high priest Ramessesnakht and the second prophet Nesamun his younger son' *Serapis* 6 (1980), 7-27.
- Bell, Martha R., 'Notes on the exterior construction signs from Tutankhamun's shrines' *JEA* 73 (1990) 107-124.
- Bhamidipaty, Anuradha and Deepak P., 'SymAB: Symbol-Based Address Book for the Semi-literate Mobile User' in: Baranauskas, Palanque, Abascal *et al.* (eds.), *INTERACT 2007*, (2007) 389-392.
- Bickel, Susanne, *Untersuchungen im Totentempel des Merenptah in Theben. III. Tore und andere wiederverwendete Bauteile Amenophis' III*. BBf 16. Stuttgart, 1997.
- Bickel, Suzanne (ed.), *Vergangenheit und Zukunft. Studien zum historischen Bewusstsein in der Thutmosidenzeit*. AH 22. Basel, 2013.
- Bierbrier, Morris L., *The Late New Kingdom in Egypt (c. 1300-664 B.C.). A Genealogical and Chronological Investigation*. Warminster, 1975.
- Bierbrier, Morris L., *Hieroglyphic texts from Egyptian stelae etc*. Part 10. London, 1982.
- Bierbrier, Morris L., review of Valbelle, *Les ouvriers*, in: *JEA* 75 (1989), 279-280.
- Birch, Samuel, *Inscriptions in the Hieratic and Demotic Character from the Collections of the British Museum*. London, 1868.
- Bogoslovsky, Evgeni S., review of Tosi and Roccati, *Stele*, in: *VDI* 132.2 (1975), 154-162.
- Bogoslovsky, Evgeni S., review of Zivie, *La tombe de Pached*, in: *CdE* 57 (1982), 274-281.
- Bonnet, Charles and Dominique Valbelle, 'Le village de Deir el-Médineh. Reprise de l'étude archéologique' *BIFAO* 75 (1975), 429-466.
- Bonnet, Charles and Dominique Valbelle, 'Le village de Deir el-Médineh. Étude archéologique (suite)' *BIFAO* 76 (1976), 317-342.

- Bréand, Gæelle, 'The corpus of pre-firing potmarks from Adaïma (Upper Egypt)' in: Friedman and Fiske (eds.), *Egypt at its Origins* 3, (2011), 1015-1041.
- Brugsch, Heinrich, *Geographische Inschriften altägyptischer Denkmäler, gesammelt während der auf Befehl Seiner Majestät des Königs Friedrich Wilhelm IV. von Preussen unternommen wissenschaftlichen Reise in Ägypten I. Die Geographie des alten Aegyptens*. Leipzig, 1857.
- Brunner-Traut, Emma, *Die altägyptische Scherbenbilder (Bildostraka) der Deutschen Museen und Sammlungen*. Wiesbaden, 1956.
- Brunner-Traut, Emma, *Egyptian Artists' Sketches. Figured Ostraka from the Gayer-Anderson Collection in the Fitzwilliam Museum, Cambridge*. PIHANS 45. Leiden, 1979.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1922-1923)*. FIFAO 1.1. Cairo, 1924.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1923-1924)*. FIFAO 2.2. Cairo, 1925.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1924-1925)*. FIFAO 3.3. Cairo, 1926.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1926)* [I]. FIFAO 4.3. Cairo, 1927.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1927)*. FIFAO 5.2. Cairo, 1928.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1928)* II. FIFAO 6.2. Cairo, 1929.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1930)*. FIFAO 8.3. Cairo, 1933.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1931-1932)* FIFAO 10.1. Cairo, 1934.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1933-1934)* I. FIFAO 14. Cairo, 1937.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1934-1935)* II. FIFAO 15. Cairo, 1937.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1934-1935)* III. FIFAO 16. Cairo, 1939.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1935 à 1940)* I. FIFAO 20.1. Cairo, 1948.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1935 à 1940)* II. FIFAO 20.2. Cairo, 1952.
- Bruyère, Bernard, *Rapport sur les Fouilles de Deir el Médineh (1948 à 1951)*. FIFAO 26. Cairo, 1953.
- Bruyère, Bernard, *La tombe No. 1 de Sen-nedjem à Deir el Médineh*. MIFAO 88. Cairo, 1958.
- Bruyère, Bernard and Charles Kuentz, *Tombes Thébaines. La Nécropole de Deir el-Médineh. La tombe de Nakht-min et la tombe d'Ari-nefer*. MIFAO 54. Cairo, 1926.
- Bryan, Betsy M., *The reign of Thutmose IV*. London, 1991.
- Budka, Julia, 'Benchmarks, team marks and pot marks from the Asasif (Western Thebes)' in: Haring and Kaper (eds.), *Pictograms or Pseudo script?*, (2009), 67-91.

BIBLIOGRAPHY

- Budka, Julia, 'Non-textual marks from the Asasif (Western-Thebes). Remarks on function and practical use based on external textual evidence' in: Andrásy, Budka and Kammerzell (eds.), *Non-textual marking systems*, (2009), 179-203.
- Budka, Julia, Frank Kammerzell and Sławomir Rzepka (eds.), *Non-Textual Marking Systems in Ancient Egypt (and elsewhere)* (forthcoming).
- Burkhard, Günter, 'Das *ḥtm n pꜣ ḥr* von Deir el-Medine. Seine Funktion und die Frage seiner Lokalisierung' in: Dorn and Hoffmann (eds.), *Living and Writing in Deir el-Medine*, (2006), 31-42.
- Cabrol, Agnès, 'Les criosphinx de Karnak: un nouveau dromos d'Amenhotep III' *CdK* 10 (1995), 1-32.
- Černý, Jaroslav, *Ostraca hiératiques. Nos. 25501-25832*. CGC. Cairo, 1935.
- Černý, Jaroslav, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh. I. Nos. 1 à 113*. DFIFAO 3. Cairo, 1935.
- Černý, Jaroslav, 'Datum des Todes Ramses' III. und der Thronbesteigung Ramses' IV' *ZÄS* 72 (1936), 109-118.
- Černý, Jaroslav, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh. II. Nos. 114 à 189*. DFIFAO 4. Cairo, 1937.
- Černý, Jaroslav, 'Deux noms de poisson du Nouvel Empire' *BIFAO* 37 (1937), 35-40.
- Černý, Jaroslav, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh. IV. Nos. 242 à 339*. DFIFAO 6. Cairo, 1939.
- Černý, Jaroslav, 'Nouvelle série de questions adressées aux oracles' *BIFAO* 41 (1942), 13-24.
- Černý, Jaroslav, *Répertoire onomastique de Deir el-Médineh*. DFIFAO 12. Cairo, 1949.
- Černý, Jaroslav, *Graffiti hieroglyphiques et hiératiques de la nécropole thébaine. Nos 1060 à 1405*. DFIFAO 9. Cairo, 1956.
- Černý, Jaroslav, *Egyptian Stelae in the Bankes Collection*. Oxford, 1958.
- Černý, Jaroslav, *Catalogue des ostraca hiératiques non littéraires de Deir el Médineh. VII. Nos. 624-705*. DFIFAO 14. Cairo, 1970.
- Černý, Jaroslav, *A Community of Workmen at Thebes in the Ramesside Period*. BdÉ 50. 2<sup>nd</sup> ed. Cairo, 2001.
- Černý, Jaroslav and Abdel Aziz Sadek, *Graffiti de la montagne thébaine III.1. Fac-similés. Nos. 1578-2566*. CEDAE. Cairo, 1970.
- Černý, Jaroslav and Abdel Aziz Sadek, *Graffiti de la Montagne Thébaine IV.1. Transcriptions et indices. Nos. 1578-2566*. CEDAE. Cairo, 1970.
- Černý, Jaroslav and Abdel Aziz Sadek, *Graffiti de la montagne thébaine III.3. Fac-similés. Nos. 2567-2928*. CEDAE. Cairo, 1971.
- Černý, Jaroslav and Abdel Aziz Sadek, *Graffiti de la Montagne Thébaine IV.2. Transcriptions et indices. Nos. 2567-2928*. CEDAE. Cairo, 1971.

- Cherpion, Nadine, *Deux tombes de la XVIIIe dynastie à Deir el-Medina. Nos 340 (Amenemhat) et 354 (anonyme)*. MIFAO 114. Cairo, 1999.
- Cherpion, Nadine, *La tombe d'Inherkhâouy (TT 359) à Deir el-Medina*. I-II. MIFAO 128. Cairo, 2010.
- Christophe, Louis-A., 'Les enseignements de l'ostracon 148 de Déir el-Médineh' *BIFAO* 52 (1953), 113-144.
- Cilli, Debora, 'Delivery Ostraca Discovered Adjacent to KV 47' in: Collier and Snape (eds.), *Ramesside Studies*, (2011), 95-110.
- Cilli, Debora, 'A New Corpus of Hieratic Ostraca from the Valley of Kings (KV47)' in: Toivari-Viitala, Vartiainen and Uvanto (eds.), *Deir el-Medina Studies*, (2014), 7-15.
- Cline, Eric H. and David O'Connor (eds.), *Thutmose III. A New Bibliography*. Ann Arbor, 2005.
- Collier, Mark, *Dating Late XIXth Dynasty Ostraca*. EU 28. Leiden, 2004.
- Collier, Mark, 'The right side of the gang in years 1 to 2 of Ramesses IV' in: Haring, Kaper and Van Walsem (eds.), *The workman's progress*, (2014), 1-20.
- Collier, Mark, 'Integrating Hieratic and Marks Data for the Prosopography of Deir el-Medina Workmen in the early to mid 20<sup>th</sup> Dynasty' in: Haring *et al.* (eds.), *Decoding Signs of Identity* (forthcoming).
- Collier, Mark, and Steven Snape (eds.), *Ramesside Studies in Honour of K.A. Kitchen*. Bolton, 2011.
- Collins, James, 'Literacy and literacies' *ARA* 24 (1995), 75-93.
- Cooney, Kathlyn M., 'An informal workshop: Textual evidence for private funerary art production in the Ramesside Period' in: Dorn and Hofmann (eds.), *Living and writing in Deir el-Medine*, (2006), 43-55.
- Cowgill, Jamie and Jim Bolek, *Symbol usage in health care settings for people with limited English proficiency*. Part I. *Evaluation of use of symbol graphics in medical settings*. Hablamos Juntos Report 1. Scottsdale, 2003.
- Curto, Silvio and Maurizio Mancini, 'News of Kha' and Meryt' *JEA* 54 (1968), 77-81.
- Daressy, Georges, *Ostraca. Nos. 25001-25385*. CGC. Cairo, 1901.
- Daressy, Georges, *Fouilles de la Vallée des Rois (1898-1899). Nos. 24001-24990*. CGC. Cairo, 1902.
- Davies, Benedict G., *Who's who at Deir el-Medina. A prosopographic Study of the Royal Workmen's Community*. EU 13. Leiden, 1999.
- Davies, William V. (ed.), *Colour and Painting in Ancient Egypt*. London, 2001.
- Davis, Theodore M., Gaston Maspero, Edward Norton *et al.*, *The Tomb of Siptah; the Monkey Tomb and the Gold Tomb*. Theodore M. Davis' excavations: Bibân el Molûk. London, 1908.
- Demarée, Robert J., 'Remove your stela'. (O. Petrie 21 = *Hier. Ostr.* 16, 4)' in: Demarée and Janssen (eds.), *Gleanings*, (1982), 101-108.
- Demarée, Robert J., *The ꜥḫ ikr n rꜥ-Stelae. On Ancestor Worship in Ancient Egypt*. EU 3. Leiden, 1983.



BIBLIOGRAPHY

- Demarée, Robert J., *Ramesside Ostraca*. London, 2002.
- Demarée, Robert J., 'Quelques textes de la fin de la XX<sup>e</sup> et du début de la XXI<sup>e</sup> dynastie' in: Andreu (ed.), *Deir el-Médîneh et la Vallée des Rois*, (2003), 235-251.
- Demarée, Robert J., 'Ramesside administrative papyri in the Civiche Raccolte Archeologiche e Numismatiche di Milano' *JEOL* 42 (2010), 55-79.
- Demarée, Robert J. and Arno Egberts (eds.), *Village Voices. Proceedings of the symposium 'Texts from Deir el-Medîna and their interpretation.'* Leiden, May 31 - June 1, 1991. CNWS Publications 13. Leiden, 1992.
- Demarée, Robert J. and Arno Egberts (eds.), *Deir el-Medina in the third millennium AD. A tribute to Jac. Janssen*. EU 14. Leiden, 2000.
- Demarée, Robert J. and Jac. J. Janssen (eds.), *Gleanings from Deir el-Medîna*. EU 1. Leiden, 1982.
- Demichelis, Sara, 'Le projet initial de la tombe de Ramsès IV? Papyrus de Turin CGT 55002' *ZÄS* 131 (2004), 114-133.
- Ditze, Barbara, 'Gedrückt – Geritzt – Gekratzt. Die Gefäße mit Topfmarken' in: Pusch and Bietak (eds.), *Die Keramik des Grabungsplatzes Q 1*, (2007), 270-507.
- Dodson, Aidan, 'The Late Eighteenth Dynasty Necropolis at Deir el-Medina and the Earliest "Yellow" Coffin of the New Kingdom' in: Demarée and Egberts (eds.), *Deir el-Medina in the Third Millennium AD*, (2000), 89-100.
- Donadoni Roveri, Anna Maria (ed.), *Egyptian Civilization. Daily Life*. Turin, 1988.
- Donadoni, Anna Maria, Enrichetta Leospo, Elvira D'Amico *et al.*, *Il Museo Egizio di Torino. Guida alla lettura di una civiltà*. Nuova Edizione. Turin, 1993.
- Donker van Heel, Koen, 'Did the Deir el-Medina scribes use drafts in daily scribal practice?' in: Donker van Heel and Haring, *Writing in a Workmen's Village*, (2003), 1-38.
- Donker van Heel, Koen, 'Clusters of individual handwritings and the duplication of information in the administrative documents from Deir el-Medina' in: Donker van Heel and Haring, *Writing in a Workmen's Village*, (2003), 39-82.
- Donker van Heel, Koen, and Ben J.J. Haring, *Writing in a Workmen's Village. Scribal Practice in Ramesside Deir el-Medina*. EU 16. Leiden, 2003.
- Dorman, Peter F., *The tombs of Senenmut. The architecture and decoration of tombs 71 and 353*. MMAEE 24. New York, 1991.
- Dorman, Peter, 'Two Tombs and One Owner' in: Assmann, Dziobek, Guksch *et al.* (eds.), *Thebanische Beamtinnenkropolen*, (1995), 141-154.
- Dorman, Peter F., 'The Tombs of Senenmut' in: Roehrig (ed.), *Hatshepsut*, (2005), 131-132.
- Dorn, Andreas, *Arbeiterhütten im Tal der Könige. Ein Beitrag zur altägyptische Sozialgeschichte aufgrund von neuem Quellenmaterial aus der Mitte der 20. Dynastie (ca. 1150 v. Chr.). 1 Text- und Katalogband und 2 Tafelbände*. AH 23. Basel, 2011.

- Dorn, Andreas, 'Ostraka aus der Regierungszeit Sethos' I. aus Deir el-Medineh und dem Tal der Könige. Zur Mannschaft und zur Struktur des Arbeiterdorfes vor dem Bau des Ramesseums' *MDAIK* 67 (2011), 31-52.
- Dorn, Andreas, 'Hatschepsuts Jenseitsarchitektur im Spannungsfeld zwischen Innovation und Legitimation' in: Bickel (ed.), *Vergangenheit und Zukunft*, (2013), 29-47.
- Dorn, Andreas and Tobias Hofmann (eds.), *Living and writing in Deir el-Medine. Socio-historical embodiment of Deir el-Medine texts*. AH 19. Basel, 2006.
- Dorn, Andreas and Elina Paulin-Grothe, 'Zwei Ostraka der 18. Dynastie aus dem Tal der Könige mit Namenszeichen (O. BTdK 832 und O. BTdK 833)' *GM* 231 (2011), 17-21.
- Dorn, Andreas and Stéphan Polis (eds.), *Proceedings of the Conference "Deir el-Medina and the Theban Necropolis in Contact: Describing the Interactions Within and Outside the Community of Workmen, October 2014, Liège* (forthcoming).
- Driaux, Delphine, 'Le Grand Puits de Deir al-Medîna et la question de l'eau : nouvelles perspectives' *BIFAO* 111 (2011), 111-137.
- Dziobek, Eberhard, *Das Grab des Ineni. Theben Nr. 81*. AV 68. Mainz am Rhein, 1992.
- Dziobek, Eberhard, Michael Höveler-Müller and Christian E. Loeben (eds.), *The Mysterious Tomb 63. The Latest Discovery in the Valley of the Kings. Art and Archaeology of Susan Osgood*. Rahden, 2009.
- Eaton-Krauss, Marianne, 'The fate of Sennefer and Senetnay at Karnak Temple and in the Valley of the Kings' *JEA* 85 (1999), 113-129.
- Eaton-Krauss, Marianne, 'Who commissioned KV 42 and for whom?' *GM* 234 (2012), 56-60.
- Edel, Elmar, Gerhard Haeny, Werner Kaiser *et al.*, *Das Sonnenheiligtum des Königs Userkaf II*. BBf 8. Wiesbaden, 1969.
- Evans Pim, Joám, 'From Marks to Ogham: Rethinking Writing in Gallaecia' *re:marks* 1 (2013), 89-126.
- Eyre, Christopher J., *Employment and Labour Relations in the Theban Necropolis in the Ramesside Period*. Unpublished PhD Dissertation. Oxford, 1980.
- Fekri, Magdi M. and Anne-Marie Loyrette, 'Vallée des Reines: la tombe VdR 34 d'une reine inconnue et les puits VdR 87' *Memnonia* 9 (1998), 121-138.
- Fischer-Elfert, Hans-Werner, *Lesefunde im literarischen Steinbruch von Deir el-Medineh*. Kleine ägyptische Texte 12. Wiesbaden, 1997.
- Friedman, Renée F., and Peter N. Fiske (eds.), *Egypt at its Origins 3. Proceedings of the Third International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", London, 27th July – 1st August 2008*. OLA 205. Leuven, Paris and Walpole, 2011.
- Fronczak, Maria and Sławomir Rzepka, "'Funny Signs" in Theban Rock Graffiti" in: Andrassy, Budka and Kammerzell (eds.), *Non-Textual Marking Systems*, (2009), 159-178.

BIBLIOGRAPHY

- Gabler, Kathrin, 'Can I Stay or must I go? Relations between the Deir el-Medina Community and their Service Personnel' in: Dorn and Polis (eds.), *Deir el-Medina and the Theban Necropolis in Contact* (forthcoming).
- Gabler, Kathrin, 'Methods of Identification among the Deir el-Medina Workmen and their Service Personnel: The Use of Names, Titles, Patronyms and Identity Marks in Administrative Texts from Deir el-Medina' in: Haring *et al.* (eds.), *Decoding Signs of Identity* (forthcoming).
- Gabler, Kathrin, *Who's who around Deir el-Medina. Prosopographische Untersuchungen des Versorgungspersonals (smd.t / n bnr / n pꜣ hr) für die Arbeitersiedlung und das Tal der Könige*. PhD Dissertation. Munich and Basel (forthcoming).
- Gardiner, Alan H., *Ancient Egyptian Onomastica*. Text I-II and Plates. Oxford, 1947.
- Gardiner, Alan, *Egyptian Grammar. Being an Introduction to the Study of Hieroglyphs*. 3<sup>rd</sup> ed. Oxford, 1957.
- Gasse, Annie, *Catalogue des Ostraca Figurés de Deir el-Médineh*. Fascicule 5. Nos 3100-3372. DFIFAO 23. Cairo, 1986.
- Gasse, Annie, 'L'inventaire des ostraca littéraires de Deir el-Médina conservées à l'IFAO. Premiers résultats' *GM* 174 (2000), 5-14.
- Gasse, Annie, 'Le K2, un cas d'école?' in: Demarée and Egberts (eds.), *Deir el-Medina in the third millennium AD*, (2000), 109-120.
- Gesenius, Wilhelm, *Hebräisches und aramäisches Handwörterbuch über das alte Testament*. Leipzig, 1921.
- Goecke-Bauer, Maren, 'Untersuchungen zu den 'Torwächtern' in: Janssen, Froot and Goecke-Bauer, *Woodcutters, Potters and Doorkeepers*, (2003), 63-153.
- Grandet, Pierre, *Catalogue des ostraca hiératiques non littéraires de Deir el-Médîneh VIII. Nos. 706-830*. DFIFAO 39. Cairo, 2000.
- Grandet, Pierre, *Catalogue des ostraca hiératiques non littéraires de Deir el-Médîneh IX. Nos. 831-1000*. DFIFAO 41. Cairo, 2003.
- Grandet, Pierre, *Catalogue des ostraca hiératiques non littéraires de Deir el-Médîneh X. Nos. 10001-10123*. DFIFAO 46. Cairo, 2006.
- Grandet, Pierre, *Catalogue des ostraca hiératiques non littéraires de Deir el-Médîneh XI. Nos. 10124-10275*. DFIFAO 48. Cairo, 2010.
- Grapow, Hermann, *Die bildlichen Ausdrücke des Ägyptischen. Vom Denken und Dichten einer altorientischen Sprache*. [2<sup>nd</sup> ed.] *Mit einem Vorwort zum Nachdruck von Hellmut Brunner*. Darmstadt, 1983.
- Graves, Carl, Gabrielle Heffernan, Luke McGarrity *et al.* (eds.), *Current Research in Egyptology 2012. Proceedings of the Thirteenth Annual Symposium. University of Birmingham 2012*. Oxford, 2013.

- Grimm, Alfred and Hermann A. Schlögl, *Das thebanische Grab Nr. 136 unter der Beginn der Amarnazeit*. Wiesbaden, 2005.
- Guksch, Heike, *Königsdienst. Zur Selbstdarstellung der Beamten in der 18. Dynastie*. SAGA 11. Heidelberg, 1994.
- Gutgesell, Manfred, *Die Datierung der Ostraka und Papyri aus Deir el-Medineh und ihre ökonomische Interpretation*. Teil I-II. *Die 20. Dynastie*. HÄB 18. Hildesheim, 1983.
- Györy, Hedvig (ed.), “*Le lotus qui sort de terre*”. *Mélanges offerts à Edith Varga*. BMHS 2001. Budapest, 2001.
- Haeny, Gerhard, ‘Die Steinbruch- und Baumarken’ in: Elmar, Haeny, Kaiser *et al.*, *Das Sonnenheiligtum*, (1969), 23-47.
- Hagen, Fredrik, *New Kingdom Ostraca from the Fitzwilliam Museum, Cambridge*. CHANE 46. Leiden and Boston, 2011.
- Häggman, Sofia, *Directing Deir el-Medina. The External Administration of the Necropolis*. USE 4. Uppsala, 2002.
- Haring, Ben J.J., *Divine Households. Administrative and economic aspects of the New Kingdom royal memorial temples in Western Thebes*. EU 12. Leiden, 1997.
- Haring, Ben J.J., ‘Towards decoding the necropolis workmen’s funny signs’ *GM* 178 (2000), 45-58
- Haring, Ben J.J., ‘Egyptian text denominatives’ in: Donker van Heel and Haring, *Writing in a workmen’s village*, (2003), 85-123.
- Haring, Ben, ‘From Oral Practice to Written Record in Ramesside Deir El-Medina’ *JESHO* 46.3 (2003), 248-272.
- Haring, Ben J.J., ‘Scribes and scribal activity at Deir el-Medina’ in: Dorn and Hofmann (eds.), *Living and Writing in Deir el-Medine*, (2006), 107-112.
- Haring, Ben J.J., ‘Workmen’s Marks on Ostraca from the Theban Necropolis: A Progress Report’ in: Haring and Kaper (eds.), *Pictograms or Pseudo Script?*, (2009), 143-167.
- Haring, Ben J.J., ‘On the Nature of Workmen’s Marks of the Royal Necropolis Administration in the New Kingdom’ in: Andrassy, Budka and Kammerzell (eds.), *Non-Textual Marking Systems*, (2009), 123-135.
- Haring, Ben, ‘Nineteenth Dynasty stelae and the merits of hieroglyphic palaeography’ *BiOr* 67 (2010), 22-34.
- Haring, Ben J.J., ‘Workmen’s Marks and the Early History of the Theban Necropolis’ in: Toivari-Viitala, Vatiainen and Uvanto (eds.), *Deir el-Medina Studies*, (2014), 87-100.
- Haring, Ben, ‘Between Administrative Writing and Work Practice. Marks Ostraca and the Roster of Day Duties of the Royal Necropolis Workmen in the New Kingdom’ in: Budka, Kammerzell and Rzepka (eds.), *Non-Textual Marking Systems in Ancient Egypt (and elsewhere)* (forthcoming).
- Haring, Ben J.J., ‘Saqqara – A Place of Truth?’ (forthcoming).

BIBLIOGRAPHY

- Haring, Ben J.J. *et al.* (eds.), *Decoding Signs of Identity. Egyptian Workmen's Marks in Archaeological, Historical, Comparative and Theoretical Perspective. Proceedings of a conference in Leiden, December 13-15 December 2013* (forthcoming).
- Haring, Ben J.J. and Olaf E. Kaper (eds.), *Pictograms or Pseudo Script? Non-textual identity marks in practical use in Ancient Egypt and elsewhere. Proceedings of a conference in Leiden, 19-20 December 2006*. EU 25. Leuven and Leiden, 2009.
- Haring, Ben J.J., Olaf E. Kaper and René van Walsem (eds.), *The workman's progress. Studies in the Village of Deir el-Medina and Other Documents from Western Thebes in Honour of Rob Demarée*. EU 28. Leuven and Leiden, 2014.
- Haring, Ben, and Daniel Soliman, 'Reading twentieth Dynasty ostraca with workmen's marks' in: Haring, Kaper and Van Walsem (eds.), *The workman's progress*, (2014), 73-93.
- Hawass, Zahi, 'Excavation West of the Valley of the Kings near the Tomb of Thutmose III' in: Bács, Hawass and Schreiber (eds.), *Theban archaeology*, (2011), 57-71.
- Hayes, William C., *Ostraka and Name Stones from the Tomb of Sen-Mut (No. 71) at Thebes*. MMAEE 20. New York, 1942.
- Hayes, William C., 'A Selection of Tuthmoside Ostraca from Dêr el-Bahri' *JEA* 46 (1960), 29-52.
- Helck, Wolfgang, 'Zur Geschichte der 19. und 20. Dynastie' *ZDMG* 105 (1955), 27-52.
- Helck, Wolfgang, *Materialien zur Wirtschaftsgeschichte des Neuen Reiches*. (Teil V). III. *Eigentum und Besitz an verschiedenen Dingen des täglichen Lebens. Kapitel AI – AL*. Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse 4. Mainz, 1965.
- Helck, Wolfgang, *Die datierten und datierbaren Ostraka, Papyri und Graffiti von Deir el-Medineh*. Bearbeitet von A. Schlott. ÄA 63. Wiesbaden, 2002.
- Hoch, James E., *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period*. Princeton, 1994.
- Hope, Colin A., 'Some remarks on potmarks of the late Eighteenth Dynasty' in: Leahy and Tait (eds.), *Studies on ancient Egypt*, (1999), 121-146.
- Hornung, Erik, Rolf Krauss and David A. Warburton (eds.), *Ancient Egyptian Chronology*. HdO 83. Leiden and Boston, 2006.
- Janse, Herman and Dirk J. de Vries, *Werk en merk van de Steenhouwer. Het steenhouwersambacht in de Nederlanden voor 1800*. Zwolle and Zeist, 1991.
- Janssen, Jac. J., *Two Ancient Egyptian Ship's Logs. Papyrus Leiden I 350 verso and Papyrus Turin 2008+2016*. Leiden, 1961. = *OMRO* 42 (1961).
- Janssen, Jac. J., *Commodity Prices from the Ramessid Period. An Economic Study of the Village of Necropolis Workmen at Thebes*. Leiden, 1975.
- Janssen, Jac. J., 'Absence from work by the necropolis workmen of Thebes' *SAK* 10 (1980), 127-152.
- Janssen, Jac. J., 'A draughtsman who became scribe of the tomb: Harshîre, son of Amennakhtê' in: Demarée and Janssen (eds.), *Gleanings*, (1982), 149-153.

- Janssen, Jac. J., 'Gift-giving in Ancient Egypt as an Economic Feature' *JEA* 68 (1982), 253-258.
- Janssen, Jac. J., 'Two Personalities' in: Demarée and Janssen (eds.), *Gleanings*, (1982), 109-131.
- Janssen, Jac. J., *Late Ramesside Letters and Communications*. Hieratic papyri in the British Museum VI. London, 1991.
- Janssen, Jac. J., 'Literacy and Letters at Deir el-Medîna' in: Demarée and Egberts (eds.), *Village Voices*, (1992), 81-94.
- Janssen, Jac. J., 'Pictorial clothing lists on Deir el-Medîna ostraca' *GM* 131 (1992), 55-60.
- Janssen, Jac. J., 'B3kw: From work to product' *SAK* 20 (1993), 81-94.
- Janssen, Jac. J., 'The daily bread. A contribution to the study of the ancient Egyptian diet' *BES* 13 (1997), 15-38.
- Janssen, Jac. J., *Village Varia. Ten Studies on the History and Administration of Deir el-Medîna*. EU 11. Leiden, 1997.
- Janssen, Jac. J., 'The Woodcutters' in: Janssen, Froot and Goecke-Bauer, *Woodcutters, Potters and Doorkeepers*, (2003), 1-28.
- Janssen, Jac. J., 'Accountancy at Deir el-Medîna: How accurate are the administrative ostraca?' *SAK* 33 (2005), 147-157.
- Janssen, Jac. J., *Donkeys at Deir el-Medîna*. EU 19. Leiden, 2005.
- Janssen, Jac. J., *Daily Dress at Deir el-Medîna. Words for Clothing*. GHPE 8. London, 2008.
- Janssen, Jac. J., *Furniture at Deir el-Medîna including Wooden Containers of the New Kingdom and Ostrakon Varille 19*. GHPE 9. London, 2009.
- Janssen, Jac. J., 'Three Mysterious Ostraca' in: Collier and Snape (eds.), *Ramesside Studies*, (2011), 237-282.
- Janssen, Jac. J., Elizabeth Froot and Maren Goecke-Bauer, *Woodcutters, Potters and Doorkeepers. Service Personnel of the Deir el-Medina Workmen*. EU 17. Leiden, 2003.
- Janssen, Jac. J. and Rosalind M. Janssen, 'The Laundrymen of the Theban Necropolis' *AO* 70.1 (2002), 1-12.
- Janssen, Rosalind M.H., 'Costume in New Kingdom Egypt' in: Sasson, Baines, Beckman *et al.* (eds.), *Civilizations of the ancient Near East*, (1995), 383-394.
- Jauhiainen, Heidi, "Do not celebrate your feast without your neighbours". *A study of references to feasts and festivals in non-literary documents from Ramesside Period Deir el-Medina*. PIAAS 10. Helsinki, 2009.
- Jauhiainen, Heidi, 'Religious Buildings at Deir el-Medina' in: Preys, 7. *Ägyptologische Tempeltagung*, (2009), 151-161.
- Jenni, Hanna, 'La Vallée des Rois, ses Tombeaux et ses Ouvriers. Travaux concernant les tombes KV 17, 18, 32 et 47 menés par l'Institut d'Égyptologie de l'Université de Bâle' *EAO* 54 (2009), 11-24.

BIBLIOGRAPHY

- Joshi, Anirudha, Nikhil Welankar, Naveen Bagalkot *et al.*, 'Rangoli: A Visual Phonebook for Low-literate users' in: Ter Hofte, Mulder and De Ruyter (eds.), *Mobile HCI 2008*, (2008), 217-223.
- Kampp, Friederike, *Die thebanische Nekropole: zum Wandel des Grabgedankens von der XVIII. bis zur XX. Dynastie*. I-II. Theben 13. Mainz am Rhein, 1996.
- Keith, Jean Lewis, *Anthropoid Busts of Deir el Medineh and Other Sites and Collections. Analyses, Catalogue, Appendices*. DFIFAO 49. Cairo, 2011.
- Keller, Cathleen A., 'A family affair: the decoration of Theban Tomb 359' in: Davies (ed.), *Colour and Painting*, (2001), 73-93.
- Keller, Cathleen A., 'Un artiste égyptien à l'oeuvre: le dessinateur en chef Amenhotep' in: Andreu (ed.), *Deir el-Médineh et la Vallée des Rois*, (2003), 83-114.
- Kemp, Barry J., 'The Amarna Workmen's Village in retrospect' *JEA* 73 (1987), 21-50.
- Kemp, Barry J. (ed.), *Amarna Reports V*. EES OP 6. London, 1989.
- Kemp, Barry J. (ed.), *Amarna Reports VI*. EES OP 10. London, 1995.
- Kemp, Barry J., *The city of Akhenaten and Nefertiti. Amarna and its people*. London, 2012.
- Kemp, Barry J., *Ancient Egypt. Anatomy of a civilization*. 2<sup>nd</sup> ed. London and New York, 2006.
- Kendall, Timothy, 'The Origin of the Napatan State: El Kurru and the Evidence for the Royal Ancestors' in: Wenig (ed.), *Studien zum antiken Sudan*, (1999), 3-117.
- Kessler, Dieter, Regine Schulz, Martina Ullmann *et al.* (eds.), *Texte –Theben – Tonfragmente. Festschrift für Günter Burkard*. ÄAT 76. Wiesbaden, 2009.
- Killen, Geoffrey and Lara Weiss, 'Markings on Objects of Daily Use from Deir el-Medina. Ownership Marks or Administrative Aids?' in: Andrassy, Budka and Kammerzell (eds.), *Non-Textual Marking Systems*, (2009), 137-158.
- Kitchen, Kenneth A., *Ramesside Inscriptions Translated and Annotated. Notes and Comments. I. Ramesses I, Sethos I and Contemporaries*. Oxford and Cambridge, 1993.
- Klemm, Dietrich D. and Rosemarie Klemm, *Stones and quarries in ancient Egypt*. London, 2008.
- Koenig, Yvan, *Les ostraca hiéroglyphiques inédits de la bibliothèque nationale et universitaire de Strasbourg*. DFIFAO 33. Cairo, 1997.
- Kóthay, Katalin Anna (ed.), *Art and society: ancient and modern contexts of Egyptian art: proceedings of the International Conference held at the Museum of Fine Arts, Budapest, 13-15 May 2010*. Budapest, 2012.
- Krauss, Rolf, 'Nḥ(h)-Öl = Olivenöl' *MDAIK* 55 (1999), 293-298.
- Kruchten, Jean-Marie, *Le Décret d'Horemheb. Traduction, commentaire épigraphique, philologique et institutionnel*. Université Libre de Bruxelles. Faculté de Philosophie et Lettres 82. Brussels, 1981.
- Landa Borisovna, Natalia, Irma Aleksandrovna Lapis and Ėrmitazh Gosudarstvennyĭ, *Egyptian antiquities in the Hermitage*. Leningrad, 1974.

- Landgráfová, Renata and Hana Navrátilová, *Sex and the Golden Goddess I. Ancient Egyptian Love Songs in Context*. Prague, 2009.
- Leahy, Anthony and John Tait (eds.), *Studies on ancient Egypt in honour of H.S. Smith*. EES OP 13. London, 1999.
- Leitz, Christian (ed.), *Lexikon der ägyptischen Götter und Götterbezeichnungen*. Band V. OLA 114. Leuven, 2002.
- Leitz, Christian, *Quellentexte zur ägyptische Religion I. Die Tempelinschriften der griechisch-römischen Zeit*. EQÄ 2. 2nd. ed. Berlin, 2006.
- Lesko, Barbara S., 'Rank, Roles and Rights' in: Lesko (ed.), *Pharaoh's Workers*, (1994), 15-39.
- Lesko, Leonard H. (ed.), *Pharaoh's Workers. The Villagers of Deir el Medina*. Ithaca and London, 1994.
- Letellier, Bernadette, *La vie quotidienne chez les artisans de Pharaon. Le Louve présente aux Musées de Metz du 12 novembre 1978 au février 1979*. Moulins-les-Metz, 1978.
- Loffet, Henri and Valérie Matoïan, 'Le papyrus de Varzy' *RdE* 47 (1996), 29-36.
- López, Jesús, *Ostraca Ieratici. N. 57001-57092*. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 1. Milan, 1978.
- López, Jesús, *Ostraca Ieratici. N. 57093-57319*. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 2. Milan, 1980.
- López, Jesús, *Ostraca Ieratici. N. 57320-57449*. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 3. Milan, 1982.
- López, Jesús, *Ostraca Ieratici. N. 57450-57568. Tabelle Lignee N. 58001-58007*. Catalogo del Museo Egizio di Torino, 2nd series. 3, fasc. 4. Milan, 1984.
- Manniche, Lise, *Lost Ramessid and Post-Ramessid Private Tombs in the Theban Necropolis*. CNI 33. Copenhagen, 2011.
- Mawdsley, Lisa, 'The corpus of potmarks from Tarkhan' in: Friedman and Fiske (eds.), *Egypt at its Origins* 3, (2011), 1043-1071.
- McDowell, Andrea G., *Jurisdiction in the Workmen's Community of Deir el-Medîneh*. EU 5. Leiden and Leuven, 1990.
- McDowell, Andrea G., *Hieratic Ostraca from the Hunterian Museum, Glasgow (The Colin Campbell Ostraca)*. Oxford, 1993.
- McDowell, Andrea G., 'Contact with the Outside World' in: Lesko (ed.), *Pharaoh's Workers*, (1994), 41-59.
- Megally, Mounir, review of McDowell, *Hieratic Ostraca*, in: *CdE* 73 (1998), 271-282.
- Meskel, Lynn, 'Intimate Archaeologies: The case of Kha and Merit' *WorldArch* 29.3 (Feb. 1998), 363-379.
- Meskel, Lynn, 'Spatial Analyses of the Deir el-Medina Settlement and Necropoleis' in: Demarée and Egberts (eds.), *Deir el-Medina in the third millennium AD*, (2000), 259-275.



BIBLIOGRAPHY

- Möller, Georg, *Hieratische Paläographie. Die aegyptische Buchschrift in ihrer Entwicklung von der fünften Dynastie bis zur römischen Kaiserzeit. Zweiter Band. Von der Zeit Thutmosis' III bis zum Ende der Einundzwanzigsten Dynastie. Zweiten verbesserten Auflage.* Osnabrück, 1927.
- Müller, Matthias, review of Koenig, *Les ostraca hiératiques inédits*, in: *LingAeg* 7 (2000), 271-288.
- Müller, Matthias, 'Es werde Licht? Eine kurze Geschichte von Öl & Fett in Deir el-Medina in der 20. Dynastie' in: Haring, Kaper and Van Walsem (eds.), *The Workman's Progress*, (2014), 175-190.
- Müller, Miriam, 'Deir el-Medina in the dark – the Amarna period in the history of the village' in: Toivari-Viitala, Vatiainen and Uvanto (eds.), *Deir el-Medina Studies*, (2014), 154-167.
- Murnane, William J., "'Overseer of the Northern Foreign Countries": Reflections on the Upper Administration of Egypt's Empire in Western Asia' in: Van Dijk (ed.), *Essays on Ancient Egypt*, (1997), 251-258.
- Nagel, Georges, *La céramique du Nouvel Empire à Deir el Médineh*. Tome I. DFIFAO 10. Cairo, 1938.
- Näser, Claudia, 'Zur Interpretation funererer Praktiken im Neuen Reich: Der Ostfriedhof von Deir el-Medine' in: Arnst, Hafemann and Lohwasser (eds.), *Begegnungen*, (2001), 373-398.
- Naville, Edouard, *Das Aegyptische Todtenbuch der XVIII. bis XX. Dynastie aus verschiedenen Urkunden zusammengestellt und herausgegeben. Einleitung.* Berlin, 1886.
- Neunert, Gregor, 'Neues von Siptah. Einige Ergänzungen zur Titulatur des Königs' in: Kessler, Schulz, Ullmann *et al.* (eds.), *Texte –Theben – Tonfragmente*, (2009), 333-336.
- Nilsson, Maria, 'Pseudo Script in Gebel el Silsila: Preliminary Results of the 2012 Epigraphic Survey' in: Accetta, Fellingner, Gonçalves *et al.* (eds.), *Current Research in Egyptology 2013*, (2014), 122-141.
- Nishimoto, Shin-ichi, Sakuji Yoshimura and Jiro Kondo, 'Hieratic Inscriptions from the Quarry at Qurna: an interim Report' *BMSAES* 1 (2002), 20-31, accessible via <http://www.thebritishmuseum.ac.uk/bmsaes/issue1/nishimoto.html>
- Paradisi, U., 'La doppia protome di toro nell'arte rupestre sahariana e nella tavolozza predinastica egiziana della caccia al leone' *Aegyptus* 43 (1963), 269-277.
- Parkinson, Richard, *Cracking codes. The Rosetta Stone and Decipherment.* London, 1999.
- Peden, Alexander J., *The reign of Ramesses IV.* Warminster, 1994.
- Peden, Alexander J., *The Graffiti of Pharaonic Egypt. Scope and Roles of Informal Writings (c. 3100-332 B.C.)*. PdÄ 17. Leiden, Boston and Cologne, 2011.
- Peet, Eric and Leonard Woolley, *The city of Akhenaten. Part I. Excavations of 1921 and 1922 at El-Amarnah.* EES EM 38. London, 1923.
- Pendlebury, John D.S., *The city of Akhenaten. Part III. The central city and the official quarters. The excavations at Tell el-Amarna during the seasons 1926-1927 and 1931-1936. Vol. I. Text.* EES EM 44. London, 1951.

- Petrie, William M. Flinders, *The foundation of the Alphabet*. BSAE 3. London, 1912.
- Petrie, William M. Flinders, 'Boat names in Egypt' *AE B.3* (1915), 136-137.
- Pierrat-Bonnefois, Geneviève, 'Cimetière est du village ou cimitière à l'est de Deir el-Médineh?' in: Andreu (ed.), *Deir el-Médineh et la Vallée des Rois*, (2003), 49-65.
- Polz, Daniel, *Der Beginn des Neuen Reiches. Zur Vorgeschichte einer Zeitenwende*. DAIKS 31. Berlin and New York, 2007.
- Pomorska, Irena, *Les flabellifères à la droite du roi en Égypte ancienne*. Warsaw, 1987.
- Posener, Georges, *Catalogue des Ostraca Hiératiques Littéraires de Deir el Médineh*. Tome I. Nos 1001 à 1108. DFIFAO 1. Cairo, 1938.
- Posener, Georges, 'Sur l'Emploi de l'Encre Rouge dans les Manuscrits Égyptiens' *JEA* 37 (1951), 75-80.
- Posener, Georges, 'Philologie et archéologie égyptiennes' *Ann CdF* 65 (1966), 339-346.
- Preys, René (ed.), *7. Ägyptologische Tempeltagung. Structuring Religion. Leuven, 28. September - 1. Oktober 2005*. KSG 3.2. Wiesbaden, 2009.
- Preys, René, 'Les tombes non-royales de la Vallée des Rois' *SAK* 40 (2011), 315-338.
- Pusch, Edgar B. and Manfred Bietak (eds.), *Die Keramik des Grabungsplatzes Q 1. Teil 2. Schaber – Marken – Scherben*. Die Grabungen des Pelizaeus-Museums Hildesheim in Qantir – Pi-Ramesse Band 5. Hildesheim, 2007.
- Reeves, Carl Nicholas, *Valley of the Kings. The decline of a royal necropolis*. London, 1990.
- Reeves, Nicholas (ed.), *Newsletter of the Valley of the Kings Foundation* 1 (2002), accessible via <http://www.nicholasreeves.com/item.aspx?category=Writing&id=102>
- Reeves, Nicholas (ed.), *Egyptian Art at Eton College and Durham University. Catalogue of a loan exhibition to Japan, 24 February-30 November 2008* [year and place unknown], accessible via <http://www.nicholasreeves.com/item.aspx?category=Collections&id=247>
- Roeder, Günther, *Amarna-reliefs aus Hermopolis. Ausgrabungen der Deutschen Hermopolis-Expedition in Hermopolis 1929-1939*. Band II. Pelizaeus-Museum zu Hildesheim. WVDOG 6. Hildesheim, 1969.
- Roehrig, Catherine H. (ed.), *Hatshepsut. From queen to pharaoh*. New York, 2005.
- Roehrig, Catherine H., 'The Building Activities of Thutmose III in the Valley of the Kings' in: Cline and O'Connor (eds.), *Thutmose III*, (2005), 238-259.
- Roehrig, Catharine H., 'The two tombs of Hatshepsut' in: Roehrig (ed.), *Hatshepsut. From queen to pharaoh*, (2005), 184-187.
- Roik, Elke, *Das altägyptische Wohnhaus und seine Darstellung im Flachbild*. Teil 1. Text. Europäische Hochschulschriften 38. Archäologie 15. Frankfurt am Main, Bern, New York and Paris, 1988.
- Romer, John, 'Tuthmosis I and the Bibân el-Molûk: some problems of attribution' *JEA* 60 (1974), 119-133.

BIBLIOGRAPHY

- Römer, Malte, 'Miscellen zu den Ostraka der 18. Dynastie aus Deir el-Bahri und dem Asasif' in: Haring, Kaper and Van Walsem (eds.), *The workman's progress*, (2014), 211-216.
- Rose, Pamela J., *The Eighteenth Dynasty Pottery Corpus from Amarna*. EES EM 83. London, 2007.
- Russo, Barbara, *Kha (TT 8) and his colleagues: the gifts in his funerary equipment and related artefacts from Western Thebes*. GHPE 18. London, 2012.
- Rzepka, Sławomir, *Who, where and why. The rock graffiti of members of the Deir el-Medina community*. Warsaw, 2014.
- Samuel, Delwen, 'Bread making and social interactions at the Amarna Workmen's Village, Egypt' *WorldArch* 31.1 (1999), 121-144.
- Sasson, Jack M., John Baines, Gary Beckman *et al.* (eds.), *Civilizations of the ancient Near East 1*. New York, 1995.
- Schaden, Otto J., 'The Amenmesse Project, Season of 2006' *ASAE* 82 (2008), 231-260.
- Schiaparelli, Ernesto, *Relazione sui lavori della Missione Archeologica Italiana in Egitto (anni 1903-1920)*. Vol. 2. *La tomba intatta dell'architetto "Cha" nella necropoli di Tebe*. Turin, 1927.
- Schlögl, Hermann, 'Ein Beitrag zu den Anfängen der Arbeitersiedlung von Deir el-Medineh' in: Györy (ed.), "*Le lotus qui sort de terre*", (2001), 431-442.
- Schlögl, Hermann A. and Andreas Brodbeck, *Ägyptische Totenfiguren aus öffentlichen und privaten Sammlungen der Schweiz*. OBOSA 7. Freiburg and Göttingen, 1990.
- Schneider, Thomas, *Asiatische Personennamen in ägyptischen Quellen des Neuen Reiches*. OBO 114. Freiburg and Göttingen, 1992.
- Schneider, Thomas and Kasia Szpakowska (eds.), *Egyptian Stories. A British Egyptological Tribute to Alan B. Lloyd on the occasion of his Retirement*. AOAT 347. Münster, 2007.
- Soliman, Daniel, review of Dorn, *Arbeiterhütter*, in: *BiOr* 69 (2012), 483-488.
- Soliman, Daniel, 'The Functional Context of the 18<sup>th</sup> Dynasty Marks Ostraca from the Theban Necropolis' in: Graves, Heffernan, McGarrity *et al.* (eds.), *Current Research in Egyptology 2012*, (2013), 157-170.
- Soliman, Daniel, 'Workmen's Marks in Pre-Amarna Tombs at Deir el-Medina' in: Budka, Kammerzell and Rzepka (eds.), *Non-Textual Marking Systems in Ancient Egypt (and elsewhere)* (forthcoming).
- Spiegelberg, Wilhelm, *Aegyptische und andere Graffiti (Inschriften und Zeichnungen) aus der thebanischen Nekropolis. Text und Atlas*. Heidelberg, 1921.
- Spiegelberg, Wilhelm, Balthasar Pörtner, Karl Dryoff *et al.* (eds.), *Aegyptische Grabsteine und Denksteine aus süd-deutschen Sammlungen*. I *Karlsruhe, Mühlhausen, Strassburg, Stuttgart*. Strasbourg, 1902.
- Stevens, Anna, *Akhenaten's Workers: The Amarna Stone Village Survey, 2005-2009*. Volume I. *The Survey, Excavations and Architecture*. Volume II. *The Faunal and Botanical Remains, and Objects*. EES EM 101. London and Cambridge, 2012.

- Ter Hofte, Henri, Ingrid Mulder and Boris de Ruyter (eds.), *Mobile HCI 2008. Proceedings of the 10th International Conference on Human-Computer Interaction with Mobile Devices and Services*. New York and Amsterdam, 2008.
- Toivari-Viitala, Jaana, Turo Vatiainen and Sara Uvanto (eds.), *Deir el-Medina Studies. Helsinki June 24–26, 2009. Proceedings*. FESOP. Helsinki, 2014.
- Tosi, Mario, *La cappella di Maia*. Quaderno del Museo Egizio di Torino 4. 2<sup>nd</sup> ed. Turin, 1972.
- Tosi, Mario and Alessandro Roccati, *Stele e altre epigrafi di Deir el Medina. N. 50001 - N. 50262*. Catalogo del Museo Egizio di Torino. 2nd. series. 1. Turin, 1972.
- Trappani, Marcella, ‘Behind the mirror. Art and prestige in Kha’s funerary equipment’ in: Kóthay (ed.), *Art and society*, (2012), 159-168.
- Tyldesley, Joyce, *Daughters of Isis. Women of Ancient Egypt*. New York, 1994.
- Valbelle, Dominique, *La tombe de Hay à Deir el-Médineh [No 267]*. MIFAO 95. Cairo, 1975.
- Valbelle, Dominique, ‘Témoignages du Nouvel Empire sur les cultes de Satis et d’Anoukis à Éléphantine et à Deir el-Médineh’ *BIFAO* 75 (1975), 123-146.
- Valbelle, Dominique, *Catalogue des poids à inscriptions hiéroglyphiques de Deir el-Médineh. Nos 5001-5423*. DFIFAO 41. Cairo, 1977.
- Valbelle, Dominique, “*Les ouvriers de la tombe*”. *Deir el-Médineh à l’époque Ramesside*. BdÉ 96. Cairo, 1985.
- Van Belle, Jean-Louis, *Pour comprendre les signes lapidaires*. Collections Précisions 3. Brussels, 2014.
- Van den Brink, Edwin C.M., ‘The international potmark workshop. Progressing from Toulouse to London in the study of Predynastic and Early Dynastic potmarks’ in: Friedman and Fiske (eds.), *Egypt at its Origins 3*, (2011), 1005-1013.
- Van der Moezel, Kyra and Daniel Soliman, ‘Workmen’s marks from the Theban necropolis’ *GM* 231 (2011), 7-9.
- Van der Moezel, Kyra, *On Marks and Meaning. The Identity Marks from Deir el-Medina. A palaeographic, comparative and semiotic-cognitive analysis*. PhD Dissertation. Leiden, 2015.
- Van der Molen, Rami, *A hieroglyphic dictionary of Egyptian Coffin Texts*. PdÄ 15. Leiden, Boston and Cologne, 2000.
- Van der Perre, Athena, ‘De vergeten steengroeven van Achnaton’ *Ta-Mery* 4 (2011), 112-121.
- Van der Plas, Dirk and Joris F. Borghouts, *Coffin Texts Word Index*. PIREI 6. Utrecht and Paris, 1998.
- Van Dijk, Jacobus (ed.), *Essays on Ancient Egypt in Honour of Herman te Velde*. Egyptological Memoirs 1. Groningen, 1997.
- Vandier, Jacques and Jeanne Vandier d’Abbadie, *Tombes de Deir el-Médineh. La tombe de Nefer-Abou*. MIFAO 69. Cairo, 1935.
- Vandier d’Abbadie, Jeanne and Geneviève Gourdain, *Deux tombes de Deir el-Médineh. I. La chapelle de Khâ. II. La tombe du scribe royal Amenemopet*. MIFAO 73. Cairo, 1939.

BIBLIOGRAPHY

- Ventura, Raphael, *Living in a City of the Dead. A Selection of Topographical and Administrative Terms in the Documents of the Theban Necropolis*. OBO 69. Göttingen, 1986.
- Ventura, Raphael, 'On the location of the administrative outpost of the community of workmen in Western Thebes' *JEA* 73 (1987), 149-160.
- Verner, Miroslaw, *Altägyptische Särge in den Museen und Sammlungen der Tschechoslowakei*. Lieferung 1. CAA. Prague, 1982.
- Vogelsang-Eastwood, Gillian M., 'Deciphering a pictorial clothing list' *GM* 128 (1992), 105-111.
- Weiss, Lara, 'Markings on oracle ostraca from Deir el-Medina – Conflicting Interpretations' in: Haring and Kaper (eds.), *Pictograms or Pseudoscript?*, (2009), 221-230.
- Wenig, Steffen (ed.), *Studien zum antiken Sudan. Akten der 7. Internationalen Tagung für meroitische Forschungen vom 14. bis 19. September 1992 in Gosen/bei Berlin*. Meroitica 15. Wiesbaden, 1999.
- Wente, Edward F., *Letters from Ancient Egypt*. WA 1. Atlanta, 1990.
- Winlock, Herbert E. and Dorothea Arnold, *Tutankhamun's funeral*. New York, 2010.
- Wodzńska, Anna, 'Potmarks from Early Dynasty Buto and Old Kingdom Giza: Their occurrence and economic significance' in: Friedman and Fiske (eds.), *Egypt at its Origins 3*, (2011), 1073-1096.
- Yatsenko, Sergey A., 'Some Problems Related to Early Medieval Turkic Tamga-Sign Studies' *re:marks* 1 (2013), 9-27.
- Yoshimura, Sakuji and Jiro Kondo, 'Excavations at the tomb of Amenophis III' *EA* 7 (1995), 17-18.
- Yoshimura, Sakuji and Jiro Kondo, 'The tomb of Amenophis III: Waseda University excavations 1989-2000' *ASAE* 78 (2004), 205-210.
- Yoshimura, Sakuji (ed.), *Research in the Western Valley of the Kings Egypt II. KV A and the Neighboring Areas of the Tomb of Amenophis III (KV 22)*. Tokyo, 2011.
- Zivie, Alain-Pierre, *La tombe de Pached à Deir el-Médineh [No. 3]*. MIFAO 99. Cairo, 1979.
- Zivie, Alain, *La tombe de Thoutmes, directeur des peintres dans la Place de Maât (Bub. I. 19)*. Les Tombes du Bubasteion à Saqqara II. Toulouse, 2013.

## DIGITAL RESOURCES

*Archives de Bernard Bruyère (1879-1971):*

[www.ifao.egnet.net/bases/archives/bruyere](http://www.ifao.egnet.net/bases/archives/bruyere)

*British Museum Collection Online:*

[www.britishmuseum.org/research/collection\\_online/search.aspx](http://www.britishmuseum.org/research/collection_online/search.aspx)

*Carter MSS:*

[www.griffith.ox.ac.uk/gri/cc/page/data.html](http://www.griffith.ox.ac.uk/gri/cc/page/data.html)

*Deir el-Medina Database:*

[www.leidenuniv.nl/nino/dmd/dmd.html](http://www.leidenuniv.nl/nino/dmd/dmd.html)

*Deir el-Medine Online:*

[dem-online.gwi.uni-muenchen.de/sammlungen.php](http://dem-online.gwi.uni-muenchen.de/sammlungen.php)

‘Dr. Hawass in the Valley of Kings: The new inscribed finds (Part 2 of 2)’, a video shot by Sandro Vannini and Nico Piazza for Heritage Key:

[www.youtube.com/watch?v=OSTMyBuinPc](http://www.youtube.com/watch?v=OSTMyBuinPc)

*Institut Français d’Archéologie Orientale, Inventaire des Archives Scientifique – Ostraca:*

<http://www.ifao.egnet.net/bases/archives/ostraca/>

*KV 63:*

[www.kv-63.com](http://www.kv-63.com)

*Metropolitan Museum of Arts Collection Online:*

[www.metmuseum.org/collection/the-collection-online](http://www.metmuseum.org/collection/the-collection-online)

*Non-textual marking systems in Ancient Egypt – database:*

[www.ntms.uw.edu.pl/index.php?rt=funnycodes/search](http://www.ntms.uw.edu.pl/index.php?rt=funnycodes/search)

*Symbolizing Identity Database:*

[marks.wepwawet.nl](http://marks.wepwawet.nl)

*The Amenmesse Tomb Project:*

[www.kv-10.com](http://www.kv-10.com)

*The telephone books:*

[www.sharjahart.org/projects/projects-by-date/2011/the-telephone-books-barrada](http://www.sharjahart.org/projects/projects-by-date/2011/the-telephone-books-barrada)

*Theban Mapping Project:*

[www.thebanmappingproject.com](http://www.thebanmappingproject.com)

*University College London Petrie Collection Online Catalogue:*

<http://petriecat.museums.ucl.ac.uk/>