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**The Dissertation Committee for Kevin Michael Pluta Certifies that this is the  
approved version of the following dissertation:**

**Aegean Bronze Age Literacy and Its Consequences**

**Committee:**

---

Thomas Palaima, Supervisor

---

Cynthia Shelmerdine

---

Sara Kimball

---

Andrew Riggsby

---

Jim Sickinger

**Aegean Bronze Age Literacy and Its Consequences**

**by**

**Kevin Michael Pluta, B.A., M.A.**

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# **Aegean Bronze Age Literacy and Its Consequences**

Kevin Michael Pluta, Ph.D.

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Supervisor: Thomas Palaima

The Mycenaeans used writing for a variety of administrative purposes. The archaeological evidence for writing suggests that it was a highly restricted technology. Mycenaeans used the Linear B script to write clay tablets, inscribe sealings, and paint on vessels. There is evidence to suggest that ephemeral documents of parchment or papyrus also were used for writing. In most of these instances, writing recorded economic transactions involving the material wealth of the state. The only exception is a small number of open-shaped vessels that are likely inscribed with personal names.

The Linear B script is often blamed for the restriction of writing by the Mycenaeans. This open-syllabic script does not well represent the sound of spoken Greek, and requires the frequent use of dummy vowels and the omission of consonants at the end of syllables. Studies in literacy theory, however, suggest that script usage, reading, and writing are dictated by social factors and by need, rather than by forces supposedly inherent in the script itself. Writing was restricted because Mycenaean society dictated a restricted use.

The sealings and tablets, which are found at several sites throughout mainland Greece and Crete, are small in size and are found almost exclusively in administrative contexts, in buildings that have functions in central administration. Writing is never found in public displays, as it is in the contemporary Near East. There was no intent to

familiarize the Mycenaean populace with the technology of writing. Training in literacy likewise appears to have been highly restrictive, with new individuals being taught by scribes on an *ad hoc*, individualized basis.

The loyalty of scribes to the king would have been essential. The sealings and tablets record the material wealth of the kingdom that was under the management of central administration. Furthermore, the contents of the tablets are not countermarked by seal impressions that would confirm their authenticity. Scribes would have been among the king's closest administrators and members of the elite. The restriction of writing would ensure that all written words were legitimate, as they could only be written by the most trusted individuals in the kingdom.

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## **Chapter 1: Background to the Study of Literacy**

### **MYCENAEAN LITERACY: A HISTORY OF SCHOLARSHIP**

Literacy in the Mycenaean period in Greece first received attention shortly after the decipherment of Linear B. Unfortunately, it has received very little direct attention since that point. That is not to say that issues of literacy are not touched upon frequently in scholarship; quite the contrary is true. Mycenologists regularly return to questions regarding the status and duties of the literate officials of the Mycenaean palaces, the spread of literacy from the palaces, the functionality of the Linear B script, the process of recording the texts, and the overarching function of literate administration, among other issues. My concern is that these questions arise tangentially in publications that have a broader scope or are concerned primarily with related issues. As a consequence, the range of literacy issues addressed is narrow and the same questions are asked: Was Linear B put to other uses which have not survived? Did literacy extend beyond the scribal bureaucracy?<sup>1</sup> What was the social status afforded to writing and writers? Did the difficulty in learning the rules of orthography hinder usage of Linear B? All of these questions are valid and worth discussing; they will be addressed in this work as well. However, these limited and specific inquiries into literacy do not approach our capacity to understand Mycenaean literate administration, Linear B writing, and the Mycenaean scribes themselves. In its current state, the investigation of Mycenaean literacy is not

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<sup>1</sup> The scholarship which addresses these questions explicitly will be addressed later in this chapter, as I analyze those articles and books in detail.

guided by a cautious theoretical framework or vocabulary. Unpublished notions and tacit assumptions – even if they are sensibly argued and appear likely to be correct – need to be subjected to the rigor of a sound theoretical model to receive the comprehensive analysis that they merit. In the absence of such a model, improper assumptions and far-reaching conclusions based on the presence of Mycenaean writing are commonplace in even the most praiseworthy scholarship.

One can divide these assumptions into several categories. The following is not intended to be an exhaustive catalog of misconceptions about Mycenaean literacy. I hope it does demonstrate how easy it is to presume a great deal about the consequences of Mycenaean writing by virtue of the fact that writing is such a familiar medium to us, and we often find it extremely difficult to separate our experience of writing from that of an alien experience. Even though surely we all readily acknowledge that the Mycenaean experience was vastly different, the cognitive leap from this understanding to academic interpretation is nonetheless difficult, even among meticulous scholars. These remarks will serve as a brief introduction to the problems to which this dissertation is addressed. The difficulties in dealing with Mycenaean writing fall into several categories:

*a) difficulty in recognizing the implications of the nature of literacy acquisition.*

In their article in Cullen 2001, Rehak and Younger note the significant change in the use of clay documents from Linear A to Linear B, and propose that the “Mycenaeans may have exerted a more rigid control over administrative concerns and a greater reliance on writing to express them” (Rehak and Younger 2001, p. 453 n. 479). It is tempting to note the greater quantity of Linear B tablets and the precision with which they were inscribed vis à vis the Linear A tablets, and draw conclusions about the differences in literate



administration. However, such a proposal is premature without a consideration of how complete Minoan control may have been, and how reliant they were on writing. As I will address in Chapter 6, there may be other reasons why Mycenaean tablets look so different and are found in much greater quantities than Linear A tablets, including issues of legibility to newly-literate Mycenaeans, differences in writing materials (parchment/papyrus versus clay), and the accidents of survival. Rehak and Younger treat these changes in terms of the study of Minoan and Mycenaean administration, but they are equally – if not more so – issues of literacy acquisition.

*b) reading the text without considering the context of the creation of the text.*

Later in the same article, while discussing the reach of Knossos on LM III Crete, Rehak and Younger assert that “there must have been written communication not only from Knossos to these sites but also from these areas to Knossos” (Rehak and Younger 2001, p. 453). They offer the form *ko-no-so-de*, “to Knossos,” on KN C 5753 as evidence of this communication. Here the authors extrapolate multiple uses of writing from a single application. The term in question occurs on an administrative tablet – not a written communication – and was written by a scribe with concerns in West Crete. If this scribe is acting as a representative of the palace in the West, as I will argue later, then this is in no way written communication. It is expected that these scribes were mobile and moved throughout the geographical reach of the palace (see, for instance, Palaima 2002). If our scribe was recording in the field, then this tablet is no more a communication than if I were to take notes in a coffee shop and then bring them home. Nor can one reasonably infer the existence of written communication – or any other use of writing other than for administrative documents – on the basis of the existence of this tablet.

c) *assuming the style of Mycenaean writing and diction is as variable as later Greek or contemporary writing.* In his 1994-1995 article, Nagy argues for a new translation for a repeated line in the text of PY Tn 316 (*do-ra-qe pe-re po-re-na-qe a-ke*), which he supports with evidence from Homeric diction (Nagy 1994-1995). Palaima counters this proposal, demonstrating that as put forward by Nagy, the text would lack crucial administrative/accounting information, such as the destination of offerings, and even a subject. What is appropriate for epic poetry may not at all be appropriate for accounting. The style of writing employed by each individual scribe is not haphazard, but rather must be considered in the context of all of his other extant texts, as well as the texts of other scribes from the site at which his work survives (see Palaima 1996-1997). It is too common a practice to pluck individual tablets from the corpus and employ its contents haphazardly to fit a pre-conceived argument. Yet each individual tablet does not exist in a vacuum. The use of writing by the Mycenaeans is not reborn with every new piece of writing, but rather should be treated as a continuum with all other uses of writing.

d) *lack of understanding about what the scribes felt needed to be recorded in writing and why.* In *Rethinking Mycenaean Palaces*, Galaty addresses palatial involvement with pottery production (Galaty 1999). He cites PY Vn 130 as a written record of utilitarian pottery coming into the palace (Galaty 1999, p. 51). Killen dismisses this as unlikely, given the fact that the craftsman listed is elsewhere identified as a bronzesmith (Killen 1999, p. 89). Irrespective of this fact, the presence of a transaction in writing does not imply palatial control over that transaction (technically, it merely records that such commodities entered or left the palace), nor does the absence of a

transaction imply a lack of palatial control (see Nakassis 2006 for matters of agency in Mycenaean administration). In the same volume, Parkinson suggests that the fragmentary nature of the Linear B remains results in overgeneralization about the control of the palaces in Mycenaean economy, noting that “most of the reconstructions of Mycenaean economy...have tended to use information from all the available archives, which implicitly assumes that each palace functioned not just similarly but identically, both in its economy and its use of Linear B records” (Parkinson 1999, p. 74). Yet Galaty, Parkinson, and those whom Parkinson is correcting are all guilty of reifying the written word. These documents coexisted with oral and non-literate administration in a continuum, not a divide. Parkinson is correct to note that Mycenaean writing cannot address the totality of Mycenaean economy. However, it does not define the limits of palatial involvement either. Study of the interface between the palace and external centers is greatly benefitted by an understanding of how Mycenaean writing was used in any given context, by whom, and for what purposes. The mere presence or absence of data in the surviving evidence is literally meaningless without further context.

*e) assumptions about the context of one form of Mycenaean writing based on the context of the same form of contemporary writing.* Cross-chronological and cross-cultural models are immensely helpful in establishing an approach to the Mycenaean material. The study of Near-Eastern archives – or even contemporary archival practices – can allow us to approach the material from a fresh perspective. With insufficient caution, however, it is easy to apply the model’s context indiscriminately to the Mycenaean material. Examples of this phenomenon are common. When describing Rooms 7 and 8 at the Palace of Nestor at Pylos, known as the Archives Complex (or AC, for short),

Blegen envisions the accoutrements of the modern state accountant's office (Blegen and Rawson 1966, pp. 92-94). Because the tablets are accounts, he imagines this as the office of the tax collector, who would receive payments of oil in the large pithos in the corner. Ancient and modern written accounts, although rather similar in format and often similar in content, convey distinctly different information about their context, due in no small part to the variability in the extent of literacy in the Mycenaean and modern eras.

In a similar vein, Uchitel is also rather aggressive when importing to the Mycenaeans the Near-Eastern significance of a specific type of assemblage of accounting documents (Uchitel 2004). He finds that the Thebes tablets from Odos Pelopidou are strikingly similar in commodities, recipients, and prosopography to Ur III Lagash tablets from so-called "messengers' stations." He is surely correct in that the similarities are striking. Unfortunately, without further discussion he proposes that the Thebes tablets indicate a Mycenaean messengers' station, and then proceeds to draw further conclusions. What he has not done is consider the vastly different levels of literacy in Mycenaean Greece and the Ur III period in the Near East, the full archaeological context of these tablet assemblages in both places, the administrative need for production of such tablet assemblages in both places, etc. He presents a useful *modus operandi*, but this is the beginning of an idea, not the realization of one. An understanding of what the tablets represent *qua* written documents would inhibit the improper use of cross-cultural parallels.

These examples are by no means exhaustive, as the lack of recognition of these documents as written texts within an oral/literate continuum is widespread. Nor do the above-mentioned lapses significantly detract from what is otherwise valuable,

thoughtful, and progressive research. Conversely, these scholarly works would be greatly enhanced by a more cautious approach that more deliberately paid heed to Mycenaean literacy. I hope that by these examples I have demonstrated that we have not at all been trained to view these documents within the framework fashioned by contemporary literacy theory.

The assessment of Mycenaean use of writing and larger questions of Mycenaean literacy began not too long after the identification of the language behind Linear B as Greek. Sterling Dow published “Minoan Writing,” the first work devoted to issues of literacy, in 1954, just two years after the decipherment.<sup>2</sup> His concern was both with Minoan Linear A and Mycenaean Linear B. He followed this article much later, in 1968, with “Literacy: The Palace Bureaucracies, the Dark Age, Homer.”<sup>3</sup> In both of these works, Dow creates a solid foundation for the study of Mycenaean literacy. He proposes that the use of Linear B was “special and restricted,” and was put to limited uses.<sup>4</sup> He thoughtfully considers the restriction of Mycenaean literacy, noting that the extant documents are administrative accounting texts, limited in scope as well as in the number of identifiable authors. According to Dow, the script was learned on Crete for administrative use, and was imported to the mainland as such, with no variation in form or function. He also discusses at length how and why Linear B writing came to a sudden end, impugning the complexity of the script. In this latter section an intense alphabetic bias affects Dow’s reasoning about the utility of the Mycenaean syllabary.<sup>5</sup>

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<sup>2</sup> Dow 1954.

<sup>3</sup> Dow 1968.

<sup>4</sup> Dow 1954, p. 120.

<sup>5</sup> This bias will be thoroughly treated in Chapter 2.

A more detailed analysis of Mycenaean literacy was offered by Ventris and Chadwick in the first edition of *Documents in Mycenaean Greek* in 1956.<sup>6</sup> They, like Dow, focused chiefly on the evidence for the spread or restriction of literacy. Unlike Dow, who assesses literacy from the complexity of script and the likelihood of interested parties investing time in learning the signs, Ventris and Chadwick restrict themselves to the material remains and the physical evidence for writing. This physical evidence – namely the surviving tablets, sealings, and administrative labels – naturally leads them to the same conclusions as Dow, that literacy was highly restricted and there was intense administrative control over the technology of writing.

Scholarship on Mycenaean literacy did not advance beyond questions of the number of people who could read and write, and the types of texts that were written, until 1987, when Tom Palaima published “Comments on Mycenaean Literacy” in the *Festschrift for John Chadwick*.<sup>7</sup> Palaima returns to the assessments by Ventris and Chadwick, recounting their points of argument for a highly restricted literacy.<sup>8</sup> These points are:

- 1) no styli or pens have yet been excavated at any Mycenaean site;<sup>9</sup>
- 2) no inscribed monuments have yet been excavated at Mycenaean sites;
- 3) the extra-mural buildings at Mycenae – in which Linear B tablets were excavated – are most likely under palatial control, and not private houses;<sup>10</sup>
- 4) the abrupt disappearance of Linear B after the collapse of the palaces suggests that the use of writing did not extend broadly into Mycenaean daily life;
- 5) the similarity of script style from site to site implies rigidly controlled use of writing.

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<sup>6</sup> Ventris and Chadwick 1956, pp. 109-110.

<sup>7</sup> Palaima 1987.

<sup>8</sup> Ventris and Chadwick 1956, p. 110; summarized in Palaima 1987, p. 499.

<sup>9</sup> This point is likely to have been rendered null by the excavation of what were likely styli at Thebes. See Piteros, Olivier, and Melena 1990.

<sup>10</sup> The palatial control of these structures has been convincingly demonstrated, and will be addressed in Chapter 5.

Yet Palaima notes that there are also points that may favor broader literacy as well:<sup>11</sup>

- 1) the cursive nature of the script is better suited to writing in ink on parchment or papyrus than with a stylus on clay;
- 2) impressions from Minoan sealings indicate the use of parchment and papyrus;
- 3) numerous individuals (ca. 75 at Knossos) were capable of writing;
- 4) Linear B can be used to write literature, correspondence, and other types of texts beyond accounting texts.<sup>12</sup>

Rather than suggest broad or restricted literacy, Palaima discusses further elements that can be brought to bear on the issue. The inscribed vessels form one potentially non-administrative (or at least differently administrative) body of evidence for writing. Nonetheless, given the curious absence from the archaeological record of even the graffito scrawling of a name or a personal note in Linear B, the evidence points to a “narrow cultural attitude toward writing.” Palaima concludes by suggesting that we cannot argue on the basis of evidence that we do not have, but should therefore focus our attention on the more transportable – and thereby more widespread – documents, *i.e.* inscribed sealings.<sup>13</sup>

It is with this suggestion that the explicit study of Mycenaean literacy ended over twenty years ago.<sup>14</sup> It is my hope that this dissertation will continue the dialogue by both

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<sup>11</sup> These are summarized in Palaima 1987, p. 500. These points, as noted by Palaima, include comments already put forth by Chadwick in Ventris and Chadwick 1956, p. 109.

<sup>12</sup> The “quality” of the Linear B script for various functions will be addressed in Chapter 2.

<sup>13</sup> Sealings are small nodules of clay that have been impressed with a sealstone. They are often fashioned around a knot in a cord, which ostensibly would seal a container, room, or vessel. Multiple functions and forms exist in both Minoan and Mycenaean administration. These will be considered in detail in Chapters 4 and 5.

<sup>14</sup> There are two further works that directly address the use of writing in Mycenaean Greece. In 1991, Barry Powell published *Homer and the Origin of the Greek Alphabet*. In 1997, Roger Woodard published *Greek Writing from Knossos to Homer*. The volume by Powell is chiefly concerned with the impetus for the invention and spread of the Greek alphabet. In a similar vein, the monograph by Woodard addresses Mycenaean literacy only as a component of his study of broader, multi-regional diachronic Greek literacy.

addressing these issues which have arisen in every assessment of Mycenaean literacy thus far, as well as offering additional points of view and questions that need to be asked of the material. I hope to accomplish this goal by formulating this discourse deliberately within the framework of Brian Street's 'ideological' model for the study of literacy.

## **THE CURRENT STATUS OF LITERACY STUDIES**

The study of literacy underwent a major revolution in the mid-70s and the early 80s, which culminated in the publication of Brian Street's *Literacy in Theory and Practice*. This text was effectively the summation of the reactions of several social anthropologists, linguists, and historians who found fault with the traditional approaches to literacy. I present here a discussion of the application of these earlier methods, which Street has labeled the 'autonomous' model of literacy, followed by a detailed discussion of his modified approach, which he calls the 'ideological' model.

### **The 'autonomous' model**

The autonomous model has been employed by several scholars since the early 1960s. The principals are Angela Hildyard, Eric Havelock, David Olson, Jack Goody,

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A substantial portion of both of these books is devoted to a linguistic analysis of the features and structure of the Mycenaean Greek syllabary. Although these books address the use of writing, the Linear B portions of both books almost entirely involve linguistic and structural considerations. Because these two works do not enter into the discussion of the use of writing in the Mycenaean period to any significant degree, but rather employ a discussion of the Mycenaean syllabary as the first component of a narrative that ends with the alphabet, I have chosen to omit them from the record of works that are predominantly devoted to the advancement of the study of Mycenaean literacy and use of writing. I will return to these works in the later discussion of the Mycenaean script.



Ian Watt, and Walter Ong.<sup>15</sup> In 1963, Goody and Watt published their influential article, “The Consequences of Literacy.” In the same year, Havelock published his monograph, *Preface to Plato*. These were independently researched, but the authors arrived at the same conclusions regarding the cognitive impact of literacy, with particular emphasis on the effects of the Greek alphabet. These researchers find certain cognitive characteristics present in their literate subjects that are consistently lacking in their non-literate subjects. They find that, among other things, non-literates are unable to comprehend that their assessment of any given situation or occurrence is a personal – rather than universally held – perception, they have difficulty with categorization and even with simple syllogisms, and they are unable to conceive of a historical past that is distinct from themselves in the present.

Goody, Watt, and Havelock focused on the immediacy of oral communication in non-literate societies. In their assessment, only information that is relevant to the present will be retained in the non-literate memory, while all other information is either discarded or modified to suit the present. The Past is reduced to a series of prior events and memories that have direct relevance to the present. Our authors argue that this worldview inhibits the idea of history, of a past that is distinct from the present. Cognitively, non-literate societies are not able to conceive of a bygone era in which things were not as they now know them to be. Conversation is necessarily immediate and takes place in the present (taped recordings excluded).

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<sup>15</sup> I present here a synthesis of their ideas and their uses of the autonomous model. Greater detail and specificity can be found in Street 1984. The centerpiece for the autonomous model is Goody and Watt 1963. A select bibliography of these authors includes Goody 1977, Ong 1982, Olson, Torrance, and Hildyard 1985.

Conversely, when histories and genealogies are written instead of spoken, Goody and Watt consider these immutable relics of the past, which require the reader to recognize the antiquity of the contents. In their opinion, “the [non-literate] individual has little perception of the past except in terms of the present; whereas the annals of a literate society cannot but enforce a more objective recognition of the distinction between what was and what is.”<sup>16</sup> For them, this is a direct consequence of literacy acquisition. No longer can legends and actual events merge into one contemporarily relevant history. Writing is necessary for historical perspective.

Goody, Watt, and Havelock further criticize early writing systems as clunky and awkward. The alphabet was essential to introduce literacy to a large population. They reify the introduction of the Greek alphabet as the strongest argument for their approach to literacy. As the works of Homer and Hesiod were disseminated, literate Greeks were able to consider these works as quasi-historical and existing outside of their contemporary experience. In turn, they developed a sense of ‘self’ independent of everything else, and the careful study of these unchanging texts gave rise to the disciplines of logic and philosophy. These authors assert that the ever-contemporary conversations and orality of non-literate societies make it impossible for such cognitive abilities to develop. They see logic as a literate phenomenon.

To summarize,<sup>17</sup> Goody, Watt, Havelock, and their adherents concluded: 1) literacy changed cognitive processes and society in general; 2) the use of writing was the agent of this change; 3) this change is not a gradual development, but rather is an abrupt

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<sup>16</sup> Goody and Watt 1963, pp. 310-311.

<sup>17</sup> As itemized in Olson 1977, p. 109.

change resulting from the introduction of the technology of writing, and alphabetic writing in particular.

Brian Street labels this model 'autonomous', implying that literacy is a technology that is not willed or acted upon by outside forces or context. It is an autonomous force. Thus the consequences of literacy, or lack thereof, will be consistent in any society. The term 'autonomous' is notably used by several adherents to this model to describe writing, including this use by Walter Ong, "By isolating thought on a written surface, detached from any interlocutor, making utterance in this sense autonomous and indifferent to attack, writing presents utterance and thought as uninvolved in all else, somehow self-contained, complete."<sup>18</sup> Proponents of the autonomous model have carried out fieldwork all over the globe, yet the cognitive abilities that these researchers seem to find consistently lacking in every non-literate community seem to be consistently present in the literate body.<sup>19</sup> The implication is that literacy is an autonomous technology, and that the cognitive results of literacy will be consistent regardless of context.<sup>20</sup> There are several problems with the approaches that led to these conclusions, and accordingly with the results themselves.

In most instances, the abilities that researchers attributed to acquisition of literacy were actually the result of attendance in the western-style educational system in which literacy was taught. Scribner and Cole were able to study the cognitive abilities of the Vai people of Liberia who were literate and schooled (in a Western-style educational

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<sup>18</sup> Ong 1982, p. 132, as cited in Street 1993a, p. 5.

<sup>19</sup> Summaries of this fieldwork and case studies are abundant in the literature. Street 1984 and Street 1988 both include introductions with exhaustive discussion of case studies.

system) versus those who were literate and unschooled.<sup>21</sup> When testing the children with simple syllogisms, they concluded firmly that the students educated in schools students excelled, while the uneducated students performed poorly. The development of the cognitive abilities in question was not a result of the acquisition of literacy, but rather the formal training imposed by a specific type of educational system. The cognitive implications of literacy acquisition cannot be separated from the cognitive implications of the educational system.

In the same manner, there were other factors involved in the development of Greek civilization. That is, acquisition of alphabetic literacy in other places did not lead to the development of a society identical to Classical Greece. We must also consider the purposes for the invention of the Greek alphabetic script (even if the precise answer is intractable), the reason for its success when so many other scripts have so rapidly failed, its early uses in relation to its later uses, etc. Those other factors are essential for understanding the functions to which alphabetic writing was put in Greece, and which could account for the flourishing of philosophy, logic, and history in the Aegean at this time. The autonomous model does not allow for sufficient analysis of these myriad social factors. Non-alphabetic literacy should not follow a different trajectory than what we have outlined here. We shall address non-alphabetic literacy as well in the discussion of Mycenaean Greek.

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<sup>20</sup> I stress here the “cognitive” results, because the researchers are not speaking to the actual functions to which writing is put.

<sup>21</sup> Scribner and Cole 1981.

## **The ‘ideological’ model, with references to its application in Mycenaean Greece**

In 1983, building on the work of authors such as Graff and Clanchy, Brian Street published *Literacy in Theory and Practice*. In this volume, he outlined what he termed the ‘ideological’ model. This was a reaction and addendum to the autonomous model, which was insufficiently sensitive to the social and power structures in which writing and speech are employed. The forms writing takes, the situations in which writing or speech is used, the meaning of any text, and the consequences of literacy in general are all dictated by social context. Literacy has no autonomous power to dictate its own consequences.

When studying the material remains of an ancient civilization such as that of Classical Greece, it is very easy to focus singularly on the extant remains, especially the literate evidence. This is what Havelock, Goody and Watt have done. In their discussion of literacy and orality, they adhere to the view that conversation is face-to-face and immediate, while a literate document transcends space and time. Unfortunately they also allow this very tenet to bind them and they focus solely on the literate remains, ignoring the gaps that would have been filled in by the spoken word. The interface of literacy and orality will be a recurring theme in the present work. They consider the texts their only body of evidence from which to draw conclusions about the advancement of Greek thought. Accordingly they ascribe all of the successes of Greek thought to these very texts. The reification of literacy brought focus away from orality. Only when considered in tandem does the function and result of either mode of communication become clear.

Writing and speech can both be used formally or informally, and the sentiment being communicated can be tailored to an individual or a large body of people. There is

nothing inherent in writing or speech that allows one to suggest that “writing is X, speech is Y.” The elimination of the ‘great divide’ between literacy and orality is one of Street’s main objectives. Even a society that places a heavy emphasis on writing – such as the contemporary United States – still employs non-literate communication to a very considerable extent. Of our major media for example, television and radio are almost entirely non-literate. Once writing is introduced, orality and literacy always work jointly to satisfy communication needs.<sup>22</sup> We should be studying the social context that determines the use of one or the other. For example, in contemporary America there are specific social reasons that one chooses to write an e-mail rather than make a phone call, and vice-versa. Text messaging has added yet another form of immediate communication. The choice of which mode of communication to use in contemporary society offers the greatest and most immediate insight into the function and impact of literacy in context.

The transition from a purely oral mode to a mixed literate-oral mode is a complex one. The introduction of literacy obviously does not mean the elimination – or even the subjugation – of speech/orality. Street emphasizes that there is not a divide between the two, but rather a continuum. There are always manifold reasons, in any given instance, for the preference of one form of communication over the other. In order to be meaningful and relevant, studies of literacy must consider the oral environment within which writing is employed. As Street notes, many instances of writing – letters

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<sup>22</sup> Here I am referring specifically to communication involving *language*. There are countless other modes of communication, including narrative frescoes, cave paintings, hand gestures, facial expressions, and just about any other mode of expression. Since we are dealing with an administrative literacy among the Mycenaeanans, we will not focus on these other modes of communication, as they were not likely relevant for scribal administration.

particularly – served not as the means of communication, but as a means of authentication for the bearer. A Norman messenger would deliver his message orally, and the full text of the message, which accompanied him, would simply serve to certify the reported message.<sup>23</sup> This oral-literate interface is highly variable and fluctuates not just from society to society, or relationship to relationship, but as noted in this example, it can be entirely case-specific. It is because of this variability that Street uses the term ‘ideological,’ rather than ‘social’ or ‘personal.’ He defines *ideology* in anthropological terms as, “the site of tension between authority and power on the one hand and resistance and creativity on the other.”<sup>24</sup>

Clanchy observes that there is no arena, administrative or otherwise, in which any event or transaction can be fully realized in writing alone. He cites as an example the recording of landholdings.<sup>25</sup> It is not possible for a cadastral list to offer a complete record of the landholding situation. It would be impossible to draw up a record of land that recorded the precise layout of each plot of land,<sup>26</sup> the land’s status, the ownership

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<sup>23</sup> To be sure, the written letter also serves to provide the message with longevity beyond memory, should that be necessary depending on content.

<sup>24</sup> Street 1993a, p. 8. While the wording is Street’s, this definition of *ideology* is common among anthropologists. This definition serves to indicate that between any two parties – and for our purposes in any communication act – there exists a power relationship. This power relationship then dictates the manner in which they interact. A letter to an employer reads very differently from a letter to a grandchild. *Ideology* is a convenient term, as it can apply to individuals, groups, communities, or entire civilizations.

<sup>25</sup> Clanchy 1979, p. 12.

<sup>26</sup> Bennett 1956 does propose that the landholding tablets at Pylos may suggest a layout of plots relative to one another. In the Eo series, several landholders are listed on each tablet. The first landholder on each tablet always has a plot larger than the total of plots held by the following landholders. Bennett concludes that all plots recorded after the first one should be considered as subplots in the plot listed first.

Landholders are frequently listed as holders of subplots on more than one tablet. Bennett further suggests that if Landholder A holds subplots in both Plot X and in Plot Y, then Plots X and Y are geographically adjacent, and the subplots of Landholder A also adjoin (that is, he would have on plot on the east side of Plot X and an adjacent plot on the west side of Plot Y). Using this strategy, Bennett is able to construct a diagram of all landholdings and subplots in the E series tablets.

Bennett does not offer a suggestion as to whether this indication of layout is intentional or is simply a by-product of the record-making process. Given the complex manner in which Bennett is able to arrive at his

and history of ownership of the land, while maintaining legibility and functionality as a record. Such records must work in harmony with the knowledge of the relevant officials, who were familiar with the territories, persons, and transactions involved. The written records and the experiences of the officials using them combine to form a complete picture of landholdings. One of the most visible examples of the oral-literate continuum in Mycenology concerns the status of Eritha's landholding on PY Ep 704:<sup>27</sup>

**Ep 704.5** (S74 H 1)  
 e-ri-ta , i-je-re-ja , e-ke , e-u-ke-to-qe , e-to-ni-jo , e-ke-e , te-o , da-mo-de-mi , pa-si , ko-to-na-o ,  
 ke-ke-me-na-o , o-na-to , e-ke-e , to-so pe-mo GRA 3 T 9

The priestess Eritha holds and claims to hold *etonijo* land for the god, but the *damos* says that she holds a parcel of *kekemena ktoina*, so much seed grain 374.11 liters

In this line, the scribe has written that the priestess Eritha asserts that her land is a specific type of privileged land, but the land-distribution council (*damos*) says that she holds a parcel of standard plots of cultivable land. With the exception of the parallel text of this tablet found on Eb 297, there is no further mention of this dispute in the Linear B corpus from Pylos. The wording of this tablet makes explicit the fact that there is information being left out, specifically the nature of the argument, the evidence presented, and the reason behind the verdict of the *damos*. We do not know the nature of this argument or the legal claims implied.<sup>28</sup> We can only be sure that there is a dispute as of the writing of Ep 704.

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proposed physical layout of landholdings, the ability of an administrator to arrive at this physical layout from a rote analysis of the tablets must be deemed highly unlikely, at best. At least, for the administrator to derive this information in the same manner as Bennett did would be unlikely. There is always the possibility that such information was somehow encoded for a Mycenaean reader in a manner that we are unable to observe today.

<sup>27</sup> All tablet transcriptions herein are directly from Melena et al., forthcoming.

<sup>28</sup> This tablet has received considerable attention. For a brief discussion of its implications for Mycenaean law, see Thomas, Carol 1985. For a treatment of the status and functions of the individuals and bodies involved in the dispute, see Nakassis 2006, pp. 76ff., 89ff., 434.



The absence of information is particularly noticeable in this dispute between Eritha and the *damos*. The text itself makes clear that there is information that is not being conveyed here in writing to the reader, whether said reader is real or imagined. We immediately recognize that the reason for this dispute and the logistics of its resolution are not necessary components of this textual administrative record. The purpose of these texts of the Ep series is to determine contributions due to the palace on basis of plot size and type of land. For the scribe, the outcome of the dispute, as well as the fact that there is a dispute, is relevant to the information he is assembling. According to this view, once the dispute between Eritha and the *damos* is resolved, he can calculate the amount of the contribution from this plot. Of course, extraneous information is omitted from every transmission of information – literate, oral, or otherwise – in every context from every time period. In the Linear B tablets, however, we often find the amount of information provided to be sufficient for a written record and do not question further the function of writing in Mycenaean administration. Scholarship more often attempts to provide a fuller explanation of the physical realities that the tablets represent, bypassing the function of the *written* component of the transaction or administrative process. For example, consider the texts of the PY Aa, Ab, and Ad series, which have received thorough treatment in print.<sup>29</sup> The Aa tablets were written by Hand 1 and Hand 4, the Ab tablets by Hand 21, and the Ad tablets by 23.<sup>30</sup> These tablet series record common data, where each individual tablet in one series frequently has a counterpart in one or both of the other

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<sup>29</sup> See especially Bennett 1956a, Bennett 1983a, Killen 1983, and Chadwick 1988.

<sup>30</sup> Scribal hands have been identified at all Mycenaean centers on the basis of paleographic analysis. All scribes at all sites are referred to by Hand number. For scribal assignments at Knossos, see Olivier 1967. For Pylos assignments, see Palaima 1988c. Tablets are assigned a two-letter prefix on the basis of content.

series,<sup>31</sup> but each offers a unique combination of elements. As a group they variously record working women, their locations, the numbers of male and female children of these women, their supervisors, and quantities of rations. The related subset of tablets PY Aa 792, Ab 189, and Ad 683 is a good example of their contents:

**Aa 792** (S240 H 1)  
 ki-ni-di-ja MUL 21 ko-ṽa 12 ko-wo 10 DA 1 TA 1

Knidian women, 21 women, 12 girls, 10 boys, 1 DA, 1 TA

**Ab 189** (S186 H 21)  
 .A GRA 6 T 7 TA DA  
 .B pu-ro ki-ni-di-ja MUL 12 ko-wa 10 ko-wo 10 NI 6 T 7

At Pylos, Knidian women, 12 women, 10 girls, 10 boys 643.2 liters of figs, 643.2 liters of wheat, TA DA

**Ad 683** (H 23)  
 pu-ro ki-ni-di-ja-o ko-wo VIR 5 ko-wo 4

At Pylos, the boys of the Knidian women, 5 older boys, 4 boys

These tablets address details surrounding women workers and associated children at Pylos coming from the Anatolian site of Knidos. In studying these texts, just as with Ep 704, there are gaps in the data that we instinctively wish to fill in. Each of these tablets records similar but distinct information. Each is written by a different scribe. When combined for analysis, we can reconstruct the purpose and function of these texts together. The two authors of the Aa tablets – Hand 1 and Hand 4 – were concerned with recording the numbers of women workers, their children, and their supervisors, in the Hither and Further Provinces, respectively.<sup>32</sup> The author of the Ab tablets was concerned

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A-series tablets are concerned with personnel. For an excellent introduction to conventions and nomenclature in Mycenology, see Palmer 2008.

<sup>31</sup> It is entirely possible that all tablets of one series would have had counterparts in the two other series. Accidents of survival likely erased several tablets from the archaeological record.

<sup>32</sup> For administrative purposes, the territory of Pylos was divided into two major geographical units, the Hither province and the Further province – in the tablets, *de-we-ro-a<sub>3</sub>-ko-ra-i-ja* and *pe-ra<sub>3</sub>-ko-ra-i-ja*, respectively. The Aigaleon mountain chain runs north-south through the middle of Pylian territory,

with only one of the two subsets of the Aa series – those listing women in the Hither Province; and he records allotments of rations of grain and figs for these women and their children. The Ad texts are concerned with counts of the different age categories of younger and older male children associated with women workers. By comparing the texts of these three series, we have an opportunity to see clearly the information that was not relevant for the purposes of each individual series. For example, if the tablets of the Ad series were the only ones to survive, we would have merely a tablet series that records the male children of different age groups associated with women workers at various locations in the Hither Province. Fortunately, comparison of the Ad series to the Aa and Ab series texts informs us that the author, Hand 23, is concerned chiefly with a head count of these male individuals, and that the head count was not recorded in this series for managing their rations or their required supervisors. Finally, comparison of the Ad tablets to the Aa series further informs us that the geographical area of concern for Hand 23 is solely the Hither Province – a point which could not have been elucidated – or at least not proven – by us in the absence of the similar tablet series.

These texts were created to count women workers, their male and female children, and to calculate the quantities of rations required to feed them. Each scribe is concerned with a specific arena of administration, and so records the data that is in his domain. All too often, the study of Mycenaean administration ends here. That is, once we have reconstructed administrative procedures and functions for these tablets to our satisfaction, the purpose of these tablets is deemed to have been “explained.” The tablets

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dividing the Hither from the Further province. Labels for the two subsets of the Aa series indicate the geographical concerns of the authors.

may receive future attention in the context of studies on slave labor, rations, scribal duties, etc. Yet even though several gaps in the implicit non-written data have been filled in by comparison to other series, the reason for the creation of the tablets and for the form in which they were written has been ignored. For whose benefit were these or any other tablets recorded? We can observe a few more variables or points of consideration by examining the A-series tablets further. Many of the Ad tablets name the location of the individuals recorded, but at least two – PY Ad 357 and PY Ad 663 – do not.

**Ad 380** (H 23)  
ne-we-wi-ja-o ko-wo VIR 6 o-pe-ro VIR 3

Sons of the *Newewiai* women, 6 men, deficit 3 men

**Ad 663** (H 23)  
o-ti-ra<sub>2</sub>-o ko-wo VIR[ ]5 ko-wo 7

Sons of the *Otriai*<sup>33</sup> women, 5(?) men, 7 boys

Does the absence of any locational information for these individuals suggest that it was not ever necessary? Perhaps the locations of the *Newewiai* women and the *Otriai* were obvious to the intended audience. It is possible that the location is implied in the description of these women. For example, several scholars have proposed – based on parallels to other uses of such adjectival forms to describe women workers – that the description of women as *Newewiai* on PY Ad 380 indicates that these women are in the possession of an individual named Neweus, whose location could have been known to the tablet's readers.<sup>34</sup> Despite these observations, we cannot be sure what administrative action led to the recording of these individuals in particular. We also have not yet considered who was responsible for choosing the manner in which the data was recorded.

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<sup>33</sup> This is likely an occupational designation.

Without considering these points, we cannot be sure what authority these texts had, what the full role of the scribe was, what role writing played in administration, whether they served as legal documents or were simply notes that had no real intrinsic authority. As a result, we can read these texts and recognize that male children were counted, but without addressing the use of writing, we have no context for how these tablets related to administrative activity at Pylos. It is to these questions that this dissertation will be addressed.

Let us return then to PY Ep 704 and the case of Eritha. This text informs us explicitly that there is information that is not being recorded. Only the fact that an issue of land status existed was deemed relevant for this recording process. The reason behind this recording process, the selection of data, the method of recording, and the role of scribes must all be addressed if we are to fully understand Mycenaean literate administration. If we do not address these concerns, we can never fully understand how these tablets functioned, the purpose behind their creation, and the reason for the form in which they were written. While the oral component, or tacit information, of record-keeping is highly visible in the instance of Ep 704, as mentioned before, it is present in every instance of writing, and needs to be allowed into the dialogue about writing and literacy.

Unfortunately, it has proved very easy for researchers to inadvertently regress into proposing some form of a literate-oral divide, even while arguing for a continuum.<sup>35</sup> The salient feature of an oral-literate continuum is that writing and speech can be used

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<sup>34</sup> *DMic* I.471, *ne-we-wi-ja*.

<sup>35</sup> Addressed in Street 1988.

interchangeably for different functions, but that any given group will determine when speech is used and when writing is used, in context with one another. Deborah Tannen, for example, while arguing for a continuum, nevertheless characterizes oral discourse as reliant on paralinguistic cues (e.g., facial expressions, word emphasis, hand gestures, etc.), while written discourse relies on the choice of words and the structure of the text.<sup>36</sup> This argument is just a subtler proclamation of the literate-oral divide, claiming that “writing is X, speech is Y.” The choice of writing material – heavy-bond cotton paper, papyrus, vellum, spiral notebook paper, construction paper – will have a bearing on how the recipient interprets the text. The writing utensil will serve the same purpose. For example, the text of a wedding invitation will suggest a dramatically different affair if it is written in red crayon on the back of an ATM receipt instead of being calligraphically machine-printed on card stock with elaborate floral decoration. Likewise, oral discourse can be distant, such as when an uncomfortable presenter focuses solely on the text of his or her speech rather than on the audience. The attempt to characterize writing in one way and speech in another again does not hold up.<sup>37</sup> Social customs, environments, and cues will dictate how a communication, oral or written, is offered, as well as how it is received. We must look to these customs, norms, and contexts to determine why one mode of communication is preferred over another in any given instance. In any event, it

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<sup>36</sup> Tannen 1982.

<sup>37</sup> Of course communicators use different strategies to convey their point depending on whether the message is oral or written. For example, to express sarcasm in an e-mail, a “winking” emoticon after the sarcastic comment would suffice to inform the reader of the intended sentiment. In an oral context, intonation and perhaps a roll of the eyes would make the speaker’s sarcasm clear. The point here is that it is possible to determine the intent of the communicator via both modes of communication.

is not because of some inherent, autonomous characteristic of either speech/orality or literacy.<sup>38</sup>

***Acquisition of literacy depends on pre-literate modes of communication, which bears directly on Mycenaean literacy***

Critical in this assessment is the mode and method of literacy acquisition, which also relies heavily on social context. The autonomous model implies that a form of writing can be introduced to a non-literate group – from any external literate group – and the effects of literacy acquisition will be consistent. However, depending on the popular reaction to the new technology, the initial level of literacy and uses of writing can be dramatically different. Clanchy notes that the introduction of administrative literacy in Great Britain by the Normans was met with a great deal of mistrust. Whereas deeds and ownership were previously marked by witnesses and symbols – such as a sword, Bible, or other family heirloom – a written deed was easily forgeable, had no physical marker or characteristic that made it immediately verifiable, and was met with much resistance as a marker of authenticity. Earlier documents thus had sealings attached via a strand of parchment. These sealings served as a transition to literate records, as the sealings were deemed more reliable markers than the documents to which they were attached. In addition, the writing materials and formats of the documents were already familiar, as

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<sup>38</sup> Even the issue of permanence, which is the attribute most often attached to writing versus speech, is not as unambiguous as it may at first appear. Family histories, for example, are not often written, but are usually relayed from parent to child over time, as appropriate. Also blurring the lines is the use of mini voice recorders by overwhelmed doctors. These are preferred for the simplicity and immediacy of recording data to them, as opposed to the amount of time it would take to write the same notes. These notes are transcribed later for reviewing and preserving. However, at the time of recording, the oral notes are deemed sufficiently permanent for storage purposes. In the end, writing is preferred not solely for its permanence, but for the ease of perusing information which one has not entirely committed to memory.

they mimicked the forms of documents used by the church.<sup>39</sup> These were just two examples of the tactics used by the Normans to introduce administrative literacy to the greater population. Regardless of the society in question, the levels of literacy and use of writing will depend significantly on the status of the group that is introducing literacy, the purpose behind the introduction of literacy, the degree of contact, and the modes and means by which literacy is introduced. One cannot artificially introduce writing into whatever situation one wishes and expect acceptance. When employing a new technology and new method of communication, the introducer needs to be sure that the users of the technology – as well as those who will merely come into contact with it – will be able to develop the required level of trust in it, depending on the functions to which it is put.

In contrast to the tenets of the autonomous model, no technology is ever purely neutral, unleashed onto an unbiased or unconditional public. This is true of any technology, whether it is the personal computer, railroad, or the television. The inventor had a purpose, with a particular audience in mind. These factors necessarily play a role in the manner in which the acquisition of the technology takes place. Literacy is not exempt from these forces. The manner in which literacy is introduced, the purpose held for introducing literate administration, and the scope of its intended use, all dictate the appearance that literacy acquisition assumes. These factors will vary from society to society, and even from power structure to power structure. The number and variety of these social factors demonstrate that the notion of literacy as autonomous technology is highly unlikely, if not impossible.

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<sup>39</sup> Church literacy – not secular literacy – pre-existed the Norman Conquest.



Furthermore, writing can be used not only as a benefit to intellectual development, but can also serve as a hindrance in other arenas, if that is the intent behind its introduction. Harvey Graff examines the literacy initiatives of nineteenth century Canada.<sup>40</sup> He finds little or no economic or social benefit to the lower classes who acquired literacy via these initiatives, since there were insufficient job opportunities that required the literacy skills they learned, nor were there opportunities for advancement. In addition, the training in literacy seems to have been directed more towards maintaining social control by deliberately employing texts that instilled the morals and obedience that the ruling powers deemed necessary to prevent revolution or social uprising of the lower classes. In this instance, while the technology of writing is being employed for benefit, the benefit received is for those introducing literacy, and not for those who are becoming literate. Again, literacy lacks the proposed autonomous benefits as put forward by Goody *et al.*, as those ends can be manipulated within the societies and structures into which literacy is introduced.

### ***Surviving elements of the autonomous model***

Street claims that the ideological model does not just replace the autonomous model, but rather absorbs a number of its tenets.<sup>41</sup> Neither Street nor any other adherent to the ideological model denies that literacy is a useful technology that can offer benefits because of its application. The preservation of information for significant periods is aided greatly by writing. The volume of information to which one has immediate access

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<sup>40</sup> Graff 1979.

<sup>41</sup> Succinctly summarized in Halverson 1992, pp. 315-316.

is also greatly enhanced by writing. These two facets combined allow a reader to build more rapidly upon and advance earlier knowledge. To be sure, intellectual stimulation is not the exclusive domain of literacy. However, the written word makes it much easier to absorb and react to a much greater volume of material than with the spoken word. Vast amounts of data, research, and information can be acquired from several generations of writers very easily and in a short period of time, since this information is easily reproducible in its original state. In contrast, acquisition of similar oral information depends on access to those who preserve oral history. The knowledge of oral historians cannot be disseminated and reproduced as quickly as the written word. In summary, the technical and cognitive benefits of literacy are still under consideration when the ideological model is employed. These facets of literacy are simply augmented by the consideration of the social and cultural environment in which any given form of literacy exists.

#### **METHODOLOGY FOR THE STUDY OF MYCENAEAN LITERACY**

The above-described issues – social environment of literacy, reaction to the importation of literacy from external sources, use of writing in an oral/literate continuum – bear directly on the introduction of literacy into Mycenaean Greece. Of particular interest are (1) the extra-cultural (non-Greek) Minoan origins of the script, (2) the breadth and depth of the spread of literacy and the extent of contact with the written word by Mycenaean of different social classes, (3) the forms in which that contact took place, (4) and the uses to which writing was put.

Mycenaean Greece presents some challenges of its own. The material remains from the excavated centers offer few direct hints about the shape of the preceding administration. Furthermore, with the exception of architectural forms, there is no physical evidence for the shape of pre-literate administration on the mainland. Krzyszkowska comments that no sealings at all have been found on the mainland prior to LH IIIB1.<sup>42</sup> While it would certainly be an asset to have these types of evidence on hand, all is not lost. One thing that we can be sure of is that administration prior to the rise of the Mycenaean palaces was non-literate. We can also be reasonably sure that the mainland made no use of literacy in any arena at this time.<sup>43</sup> So while an earlier administration is not available to serve as a foil for the examination of palatial administration, at the very least we find a useful starting point in the assertion that whatever the nature of literate administration, it was imposed on a civilization that was accustomed to managing all of its affairs through non-literate means.

In conjunction with this point, I will be considering the spread of literacy. Given that literacy will not, of its own accord, impel those who come into contact with writing into any predetermined course of action, we can state that the spread of the use of writing needs to be encouraged and/or imposed. The inquiry into the spread of Mycenaean

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<sup>42</sup> Krzyszkowska 2005, p. 234. This perception, however is likely changing, as tablets are being excavated from definitive LH IIIA contexts, most notably from Petsas House at Mycenae. It seems likely that sealing administration began at least at the same time as tablet administration, and that an LH IIIA sealing find is only a matter of time.

<sup>43</sup> See Palaima 1988a on the likely origin of the script. The Kafkania pebble, which was observed in a Middle Helladic context, would suggest that Mycenaean literacy does predate the palaces, if genuine. However, the artifact is highly suspect, and is treated here as a modern forgery. See Palaima 2002-2003 for the most thorough account of the pebble. As will be discussed later, the functions to which the Linear B script is put, as are observable from surviving texts, represent a condensation of the functions of the Linear A script. This surviving evidence strongly suggests that the predominantly administrative technology of Linear A literacy was borrowed to fashion Linear B as a palatial administrative technology. Accordingly,

literacy will involve the examination of several aspects of the use of writing. Bearing directly on this point is the degree of specialization of scribes. Specialization within administrative bureaus tends to be a later development in the life of a literate administration,<sup>44</sup> yet specialization appears to be the norm in the Mycenaean palaces.<sup>45</sup> Accordingly, we must focus a great deal of attention on the study of administration at Knossos and the earliest surviving administrations there.

It is only natural that mainland Greeks were able to fast-forward through several steps in the development of the use of writing, as they used Minoan administration as a model in many respects. The changes that were made from the Minoan administrative features will have significant ramifications for our interpretation of the use of writing in Mycenaean Greece. Among these features are the modifications of seal use, tablet layout, content of texts, varieties of textual media, treatment of records, and storage and handling of archives. An exhaustive treatment of Minoan literacy and use of writing will not be possible here, as that would merit a study all its own. However, it would be foolish to ignore this evidence completely. By examining the Linear B evidence, we are able to understand how writing was incorporated into Mycenaean life and administration. If we augment the study of Linear B by comparing the role of Linear B to parallel evidence provided by Minoan Linear A, which is the direct antecedent of Linear B, we can see which aspects and functions of writing the Mycenaean actively rejected. In effect, we are given a rare opportunity to observe what is normally negative evidence. I

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we should not expect to find prepalatial Linear B functioning either in an administrative or non-administrative function, and in fact none has been found.

<sup>44</sup> Clanchy 1979, p. 61

<sup>45</sup> Scribal organization has been considered at length by Cynthia Shelmerdine. See Shelmerdine 1999.

should stress here that we are concerned not with the Minoan evidence *per se*, but rather the Mycenaean reaction to the Minoan practices.

I will then consider the evidence for training in literacy and the use of writing. This will involve a discussion of the spread and extent of literacy in Mycenaean society. I will examine the evidence for scribal training in the Near East and other related societies in an effort to determine the common features of archaeologically-identified scribal training areas, or schools. Critical issues here are the number of scribes needed at any given time, the number of scribes-in-training that would be necessary, and the infrastructure that would be required to maintain the necessary levels of literacy to ensure the proper functioning of the administration.

When considering the Linear B material, I will be treating the evidence as belonging to one of three distinct groups of texts. First, I will address the use of writing on objects other than sealings and tablets. These include vessels, both inscribed stirrup jars (ISJs) and inscribed vessels that are not stirrup jars.<sup>46</sup> The latter group will be more interesting for our purposes, since they offer the best chance at observing non-administrative use of Linear B.<sup>47</sup> These non-SJ vessels generally have single words written on the side. Also in this group are graffiti on walls, which may also be non-administrative in function, or may not be textual at all.

The second group of texts is the sealings. In many ways, this is the most informative body of evidence for the use of writing, since these objects can travel

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<sup>46</sup> Stirrup jars are closed vessels that are used for transport of liquids. The inscribed stirrup jars figure prominently in Mycenaean administration, and are not considered to be private vessels.

<sup>47</sup> The inscriptions on ISJs have been identified as administrative notes. See van Alfen 1997.

between sites, are highly portable and mobile,<sup>48</sup> and reach lower levels of administration than the tablets. Also important here is the comparison to sealing use in Minoan administration, which is dramatically different. We have no evidence that the Mycenaeans incorporated most of the sealing shapes employed by the Minoans into their administrative practices. Additionally, Minoan and Mycenaean patterns of sealing use are remarkably dissimilar. Here I will also compare the layout of text on sealings to that on tablets, both in Linear A and in Linear B, to address the relative status of both texts, both from the perspective of the writer and the reader.

The final chapter in this dissertation will focus on the Linear B tablets. Given their abundance, the tablets are the best resource for assessing the use of writing in the Mycenaean world. Here the tablets will be analyzed in groups according to the scribes responsible.<sup>49</sup> By examining the tablets by scribal hand, and considering the ways in which various scribes interacted, we can better answer questions about how these texts were written, why they were written in such a manner, and ultimately how they were used in Mycenaean administration. The storage, handling, and location of tablets will

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<sup>48</sup> Because they were made of clay, the mobility of sealings and other documents is open for debate. All extant Linear B documents and sealings were never intentionally fired. All documents were baked only as a result of fire destruction (this may be why no clay documents were recovered from Nichoria). Unbaked clay does not hold up well in adverse weather conditions, melting quite rapidly in heavy rain. However, sealings and tablets have been recovered from throughout the Minoan and Mycenaean world, including the islands. The administrative ubiquity of unbaked clay documents would seem to suggest that those responsible were accustomed to dealing with the problems that such a medium presented. One might say that the medium of writing does not have autonomy either. If the issue is rain/water damage, there are multiple waterproofing methods that are currently used in developing nations that could have been used in the Aegean Bronze Age. For example, wax, natural gums, or animal fat wrapped with a palm leaf could have formed a reasonable waterproof enclosure. Since (as I will argue) the text of a sealing would not have mattered until the sealed object reached its destination, it is entirely possible it would have been *de rigueur* to envelop sealings with a protective material or substance. Obviously these organic substances would not survive to be discovered in an archaeological context. These comments are intended to suggest only that sealing travel is possible, and this notion should not be rejected on the basis of material alone.

provide further information about their legal/authoritative status, their relation to non-literate modes of administration, as well as informing on the Minoan modes of tablet administration that were rejected by the Mycenaeans.

I am hopeful that addressing these matters will lead to a more specific understanding of what the Linear B texts are and how they function in Mycenaean society. These are the central tenets of the ideological model, and would also do a service to the study of the Aegean Bronze Age. Scholars make use of the evidence offered in the Linear B texts, but they need a better understanding of the function and status of these tablets and their written contents. Misunderstanding of the tablets results in poor interpretations and improper use of evidence. Such mistakes are found in the work of anthropologists, archaeologists, linguists, and even Mycenologists.<sup>50</sup> I believe that a detailed analysis of these texts within their social context – and within the oral-literate continuum – will aid in the reduction of these mistakes.

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<sup>49</sup> The output of individual scribes has received extensive treatment in *PTT*, *SoP*, and more recently in Kyriakidis 1996-1997. These works also address the interactions among various scribes in administration, based on tablet contents, tablet find-spots, and paleography.

<sup>50</sup> See p. 2ff. for examples of such errors.

## Chapter 2: The Mycenaean script and its impact on Mycenaean Literacy

In one of the earliest articles detailing Mycenaean literacy, Sterling Dow impugns the Linear B syllabary, and attributes much of the cause of the demise of literacy to the script itself. Such an assessment of Linear B is presented as an explanation for the lack of widespread literacy and for the absence of any narrative texts, poetry, or any non-administrative writing at all. Dow goes so far as to say, “What a curse was the Dark Age at the time – but for us what a blessing! – the Dark Age destroyed Linear B, so that Europe was not shackled like China with a clumsy and difficult syllabary...”<sup>51</sup> These sentiments have been echoed by other researchers.<sup>52</sup> Most of these attitudes have been built on several assumptions regarding the nature of written language and the purpose behind script invention.

Perhaps the most vocal defender of the Linear B script has been Tom Palaima.<sup>53</sup> His several discussions of the subject address key points with which to defend the utility of Linear B in the writing of Mycenaean Greek. First and foremost is the fact that Linear B was in fact used to write Mycenaean Greek. Were it not a serviceable script, it would not have been used at all in the state in which we know it. Additionally, the very similar Cypriote Syllabic script was used contemporaneously with alphabetic Greek, and was used for writing narrative texts and even dactylic hexameter verse.<sup>54</sup>

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<sup>51</sup> Dow 1968, p. 127.

<sup>52</sup> Schwink 1999 finds similar treatments of the inadequacy of the Linear B script for the representation of Greek in Rix 1992 and Sampson 1985.

<sup>53</sup> Most notably Palaima 1987b, and Palaima and Sikkenga 1999.

<sup>54</sup> Two metrical inscriptions were discovered at Golgoi on Cyprus, *ICS* 261 and 264 (*ICS* = Masson, *Les inscriptions chypriotes syllabiques*). For a brief description, transliteration, and translation of *ICS* 264, the dactylic hexameter verse, see Powell 1991, pp. 110-111. Curiously, Powell discusses this inscription in a monograph in which he posits that syllabaries are unsuited to represent Greek metrical writing. After noting the difficulties in translating this work, Powell states that “too many uncertainties remain in the phonological information this script communicates for the script ever to have served as a practical vehicle for recording ambitious poetic compositions. And it never did so serve.” (Powell 1991, p. 113) This



Linear B was adapted directly from the Minoan script, Linear A. The Mycenaeans added several additional characters to the existing signary. These additional signs were ostensibly deemed a sufficient addition to render the script suitable to their needs and purposes. Palaima concludes (1) that the script *per se* did not serve as an impediment to the broader application of the script, (2) that the modifications to the Linear A script are actually rather elegant and ingenious, and (3) that most strong negative criticisms of the functionality of the script are the result of an alphabetic bias.

This is a fair assessment of the status of the Linear B script. It has been noted that societies decide who reads and writes, not scripts.<sup>55</sup> It has further been noted that the inventors of these scripts were far more gifted men than those critiquing them today.<sup>56</sup> However, Linear B itself does not merit special pleading for its adequacy as a script, nor does it present any imperfections that render it “less appropriate” (a decidedly loaded term) for the recording of Mycenaean Greek than any other form of script. This statement, while seemingly controversial, will be shown here to be quite reasonable.

Much of the criticism of Linear B as a script seems to be due to the reverence with which the Greek alphabet is treated. In many instances, this may be a result of the limited experience that many alphabet users have with syllabic or morphosyllabic scripts. The reified status of the alphabet naturally overshadows the syllabic script that was created and used in the same geographic region centuries earlier. Traces of this alphabetic reverence are found in most discussions of the Linear B script. Even in Palaima and Sikkenga’s detailed defense of the Linear B script, we find these sentiments:

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comment, however, addresses our difficulties and our perception of ambiguities, and not those of literate Cypriotes.

<sup>55</sup> Houston 1994, p. 33.

<sup>56</sup> Houston 2004e.

“There is no question but that the invention of the Greek alphabet was one of the most significant events in the history of writing, and that the alphabet is a more unambiguous method of expressing language in written form.”<sup>57</sup>

And later:

“The invention of the alphabet revolutionized writing and made it much more flexible and useful.”<sup>58</sup>

I am not suggesting that these comments undermine the arguments of the authors, but I use them here as a guide for addressing the common assumptions about the function and intention of writing and script usage. These sentiments can be seen as the direct result of the point of view of the alphabet user.

While one would be hard-pressed to find many people who might disagree with the sentiment that the invention of the Greek alphabet was one of the most significant events in the history of writing, this attitude nonetheless hovers close to an application of the autonomous model and requires a fair amount of further explication. The invention of a script is certainly a marvelous feat, but in and of itself it is virtually meaningless. In Houston’s words, “...no amount of brilliance will count for much in the absence of societal impulses to propagate a particular writing system.”<sup>59</sup> In his examination of the history of the uses of writing in England, Clanchy finds that the Norman use of ecclesiastical forms of text was essential for engendering acceptance of written administrative documents over tokens and symbols. This was a revolution for administrative literacy that flourished – and still flourishes – in England today and is the origin of our own acceptance of the written word as evidence. Moments like these have propagated the alphabet and stretched alphabetic literacy to every corner of the contemporary world. The literate institutions and societies that accept the written word

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<sup>57</sup> Palaima and Sikkenga 1999, p. 600.

<sup>58</sup> Palaima and Sikkenga 1999, p. 606.

<sup>59</sup> Houston 2004e, p. 238.

account for the propagation of alphabetic writing. So while the invention of the alphabet may be seen as “one of the most significant events in the history of writing,” it is only because of people’s willingness to accept what was written with the alphabet, and not because of some inherent (or autonomous) quality of alphabetic writing. The Greek > Latin alphabet is found all over the earth today because of the societies that used it, not because it had some innate qualities of its own.<sup>60</sup>

The notion that alphabetic writing is more unambiguous also rests on several assumptions. In reference to the use of Linear B, such an assessment is a reaction to the perceived ambiguity of the spelling rules of Mycenaean Greek. In every use of the sign *ka*, there are many possible consonantal values represented by the *k*, as well vocalic values represented by the *a*, such as *k<sup>h</sup>a*, *ka*, *g<sup>h</sup>a*, *kā*, *gā*, etc. Additionally, the sign *ka* can represent syllables including implied consonants, such as *kal*, *gal*, *kar*, *gar*, *kas*, *gas*, etc.<sup>61</sup> Due to the perceived incompleteness of the spelling, the Latin alphabet would then seem more unambiguous, as all of those values can better be represented alphabetically. Of course this argument is a bit specious, in that I am using the alphabet to transliterate the values and then claim that the alphabet can successfully accommodate these transliterations. However, the point is that the alphabet is more unambiguous in its representation of phonemes. Yet any form of script – including our alphabet – is unavoidably structurally ambiguous in myriad other ways. Take our historical spelling.

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<sup>60</sup> This would not be the case if one were to claim the opposite. That is, the Romans were able to spread throughout the Mediterranean because of the alphabet, and not vice versa. The successes and failures of many societies in dominating large areas with and without the alphabet would make such a scenario highly unlikely.

I am not suggesting that, if the Romans had written with a syllabary instead of an alphabet, all of Roman history would have played out identically between then and now. However, as noted in the previous paragraph, one cannot make the case anywhere for alphabetic determinism. The implementation of the script is the result of social factors, and not a reaction to the script in a vacuum.

<sup>61</sup> It should be noted that not every potential value for the sign *ka* is possible in every instance of the sign. The rules of Mycenaean orthography impose restrictions on those values. For example, in the Linear B word *ka-e-se-u*, the syllable represented by *ka* cannot end in a consonant, since that consonant would have been represented at the beginning of the next syllable (e.g., *ka-re-se-u*, *ka-se-se-u*, etc.).

Pronunciation of -ough is often brought up to this end, as in “through,” “tough,” “though,” “bought,” and “bough.” Street notes that morphemic boundaries in alphabetic English often are impossible to discern without familiarity or context. For example, familiarity with the suffix “-en” in the words “eaten,” “beaten,” “sunken,” and “spoken” allow us to formulate an understanding of this suffix as a construction that forms the passive participle of verbs such as “eat,” “beat,” “sink,” and “speak.” However, we will misinterpret these boundaries if we apply our rudimentary understanding when reading words like “harden,” “chicken,” “burden,” or “alien.” We understand how to read and interpret these letters through our experience with them in the context within which we are familiar, and not because of the script that is used.

The script and the text itself cannot be dissociated from paralinguistic cues offered in the presentation, or from the social context in which it functions. In the context of the functions and modes of reading and writing, there is no sense in attempting to separate the study of the script from its social context. That is, one could argue that Linear B *ti-ri-po* is a word rife with ambiguity because of the structure and use of the Mycenaean syllabary and writing system. Yet given the manner in which Linear B is implemented by the Mycenaeans, it is impossible for this word to appear in a situation utterly devoid of context. The context of the Linear B texts in Rooms 7 and 8 of the Archives Complex at Pylos already informs the reader that these texts are administrative in function, already identifying the sphere from which the vocabulary will be drawn. Furthermore, the word *ti-ri-po* is accompanied by an ideogram in the shape of a vessel with three legs. These contextual cues alone eliminate any other reading than a form of the Greek word for “tripod,” *tripos*. There is no question but that this word is not *trigpol*, *tiripok*, or any other “possible” variant. These contextual cues frequently play a role when translating words such as *pa-te* as πάντες instead of πατήρ. Both outcomes are

possible, but in context the proper reading would rarely, if ever, be ambiguous. Likewise the Linear B word *pa-si* could be *πασί* or *φασί/φησί*, but would never be unclear in context.<sup>62</sup> One cannot argue that the script is a burdensomely ambiguous method of representing Greek while studying it outside of its context. It does not exist outside of its context, making such arguments irrelevant. The identification of *pa-te* in context is as instantaneous and unconscious as our correct choice among values for “ough” in “slough.” Furthermore, the script itself does not represent Mycenaean Greek without rules of orthography. These rules are also part of its social context. With all of these contextual measures weighing heavily on the reading and interpretation of any given text, it is unfair to propose that the Mycenaeans would have been better served by the alphabet. The type of script used is just one of many factors that contribute to the legibility of a text.<sup>63</sup>

In recent years, several scholars, including neurolinguists, sociolinguists, anthropologists, and philologists, have been questioning the quasi-divine status attributed to alphabetic scripts. J. Marshall Unger and John DeFrancis have argued that the dichotomy between logographic and phonographic scripts is unjustified by analysis of the structure and functions of all varieties of scripts.<sup>64</sup> Not even the most logographic or semasiographic scripts are independent of language. Characters in the Chinese script, for example, are frequently used for their phonetic values, rather than for the word they are logographically intended to represent. When studying scripts, we perceive a continuum from logographic scripts to phonographic scripts. This visualization puts scripts like

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<sup>62</sup> This is no different in English. Consider the sentence, “Did he lead the army?” A native speaker that is considering context while reading would not mistakenly read the third word in this sentence as the soft, heavy metal that rhymes with “red.”

<sup>63</sup> We might compare this to the use of the cuneiform script. Ambiguity in cuneiform is much reduced because of the number of signs, representing both open and closed syllables. However, this also increases the number of signs that a scribe would have to contend with. We acknowledge the impact of script complexity on literacy in n. 73.

<sup>64</sup> Unger and DeFrancis 1995.

Chinese at one end, and the Latin alphabet on the other. Unger and Defrancis argue that this perception hides the similarities between the scripts. They propose instead that the continuum should begin with pure logographic scripts (which do not exist), whereby one sign stands for one word, independent of language. Such a system would be an indecipherable code, and would be unusable by anybody.<sup>65</sup> On the other extreme of the continuum, we should place purely phonographic representations of script, such as a waveforms produced by audio levels on an oscilloscope. This would likewise be unintelligible to all. If we allow for such a continuum, then all known scripts – from logographic to phonographic – would all be compacted together in the middle of the continuum, rather than being stretched from end to end.<sup>66</sup> As they note, “there are no real-world facts to be found that justify a naive typology of writing systems into ‘largely logographic’ and ‘largely phonographic’ types.” Or, as put by Trigger, the difference between these scripts “pales into insignificance by comparison with their similarities.”<sup>67</sup>

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<sup>65</sup> Such a system may superficially appear simple when considering certain concrete nouns, such as *horse*, *car*, or *house*. At this level of communication, a purely logographic script is clear and easy to use. However, if one wanted to use a purely logographic script to represent the sentence, “My brother-in-law and I recently purchased a four-story apartment complex on the outskirts of Phoenix, and we intend to renovate the property ourselves,” one would be hard-pressed to conceive of unambiguous logographs for the words *the*, *ourselves*, *intend*, etc.

<sup>66</sup> An almost perfect analogy for such a conception would be the consideration of our color spectrum. In terms of wavelength, red is dramatically different from violet, or even green. However, if we contextualize the visible spectrum within the full electromagnetic spectrum ranging from radio waves to gamma rays, the colors red, green, and violet suddenly seem to relate to one another very closely in opposition to the furthest ranges of the spectrum. In the same way, alphabetic, syllabic, and logographic scripts all make use of remarkably similar tools for imparting meaning when compared to the incomprehensibility of representation of sound waves, or random logographs.

<sup>67</sup> Trigger 2004, p. 66. Again, there is no question that world scripts can be dramatically different. Our alphabetic script differs significantly from Cypro-Minoan. The point here is that the real and obvious differences are irrelevant. It would be wrong to say that if we used the Linear B script instead of the Latin Alphabet to write American English, literacy would necessarily decline as a result of the script used, or we could not write lengthy letters, or could not have realized the current status of America in the world today. Scripts cannot dictate human behavior. The Incan Empire thrived while recording notes using string (quipus). According to the *CIA World Factbook*, over 90% of the Chinese population over age 15 can read and write. If a population that desires to read and write deems a script unsuitable to represent their language, they will change the script, as the Mycenaeans did. Scripts are different, and sometimes very different. Yet the consequences of those differences are not as far-reaching or as dramatic as some would propose.

There are also very many instances of secondary script invention in which literacy was introduced into a society via the alphabet, but the resulting secondary script was a syllabary.<sup>68</sup> Gelb proposes that this is a result of the primitive minds of the recently literate peoples.<sup>69</sup> Yet evidence would seem to indicate that scripts are invented to represent *language*, but not a *linguistic reality*. The above-mentioned Palaima and Sikkenga quote should be modified from “the alphabet is a more unambiguous method of expressing language in written form,” to “the alphabet is a more unambiguous method of expressing the linguistic and phonemic components of a language in written form.” This is certainly true. But this is not the purpose of most script invention (the International Phonetic Alphabet being the exception that proves the rule). Every script is to some degree a series of mnemonics that aid in reconstructing the words and phrases that the text is intended to represent. As Baines notes, many scripts, when they were fashioned, were not designed to record language – a phenomenon that followed several centuries later.<sup>70</sup> Provided that the manner in which language is encoded in the script is formalized and agreed upon – in any given context – then value judgments regarding the technology of script are utterly irrelevant.

In the case of Linear B, the manner in which the script is used allows for a great deal of morphemic variability, in that not all of the phonemes in a syllable can always be represented, such as the *s*, *n*, and *r* at the ends of the syllables *tos*, *mon*, and *ter*, etc. So the sign *to*, for instance, is a mnemonic for several syllables, including *tos*, *tor*, *tom*, etc. In our English use of the Latin alphabet, this variability is not present, as our alphabet allows us to represent most of our phonemes. However, in English we allow for a

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<sup>68</sup> Harbsmeier 1988

<sup>69</sup> Gelb 1963, pp. 210-211.

<sup>70</sup> Baines 2004, pp. 150-151. He includes Egyptian and Mesopotamian scripts in this discussion, and uses Schmandt-Besserat’s system of tokens as the primary example from which a language-notating script ultimately arose.

fantastic degree of orthographic variability. There are several letter combinations that, in the proper context, are phonetically identical. The most common example of this phenomenon is the spelling of the word *fish* as *ghoti*. If we use the *gh* from *tough*, the *o* from *women*, and the *ti* from *notion*, we can pronounce *ghoti* /fish/. This is not a problem for us, as we understand the conventions and use of our alphabet within its specific contexts. Conversely, Mycenaean orthography is very strict, and is strikingly consistent throughout all of the Mycenaean centers. There is only one way to spell most given phonemic combinations, and this standardization eliminates the ambiguity for the reader who is familiar with the conventions and use of Linear B within its specific contexts. As long as the ambiguity of language representation is resolved by regularizing rules of usage – phonemic regularity in the representation of English via the Latin alphabet, and orthographic regularity in the representation of Mycenaean Greek via Linear B – the script can serve as an effective writing technology. Not just the script, but the way the script is handled by a society determine its propriety for representing language. If inappropriate, it would cease to function.

In the form that it has reached us, Linear B functions at a pre-continuous-discourse stage. There are no multi-sentence narratives. In fact, there are very few finite sentences. In the development of scripts, it is a general trait that modifiers are added as the script is transitioned into service to represent discourse. That is, further refinement of cases, definite and indefinite articles, indicators of possession, directionality, prepositions, punctuation, etc.<sup>71</sup> Had Linear B required further modifiers, the Mycenaean surely would have added them. In the assault on the Linear B script, critics make the claim that the open syllabary is ill-suited to representing the phonemic reality of

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<sup>71</sup> Interestingly enough, modern computer scripting languages make use of modifiers as well. For example, when writing programming code for specialized functions in Microsoft Visual Basic, one can use the modifier *var x*; to declare a variable. These specialized notations are not part of the script itself, but rather introduce modifications to the script as it is written.



the Greek language, since many syllables in Greek are closed, especially at the end of words, and consonant clusters are likewise common. Such a claim is absolutely true if the initial assumption is that accurate representation of phonemic reality is the purpose behind the creation of scripts. Supporting evidence for this assumption is entirely absent, while evidence to the contrary abounds. Even in our own phonetically confused use of the Latin alphabet, we could readily eliminate all ambiguity by adopting the universally recognized International Phonetic Alphabet. Such a drastic measure is entirely unnecessary, as the inherent uncertainty created by our use of the alphabet does not function as a hindrance to the efficacy of the script. If it did, we could surely modify and adapt as needed. This is true of any script in any situation. One can analyze, assess, and quantify the fullness of phonemic representation offered by any script in any situation, and linguists often do. But such a calculation is meaningless as a measure for judging “quality” of a script. The study of the technology of writing removed from context fails to recognize the manner in which a society learns a script, the functions to which it is put and the variability of the tasks of the script within those functions, the status of the writer and anticipated reader in any practice of literacy, the expectations of script function by the reader on the basis of paralinguistic cues in the presentation of the script, etc. Removed from any functional context, a script *qua* script effectively ceases to exist.

Consider the comment, “The Latin alphabetic script is better for writing English than the Linear B script.” Most readers of this sentence would likely agree. However, this sentence raises the question, “Better at what?” If we change the comment to, “For the person who knows the Latin alphabet, the Latin alphabetic script is better for phonetically representing the sound of spoken English than the Linear B script,” then we have constructed a meaningful sentence. The Latin Alphabet is better at this task, but it

cannot be simply labeled “better.” If it is not our intention to phonetically represent spoken language, then we are back to square one.

In light of this discussion I would like to return briefly to the quote at the end of Palaima and Sikkenga, where they state that, “[t]he invention of the alphabet revolutionized writing and made it much more flexible and useful.” The alphabet itself did none of these things. The alphabet did not find widespread usage because of its flexibility or utility. People acquire technologies because of their desire to exploit them, not merely due to their ease of use, even though this is a factor, as I shall address shortly. I spent several weeks learning how to use rather complicated photo editing software because of my desire and need to manipulate digital images. Yet I never learned how to program my brother’s DVR. I am fairly certain that the technology of DVR usage is vastly easier to acquire than that of photo-editing-software proficiency. But its ease of use does not attract me, because I have no desire to exploit its functionality. By the same token, literacy is acquired because of its perceived utility, regardless of the complexity of the script.

There is no doubt that current users of the Latin alphabet might feel some sense of relief that they were presented with a script of only roughly 26 characters – depending on which language it is being used to write – for the representation of their language. If polled, most, if not all, would prefer to continue using their current alphabet rather than switch to the use of Hittite cuneiform. This is irrelevant. If the Romans used the Hittite cuneiform script, and handed it down to us, there is every indication – from every literate society we can identify – that we would have implemented the script to our satisfaction, that we would have modified it as needed, and that we would have found a way to make the script work for us in the literate activities in which we wished to engage.<sup>72</sup> Most

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<sup>72</sup> This does not imply that there is no difference between a 26-character script and a 300-character script, nor that there are no consequences of this difference. What is important and relevant is the contextual

literate on the planet are aware of the Latin alphabet, and many make great use of it. Yet other more complicated scripts continue to exist and thrive alongside of the alphabet. The Vai in Liberia, for example, are proud of their invented script and take great pains to preserve it. The use of this script conveys not just the written information of a text, but also marks the act of literacy as being intrinsically and inextricably Vai in character.

The users of the alphabet revolutionized writing over the centuries. The Normans taught England to accept and trust written documents in all walks of life, whereas previously they were restricted to ecclesiastical use. This was the real foundation of modern use of writing, and arose roughly two thousand years after the invention of the Greek alphabet. Furthermore, the Normans did not shop around for the most suitable script for their purposes. As the Roman Empire spread, so did their script, and the Normans were born into this Latin alphabet. Societies, and even smaller units of people and individuals determine who learns to read and write, and how, or even if, writing is used.

In summation, it is simply wrong-headed to ponder how appropriate or inappropriate the Linear B script is for the representation of Mycenaean Greek. No script has any inherent or autonomous quality that would decide whether it is a “good” or “bad”

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*interface* between the potential script user and the value of the script. Henrik Williams convincingly argues that runes were adapted willfully from the Latin alphabet by Scandinavians serving in the Roman army as a means of developing their identity separate from the Romans from Italy. Armies spend a great deal of time encamped and waiting, and learning and adapting the Latin alphabet was a reasonable way to pass time. If the script had been considerably more complex with considerably more characters and nuances, it is entirely possible that it would not have been deemed a realistic pastime. Likewise, with the example above with photo editing software, a casual user with little at stake may find that the effort to learn such software outweighs the benefits. The more one finds value in the technology, however, the more likely one is to attempt to exploit the technology.

To that end we might propose a kind of sliding scale which accounts for script complexity versus user interest. The greater the perceived value of a technology, the more complexity a potential user is willing to endure. Naturally, in any human endeavor many external factors will weigh in as well. Imposition of literacy by an external source, mere interest in solving complex puzzles on the part of a potential user, or willfully restricted access to literacy would all affect our scale.

script for representing any given language.<sup>73</sup> Linear B itself does not restrict literacy as a result of its structure or perceived complexity or shortcomings. Linear B did not prevent the Mycenaeans from exploiting the technology of writing for continuous discourse. Mycenaean society, and even more narrowly, power structures within Mycenaean society dictated these terms. Legibility of the script was not a problem for anyone educated in its application. Just as we do not read by pronouncing each individual letter, but rather read chunks of language recognizable by the mnemonic rules of our script in context, so did Mycenaeans and so does every other literate being.

Nor should it surprise us if Linear B was not put to use for continuous discourse.<sup>74</sup> In the case of Mayan, Egyptian, and Near Eastern inventions of writing, the time from script invention to use of script for continuous discourse was 400-500 years.<sup>75</sup> It is clear in these cases that the motivation for script invention, which was the categorization, labeling, and quantification of nature in an effort to commodify it (which gives rise to literate administration), was very distinct from the application of script in the creation of continuous discourse. The Linear B evidence reveals to us that the administrative recording of resources was paramount in their motivation for script invention. We should not expect to find other, substantially diverse applications of any given script simply because it is possible. Nor should we lay blame for this absence at the feet of the Linear B script.

One final issue that clouds the assessment and study of the Mycenaean use of writing, which compels us to expect one of the chief functions of script to be the fullest phonemic representation possible, is the study of literacy in opposition to orality. In

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<sup>73</sup> By this, I mean “good” or “bad” without qualification. As noted earlier, scripts certainly can be described as good or at representing phonemes, morphemic boundaries, etc.

<sup>74</sup> While I do not expect that it ever was (discussed later in Chapter 6), such an assertion cannot be proven, for obvious reasons.

<sup>75</sup> Cooper 2004, p. 83, Baines 2004, p. 150.

many instances it is surely right to discuss the use of speech versus writing. Unfortunately, such an expression stimulates the impression that writing functions as a form of communication in place of speech. But many applications of writing are not replacements of speech at all, particularly administrative records. Take, for example, the furniture inventories of the Ta series at Pylos, or a complicated Excel spreadsheet. These forms of writing are not taking the place of speech. They are entirely new uses of language.<sup>76</sup> This new mode of language is largely parallel to speech, rather than dependent on it. Accordingly, there is no reason for us to expect that the purpose of a new script is to allow us to read “spoken language.”

Linear B did not cause literacy to disappear from Greece for several hundred years after its demise, it did not prevent widespread literacy in Greece on its own, nor did it autonomously limit the range and variety of Mycenaean literacy. Nor can it be said that the alphabet is “better suited” to represent the Greek language than Linear B. The assumptions as to what determines the suitability of any script to represent any language fail to recognize the application of script in its ideological context. This inquiry into the function of the Mycenaean script serves as a reasonable comparandum for the study of Mycenaean literacy, with many of the same caveats. Linear B was invented because certain Mycenaeans saw a need to acquire literacy. The functions and spread of writing were determined by power relationships within Mycenaean society itself. These functions should serve to create an image of Mycenaean society on the basis of how and what in the world around them they saw fit to record in written language.<sup>77</sup>

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<sup>76</sup> Addressed by Cooper 2004, p. 83

<sup>77</sup> For a detailed linguistic defense of the Linear B script, see Schwink 1999. As noted above, however, even a defense such as Schwink’s that argues efficacy of script on the basis of the lack of ambiguities or linguistic salience fails to acknowledge the social context of writing. This context is what truly determines a script’s utility or lack thereof.

### Chapter 3: The Uses of the Mycenaean Script

There are several places to look for evidence concerning the intended function and implementation of the Mycenaean script by those who sought to exploit it. I will first look at evidence for the manner in which scribes were educated, which offers some indication of how the script was intended to be used, and by whom. This analysis will also involve a consideration of the status of literate individuals and the extent of literacy among the Mycenaean population.<sup>78</sup> Naturally this will also involve a discussion of all of the physical evidence for writing, as well as the types of writing that have thus far been unearthed.<sup>79</sup> As a corollary to this summary of evidence will be a consideration of other types of writing and writing materials that have not yet been found in the material record. I will consider the likelihood of the existence of perishable writing materials as well as the unattested uses of writing.

Also critical – but much more difficult to assess – is the manner in which Linear B was used at the time of its invention. While the Linear B script was clearly derived from Linear A,<sup>80</sup> and the surviving evidence of both scripts suggests that their primary role was for administration, its implementation in administrative procedure is dramatically different from its predecessor. I will present a discussion of how it is different, as well as some suggestions as to their significance in light of the evidence from the first section of this chapter. Finally, I will consider the evidence for non-literate reaction to writing and evidence for popular awareness of this technology.

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<sup>78</sup> This section will be limited to a discussion of Knossos and Pylos. The remaining sites at which Linear B texts have been found either provide insufficient data on scribal interaction, or have not been subjected to rigorous analysis and identification of scribal hands.

<sup>79</sup> This matter has been addressed frequently in the past, but nevertheless requires summarization here.

<sup>80</sup> Some have questioned this assertion, suggesting that Linear B was derived from an intermediate script between Linear A and B, or even a “sister script” to Linear A (see Palaima 1988a, p. 276 n. 27). I will summarize these arguments below. Such a discussion has already been presented in Palaima 1988a.

## SCRIBAL TRAINING

The education and training of Mycenaean scribes has been addressed as a tangent to other concerns by other scholars, or has been implicit in the discussion of paleography or status, but has rarely been the focus of its own study.<sup>81</sup> John Chadwick introduced the matter of scribal education in a series of lectures and articles regarding the Room of the Chariot Tablets (RCT) at Knossos.<sup>82</sup> Paleographical analysis of the tablets of the RCT indicated sufficient variation to warrant the identification of multiple scribes, but the similarities were far too striking and significant to determine exactly how many individual scribes were involved. For this reason, these scribes are still known collectively as Hand 124.<sup>83</sup> Chiefly on the basis of the paleographical similarities, Chadwick concludes that the RCT tablets are not genuine administrative documents, but are instead scribal training exercises.<sup>84</sup> This assertion has not held up to scrutiny.<sup>85</sup> We are now in a better position to assess the status of the tablets of the RCT than Chadwick was, last in 1976.<sup>86</sup> Driessen has presented an exhaustive reconstruction of the archaeology of the excavation, and has convincingly argued for a date in LM II, or possibly as late as LM IIIA1, for the RCT.<sup>87</sup> His arguments can be briefly summarized.

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<sup>81</sup> Palaima 1988, Olivier 1967, Ventris and Chadwick 1973, all discuss the issue, albeit not head-on. See also Sjöquist and Åström 1985 and 1991.

<sup>82</sup> Chadwick 1967, 1968.

<sup>83</sup> Olivier and Driessen have further tried to identify the individual hands. Olivier identifies as many as 18 individual hands (Olivier 1967, pp. 68-74). Driessen identifies nine major and four minor scribes, although he leaves the word “scribe” in quotes. Driessen 2000, p. 71. Both urge caution in accepting these attributions as fact, for most of the RCT tablets have very few signs inscribed, which compounds the difficulty of scribal identification. In addition to the paucity of signs, the writing is highly formal and rigid, thereby failing to reveal individual paleographic traits. It should be noted that no paleographers have doubted that Hand 124 represents multiple scribes.

<sup>84</sup> Chadwick also cites as evidence the brevity of the texts, the frequency of erasures, the small size of the tablets, and the absence of such a degree of paleographical uniformity within any other tablet deposit yet recovered. He is also alarmed by the lack of cross-references with the other tablet deposits at Knossos. On this subject, see primarily Chadwick 1967 and 1968. As we shall see shortly, all of these factors can be explained in other ways, and are attributable to other reasons than being school exercises.

<sup>85</sup> See Driessen 2000.

<sup>86</sup> Chadwick 1976, p. 169.

<sup>87</sup> Driessen 1990. According to Driessen 1990, p. 130, he prefers the LM II date. See also Driessen 2008.

## Dating of the Room of the Chariot Tablets<sup>88</sup>

There are several reasons *prima facie* for believing that these tablets form an isolated administrative unit at Knossos. The clay of the tablets is very distinctive.<sup>89</sup> The clay is very fine with no inclusions, whereas the tablets from other areas of the palace often have many small inclusions. There is also no salt deposit on the outside of the tablets, which resulted when tablets rested in contact with gypsum. These salt deposits have been found on many of the Knossos tablets, and their absence is accordingly a distinctive feature of tablets from the RCT. Finally, the writing styles of all of the scribes are very similar. The characteristics of their scribal technique are distinctive from those of the scribes of the tablets from other parts of the palace, or from other palaces (Figure 2.1). Materially, these tablets suggest that they form a distinct administrative unit. Let us now turn our attention to the dating of the RCT. The evidence at hand is archaeological, paleographical, linguistic, and sphragistic.

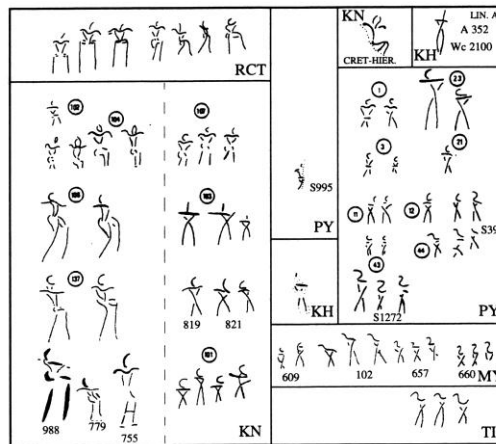


Figure 2.1: Comparison of the \*VIR (man) ideogram from the RCT with those from Pylos, Mycenae, Tiryns, Khania, and elsewhere at Knossos (after Driessen 2000)

<sup>88</sup> The following discussion is a synthesis of the evidence presented by Driessen in Driessen 1990 and in Driessen 2000.

<sup>89</sup> Driessen 2000, p. 37.



These tablets were excavated in the West Wing of the palace (Figure 2.2). Not far from this deposit was found a deposit of Linear A tablets. Because both of these series were displaced from their original location and were found close to one another – we shall see shortly that they probably belonged on an upper floor – we can postulate that they both were originally located very nearby one another, if not in the exact same location.<sup>90</sup> This would suggest a continuity of function of the area in which they were stored, which in turn suggests that they were in an administratively significant location.

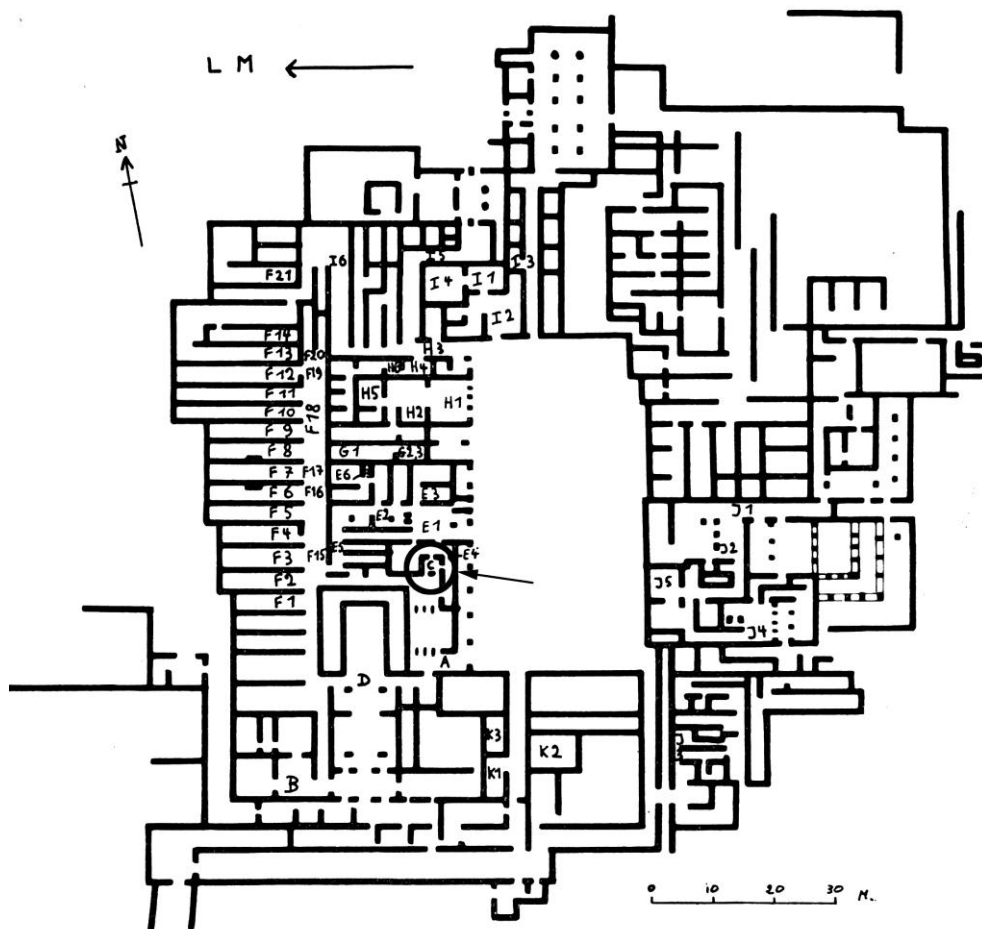


Figure 2.2: Plan of the Palace of Minos at Knossos, showing tablet find-spots (after Olivier 1967). The RCT is letter C on the plan (to the left of the central court, circled with arrow).

<sup>90</sup> Driessen 1990, p. 130.

Within the archaeological deposit in which the tablets were excavated, there were a number of ivories, hinges, and wood. The wood (Figure 2.3) is carved with a pattern that dates to LM II.<sup>91</sup> Here we have the first potential tool for dating the tablets. There are other archaeological markers that also point to an LM II date. There are stone vases that recall LM IB types, as well as LM II steatite vases. There are also Egyptian vases that resemble those found in the so-called “Warrior Graves” around Knossos, which are dated to LM II – LM IIIA. These graves also may be associated with a Mycenaean presence, which suggests even further that we should expect to find a Mycenaean presence in the form of a Linear B tablet deposit.

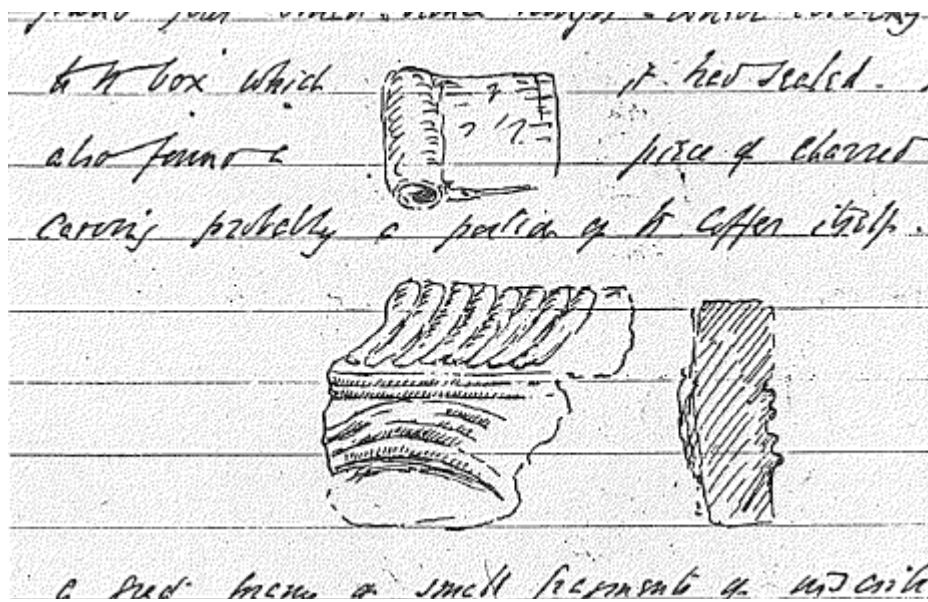


Figure 2.3: Wood fragment from the RCT (after Driessen 1990)

This area of the RCT in the West Wing was modified after the RCT deposit found its way to the location whence it was excavated. A new feature was built over this deposit, known as the Rectangular Building.<sup>92</sup> The north wall of the Rectangular

<sup>91</sup> Driessen 1990, p. 63.

<sup>92</sup> Driessen 1990, p. 98.

Building was built over the south wall of the original room from which the RCT tablets were displaced. The floor of the Rectangular Building rested on top of a clay layer. This clay layer, because of the characteristics of the clay, appears to be related to the clay layer of the Long Corridor (on Figure 2.2, the long corridor on the left of the plan, running along the magazines labeled F1-F21).<sup>93</sup> In this corridor were found several LM IIIA sherds.<sup>94</sup> Accordingly, if this corridor can be associated with the Rectangular Building, which was built on top of the original RCT room, we then have a *terminus ante quem* for the tablets in question.

Along with the tablets and vases, a clay bench also fell from above. This bench contained a fill with MM IIIB characteristics. If we associate this bench with the tablets (and a clay bench is a cross-culturally ubiquitous feature of clay-tablet archives),<sup>95</sup> then we would have a relatively stable *terminus post quem*, although the bench could have been a late addition. At the very least it is a *terminus ad quem*. Finally, although it is not worth going into detail, it should be mentioned that other areas of the palace suggest an LM II destruction, with an LM IIIA1 destruction burying the RCT, then reconstruction, followed by a final destruction.<sup>96</sup>

Our archaeological picture suggests an LM II date for the RCT material. The other factors which we are considering may suggest an early date as well. The paleography is curious. As seen in Figure 2.1, the style of the signs is very ornate. It is readily evident that Linear B is not as well suited for writing on clay as cuneiform, for example, but rather was designed for a medium such as writing on papyrus or for painting

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<sup>93</sup> Driessen 1990, p. 98-100.

<sup>94</sup> These sherds are primarily LM IIIA1. Some are datable to LM IIIA1-2. See Driessen 1990, p. 100 n. 355.

<sup>95</sup> See Pluta 1996-1997, p. 240.

<sup>96</sup> Driessen 1990, p. 114. Driessen 1997 also addresses the LM II destruction, and further suggests that there were as many as three to five destructions between LM II and LM IIIB. See Driessen 1997, pp. 133-134.

on jars. The script does not lend itself well to clay because of all of the curves and crossing lines. The ornate style of the RCT script may suggest that the authors were working in a medium in which they were not well versed. Driessen proposes that this may imply a recent conversion from a material such as parchment to clay.<sup>97</sup> If this is the case, then we would expect that these are among the very earliest tablets on which Linear B was inscribed. Also the stiffness of the signs with a high number of erasures could be seen as an indicator of uneasiness on the part of the scribes.<sup>98</sup> These scribes also exhibit, as Driessen puts it, a “low inter-individual variability and a high intra-individual variability [in each scribe’s graphical repertory].”<sup>99</sup> That is, taken as a whole, the styles of all scribes within the RCT are remarkably similar – more so than in any other Linear B deposit. All of these scribes, however many there are, must have learned to write in Linear B script from the same source. As noted earlier, these features are what led John Chadwick to propose that these tablets are the remains of scribal school lessons.

Linguistically, there are a few striking features in the RCT material, as compared to other deposits at Knossos.<sup>100</sup> It should be noted that Mycenaean Greek is remarkably uniform and linguistically consistent site to site over a period – if we assume an LM II date for the RCT texts – of at least 200 years.<sup>101</sup> This lack of change over time makes it difficult to observe remnants of a linguistically earlier or different form of Greek, but

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<sup>97</sup> Driessen 2000, p. 148.

<sup>98</sup> The frequency of erasures alone cannot be used as evidence for scribal insecurity. There are several other explanations for frequent erasures, including the record of dictated information, active modification of the layout of information, attempts to include additional information, etc. However, frequent erasures *can* be seen as evidence of unease, and should be interpreted as such if there is additional evidence to suggest it.

<sup>99</sup> Driessen 2000, p. 97, 145.

<sup>100</sup> Summarized by Driessen 2000, p. 159ff.

<sup>101</sup> The identification of different dialects in Mycenaean is problematic. It is safer to address variant spellings or orthographic variants rather than dialectal differences. The notion of dialects in Mycenaean Greek was introduced by Risch 1966. He noted three variants that appear in concert with one another: (1) the alternation in the dative singular endings *-e* and *-i*, (2) sonant nasals in the environment of bilabial consonants *o* vs. *a*, and (3) *e* vs. *i* in the environment of a labial consonant. Some other variants occur less frequently. We shall address these matters a little further in Chapter 6.

some such variations do exist in the RCT. There is a highly distinctive alternation in preverbs between the Aeolic, Arcadian, and Doric *pe-da* (as on V 114) and the more prevalent *me-ta*. The scribes of the RCT also employed initial aspiration ( $a_2$ ), as in V 118, more often than scribes of other tablet deposits. We also see the use of the *-pi* case ending, as on V 145 in the word *ka-ta-ra-pi*, from the toponym  $\text{Κάτραι}$ , which was used to represent the dative-locative ending. The RCT texts are also distinctive in the use of  $ra_2$  in the agent noun, which never occurs outside of the RCT at Knossos. This can be seen in the use of *a-pe-ti-ra<sub>2</sub>* on KN V 280, instead of *a-pe-ti-ri-ja*. All of these linguistic variations *in concord* are peculiar to the RCT at Knossos, making it linguistically variant to the more standardized tradition in all other Linear B tablet deposits.<sup>102</sup> Regarding differences of spelling there is also a peculiar phoneme alternation. We find *u* replacing *o* in several tablets. The name which appears as *o-du-ru-wo* in its other attestations at Knossos – on KN C 902 and Co 910 – appears as *u-du-ru-wo* in the RCT, on V 145. We also see *ri-jo-no* elsewhere at Knossos – on several tablets, such as Ap 629, C 902, and throughout the D series – vs. *ri-u-no* in the RCT.<sup>103</sup> This final point is the key difference that marks the RCT as peculiar in the Knossos tablet deposits. This observation is particularly interesting, since Linear A seems to favor heavily the vowels *a*, *i*, and *u*, while *e* and *o* are dramatically underrepresented.<sup>104</sup> This would suggest that the Minoan language is comprised of an *a-i-u* vocalization. If the earliest Mycenaean scribes are

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<sup>102</sup> Several of the orthographic features in the RCT are present elsewhere, most notably the use of  $ra_2$  in the agent noun, which is common at Thebes and also occurs at Pylos. At Knossos, however, these features act together to distinguish the RCT from all other deposits.

<sup>103</sup> Compare Linear A terminal *-u*, Linear B *-o*, as might be seen in Linear A KU-NI-SU, Linear B *ko-no-so*. It must be emphasized that Linear A KU-NI-SU has not been unambiguously demonstrated to be the Minoan word for Knossos.

<sup>104</sup> See Duhoux 1989, p. 72-72. See also Driessen 2000, pp. 176-177. Representation of vowels in Linear A also noted in Palaima and Sikkenga 1999.

learning the script from Minoans,<sup>105</sup> they may be favoring the *u* vowels over the *o* as a result of contact with Minoan scribes. When all of the other variations are taken into consideration as well, the RCT can safely be considered as distinct, both chronologically and administratively, from the other deposits.

In the use of seals and sealings, there is further indication that this deposit is early. There is a form of sealing known as a flat-based nodule, which was common in earlier Minoan contexts. These flat-based nodules were pressed over strips, either of linen or twine, which sealed leather hides.<sup>106</sup> There were several of these nodules found with the RCT tablets (Figure 2.4). These flat-based nodules have not been found in any Linear B contexts outside of the RCT.<sup>107</sup> They occur only in earlier Minoan contexts and in the RCT.



Figure 2.4: Impressions of the bottom of flat-based nodules from the RCT, showing string and parchment impressions.

With all of this evidence at hand, Driessen, with reasonable safety, dates the RCT tablets to the period LM II – LM IIIA1.<sup>108</sup> The evidence of the related “Warrior Tombs”, the dating of the building program in the West Wing, the finds of pottery and decorated wood, the sealings, and the tablets and inscriptions themselves lend themselves to such a

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<sup>105</sup> The issue of scribal identity at Knossos is problematic. Linear A was used to represent the Minoan language, while Linear B was used to represent Greek. However, this fact says nothing about the identity of the scribes themselves, whether they identified themselves as Minoan, Mycenaean, or simply Knossian, in a bilingual – or multilingual – environment. I will argue early in Chapter 6 that there is sufficient evidence to suggest that Linear B scribes were Greek speakers and would identify themselves as such.

<sup>106</sup> For a detailed discussion, see Hallager 1996, p. 135ff.

<sup>107</sup> Driessen 1990, p. 63-64

<sup>108</sup> I will argue below that we should prefer to place the RCT within LM II rather than LM IIIA1.

date. Because of the weight of this evidence, we will assume such a date for the tablets in this inquiry. This date is considerably earlier than the proposed later date of the other Knossos Linear B material from the end of LM IIIB1, which is based on the final destruction of the palace.<sup>109</sup>

### **Tablets and Scribes of the RCT**

The above arguments indicate that the RCT tablets are the earliest surviving texts written in Linear B.<sup>110</sup> Accordingly, many of the unique characteristics of the RCT tablets can be and have been attributed to its early date, which is distinct from the date of all other deposits at Knossos. As noted above, the similarity of styles, high degree of variability of sign forms within an individual scribe's corpus, the rigid formality of the signs, and, in this context, the number of erasures, should be seen as the result of the lack of familiarity with the mechanics of writing.

There is no need to see the RCT material as the remnants of a scribal school. The surviving tablets list information concerning several spheres of activity of exactly the types covered in the later tablets from Knossos. The RCT has substantial numbers of texts concerned with personnel (123 tablets), chariot records (173 tablets), land usage (16 tablets), and saffron (28 tablets). There are also texts concerned with livestock, wheat, barley, olives, vessels, and cloth.<sup>111</sup> Together these constitute the records of a viable and active administrative department, and it need not be perceived as a school. What then are we to make of as many as 18 scribes with strikingly similar writing styles working together in the same administrative space? In conceding that this may not be a scribal school, Chadwick suggests – in his last published words on the subject – that “[t]he very least that is necessary is to suppose that the man in charge of this office was a strict

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<sup>109</sup> For a discussion of the later destruction of the palace at Knossos, see Driessen 2008, pp. 70-72.

<sup>110</sup> As noted earlier in p. 29, n. 43, the Kafkania pebble is treated here as a modern forgery.

<sup>111</sup> Breakdown supplied in Driessen 2000, p. 24.

master who made all his clerks imitate his own handwriting.”<sup>112</sup> School or not, there is no doubt that the scribes of the RCT were trained together, or at least under the same instructor. In this respect, we may see the RCT as evidence of scribal training within the context of a viable administrative unit rather than a schoolroom disconnected from practical application.

It would be wise at this point once more to review briefly the evidence for the dating of the RCT alongside the evidence against the RCT being a scribal school. A likely bench that fell with the tablets in the RCT contains MM IIIB material. Other areas of the palace also indicate an LM II destruction. The flat-based nodule dates from LM I to LM IIIA1. Associated wood has inscribed an LM II pattern. Associated Egyptian vessels recall those found in the Warrior Graves, which date to LM II. Associated steatite vases date to LM II. The building built over the remains of the RCT appears to date to LM IIIA1. The names on the tablets in the RCT do not correspond to names anywhere else in the Knossos tablets, and such a lack of cross-references is highly unusual. The unusual presence of the vowel *u* in the place of *o* may indicate that these scribes were working with Minoans, perhaps learning their craft from Minoans. While the evidence allows for a proposed date of LM II to LM IIIA1 for these tablets, the evidence is consistently in favor of an LM II date over the later LM IIIA1.<sup>113</sup>

If a date within LM II for the RCT is accepted, then these are indeed exceptionally early Linear B texts. If this is true, it would account for the frequent

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<sup>112</sup> Chadwick 1976, p. 169.

<sup>113</sup> Of course this argument presents no new evidence for dating the RCT. When all of the evidence is assembled, however, I find that the evidence leans towards an LM II date, and the date of LM IIIA1 merely acts as a *terminus ante quem*. In the most recent work on the matter, Driessen (Driessen 2008, p. 72) states that, “[A]s a working hypothesis, an early LM IIIA1 date was suggested.” However, he is citing his own work in which, as noted previously, he states, “The documents from *The Room of the Chariot Tablets*, as has been briefly suggested but will be commented upon *in extensu* in a forthcoming study, are attributed to this intermediate, LM II, period,” (Driessen 1990, p. 130). LM II is also the date set forth in Shelmerdine 1997, p. 560, as well as Shelmerdine 1999, p. 557.



erasures, rigid, formal and uniform styles among all scribes, and the Minoan influence on spelling. In his discussion of the development of Mycenaean writing, Palaima concludes that, “[Knossos] offers a compelling need for a Greek script by the end of LH II.”<sup>114</sup> I find the evidence sufficiently compelling to suggest that the tablets of the RCT should be considered the texts of first-generation Linear B scribes.<sup>115</sup> In order for these scribes – at least nine major scribes<sup>116</sup> – to have such strikingly similar writing styles, we are led to the conclusion that the surviving texts from the RCT were inscribed too early in the literate careers of these scribes to have allowed for a significant number of individual variations.<sup>117</sup>

In the many facets of this dispute, no one has questioned the claim that these scribes received their training in the technology of writing as a group. However, the means by which, and the location in which, they were trained is still unresolved. Also unresolved is the reason for the absence of a continued pattern of highly uniform styles within other administrative units.<sup>118</sup> It is enlightening to very briefly consider the scribal

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<sup>114</sup> Palaima 1988a, p. 340.

<sup>115</sup> Dates as early as MM III have been proposed for the moment at which Linear B was invented. In their analysis of the LM I destructions on Crete, Driessen and Macdonald conclude that the Mycenaeans were likely assisting Knossos by LM II, the period in which there is increased organization and centrality. See Driessen and Macdonald 1997, pp. 111, 112.

<sup>116</sup> Driessen 2000, p. 71 identifies the major scribes as 124-A, 124-B, 124-D, 124-E, 124-F, 124-G, 124-I, 124-R, and 124-S.

<sup>117</sup> This would not be the case if there were fewer scribes in question. For example, Hands 1 and 2 at Pylos exhibited remarkably similar writing styles, indicating that they were either co-workers or from the same training program. There are further examples at Knossos as well, which will be addressed later. All other instances of scribal similarities either occur between just two scribes, or they are not so pronounced as to make identification of individuals difficult. The RCT scribes are unique in their numbers and degree of similarity. A group of this size could not have maintained such stylistic similarity for very long before external contacts and personal preferences resulted in more significant stylistic differences. The tablets from these scribes are all from the same destruction and so from the same moment of time, so one cannot use the explanation of one scribe developing idiosyncrasies through time.

<sup>118</sup> Noted similarities, such as Hands 1 and 2 at Pylos, and Hands 103 and 115 at Knossos will be addressed later. Here I am highlighting the unparalleled number of hands with a high degree of similarity in the RCT.

tradition and education in the ancient Near East, where the evidence for the practice is, as always, more forthcoming.<sup>119</sup>

Scribes in the Near East were members of the elite, and came from elite families.<sup>120</sup> Occasionally women also trained and became scribes.<sup>121</sup> After their schooling, scribes entered service to the state and were engaged in all literate aspects of administration, both religious and secular. Specialized scribes would be responsible for a specific category of texts, such as all royal correspondence, or the record of all religious rites at a temple. Scribes might also function as scholars in the royal court. As a result of their education in these facets of administration, they were not merely secretaries or glorified stenographers. They created documents, performed translations, and were deemed specialists in their specific areas of study. Despite their status, Near Eastern scribes were not royalty, and royalty did not proceed through the rigorous scribal training described below, although members of the royal family were often sufficiently capable of reading.

Evidence for scribal training throughout the Near East is abundant, and is most prominent in the Old Babylonian Period, (early to mid-second millennium BC).<sup>122</sup> From several sites, including Nippur, Ur, and Sippar, evidence of scribal training has been found in great amounts. Schoolrooms, every one of which was known as the “tablet house” or É.DUB.BA.A in Sumerian, have been found in public buildings, but school and training texts have been recovered from many private houses as well. These surviving

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<sup>119</sup> It should be emphasized that this is not an attempt to use the education of scribes in the Near East as an ethnographic parallel. The principles of scribal activity, scribal status, and the status of literacy itself in the Near East are dramatically different from those in Mycenaean Greece. Rather, a synchronic inquiry of literacy practices within the region aids dramatically in highlighting facets of the use of writing which are almost completely absent from the material or written record in Greece.

<sup>120</sup> See Pearce 1995 for an overview of ancient Near Eastern scribes and scribal training.

<sup>121</sup> Pearce 1995, p. 2266.

<sup>122</sup> There are several general discussions of ancient Near Eastern scribal training. See Tinney 1998, Vanstiphout 1979 and 1995, Sjöberg 1976, Pearce 1995 and Visicato 2000.

school texts demonstrate a well-defined curriculum for those requiring literate education. The language of education in these scribal schools was Sumerian. Just as when we learn to use the alphabet, there are exercises in which the students inscribe an individual sign over and over, transcribe lexical lists in which words are grouped by various categories (occupational titles, flora, fauna, etc.), and there is literature. It is generally accepted that the great majority, if not all surviving fragments of Sumerian literature are school texts.<sup>123</sup>

Within these schools are students who would branch out into many different areas of administration. They were not all simply scribes of the same status and job description. Given the breadth both of education and of occupations of students, it is apparent that the scribal training was intended to offer more than just familiarity with the technology of writing. These students also learned the great literature and language from their glorious Sumerian past, they learned the royal lineage and history via the transcription of royal hymns and mythologies, and some even learned music. After their general education, students would be prepared for the more specialized record-keeping that would await them at whatever administration they chose or was chosen for them. What is clear from this brief description of the education system is that scribal training prepared the students not just as a trade school would, but introduced them to a breadth and depth of knowledge that prepared them for their introduction to an elevated social stratum. Outside of these specially trained literate individuals, Near Eastern societies were predominantly non-literate, although writing did convey its power to non-literate individuals through public display on walls, statues, cliff faces, and gates. Not only

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<sup>123</sup> The term *all* is often, if not always, unsettling. The assertion has been made frequently, however. As described by Tinney, “That many, perhaps all, of the extant early literary and lexical texts are associated with scribal education is now widely agreed...” (Tinney 1998). Also Vanstiphout, “There is no literature to speak of outside this *Eduba* environment.” (Vanstiphout 1979, p. 12). Less forcefully asserted by Pearce, “Pedagogic practices were responsible for the preservation of Sumerian literature.” (Pearce 1995, p. 2271).

scribes, but also scholars and royalty trained in these centers. The discovery of training texts in private homes may indicate that training also took place outside of the public buildings, or may simply demonstrate the continuation of training in the home.<sup>124</sup>

Such an organized, rigorous, and multifaceted training system is not so surprising at these centers, given the visibility and prestige of literacy and writing in these second-millennium centers. Ancient Near-Eastern monuments were often covered in written expositions celebrating the king. For example, at the slightly later Palace of Assurnasirpal II at Nimrud (883-859 BC), all of the walls are covered with low-relief sculptures, which are then written over with an inscription that is repeated over and over on every individual stone slab lining the walls. This inscription, known as the “Standard Inscription,” recorded the king’s victories, his relation to the gods, his lineage, and the foundation of the palace.<sup>125</sup> There was not necessarily a significant literate population that could actually read the inscribed text, but its significance, based on the grandiose display, was surely not lost on the non-literate public. The same is true for the contemporary monuments of Egypt, as in the tombs of the Valley of the Kings, or in the Karnak Temple. Regardless of the size of the literate population, writing was very visible, and in these monuments it was publicly linked to the power and authority of the ruler. In these settings, writing communicated more through its presence than through the actual text presented, and was an essential elite device with which the central authority identified itself.

With this brief outline in mind, let us return to the Mycenaean world. Evidence of scribal training is, as far as we have thus far interpreted the evidence, completely absent from the archaeological record. There are no Linear B tablets that record lists of lexical

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<sup>124</sup> This occupational path was often hereditary, and home-schooling or tutelage would have been possible. See Sjöberg 1976, pp. 176-177.

<sup>125</sup> For a detailed description of the sculptural program, with consideration of the text, see Russell 1998.

items, present countless repetitions of the same sign, or are awkward copies of a masterful original. Nor are there rooms filled with blank tablets, or tablets in the midst of pulping after the training exercises had been completed. None of the hallmarks of school activity characteristic of clay-tablet cultures as we know them has yet been unearthed. One might attribute the absence of identifiable school-buildings in the archaeological record to the focus of prehistoric excavations in Greece, which has generally been limited to central buildings of first-order centers. As yet, the lower towns of the first-order centers remain largely unexcavated.<sup>126</sup> Nonetheless, the palatial excavations that have taken place, as well as the surviving remnants of the Linear B script themselves, afford the opportunity to propose some conclusions on the matter.

As noted above, the sole instance of a high degree of similarity in writing is among the group of scribes responsible for the tablets of the RCT. On the basis of the date of the RCT material, as well as the archaeological evidence of the Warrior Graves for the arrival of the Mycenaeans on Crete, we can conclude that these tablets were inscribed at the time of the intervention of the Mycenaeans at Knossos. Training a number of new scribes *en masse* would have been an efficient method of imparting the methods of Minoan literate administration to the Mycenaeans.<sup>127</sup> There is no need to assume that these scribes of the Hand 124 group must be *The First Mycenaean Scribes* (even though they may be), but rather that they are from the earliest form and stages of Mycenaean administration.<sup>128</sup> Driessen has already noted the uncertainty and

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<sup>126</sup> Near Eastern scribal schools appear both in complexes that would be comparable to the palace complexes, as well as in residential areas that would be analogous to lower towns (see Vanstiphout 1979). It is not possible to propose one way or the other where we should expect to find such buildings in Mycenaean Greece, if we should expect to find them at all.

<sup>127</sup> This is of course a heuristic model intended to address only the issue of scribal similarities. The modifications to the Linear A script and administration, and perceptions of the need to do so will be addressed later.

<sup>128</sup> Skelton (Skelton 2008, pp. 171-172) has proposed that tablets by Hands 13 and 91 at Pylos are the earliest extant examples of the Linear B script. She arrived at this conclusion via the application of phylogenetic systematics to scribal hands. Her approach is extremely useful for observing interactions of

awkwardness of the record-keeping of these tablets, as if the how and why of accounting had not yet developed beyond a trial-and-error stage.<sup>129</sup> The scribal similarities lead to the conclusion that these scribes were trained together. Accordingly, there had to have been some location where these scribes were brought together to learn how to write

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scribes within chronologically and geographically distinct regions. However, the application of phylogenetics to non-biological systems – that is, systems that arose solely as human creations or due to human intervention – is highly problematic, especially an application that extends for several hundred years and stretches from Crete to Mycenae and Thebes.

The primary problem is the assumed continuum of Linear B development across all sites. Her approach assumes that the appearance and formality of the Linear B script would have developed and changed at a consistent rate at all sites. This assumption leads to the conclusion that the highly formal Linear B signs of Hands 13 and 91 at Pylos must therefore predate the slightly less formal Linear B of Hand 124 in the RCT. There is no justification for this assumption.

As I am discussing in this chapter, we have virtually no evidence for scribal training or archaeological evidence on the mainland for dating the development of the script. If the scribes of the RCT learned the Linear B script from Minoan scribes, and at the same time – or even years or decades later – another Minoan scribe instructs the Pylians in the use of Linear B, he may very well use a formal, but differently formal and more archaic, style when teaching. The highly formal Cretan style survived into LH IIIB on the inscribed stirrup jars. In the absence of further evidence, we cannot be certain how and when this formal style of Linear B reached Pylos. The continuum of development cannot at all be established, yet is an essential premise for accepting the complete tree produced by phylogenetics.

Palaima has convincingly argued for the presence of uniquely Knossian features in the Pylos tablets (Palaima 1983), and that the tradition at Pylos stems directly from Knossos seems likely. However, the material evidence that can date these tablet fragments is scanty. The tablets of Hand 91 from Room 55 were under an LH IIIA2-B1 floor, and are associated with conical cups dating to LH IIIA1-2. I accept the early date of the RCT material not solely on the basis of the appearance of the script, but also as a result of the volumes of archaeological evidence summarized above. Such material is lacking for the tablets in question at Pylos. As a result of this shortcoming, and the proposed date of LH IIIA1-2 for the tablets of Hand 13 and 91, it would be unwise to accept Skelton's results on this matter as facts. This study is extraordinarily useful for the identification of trends and patterns, but if taken to its logical conclusion, we could propose a chronological continuum for all scribes, even those we know to be contemporary. It is interesting to note, as a point of comparison for the development of script, that the Cherokee syllabary was developed by Sequoyah beginning in 1809, but continued to undergo modifications until 1828. Since that 20-year period of development, now almost 200 years later, it has remained virtually unchanged (Walker and Sarbaugh 1993).

<sup>129</sup> Driessen 2000, pp. 228-229. This suggestion is not predicated solely on the appearance of the scribal style. This conclusion is based also on the early date of the tablets and the remarkable uniformity of styles among these scribes. Furthermore, this argument differs fundamentally from previous arguments based on sloppy stylusmanship, such as that put forth regarding the interpretation of PY Tn 316. Chadwick described Tn 316 as “the most disgraceful piece of handwriting to have come down to us,” and suggests that the writer “was trying to record the decisions of an unusually stormy meeting,” (Chadwick 1976, pp. 89-90). Chadwick's description gave rise to the “State of Emergency” theory, which suggested that Tn 316 was an account of a last-minute, last-ditch effort to stave off an impending disaster (as outlined in Baumbach 1983). This was refuted in Palaima 1999. Chadwick and Baumbach failed to consider our own applications of writing in their arguments about Tn 316. Generally, those familiar with a script are able to write extremely fast and are minimally concerned with legibility. This contrasts sharply with the signs of Hand 124. These compare to the handwriting of someone learning their alphabet, rather than the handwriting of a doctor writing a prescription.

Mycenaean Greek using the Linear B script. So at least we can be sure that there was at least one scribal schoolroom that excavation has not uncovered, even if it was not an actual structure built solely for this purpose. However, given the fact that the RCT material was an isolated survival of textual remains from the LM II destruction in the palace, it should not be surprising if no training materials have survived from this period.

Also paleographically cohesive is the corpus of tablets from the Northern Entrance Passage (NEP) at Knossos.<sup>130</sup> Like the tablets of the RCT – which detail personnel, chariots, land usage, saffron, livestock, wheat, barley, cloth – those of the NEP are concerned with several diverse subjects, including personnel, cattle, sheep, foodstuffs, vases, textiles, chariots, saffron, and land. The diversity of subject matter, as well as the number of scribal hands (29) involved in their production, led Driessen to propose that the NEP may be a pre-archive, functioning similarly to the Archives Complex at Pylos.<sup>131</sup> Tablets by the scribes of the NEP have been found in other areas of the palace as well, indicating association with smaller, more unified tablet deposits throughout the palace. There is no reason to assume, nor is it likely, that these scribes all worked together in this one area of the palace. The clay used in *all* the tablets at Knossos is very distinctive, and suggests that all tablets found at Knossos were written there, or at least that the clay was derived from there.<sup>132</sup> Unfortunately, this tells us nothing about where these scribes performed their duties on a daily basis.

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<sup>130</sup> Driessen 1999 provides the most recent discussion of this area.

<sup>131</sup> *ibid.*

<sup>132</sup> Driessen 2000, p. 37. He notes the one exception in clay composition may be in the tablets by Hand 124-S. Furthermore, the palmprints found on tablets have been analyzed and compared (in Sjöquist and Åström 1991) to identify the tablet preparers and the tablets which they fashioned for the Knossian scribes. The tablets of Hand 124-S were flattened and prepared by seven different individuals, two of whom worked exclusively for Hand 124-S. The unique clay composition and exclusive tablet flatteners suggests that Hand 124-S is in some way distinguished from the other scribes of the RCT, perhaps in his status or in the regions in which he performs his work. Only one other scribe at Knossos – Hand 141 – used as many assistants in creating tablets. The scribe employing the second-largest number of tablet preparers is Hand 136, who uses three (Sjöquist and Åström 1991, p. 119; numbers were amended in Driessen 2000, p. 85).

Although the NEP scribes likely did not share the same workspace, they nonetheless exhibited what Olivier calls “cohésion graphique,” in contrast to his description of the RCT as an “îlot paleographique”.<sup>133</sup> The situation is not the same in the NEP as it is in the RCT, where differentiating scribal hands is extremely problematic due to the uniformity of handwriting.<sup>134</sup> However, there is a high degree of consistency in the sign forms in the texts from the NEP. The sign forms are conservative, and simple forms are absent, with only the complex versions present.<sup>135</sup> The complex signs and conservatism of script have led several authors to propose a date earlier than the final destruction of Knossos in LH IIIB for the NEP material.<sup>136</sup>

Should this be the case, then the presence of paleographic uniformity within a unified group of scribes would be restricted to two of the earliest tablet deposits in the Mycenaean world.<sup>137</sup> By the time of the next Linear B records that survive, the paleographical picture is dramatically different. There are no large groups of similar scribal hands. The RCT and NEP material suggest common training for all of the scribes of either tablet deposit. In terms of workspace, neither the NEP nor the RCT is

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It is interesting to note that in her phylogenetic analysis, Skelton identifies Hand 124-S as the earliest Mycenaean scribe (Skelton 2008, p. 169, fig. 4).

<sup>133</sup> Olivier 1967, p. 129.

<sup>134</sup> To be sure, the difficulty in identifying scribal hands in the RCT is augmented by the paucity of signs on the tablets.

<sup>135</sup> Analysis in Driessen 1999, p. 216.

<sup>136</sup> Driessen 1999 suggests this only as a preliminary proposal. Also Driessen 1997, p. 134, n. 56. He further notes (Driessen 1999, p. 211) that access to the NEP archive from the outside would have been possible only if the north entrance were still functioning as an entryway. This entryway was sealed in LH IIIB. Accordingly, the NEP should predate this modification.

Skelton comes to the conclusion of an earlier date for the NEP on the basis of phylogenetic analysis of sign forms (Skelton 2008, p. 169, fig. 4).

<sup>137</sup> Driessen 1997 tentatively proposes a date of LM IIIA1/2 for the NEP material, and a date of LM IIIA1 for the tablets from the Room of the Column Bases (RCB). Driessen 2008 favors LM IIIA2-early (p. 76, Table 3.2). Only two scribes, Hands 141 and 222 are responsible for the RCB tablets. Hand 222 is responsible only for a maximum of four tablets at the most. Rather than being an exception to the samples of early paleographic unity from the RCT and the NEP, the RCB scribes, being only two, do not constitute an adequate grouping to be considered in this analysis. It should be noted that Hands 141 and 222, while both paleographically conservative, do not other exhibit characteristics that would indicate either an apprenticeship or common scribal training.



associated with manufacturing, materials, or storage of items or goods related to the contents of the tablets found in either location. Both deposits would appear to be strictly administrative units, rather than workplace or storeroom deposits.<sup>138</sup> In the case of the 29 identified hands of the NEP, the activity of two of the scribes, Hands 101 and 136, is chiefly outside of the NEP, and seven others are responsible for tablets in deposits other than the NEP.<sup>139</sup> Accordingly, the majority of scribes responsible for NEP tablets were likely spread throughout the palace, or even the Knossian kingdom.<sup>140</sup> Common training would account for the graphic cohesion maintained by this group, even while they worked in different areas. Following the destruction of the NEP tablets, the only instances in which high degrees of paleographic similarity have been identified at any site with Linear B tablets are between scribes that work in close proximity with one another: Hands 1 and 2, and Hands 41 and 43 at Pylos, and at Knossos, Hands 103 and 115 (and Khania Hand 115), as well as Hands 117 and 119.<sup>141</sup>

This in itself can be interpreted as a strong indicator that the scribal schoolroom – as well as group training – no longer exists in this later LM IIIA2 – IIIB period. Consider the study of paleography in the Near East. There is currently a joint venture between the University of Birmingham and the British Museum, called the Cuneiform Digital Palaeography Project (CDP).<sup>142</sup> The difficulties involved in establishing scribal hands in

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<sup>138</sup> That is, one is not a chariot-manufacturing shop with chariot tablets, or an oil magazine with oil tablets. They are seemingly devoted exclusively to the storage of written texts, just like the Archives Complex at Pylos.

<sup>139</sup> Driessen 1999, pp. 213-214.

<sup>140</sup> As a comparandum, the Archives Complex at Pylos functioned in the same manner as the NEP. Scribes came from all over the Pylian palace to deposit their work in the AC. Palaima estimates *circa* 32 scribes functioning in the palace at Pylos, and even half that number would have had trouble squeezing into a 12 m<sup>2</sup> and poorly lit Room 8 or 16 m<sup>2</sup> Room 7. Unfortunately, the RCT and NEP tablets were found in secondary contexts, having fallen from floors above the basement. Hence no dimensions can be offered for either space.

<sup>141</sup> On Hands 1 and 2: Palaima 1988, p. 66; Hands 41 and 43: Palaima 1988, p. 102. Hands 103, 115, 117, and 119: Olivier 1967, p. 135.

<sup>142</sup> They maintain a website at <http://www.cdp.bham.ac.uk/index.htm>.

the cuneiform script should be apparent. While there are several complex signs that afford opportunities to detect distinct writing samples, the researchers note that their efforts are hindered by the uniformity of script that is fostered by the rigid training system in place.<sup>143</sup> They propose an approach whereby they attempt to identify the trademarks of individual schools, and then address the scribes of each school from there. So the process of schoolroom training serves to assimilate writing styles, which then later may differ only when the scribe's environment imposes or suggests variants, or when freedom from the control mechanism gives license to vary from the learned norm.<sup>144</sup>

With the exception of the RCT and NEP material, we do not observe any other situation in which there is a large number of scribes with identical or closely similar styles, and such a situation is in fact notably absent.<sup>145</sup> While the Linear B script is more fluid and accordingly more susceptible to variation than the cuneiform script, the evidence suggests that, at least as a result of the manner in which the script is used rather than some inherent qualities of the script itself, the conservative formation of Linear B characters within any given period of time is closer to the conservatism of cuneiform than

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<sup>143</sup> This is a problem specific to the rigidity of training, and is not a result of the method of writing (i.e., wedge-shaped stylus on clay). In fact, they can easily identify the written output of different regions, time periods, and even schools. There is ample room for variation in the cuneiform script to identify individual hands. However, the school training required constant repetition in sign lists, resulting in a high degree of uniformity. A description of how these signs could be varied and individualized can be found at [http://www.cdp.bham.ac.uk/Terminology/signs\\_components.htm](http://www.cdp.bham.ac.uk/Terminology/signs_components.htm).

<sup>144</sup> I first learned the Linear B signs on my own, and developed my own writing style. However, upon undertaking formal training of the script, I began to pick up traits in the style of those with whom I studied. Many features still exhibit my original personal style, but my current style is in many ways different from the original.

<sup>145</sup> Of course we must always consider the accidents of survival. However, as I will argue, literate remains should be expected at administrative centers and nowhere else. In studying the RCT, on the basis of completeness of the tablet remains, Driessen estimates that more than 50% of the original RCT material did not survive (Driessen 2000, p. 39), yet a cohesive writing style among several scribes is still readily recognizable. Even if only 50% of the original material survives at Pylos, it is extremely unlikely that the 50% that did not survive would have consisted of tablets by several scribes who demonstrate scribal similarities. There is therefore no justification for assuming that we have not been presented with an adequate sample set for an inquiry of this sort.

the highly individualized styles of modern English cursive using the Latin alphabet.<sup>146</sup> This is amply indicated by the Hand 124 scribes, as well as the striking similarities of Hands 1 and 2 at Pylos and Hands 103 and 115 at Knossos.<sup>147</sup> Let us briefly consider the arenas within which these scribes functioned.

Hands 1 and 2 have been identified as working in close proximity to one another, based in the Archives Complex at Pylos.<sup>148</sup> Hand 1 is responsible for *circa* 241 tablets, tablet fragments, and labels, all of which are from the AC. 66 of the 87 tablets and fragments by Hand 2 are from the AC.<sup>149</sup> Furthermore, the Jn tablets by Hand 2 were in the process of being transcribed at the time of the destruction.<sup>150</sup> Also right before the destruction, a chunk of clay was cut from tablet Ep 704, indicating it had just been inscribed by Hand 1. This evidence suggests that Hands 1 and 2 did work together in the

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<sup>146</sup> Here I am referring only to the formation of Linear B characters by contemporaries. If we consider the spectrum of Linear B forms from the earliest to latest, there is a high degree of variability possible. But if we consider only contemporaries, those variations decrease greatly, which is the entire premise of Skelton's work. When I compare the writing of Linear B to English cursive, I again mean only variation among contemporary English writers. If we consider the variations of English cursive across the entire chronology of English writing, then we would see exponentially more form variability than is ever evident in Linear B. Also see above comments regarding the early mutability but late stability of the Cherokee syllabary (p. 64, n. 128)

<sup>147</sup> Just to make this point clear, primary school classrooms full of writers-in-training rapidly develop their own styles. Nor do co-workers incidentally demonstrate identical handwriting (I stress here the word *incidentally* to exclude instances of willful similarity). Most famously, architectural firms develop their own lettering both to serve as an identifier and trademark for the firm, as well as to establish a style of lettering that will be entirely clear to the reader. For obvious reasons, it is essential in any architectural project that notes be legible, that distances be certain, and that specifications be clear. Such a phenomenon can be observed in the handwriting of architectural partners Oliver Cox and Michael Ventris. See Jefferis and Madsen 2004, pp. 78ff. Yet both of these situations occur with users of the Linear B script. The intensity of scribal training in the Near East insisted on a uniform style. Accordingly, I suggest that the lack of uniformity of most scribes should not be dismissed as merely being the result of the fluid style of the Linear B script.

<sup>148</sup> It is not likely that they actually performed their scribal duties in the AC. While a window may have been possible in Room 7, one was unlikely in Room 8, since the walls were needed for shelving for tablet storage. Windows are also unwise in rooms in which unbaked clay documents are to be stored, unless one assumes an airtight shutter system.

<sup>149</sup> Only the Fr series – for which Hand 2 was only partially responsible – was located elsewhere in the palace, in Rooms 32, 38, 23, and Court 63.

<sup>150</sup> The data concerning bronzeworking and smiths from the Jn tablets was being re-ordered and transcribed onto new tablets. This process was only partially completed at the time of the destruction. See Smith 1993 for a detailed account.

AC. The connection between Hands 1 and 2 is further demonstrated by the orthographic principles employed by both scribes.<sup>151</sup> Of 15 orthographic variants examined by Duhoux, Hands 1 and 2 share 13, which is the most of any scribal pair. Interestingly, Hands 1 and 21 share 11, while Hands 2 and 21 share 12. The tablets of Hand 21 are within the spheres of Hands 1 and 2.<sup>152</sup>

There is also evidence to suggest that Hands 41 and 43 worked together.<sup>153</sup> The major tablet series of both scribes – the Eb texts of Hand 41 and the Ea texts of Hand 43 – are landholding documents. Unfortunately, the find-spots of their tablets offer no indication of where these scribes would have worked. I have argued elsewhere that tablets from Room 7 are tablets which have been introduced into the AC to be filed, and are not the work of scribes that considered the AC their daily base of operations.<sup>154</sup> Both Hand 41 and 43 are responsible for only a single tablet found outside of the archives. Hand 41 writes Fr 1207, found in Room 38. Hand 43 writes Mb 1406, from SW Area VIII SW.<sup>155</sup> These two tablets also offer no real indication of where these scribes worked. The transport label Wa 784 was written by Hand 41, but it is the label associated with the Ea tablets of Hand 43.<sup>156</sup> The subject matter with which they were concerned – landholding – and the labeling of the Ea tablets strongly suggest that these two scribes worked together. Palaima sees Hand 41 as supervisor of Hand 43 on the basis of the more complete account of landholdings in the Eb series of Hand 41, as compared to the simpler documents of the Ea series of Hand 43, as well as the creation of

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<sup>151</sup> Duhoux 1986.

<sup>152</sup> Palaima 1988, pp. 84-85.

<sup>153</sup> Summarized in Palaima 1988 pp. 102, 107-8. Hand 41 defines Class iii at Pylos.

<sup>154</sup> Pluta 1996-1997, pp. 247-248.

<sup>155</sup> Ea 1424 by Hand 43, and Eb 1425, by Hand 41, were also found outside of the AC. However, due to their location, it is likely that they were separated from the AC in a much later disturbance of the area. Accordingly, they should be considered AC tablets. Palaima 1988, p. 164.

<sup>156</sup> I use the term “transport label” here following Palaima and Wright 1985. The authors demonstrate that these labels were used to offer a summary description of tablet series as they entered the AC, but were not intended to label the tablets once stored on the tablet shelves.

the transport label by Hand 41 for the tablets of Hand 43.<sup>157</sup> I am inclined to agree. The frequent misspellings, the simpler layout, and the writing of the label by Hand 41 all taken individually could each be explained differently. Taken together, however, the evidence is compelling. Most significant is the label written by Hand 41. This implies that the Ea series tablets passed through the hands of Hand 41 before arriving in Room 7 of the AC. Hand 43 is unlikely to allow just any other scribe to write up this label, and Hand 41 is unlikely to want to do so unless he is actually in some way responsible. In Duhoux's analysis of orthographic variants, these two scribes share only a single common usage out of the 15 examined.<sup>158</sup> These variants demonstrate that paleographical analysis is only one means by which common scribal training can be assessed. Duhoux proposes that these orthographic similarities demonstrate that "Hands 1, 2, and 21 must have had some experience in common, which can reasonably only have been a similar orthographical training."<sup>159</sup> He also contrasts this with the lack of orthographic similarities between Hands 41 and 43. On the one hand we have Hand 1 and 21, who are orthographically similar but paleographically distinct, and Hands 41 and 43, who are paleographically similar but orthographically distinct. Duhoux wisely sidesteps this problem, stopping at wondering whether "scribes who had supposedly learned orthography together would also have had a common training in the art of writing itself."<sup>160</sup> One would expect paleography and orthography to be instilled at the same time

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<sup>157</sup> Palaima 1988, p. 108. Palaima further supports his argument by noting the significance of the land addressed in the Eb and Ea tablets. The Eb land involves the divinity Potnia, as well as the king's craftsmen. The Ea series, on the other hand, is the concern of a lower-ranking Pylian official, the *lawagetes*. Palaima also notes the large number of spelling mistakes in the Ea series.

<sup>158</sup> Duhoux 1986, p. 152.

<sup>159</sup> Duhoux 1986, p. 153.

<sup>160</sup> *ibid.* Duhoux also unfortunately compounds the problem here, by proposing two different facets to scribal training that can be taught at different times. Such a situation does not seem likely. Rather, it would probably be wiser to acknowledge training in the art of writing, while orthography would not actually be taught, but would be a consequence of scribal perception of language. Common orthographic traits could then arise either from frequent cross-referencing of the tablets of other scribes, or from common

during training. At Pylos, the scribes have been organized by Palaima according to general paleographic similarities.<sup>161</sup> He refers to these groupings as scribal Classes. Class i forms signs similarly to Hand 1, Class ii is similar Hand 21, and Class iii is similar to Hand 41. I will return to these aspects of orthography and paleography in a later section, in consideration of the impact of a scribe's aural milieu on his orthographic inclinations.

At Knossos, Olivier notes the similarities between Hands 103 and 115, as well as Hands 117 and 119. Hands 103 and 115 work in the same area of the palace. Both are concerned chiefly with the textile industry. Hand 103 is responsible for many more tablets, and is considered a "non-specialized" scribe on the basis of his range of activities.<sup>162</sup> Hand 115 is semi-specialized, as his work is consistently concerned with the textile industry. The agreement of subject matter and tablet location indicate that these two scribes worked together.<sup>163</sup> Finally, Hands 117 and 119 are both scribes for the sheep and wool industry. They are both semi-specialized, and the majority of their tablets are from the same tablet deposits at Knossos. They, too, would appear to have worked together.

In each of these scribal pairings at Knossos, one scribe is responsible for considerably more tablets than the other.<sup>164</sup> The difference at Pylos is less dramatic. Table 3.1 lists the tablet production from each pair of scribes. Palaima has argued that

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experience – with a select group of scribes – of a specific subset of technical terminology. However the mechanism by which orthographic similarity occurred, it must have come about as a result of constant contact among small groups of scribes – in this case Hands 1, 2, and 21.

<sup>161</sup> Palaima 1988, pp. 30-31.

<sup>162</sup> Shelmerdine 1988, p. 348.

<sup>163</sup> I will address how scribe KH 115 at Khania fits into this discussion shortly.

<sup>164</sup> Approximate numbers for the Knossos scribes derived from the counts provided in Olivier 1967. While the exact number of tablets written by each scribe has been dramatically altered by recent joins by Melena, the very round approximations that I provide here suffice to emphasize the difference in production within each pair of scribes.

Hand 1 is the “master scribe,” and Hand 2 is his pupil.<sup>165</sup> The subordinate status of Hand 43 to Hand 41 has already been addressed above. In both of these cases at Pylos, each pair of scribes either works together in the same area, or is concerned with the same administrative sphere.<sup>166</sup>

<b>Pylos Scribes<sup>167</sup></b>			
<b>Hand 1</b>	237	87	<b>Hand 2</b>
<b>Hand 41</b>	109	70	<b>Hand 43</b>
<b>Knossos Scribes</b>			
<b>Hand 103</b>	>250	<40	<b>Hand 115</b>
<b>Hand 117</b>	>600	<40	<b>Hand 119</b>

Table 3.1: Tablet output of scribal pairs who exhibit paleographic similarity

At Knossos, the same pattern occurs, only more vividly. If we use the number of tablets as well as their diverse subject matter as an indicator of the relative administrative responsibility of these scribes, as I think we should, the pattern of master and pupil between these pairs continues at Knossos.<sup>168</sup> Hand 103 then is the master of Hand 115, and Hand 117 is the master of Hand 119.

<sup>165</sup> Palaima 1980, Palaima 2003. Kyriakidis has argued that they are not master and pupil, but rather they have separate and distinct duties (Kyriakidis 1996-1997, pp. 205-207). He notes that Hand 1 was uninvolved with recording material wealth and trade, and several tablets do not bear any marks of his review. Kyriakidis’ solution presents a few problems, however. The administrative system at Pylos employs a central archive, in which tablets that are essential to the central administration are processed and stored. As I will argue later, in this form of administration, the central authority needs an individual to be responsible for the information contained on the tablets; that is, an archivist. The textual evidence, which will be addressed later, indicates that Hand 1 is to be identified as the archivist, and he would be responsible for the contents of this area. Hand 2 may be the vice-archivist or second in command, functioning in a support capacity within the AC. I will argue that regardless of the division of labor between these two scribes, there is no question that Hand 1 is more involved with the tablets of the AC than Hand 2, and perhaps Hand 1 made Hand 2 responsible for several tablet series from his own milieu as preparation for his future role as archivist. Ultimately, however, Hand 1 is the caretaker of the textual data.

<sup>166</sup> That Hands 41 and 43 work in the same area is implied by the fact that they both work with tablets prepared by the same flattener, *Energetikos*. Of the 34 tablets that *Energetikos* was responsible for, 13 were inscribed by Hand 41 and 14 were inscribed by Hand 43. The remaining seven were inscribed by Hand 21. See Sjöquist and Åström 1985, p. 83.

<sup>167</sup> Numbers taken from Shelmerdine 1988, p. 360.

<sup>168</sup> Note that the rate of document production should not be accepted as evidence of relative scribal status *per se*. One should not assume, for example, that the scribe who continually opened and resealed jars of oil

Mechanisms other than master/pupil relationships helped to maintain the script tradition in Mycenaean Greece. The most notable proof of this would be the remarkable similarities between the texts of Hand 115 at Knossos and those of a scribe at Khania, known as KH 115. KH 115 is responsible for only two texts, KH Ar 4 and KH Gq 5. The similarities are so marked between these two scribes that Olivier originally believed that they were actually a single scribe.<sup>169</sup> Palaima argued that in addition to the many paleographical similarities, there were also many significant differences, which were downplayed in the rush to identification. He concludes that KH 115 and KN 115 were actually two separate scribes, and these conclusions were later accepted by Olivier.<sup>170</sup>

On two of the tablets by Hand 115 at Knossos he is involved with records of cloth from *ku-do-ni-ja*, or Κυδωνία, which is the ancient name of modern Khania. Palaima has also noted that in general the tablets from Khania exhibit a Knossian character, not only in sign forms, but also in tablet layout.<sup>171</sup> The connection of Hand 115 with West Crete both in the contents of the tablets he writes as well as the similarities in script between KN 115 and the scribes of Khania would suggest either that these scribes were trained together at the same time by a common master, or KN 115 was responsible for training the scribes of Khania. Godart, followed by others, has noted that it may be possible that the tablets of KH 115 may have been written even one or two generations later than the tablets of KN 115.<sup>172</sup> I am not so sure. As noted above, there are very few instances in which a high degree of paleographical similarities are noted between scribes. At Pylos

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at Pylos, and thereby created a vast number of sealings, was therefore of higher status than scribes who employed their seals far less often. Nor should a substantial number of leaf-shaped tablets recording items of armor be considered an indicator of their writer's superior status to the author of two page-shaped tablets on different subjects. Hands 103 and 117 are involved in many more aspects of their respective industries than Hands 115 and 119, respectively.

<sup>169</sup> Olivier 1993.

<sup>170</sup> Palaima 1992-1993, Olivier 1996.

<sup>171</sup> Palaima 2003, p. 162 n. 10.

<sup>172</sup> Palaima 1992-1993, p. 265; Godart and Tzedakis 1991.



there are two (Hands 1 and 2, Hands 41 and 43), and at Knossos there are four (RCT, NEP, Hands 103 and 115, Hands 117 and 119). These examples stand out among over 100 total scribes identified at the major palatial sites, who were responsible for inscribing thousands of tablets. When it comes to scribes with significant paleographical similarities, KH 115 and KN 115 are in elite company. In all of above instances of similarities at Knossos and Pylos, the scribes shared common work spaces.<sup>173</sup> It surely is remarkable that the Hands 115 exhibit so many common features while based in two different palatial centers 66 miles away from one another. It would be highly unlikely however, that the scribal similarities we see would have continued intact over decades or generations, particularly given the amount of comparative diversity we see between scribal hands of the same time period.<sup>174</sup> On the basis of this evidence, I suggest that Hand 103 taught Hand 115 the script, and Hand 115, because of his administrative duties in Khania, was charged with training scribes there.<sup>175</sup>

Note that there are no paleographic connections between scribes from different administrative areas of either the palace at Knossos or Pylos, with the exception of the KN 115 – KH 115 connection. In light of the evidence from the RCT and the NEP, in which there is graphical cohesion, the lack of any paleographic unity outside of small

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<sup>173</sup> In the case of the NEP scribes, we are referring only to the place where tablets were kept, and make no claims regarding their daily base of operations. The point is that these scribes are unified at least by this one common point of intersection.

<sup>174</sup> I stress here *comparative* diversity, with specific reference to the special paleographical relationships mentioned above. I am in no way implying a high degree of diversity in the script in general at this time period.

<sup>175</sup> Other solutions are far less satisfying. We could posit a common master for KN 115 and KH 115, but this would not account for the special relationship between hands 103 and 115. As I noted above, the evidence suggests that KN 115 is subordinate to KN 103 and accordingly would have learned the script from him. Skelton's analysis supports this view (Skelton 2008, p. 169, fig. 4). If KN 115 was not responsible for instructing KH 115, we would have to assume that Hand 103 was the instructor of both. However, the similarities clearly exist between Hands 115, and not between KH 115 and KN 103. It should be obvious that the relative status and phylogenetic analysis of Hand 103 as well as the graphical tradition and Mycenaean presence at Knossos precludes KH 115 from being the instructor of the Knossos scribes.

superior/subordinate groups of scribes that work together speaks against the continuation of any formal, centralized scribal training.<sup>176</sup> If training were as rigorous in Linear B administration as it was in the Near East, we would expect a much higher degree of uniformity of sign formation. As Duhoux noted, we would expect greater orthographic unity as well.<sup>177</sup>

The instances of paleographic similarity mentioned above would seem to represent exceptions in the midst of a sea of paleographic individuality. We cannot team up every scribe at Pylos and Knossos into master/pupil pairings. Several scenarios would account for this state of affairs. What is important for the present discussion is the fact that however the scribes were trained, the later systems of scribal training at Pylos and Knossos were far less formalized than that suggested by the NEP and RCT material. The unequal status of the scribes in each of the pairs discussed above suggests that, at least on occasion, subordinate scribes received on-the-job training from their superiors. Outside of these cases, the intensity of scribal training, whether in a classroom or one-on-one, was insufficiently intensive to prevent the scribes at either site from becoming paleographically and orthographically distinctive.

It is possible that prior to becoming literate administrators in the palace, scribes-in-training would be responsible for manufacturing tablets for scribes.<sup>178</sup> Sjöquist and

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<sup>176</sup> The similarities between KN 115 and KH 115 are the exception that proves the rule. In these two scribes we see the *possibility* of scribes exhibiting a paleographic connection, making it all the more remarkable that it does not happen more often at Knossos.

<sup>177</sup> This is supported by comparison to the Old Babylonian *eduba* system of education, in which the repetitive copying of sign lists and various lexical lists, which varied depending on the specialization of the scribe-to-be, was standard for students. Not only individual words, but legal phrases and correspondence formats were copied memorized by rote as well. As noted above, the result was a high degree of paleographic and orthographic homogeneity among students from the same school. In one of the most famous texts describing the life of a scribal student, we learn that discipline was harsh, involving caning for several offenses, including speaking without permission, speaking Akkadian, or most importantly for our purposes, transcribing a tablet wrong (Tinney 1998, p. 48). Given the intensity of this training as well as the disciplinary measures, there is little wonder that paleographic and orthographic uniformity was achieved.

<sup>178</sup> This was suggested in Sjöquist and Åström 1991, p. 28, 30.

Åström concluded that the majority of “flatteners” – their term for those who prepared tablets for scribes – were children aged 8-12.<sup>179</sup> In addition to these children, there were older men with extremely rough hands, suggesting very intense labor during their lives.<sup>180</sup> The authors decline to propose an age for this bracket of individuals. However, the combination of these two groups makes the proposal that the children were scribal apprentices problematic. First, if we are to assume that these children were also learning scribal skills, age 8 or thereabouts seems young to begin practice as a literate administrator for the palace.<sup>181</sup> Even if this age is considered appropriate, we would still have difficulty correlating young apprentices with the evidence for older men. Surely they are not also training to be scribal administrators. It seems more likely that the menial duty of tablet manufacture was left to slaves who have been incapacitated by age or injury and can serve few other functions than the relatively light work of flattening tablets. Given the elite status of scribal students in the Near East, the high status of palatial officials and scribes in particular,<sup>182</sup> it would be unusual to have young elites-in-training working side-by-side at the same task with disabled slaves. Recalling the discussion of the Ad series, however, we know that the palace was counting the sons as

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<sup>179</sup> Sjöquist and Åström also note that there were “somewhat older children,” but choose to focus on the younger ones (Sjöquist and Åström 1991, p. 31).

<sup>180</sup> Sjöquist and Åström 1991, p. 30. The authors propose that they were oarsmen, and were made flatteners either “as a reward, or because they were bad at rowing.” There is no evidence to support the claim that these men were oarsmen. It suffices to indicate that these were older men whose previous occupation is irrelevant.

Sjöquist and Åström assess roughness of hands on the basis of the number of papillary lines per centimeter. This number can then be expressed as a ratio known as mean ridge breadth, or MRB. The authors find a group of flatteners displaying 8 papillary lines per ½ cm, or with an MRB of 0.625. In her examination of fingerprints of potters at Midea, Julie Hruby has found prints of a similar MRB, and they are at the high end of the range (Hruby *per litteras*). She has further informed me, however, that papillary lines from the palmprints show a greater degree of variance in MRB than from fingerprints, and so are not as instructive. The matter is therefore debatable. However, given the fact that all of the identified older men (seven total) all exhibit the same high MRB, we should likely chalk this up to more than coincidence.

<sup>181</sup> There is virtually no information from the Near East that would indicate the ages of scribal students. In one rare example from Hellenistic Uruk, we are able to follow the career of a single scribe. From the information available on this scribe, it seems that he began his scribal career after finishing his training at age 17 (Pearce 1995, pp. 2270, 2276).

<sup>182</sup> To be addressed later in Chapter 6. See also Bennet 2001.

well as the “men” of the slave women working for the palace. While age 12 is too young to enter scribal work, it is just about the right age for a *ko-wo* to leave the light work and enter into a life of hard labor. Also in this scenario the older flatteners and younger flatteners are from the same position in the social hierarchy. So as a slave *ko-wo*, the boy flattens tablets for scribes. At age 12, he leaves this job to perform tasks requiring more physical labor. Then, after he is too old to perform hard labor efficiently, he is returned to the palace to perform light tasks, such as tablet manufacture. In this scenario, old and young would work side-by-side. Such a scenario leaves no room for our scribal apprentices. Accordingly, I believe our students are inducted into the system by what are at-present invisible means.

These conclusions about scribal training are based on several assumptions. Most significant is the assumption that the samples of writing that survive are a statistically significant sample of the volume of texts that would have existed, and that the number of identifiable scribes is also an ample sample of the number of literate individuals that would have been writing in the Bronze Age palaces. I do make this assumption, and I will address it later in this chapter. The discussion of superior and subordinate scribes assumes that the surviving tablets provide an accurate representation of the administrative concerns and outputs of their respective authors.<sup>183</sup> As noted above, evidence of relative status of the scribes at Pylos was found in the extant tablets, and is not based solely on tablet quantities. At Knossos, the high degree of departmentalization of tablets by most scribes suggests that an additional lost cache of tablets by any subordinate scribe is unlikely. If Hand 119 were to surpass Hand 117 in significant tablet production, one would have to propose that either a separate cache of over 600 tablets by Hand 119 was

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<sup>183</sup> This assumption chiefly concerns the scribes labeled as subordinate. Additional finds of tablets inscribed by the more senior scribes would not likely offer evidence of a lower status. New finds could only serve to elevate what is already considered a senior position.

lost, or that a disproportionate number of tablets by Hand 119 from the bureau in which his tablets and the tablets of Hand 117 were found. Either scenario is unlikely.<sup>184</sup>

When considering tablet output as evidence for scribal hierarchy, we must be cautious. Depending on the time of year, the tablet deposits of the palaces are likely to look very different. Whether it is harvest season, or the end of processing the raw materials provided by the harvest, or even census time, we could variously see a disproportionate number of grain tablets, land allotment tablets, flax tablets, cloth tablets, or tablets recording personnel. Depending on a scribe's duties, he may be disproportionately represented or underrepresented in the tablets at any time of year. Fortunately, these considerations do not affect the proposals regarding relative status between the pairs of scribes under discussion. In the case of Hands 1 and 2 at Pylos, I have detailed above (and will discuss more fully in Chapter 6) that I prefer Palaima's assertion that Hand 1 is the archivist responsible for all of the tablet output, and that only one official can logically be responsible for the entire contents of the AC. Accordingly, Hand 2 is necessarily subordinate. In the case of Hands 41 and 43 at Pylos, both are concerned with landholdings, albeit with a clear division by types and relative status of landholdings. They record tablets from the same sphere, and so both would be affected equally by the time of year in which landholding records were normally written up. Also in their case we have already addressed the peculiarities of orthography and tablet layout exhibited by Hand 43 that suggest he is not as skilled a scribe as Hand 41, and therefore may be a subordinate.<sup>185</sup>

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<sup>184</sup> It should be noted that the situation may have looked different in a different year. Not only could the number of tablets have been different, but even the scribes involved may have been different. There may be scribes underrepresented or not at all represented in the surviving material that would have been very well represented in a previous year. Here we are addressing relative status between scribes that we know to have functioned within the same time period, and we can be confident in this restricted analysis.

<sup>185</sup> In the same way that quality of handwriting is a poor indicator of social status today, orthographic skill and tablet layout cannot be used as an indicator of relative scribal hierarchy. Only in context can it be considered circumstantial evidence.

At Knossos the disparities are far more pronounced. Hands 117 and 119 are both concerned with sheep and wool. Again, the overlap of sphere of influence negates the effects of the time of year. As seen in Table 3.1, Hand 117 writes more than ten times the number of sheep tablets as Hand 119. In the case of Hands 103 and 115, there is also overlap in types of tablets recorded. Hand 115 writes tablets of the L, O, and V series. Hand 103, on the other hand, writes tablets of the A, E, F, G, J, L, M, O, and V series. It is difficult, if not impossible, to make a case that any of the proposed subordinate scribes could be underrepresented as a result of the time of year in which the tablets burned. Furthermore, if we assume some level of scribal and informational hierarchy, then the more senior scribes will always have recording responsibilities, and will therefore always have more surviving tablets. Hand 1 is the best example of this.

The absence of intensive centralized scribal training post-NEP should come as no surprise. Olivier counts ca. 66 scribes at Knossos, and estimates the total scribal workforce at around 100.<sup>186</sup> If we take the lack of contemporaneity of tablet deposits into account, and omit the scribes of the RCT and the NEP from the total, that number is reduced to lower than 70. Omission of other archives that have been proposed to be earlier than the West Wing material (Room of the Column Bases, or RCB, and the arsenal), reduces further the number of scribes working contemporaneously just before the final destruction to around 50-60. Palaima estimates 32 scribes at Pylos, with at least one, Hand 91, dating to an earlier administration.<sup>187</sup>

The significance of these numbers can better be assessed by briefly returning to the Near East, where as we have mentioned, evidence for scribal practices is far more

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<sup>186</sup> Olivier 1967, p. 102.

<sup>187</sup> Palaima 1988, p. 172.

abundant.<sup>188</sup> Scribal education is abundantly attested at several sites from several time periods, as is a great number of professional scribes. In the Ur III period (2112-2004 BC), the number of scribes responsible for the tens of thousands of tablets has been estimated in the thousands.<sup>189</sup> Schoolhouses, as well as several private residences in which scribes were trained, have been excavated at several sites, some of which offer clues regarding the number of would-be scribes attending.<sup>190</sup> One house used for scribal training at Ur contained over 2000 tablets, dated to the first half of the 18<sup>th</sup> century BC.<sup>191</sup> This quantity is exceptional, particularly given the fact that the survival of school texts is largely accidental; large jars with pulped tablets indicate that educational materials were generally recycled.<sup>192</sup> Several of these schoolrooms were laid out to accommodate dozens of students. Finally, we also know from Uruk texts dating from 230-193 BC, the *floruit* of a scribe could span more than thirty years.<sup>193</sup>

Consider again the situation at Knossos, where we have an estimated 60 scribes working as contemporaries. Even if we decrease the average *floruit* of a Mycenaean scribe to 10 years, the palace would require only an average of six new scribes per year to maintain a consistent number of scribes. Pylos would require only half that number. The number of tablets excavated in the Near East, combined with the prosopographical evidence for scribes, combined with the capacities and numbers of schoolhouses, all reveal indirectly the constant and large-scale need for newly trained scribes. A

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<sup>188</sup> I will stress again that this information is not intended to serve as an anthropological parallel to the situation in Mycenaean Greece. This information merely serves as a framework from which to examine the Mycenaean material.

<sup>189</sup> Nemet-Nejat 2002, p. 55.

<sup>190</sup> Sjöberg 1976, p. 176-178.

<sup>191</sup> Tinney 1998. Note that this is the output that survived from a single scribal schoolhouse, not a practicing palatial administration, which would have been much larger.

<sup>192</sup> As a point of comparison to the tens of thousands of tablets from the Ur III period, approximately 1107 tablets were excavated at Pylos, and 3369 at Knossos.

<sup>193</sup> Pearce 1995, p. 2276. This is admittedly much later than our evidence, but merely introduces the possibility that a scribe working on clay in antiquity could function for this long.

centralized training location is the only logical means by which to keep up with the considerable demand for literate functionaries. In Mycenaean Greece, by contrast, the need would seem far less intense. Internship by lower-level non-literate officials as needed would surely suffice. Alternatively, the post of literate official is often a hereditary one.<sup>194</sup> These proposals are just speculation, but the fact remains that the number of scribes at Pylos and Knossos does not warrant the maintenance of a formal, centralized scribal school resembling the Near Eastern examples. Apprenticeship with a scribe in on-the-job training could fulfill the demand.<sup>195</sup>

Such a situation accords well with the evidence. The earliest scribes required training *en masse* in order to assume responsibility for the new Mycenaean administration. Driessen proposes a limited administration for Mycenaeans in the earliest phases of administration, perhaps even restricted to the concerns of the RCT.<sup>196</sup> The core of 13 or so literate officials responsible for the RCT would need to be augmented as the Mycenaeans assumed greater responsibility for the broader administration of Knossos.<sup>197</sup> The NEP material offers evidence of scribes continuing in group training, although they were either further away in time from their training than the scribes of the RCT, or they were trained in a less rigorous manner, such that they developed their own individual styles within the same paleographic system.

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<sup>194</sup> Amply attested in the Near East: Pearce 1995, Sjöberg 1976. Such a situation is also attested in Archaic Crete in the *poinikastas* inscription. See Jeffery and Morpurgo-Davies 1970. In this inscription, it is decreed that only a certain man named Spensithios and his descendants may function as the official scribe for the city in all official records. The decree then addresses the compensation that has been established for their role.

<sup>195</sup> As I will discuss in Chapter 6, scribes are not just scribes in the Mycenaean administration. They are literate officials who are required to use writing in the completion of their duties. An apprentice would be a perfectly functional assistant in all matters non-literate (which must have been considerable). He could learn the art of writing while serving in other non-literate capacities.

<sup>196</sup> Driessen 2000, pp. 218-219.

<sup>197</sup> This accords well with the thesis put forward by Driessen and Macdonald. They propose that the Mycenaean presence was only very gradually increased in order to allow for assimilation and an appropriate transition period. See Driessen and Macdonald 1997 (summary of conclusions on pp. 117-118).



This conclusion is predicated on the assumption that estimates of the number of scribes is roughly correct, and that these tablet scribes would be the only officials trained in writing. In the next section, I will consider the extent of literacy in the Mycenaean world. This assessment involves a consideration of the varieties of textual evidence that have survived, the use of Linear B vis-à-vis its predecessor, Linear A, and evidence for publicly-focused writing, as well as popular reaction to writing. I will follow this with a consideration of the levels of society in which the Linear B texts are found and used.

### **ARCHAEOLOGICAL EXAMPLES OF MYCENAEAN WRITING**

Excavation of Late Bronze Age sites has disproportionately favored palatial centers/citadels.<sup>198</sup> The full extent of Mycenaean literacy and the spread of writing cannot be measured through analysis of material remains alone.<sup>199</sup> Second-order centers have not yet received equivalent archaeological attention; much less third-order centers.<sup>200</sup> Even where excavations have been carried out, the absence of written records is not a guarantee that writing was not used at the site. The writing material must be durable, and able to survive in the Greek soil. Papyrus, parchment, and unbaked clay are all sure to be almost completely absent from the archaeological record.

The Linear B tablets that have survived were unintentionally baked in fire destructions. The conditions of such a firing process are less than ideal for the preservation of clay. Sites destroyed by any other means would not likely offer up any

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<sup>198</sup> Recent work, such as that undertaken by the Pylos Regional Archaeological Project (PRAP) has served to introduce extra-palatial territories into the textual and archaeological dialogue. Unfortunately for present purposes, such data cannot speak to questions of literacy and use of writing.

<sup>199</sup> Several of these concerns were noted in Palaima 1987. Of necessity I return to them here with additional considerations.

<sup>200</sup> The notable exception for second-order centers being Nichoria. For its status as a second-order center in the Pylian kingdom, see Shelmerdine 1981. The Pylian second-order center at Iklaina is now currently under excavation as well, and has produced a Linear B tablet fragment. See <http://news.nationalgeographic.com/news/2011/03/110330-oldest-writing-europe-tablet-greece-science-mycenae-greek/>.

clay tablets. The LH IIIB site of Nichoria, likely *ti-mi-to a-ko* in the Linear B texts, was abandoned, and *not* destroyed by fire. Nonetheless, the excavators conclude that the creation and storage of administrative documents was the concern of the palatial center at Pylos, and not Nichoria.<sup>201</sup> Had there been a fire destruction, remains of administrative documents would likely not have been recovered anyway. I agree with the assessment that there were likely no tablets stored at Nichoria.

A new tablet find from Iklaina – a second-order center under Pylos, and likely to be identified with the place name *a-pu<sub>2</sub>* in the Pylos tablets – offers new evidence for Mycenaean literate administration. Let us briefly consider the events surrounding the acquisition of literacy on the Mycenaean mainland, in particular in the Pylian territory. The palace was established as a first-order center, exercising authority over second-order centers, in LH II/IIIA.<sup>202</sup> Prior to the rise of the palace, in the absence of a commanding Messenian first-order center, the 16 second-order centers would have been first-order centers of their own smaller territories. We can be sure that prior to LH II, their administrative systems were entirely non-literate.<sup>203</sup> All of their administrative needs could be taken care of without the aid of writing. With the rise of the palace, however, the territory covered by this new first-order center required a means of administering a much larger (16x larger than before) territory. Contact with Crete provided the palace at Pylos with Linear B and a system of literate administration with which to manage its complicated affairs. The second-order centers, however, did not expand their territories in any way, and so their administrative concerns were unchanged from before the palace.

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<sup>201</sup> McDonald and Wilkie 1992, p. 767. Evidence for fire destruction was visible in very few locations, none of which turned up administrative documents. McDonald and Wilkie 1992, pp. 363, 428, 429, 454.

<sup>202</sup> Shelmerdine 1997, p. 558. This process was gradual, and sites in the Further Province likely were not incorporated until later. See Bennet 1998.

<sup>203</sup> The possibility exists that the Iklaina tablet predates Pylian control of the region. Such a scenario would imply that all second-order centers could have been using writing in their administrations prior to the takeover by Pylos. This seems unlikely, but the possibility should be acknowledged.

Accordingly, there is no reason why they should have acquired literacy to administer a territory that they had already been controlling continuously through non-literate means.

There is one new wrinkle for these second-order centers, however. In addition to the management of their continuously-held territories, they are now beholden to the palace at Pylos as well, thus establishing one new – and significant – administrative artery. Such an addition, while certainly a new and more complex concern, in my view does not require the acquisition of literacy for all of administration at the second-order center. Furthermore, as I will argue in Chapter 6, the Linear B documents that survive appear to be tools only for administration of palatial concerns while providing transactional proof to the central administration. There is no evidence for any kind of receipt function – that is, no two-way proof of a transaction – in the Mycenaean use of writing. For these reasons, I would suggest Linear B administrative documents from second-order centers should not be considered the archives or records of the second-order center in question. Rather, they are likely records from an office serving as an outpost or embassy from the palace itself. In this way, there is no unnecessary literacy acquisition at the second-order center, as their administration could function as it always had, for the most part. The only addition to administration – the subordination to the palace – would be administered and dictated by the palace itself, thereby covering all new arenas of administration introduced by the advent of the palace. These offices would employ scribal officials who were trained at the palace, and would see to the palace's needs at the second-order center and make sure the shipments that were supposed to take place did in fact occur.<sup>204</sup> They would function just like embassies. In this way, the palace most

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<sup>204</sup> An example of this kind of interface is found in tablet PY Jn 829. The header of this tablet informs us that the palace is collecting bronze from the second-order centers. Several officials are recorded as sending bronze to the palace, including the *ko-re-te-re*, *po-ro-ko-re-te-re*, *o-pi-su-ko*, and the *o-pi-ka-pe-e-we*. In the list of bronze shipments that follows the header, only the *ko-re-te-re* and *po-ro-ko-re-te-re* are listed. It can be inferred that they acted as intermediaries for the palace in amassing the bronze shipments from the other named officials.

efficiently can address all new administrative concerns. Accordingly, I would argue that any administrative documents found at second-order centers should still be treated as documents of the central administration, by officials of the central administration, and for officials of the central administration.<sup>205</sup>

We may find some supporting evidence for this reconstruction in the paleographical analysis of the new tablet from Iklaina. In his examination of this tablet, Palaima has noted that the sign forms bear some resemblance to those in use in the RCT at Knossos.<sup>206</sup> The tablet comes from a mixed context, with sherds dating from LH IIB to early LH IIIA2, and so may be chronologically close to the RCT material.<sup>207</sup> Beyond comparison to the RCT material, it may be safer to note that the paleography exhibits early features in comparison to tablets from Pylos. Only further excavation can address these matters. If we treat the Iklaina tablet as an example of literate administration of a second-order center, distinct from the palace, then we have to imagine that officials from Pylos, and all second-order centers under Pylian control at this time, had to be assembled for training. Either the scribes in training had to travel to each center, or several officials had to come from each center to Pylos for training. Either instance suggests a significant amount of mobilization. Furthermore, we should consider the number of literate administrators required to run administration at each second-order center. Given the estimate of 32 scribes at Pylos, how many would be required to implement a similar administration at a lower-order center? Even if half or one-quarter of this amount, we are

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<sup>205</sup> Potential supporting evidence may also come from Khania on Crete, where as noted earlier Khania Hand 115 is remarkably similar to Knossos Hand 115. Perhaps they served at opposite ends of the administrative tether connecting Knossos to the Knossian embassy at Khania. This is supported by Palaima's observation that the quantities described in the Knossos tablets – at one point listing 100,000 liters of grain – suggest that the area under the control of Knossos was greater than any mainland palace (Palaima 1990, p. 98).

<sup>206</sup> Palaima *per litteras*, April 2011.

<sup>207</sup> See the Iklaina Annual Report for 2010 at

<http://www.umsl.edu/~cosmopoulosm/IKLAINA04/docs/2010report.pdf>.

still talking about the mobilization of as many as 8x16 or 128 more literate officials to be trained. If writing had been unnecessary to this point in the administration of the second-order centers, such a massive effort hardly seems necessary or productive. On the other hand, if each site had a small satellite embassy to address only palatial input, then only an additional one or two scribes per site need be trained at the center. Then those scribes go out to the second-order centers to maintain the palatial interests only. The introduction of literacy need not be intensive at these secondary sites. Anything more intensive would be a significant and unnecessary undertaking, and would spread literacy further than it needed to be spread.

At sites where tablets and sealings have been recovered, they are often extremely fragile and barely recognizable as anything other than a clod of earth. Such was the case with the most recent tablets excavated at Thebes and Khania.<sup>208</sup> Unless an excavator is prepared to discover tablets, they can easily overlook and discard them. Evans learned of the fragility of the tablets when “[i]n more than one case...a torrential storm of rain at the moment of excavation reduced both tablets and clay sealings to pulp.”<sup>209</sup>

On the plus side, ceramics are virtually indestructible. Inscribed stirrup jars (ISJs) have been found at a great number of sites, although they all seem to claim Western Crete as their place of distribution and export from Crete.<sup>210</sup> Because of the durability of ceramics, it should come as no surprise that the ISJs are found at a few sites – Kreusis, Eleusis, Armenoi and Gla – where textual remains are otherwise absent.<sup>211</sup> ISJs were also unearthed at Tiryns, Mycenae, Thebes, Khania, Mameloukou, and Midea. *Incised*

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<sup>208</sup> Thebes: Aravantinos, Godart, and Sacconi 2001, pp. 9-10. Khania: Hallager *et al* 1990 and Hallager *et al* 1992.

<sup>209</sup> Evans 1921-35, pp. 592, 669.

<sup>210</sup> Van Alfen 2008 offers the most recent account of the ISJs.

<sup>211</sup> Presence of ISJs at a site in no way suggests that writing was in use in other forms and on other writing materials. More on this in the next section.

vases – as opposed to the painted signs of the ISJs – include PY Za 1392 and KH Z 16.<sup>212</sup> Both are inscribed with a single Linear B sign. Van Alfen also mentions the *painted*-inscribed MY Z 712, TI Z 28, KN Z 1715, and KH Z 23-25.<sup>213</sup> These painted-inscribed vessels are also not ISJs. Not surprisingly, the non-ISJ inscribed vases are all from sites – Mycenae, Tiryns, Knossos, Khania, Pylos – at which Linear B was in use in other forms.

Because of the archaeological focus on palaces, we can be sure that the material remains of writing from the palaces represent a reasonable sample of uses of writing on lasting materials. One would be hard-pressed to argue that other uses of writing, such as histories, propaganda, or ritual texts, did exist on durable materials, and yet failed to survive, especially given the fiery destructions of the palatial centers.<sup>214</sup> I also assume that any manner in which writing was used in any region would not fail to be represented at the palatial center of that region. For example, the absence of histories at the palatial centers is assumed to represent the absence of histories at any outlying sites as well. If the Mycenaeans used Linear B to correspond, we should find such correspondence first at the center, if we should find it anywhere.<sup>215</sup> Types of texts and the use of writing should spread outward from the literate center, rather than shift wholesale to lower-order centers on the basis of content. We cannot be entirely sure what types of texts, if any, would have been used at non-palatial sites, but it is a reasonable assumption to expect examples of all forms of writing on durable materials to be found at the palaces. The palatial

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<sup>212</sup> In this section I will distinguish between *painted*-inscribed and *incised*-inscribed. Because the term *inscription* has become so broad as to include any instance of writing regardless of medium, I will use these extended terms to avoid any confusion.

<sup>213</sup> Van Alfen 1997, p. 252, n. 2.

<sup>214</sup> In the Near East, different writing materials were used for different types of texts. However, the *only* surviving texts from Mycenaean Greece occur on clay tablets and sealings, and on a small number of ceramic vessels. Such a meager corpus does not inspire confidence that other durable materials, such as stone, ivory, or shell, were also used but happened to entirely disappear from the record.

<sup>215</sup> The exception to this argument is the use of writing on the ISJs. However, I agree with van Alfen's argument that the ISJs do not demonstrate use of writing at their locations of discovery. Rather, the inscription lost its literate meaning once it left the production facility in Crete. Non-palatial ISJs reveal nothing about the levels of literacy where they were found. See next section for a more detailed account.

centers inarguably host those of highest status, of greatest wealth, and are reasonably expected to also host the majority, if not the entirety, of writers and readers. Studies indicate higher literacy rates in urban centers than in outlying rural areas.<sup>216</sup>

## **TYPES OF LINEAR B INSCRIPTIONS AND THE EXTENT OF LITERACY<sup>217</sup>**

### **Assumptions regarding levels of literacy**

I begin this study with the assumption that literacy is highly restricted in the Mycenaean period. The surviving evidence seems to indicate limited use of writing. Most Mycenologists and Bronze Age archaeologists approach the material under the assumption of a restricted literacy.<sup>218</sup> In the past, several scholars, most notably Wace, Hooker, and Andronicos, have argued for much broader literacy, even continuing after LH IIIC.<sup>219</sup> Few scholars espouse such ideas today, if any. In the interests of providing a balanced account, I will comment briefly on the main points of the argument for widespread literacy. Much of the argument is based on a reification of the Ancient Greeks, as is demonstrated by Wace's justification for the belief that writing continued after the destruction of the palaces, "It is incredible that a people as intelligent as the Greeks should have forgotten how to read and write once they had learned how to do so. It is more probable that the Linear B script continued in use..."<sup>220</sup>

Central to the argument for broad literacy is the so-called Eteocretan inscription from Psychro (Figure 3.1).<sup>221</sup> It is commonly known as the "Epioi" or Pyschro

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<sup>216</sup> See general comments in Matsuura 2001.

<sup>217</sup> The Kafkania pebble (OL Zh 1) will not be considered in this discussion. Concerns about its authenticity are too numerous and profound to allow this object into the discussion of Mycenaean literacy. For the most thorough discussion of the problematic features of the pebble, see Palaima 2002-3.

<sup>218</sup> Comments to this effect precede discussions of literacy in Bennet 1997, Snodgrass 1980, p. 79, and Harris 1989, p. 7.

<sup>219</sup> Wace: Bennett 1958, pp. 3-4, also his preface to *Docs*<sup>2</sup>; Hooker 1972; Andronicos 1968.

<sup>220</sup> Ventris and Chadwick 1972, p. xxxii.

<sup>221</sup> Marinatos 1958.

inscription. The letter forms date the inscription to the 3<sup>rd</sup> century BC. At the bottom of this inscription there are three incised signs that resemble inexactly Linear A forms. Often used as evidence of the survival of Minoan syllabic writing into the historical period, this inscription has recently been conclusively demonstrated to be a modern forgery, etched into a Roman brick.<sup>222</sup>



Figure 3.1: The Psychro Inscription

The status of the extramural houses at Mycenae has also been used to claim private use of writing. However, studies of the texts and architecture of these buildings have convincingly demonstrated that these houses are part of the palatial administration, rather than private operations.<sup>223</sup> This facet of the argument for widespread literacy is

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<sup>222</sup> Kritzas 2006. See also Duhoux 1982.

<sup>223</sup> See Chapter 5. The Panagia Houses, while likely domestic, do not necessarily demonstrate widespread literacy.



also no longer tenable. Without the Psychro inscription and extramural houses as tent poles, the argument for widespread literacy has no basis in positive evidence. Restricted literacy is suggested by the positive evidence, so I begin with this assumption.<sup>224</sup>

### **Inscriptions on vessels**

Nearly 180 ISJs have thus far been unearthed. As noted above, these are found at many varied sites, with one particular concentration in the northeast of the Peloponnese. Analysis of the clay has confirmed a common West Crete origin for most of these vessels.<sup>225</sup> The fluid and abstract style of the painted inscriptions has been the subject of much discussion.<sup>226</sup> Some have proposed that these represent the work of illiterate potters who learned to copy the inscriptions from literate scribes. Others have used these inscriptions as evidence of a much higher level of literacy than previously assumed.<sup>227</sup> Extra-palatial shipment of inscribed vessels which made their way to several locations in Greece would seem to suggest broad literacy. As Wace noted,

“The number of inscribed stirrup jars indicates that more people must have been able to read and write than has been assumed. It would be useless to inscribe

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<sup>224</sup> Other arguments put forth by the authors mentioned above do not merit discussion at this point. Andronicos notes the similar gap in evidence of writing in Cyprus, before and after which the same script – Cypriot syllabic – is in use. This demonstrates only the *possibility* of an epigraphical gap. He makes no effort to demonstrate that both gaps are of the same character; of course, they are not. Finally, Andronicos argues that the invention of signs for pure vowels in the Greek alphabet was revolutionary, and could not have been conceived of unless the inventor was already familiar with a script that used such signs. The inventor thus must have been familiar with Linear B. However, the invention of signs for pure vowels is not at all extraordinary. Pure vowels can be found extensively in world scripts, including most types of cuneiform (including Hittite, Akkadian, and Elamite), Japanese Hiragana, Mayan hieroglyphic, and of course Linear B. One could also argue that Egyptian hieroglyphic includes the vowels [a], [i], and [u], although these are more commonly represented as a glottal stop and the semiconsonantal glides [j] and [w], respectively. The invention of signs for pure consonants combined with pure vowels is the momentous offering of the Greek alphabet. Knowledge of Linear B offers no assistance in such a development.

<sup>225</sup> Most recently Mommsen et al 2002. Also Day and Haskell 1995. Day notes that the clay analysis is more complex than this, and that the ISJs were manufactured in many more locations on Crete (*Day per vocem*, January 2007).

<sup>226</sup> See van Alfen 1997 for bibliography and summary.

<sup>227</sup> Bibliography for these debates and discussion in Hallager 1987.

stirrup jars if those who handled them could not read what was written on them.”<sup>228</sup>

On the surface, such an argument seems perfectly reasonable. However, as van Alfen has convincingly argued, the inscriptions on the ISJs likely ceased functioning at some point in distribution prior to their arrival at their destination. These were brief inscriptions, usually consisting of a personal name in the nominative, sometimes followed by a toponym, and then by the name of the collector or the person ultimately responsible for the contents and for whom the person mentioned in the first line works. They were not painted on every stirrup jar in a shipment; we would have thousands of examples otherwise. A single ISJ would serve as the label for the entire shipment. The inscription would identify the manufacturer to the distributor, also in Western Crete. As early as this point in the process, the inscription could cease to have any function, as the shipment from smaller processor to larger distributor was received and recorded. Wherever the jar was shipped next, whether Gla, Orchomenos, Thebes, etc., the inscription was no longer relevant. The lack of precision in the inscriptions supports this scenario. In a closed system, the inscription of each distributor would need only to be distinguished from the other distributors, much like a signature. As long as the inscription is legible, or at least identifiable, within the system, it does not have to be legible to any other literate individuals outside of the system.<sup>229</sup>

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<sup>228</sup> Bennet 1958, p. 4.

<sup>229</sup> Palaima has suggested as a modern parallel the handwriting found on prescriptions. Although the patient brings the prescription from the doctor to the pharmacy, the patient does not participate in the literacy practice of the written prescription, and more often than not cannot read the contents. The doctor can be certain that the pharmacist, trained in the interpretation of the prescription writing style as well as in the range of technical system-internal words that the doctor is likely to write, will have no problem determining the requirements set forth by the doctor, and will be aware of the limited possibilities for interpretation of the words written.

Everything that is written has at least one writer and one reader, even if the reader is a divinity, imagined, or a conceptual entity.<sup>230</sup> In the case of the ISJs if, as van Alfen proposes, the inscriptions were relevant only at the point of production, and were intended to be records within a closed system, then writer and reader were accounted for before the oil ever leaves Crete. The presence of ISJs says nothing about the extent of literacy at any other site where they have been found, *merely by virtue of the presence of writing*. The presence of ISJs does demonstrate the likelihood of trade with Crete, which would seem to demonstrate a level of prestige and external contact generally reserved for the elite.<sup>231</sup> Individuals who have trade contacts with Crete likely represent palatial elites. By extension, the ISJs *as Cretan prestige items* may indicate palatial elite status. However, the presence of these literate documents *per se* does not speak to the extent of literacy or even the presence of literacy where they are found. We can only note that those who came into contact with writing were *de facto* aware of writing, and may have attached a high status to the technology of writing because of its rarity or its connection to the palaces and prestige items. Of particular interest in this regard are the ISJs from Thebes.

The ISJs are found in an anomalous situation at Thebes. Over 120 stirrup jars were all found together in one hallway of the first Mycenaean palace here.<sup>232</sup> One third of these were ISJs. This is an extraordinarily high ratio of ISJs to non-ISJs. It is difficult to reconcile this assemblage with van Alfen's thesis, in which he noted that the uninscribed stirrup jars so vastly outnumber the ISJs that individual ISJs must have been intended to label an entire shipment of oil consisting of many stirrup jars. If we had an accurate sample set at Thebes, then that would mean that there was one labeled jar for

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<sup>230</sup> For example, at the Wailing Wall in Jerusalem, people leave notes or prayers in the cracks of the wall. These are not intended to be read by mortal eyes.

<sup>231</sup> On elite trade contacts, see Wright 1995.

<sup>232</sup> Symeonoglou 1985, p. 42.

every three, which is hardly an economical application of writing.<sup>233</sup> Several possible scenarios could account for this assemblage. These inscribed stirrup jars could have been intentionally culled from the entire field of SJs and ISJs in Crete, prior to export. The ISJs could have been intentionally hoarded by the palace, either as a curiosity or prestige item. There may also be factors in the distribution that are simply not transparent to us. It is possible that they were preserved simply for the intrinsic value, interest, or prestige conferred by the inscription itself, since the contents of these inscribed jars would have been identical to the contents of the uninscribed jars. The location of these vessels in a narrow hallway, mixed in with twice as many uninscribed stirrup jars, might speak against their status as prestige items to a degree. However, if Cretan vessels themselves are prestige items, then inscribed Cretan vessels should be as well, which would account for the preservation of both, favoring the inscribed vessels over the uninscribed. There is only circumstantial evidence to support this speculation. It is also possible that the inscriptions on the ISJs served as labels to the recipients of the oil, even if the recipients could not “read” the inscriptions, allowing them to identify the quality of the oil contained in the jars. Some ISJ inscriptions have been interpreted as decorative. While several of these were later demonstrated to be functional,<sup>234</sup> more recent scholarship proposes a decorative function for at least one ISJ, MA Z 3 from Mallia, which would imply that the inscriptions inherently had some prestige value.<sup>235</sup> While they may not have been intended to have any prestige value when shipped from Crete, the recipients of the ISJs seem to have felt differently about them. Also potentially supporting the

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<sup>233</sup> This is assuming that whole shipments were kept for each ISJ in this location.

<sup>234</sup> Some Theban ISJs were first identified as local products, and thus the inscriptions were deemed to be imitative of those found on the Cretan imports. More recent analysis has revealed these to be of Cretan origin as well, restoring utility to their inscriptions. See Day and Haskell 1995.

<sup>235</sup> Unpublished work, cited in van Alfen 1997, p. 253 n. 6.

argument for the prestige value of ISJs are the inscribed vessels other than ISJs, and the possible existence of nonsense/imitation inscriptions in and after the Mycenaean period.

As mentioned above, there are inscribed vessels other than ISJs from Tiryns, Thebes, Mycenae, Knossos, Pylos, and Khania.<sup>236</sup> These inscriptions are extremely fragmentary, making it difficult to draw conclusions from their find contexts. Below I will discuss this class of artifacts briefly in an effort to assess their significance and status.

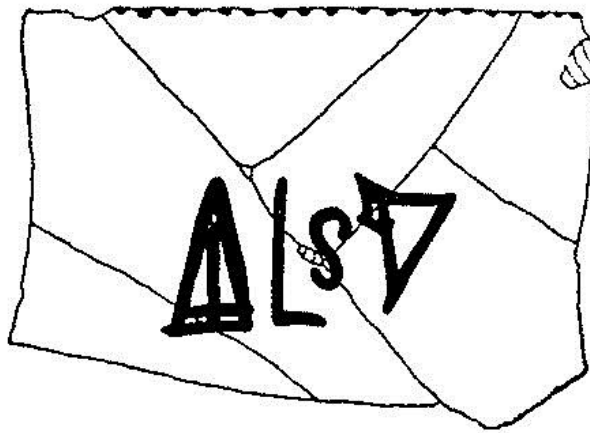


Figure 3.2: MY Z 712

***MY Z 712 – personal name in the nominative (figure 3.2)***

This is a fragment of a deep bowl, on which is painted *pi-ra-ki*, likely a personal name, perhaps *Philakis* or *Philalkis*.<sup>237</sup> The inscription was painted just below the lip of the bowl. The fragment comes from Room TC just inside the north fortification wall. Also found in Room TC were ivories, amber beads, a three-legged spouted stone basin, and a terracotta female figurine.<sup>238</sup> This name shows up one other time at Mycenae, on

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<sup>236</sup> It should be apparent to the reader that I am using the terms “inscription” and “inscribed” in the generic modern sense, meaning “writing” and “written upon” respectively. As noted above, this term covers both painted and incised inscriptions.

<sup>237</sup> Aura Jorro 1993, p. 122.

<sup>238</sup> Mylonas 1963, p. 216-217.

MY Au 657, which is from the West House. This tablet is not very forthcoming with information; it provides only a list of men's names in the nominative, followed by the ideogram for "man" and the number 1. The context of the bowl is LH IIIB.



Figure 3.3: TI Z 28

***TI Z 28 – single sign a (figure 3.3)***

TI Z 28 is also a deep bowl. The only preserved sign on the fragment is *a*, painted over the decoration. The inscription was painted just below the lip of the bowl. A second sign follows, but is too fragmentary for any attribution. The fragment comes from south of the west postern gate. The other remains from the area of this find include fresco fragments, both from the earlier and later periods. This bowl also dates to LH IIIB.



Figure 3.4: KN Z 1715

***KN Z 1715 – wa/ja- \*89-a (figure 3.4)***

KN Z 1715, also a deep bowl, comes from an LH IIIA2 context in the Court of the Distaffs, rather than the light well in the Hall of Colonnades.<sup>239</sup> The inscription is painted just below the lip of the bowl. The word cannot be read, as \*89 is a *hapax*, and no value has yet been proposed for this sign.<sup>240</sup> It does appear that these were the only three signs in the inscription. The fragments also preserve elements of decoration. Unfortunately, the find context does not reveal anything further about the bowl.

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<sup>239</sup> Raison 1968, pp. 183ff. Evans published both locations as the find-spot for this fragment. Raison concludes that the Court of the Distaffs is the correct find-spot, and only later was confused.

<sup>240</sup> In his discussion of untransliterated syllabograms, Melena chooses not to address this sign, suggesting that it may just be an inverted, simplified *ma*. In any event, it is a *hapax*, and so any value assigned is speculative. See Melena forthcoming, p. 49.

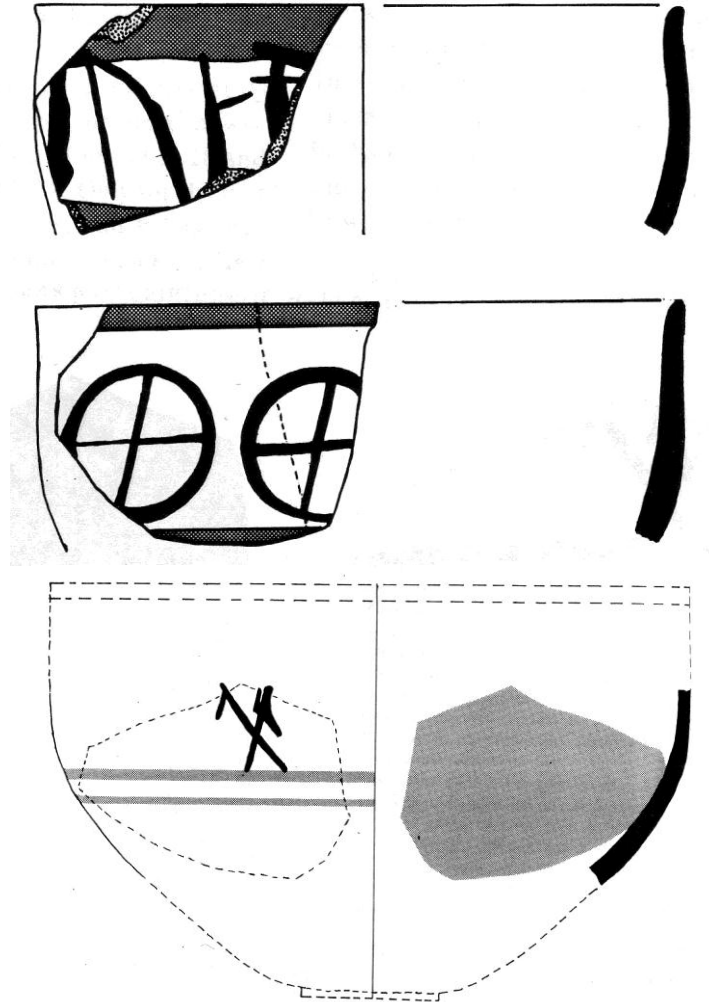


Figure 3.5: From top to bottom - KH Z 23, KH Z 24, KH Z 25

***KH Z 23-25 - ]tj-da-[ , ]ka-ka[, je (figure 3.5)***

KH Z 23 and KH Z 24 are fragments of cup rims. KH Z 25 is from a deep bowl. KH Z 23 and 24 were found in the same contexts, and date to LM IIIB. Hallager suggests that both inscriptions are personal names. KH Z 25 was found in modern fill, but the vessel (shape FS 284) dates to LM III. Hallager notes that there may have been



shrine material in the rubbish pit where KH Z 23 and 24 were found.<sup>241</sup> For this reason, and as a parallel to the use of Linear A on vessels at shrines, he suggests that these inscriptions are better considered as connected to cult, rather than as personal possessions.<sup>242</sup>

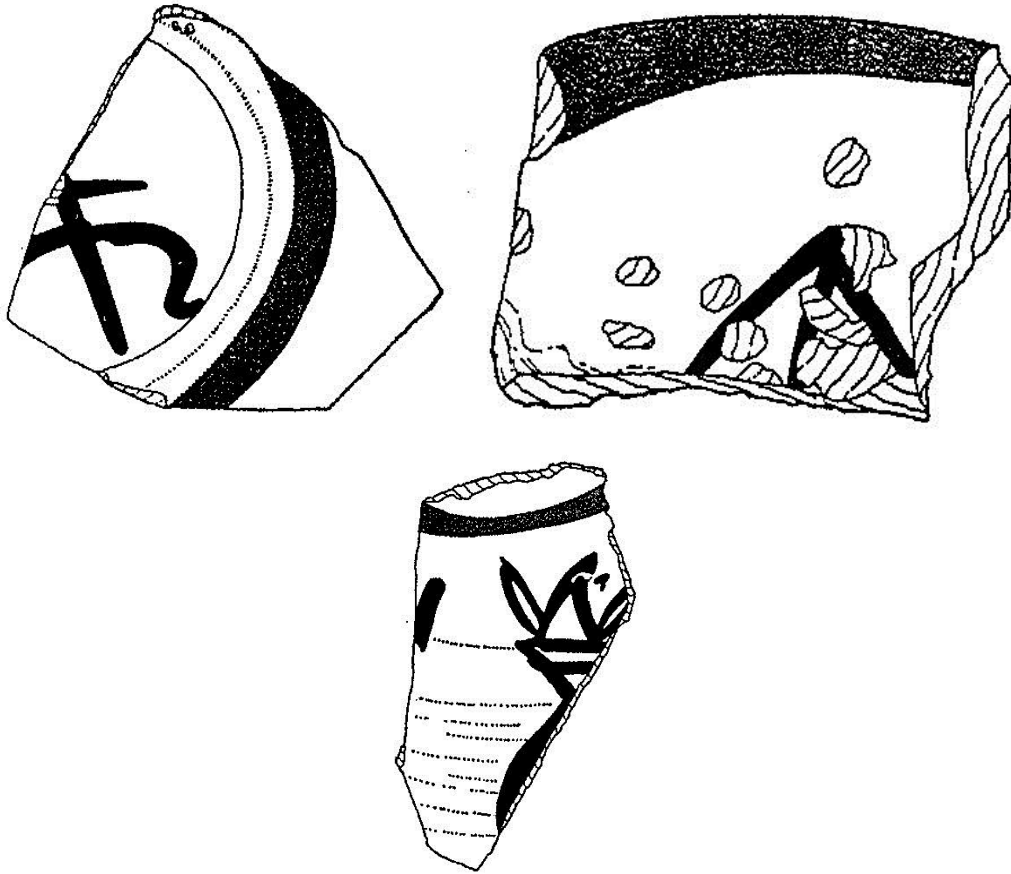


Figure 3.6: TI Z 52, MY Z 207, and MY Z 716

***Other painted vessels (figure 3.6)***

The remaining vessels are of indeterminate shape, with partially preserved inscriptions. Accordingly, they have little to offer to this discussion. TI Z 52 is a base from a deep bowl with the preserved sign, perhaps ]ri. MY Z 207 and MY Z 716 are

<sup>241</sup> Hallager 1983, p. 72

<sup>242</sup> Hallager's objections to the idea that these are personal inscriptions will be addressed below.

both from disturbed contexts. They preserve single signs, perhaps *zo*[ and ]-*de*, respectively. Without vessel shape, context, or more complete inscriptions, these fragments at least inform that inscribed vessels were in use at Mycenae.

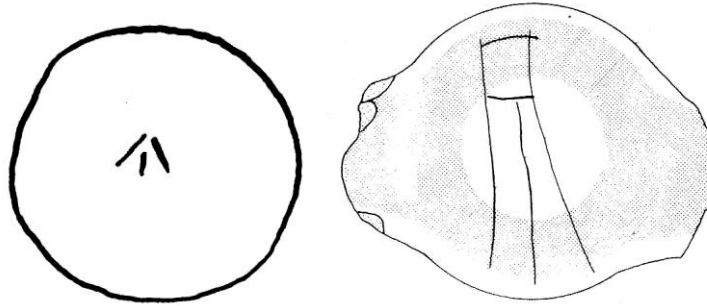


Figure 3.7: PY Za 1392 and KH Z 16

### *Incised vessels (figure 3.7)*

There are at least three vessels incised with Linear B characters. Each one is incised with a single character. PY Za 1392 is the base of a coarse pot, found in a drain northeast of the palace. The bottom of the base was incised with the sign *ti* prior to firing.<sup>243</sup> The location and form of the mark are consistent with the use of potters' marks in the region.<sup>244</sup> KH Z 16, a stirrup jar, was incised with a *wa* on the disc atop the false neck.<sup>245</sup> Blegen reports that this sign was incised before firing. The vase dates to LM IIIB. Again the lack of context, comparanda, and intelligible inscription allow only for speculation. Hallager compellingly argues that the *wa* should be taken as an abbreviation for *wa-na-ka-te-ro*, as it is elsewhere.<sup>246</sup> These vessels demonstrate another writing technique for Linear B, even if the use is not entirely clear. An administrative function cannot be ruled out, nor can any other function.

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<sup>243</sup> It is difficult to determine whether signs were incised pre or post firing. Hirschfeld *per litteras* (May 2011) is of the opinion that the sign on PY Za 1392 was incised post firing.

<sup>244</sup> Hirschfeld *per litteras* (May 2011). Potters' marks were used for a variety of reasons in pottery workshops. For a detailed treatment of Eastern Mediterranean potters' marks, see Hirschfeld 1999.

<sup>245</sup> Hallager and Vlasakis 1976.

<sup>246</sup> *Ibid.*

### ***Observations on the non-ISJ vase inscriptions***

All of the inscriptions that appear to be complete on these vases are extremely short. The longest is three characters; three inscriptions are complete with a single sign (KH Z 25, PY Za 1392, KH Z 16). The brevity of inscriptions indicates that even if their function was administrative, the intended audience did not have to be literate. As we shall see in Chapter 4 with Minoan sealing traditions, a single sign, even if a character from a script, does not have to be read as written language. If the sign *ti* on PY Za 1392 indicated the storeroom where it was to be housed, the same information could just as easily be communicated by a different sign, a number, a star, or any other shape. The *ti* may have had a language value for the writer, but that does not necessarily transfer to the reader.

Table 3.2 summarizes the types and dates of these vessels:

<b>VESSEL</b>	<b>TYPE</b>	<b>PLACEMENT</b>	<b>DATE</b>	<b>TEXT</b>
MY Z 712	deep bowl	below lip	LH IIIB	<i>pi-ra-ki</i>
MY Z 207	?	unclear	?	<i>zo[</i>
MY Z 716	?	unclear	LH IIIB	<i>]-de</i>
TI Z 28	deep bowl	below lip	LH IIIB	<i>a[</i>
TI Z 52	deep bowl base	below base	?	<i>]ri</i>
KN Z 1715	deep bowl	below lip	LM IIIA2	<i>wa/ja-*89-a</i>
KH Z 23	cup	below lip	LM IIIB	<i>]tj-da-[</i>
KH Z 24	cup	below lip	LM IIIB	<i>]ka-ka[</i>
KH Z 25	deep bowl	well below lip	LM III	<i>je</i>
KH Z 16	stirrup jar	false neck	LM IIIB	<i>wa</i>
PY Za 1392	coarse pot	below base	?	<i>ti</i>

Table 3.2: Vessels inscribed with Linear B

Excluding ISJs, only 11 vessels incised/inscribed with Linear B have thus far come to light in excavations, amidst thousands of examples of fine and decorated pottery. Inscriptions on vases other than ISJs are exceedingly uncommon. All of the datable

domestic vessels discussed here are from LM IIIA2 or later. All seven painted inscriptions on fragments from identifiable vases are from fine tableware. Five of these inscriptions are on deep bowls, and two on cups. With the exception of TI Z 52, these inscriptions occur on the side of the bowl or cup, usually just below the rim.<sup>247</sup>

These vessels are not used for storage, transport, or cooking. Nor are they standard tableware. We have seen the thousands of kylikes and other vessels used for service at feasts at the palace of Pylos.<sup>248</sup> The inscribed vessels are unique pieces of decorated tableware. Because of the special nature of the vases and the brevity of the inscriptions, I propose that these vessels indicate a non-administrative usage of Linear B. The only complete, translatable inscription is a man's name on MY Z 712. As noted above, Hallager proposes personal names for the inscriptions on KH Z 23 and 24. The other inscription that may be complete, on KN Z 1715, is not inconsistent with personal names in Linear B. The word itself cannot be identified because of sign \*89. Furthermore, word-final *a* is quite rare. However, there are two personal names in the tablets that end with the sign *-a*. The personal name *ko-a* appears on KN X 737, and the name *a-me-a* on KN Da 1189 and KN Od 765.<sup>249</sup> Both names were found at Knossos, and the latter name has been identified as a prehellenic name.<sup>250</sup> In our example, the unique sign \*89 may indicate a non-Greek personal name.<sup>251</sup> If these tableware inscriptions were intended to designate ownership and/or user, it is interesting that we potentially have an example of an individual at Knossos with a Minoan name displaying his status with a fine-ware vessel bearing his name in a script that was used by

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<sup>247</sup> Note that the base of TI Z 52 was the only fragment of the vase that was recovered. We cannot be sure that this was the only mark on the bowl. The completed bowl could very well have displayed an additional inscription on the side below the rim.

<sup>248</sup> Particularly the finds from Room 19, the "kylix pantry." For description, see Blegen and Rawson 1966, pp. 123-125.

<sup>249</sup> *ko-a*: Aura Jorro 1985, p. 371. *a-me-a*: Aura Jorro 1985, p. 55.

<sup>250</sup> *Ibid.*

<sup>251</sup> On the use of rare signs to represent pre-Greek names on Crete, see Melena forthcoming.

Mycenaeans (but borrowed from the Minoans), during the period of Mycenaean control at Knossos.

Such a prestige use of writing requires no special pleading. Not only is the practice of inscribing personal names and personal information on display items common in other societies, both contemporary and in other time periods, it is difficult to find many literate communities that do not do so. Vessels inscribed with personal names are found in Greece, the Near East, Egypt, and all the way up to the present-day Disney World gift shop. Linear A was also used on vessels, although ascertaining the functions of the inscriptions in those cases is hampered by the lack of a decipherment.<sup>252</sup>

Hallager raises two objections to the idea that these were personal prestige items.<sup>253</sup> First, these inscriptions are too few. If they were a sign of prestige, they should have occurred in much greater numbers. Second, they would have been found in some number in burials, as grave goods. A personally inscribed possession such as this is what one would expect in a grave. As noted above, Hallager tentatively then suggests cultic use, or perhaps some other function. As I will discuss, I find neither objection very compelling, and his alternative proposal of a cultic function is not free from the same concerns he raises for the prestige interpretation.

Logically, inscribed objects of every variety are rarer than their non-inscribed counterparts. Inscribed archaic Attic vases are far less common than uninscribed ones. Yet it would be hard to argue with the prestige value of writing in the archaic period.<sup>254</sup> Given the facts that Linear B is used uniformly across all sites at which it is found, yet virtually no remains of Linear B on materials other than administrative tablets and

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<sup>252</sup> No examples of a precisely parallel use of Linear A are definitive. There are a small number of instances in which Linear A is used on small vessels that are not administrative in nature. Most notable are KE Zb 3 and Zb 4 from Kea, MI Zb 1 from Milos, and KN Zc 6 and Zc 7 from Knossos.

<sup>253</sup> Succinctly put in Hallager 1983, pp. 72-73.

<sup>254</sup> On this subject, see Immerwahr 2006.

sealings have been recovered, I would not consider nine painted vase fragments from four different sites – on Crete and on the mainland – as evidence against personal prestige value. While these vessels occur in small numbers, the sites at which they occur show that the idea to paint personal vessels is geographically widespread.

Furthermore, as I have argued throughout and will address in greater detail in Chapter 6, Mycenaean literacy was highly restricted. The use of writing, while possessing prestige value among elites, would have been virtually unseen by the general population. Among the Mycenaean we should expect these items to be of prestige exclusively to the elite, and the small number of surviving inscribed vessels attests to that fact.<sup>255</sup>

Hallager's second objection – that if these were prestige items, they should have been found in tombs as grave goods – can be dismissed by his first. With only nine inscribed personal vases found thus far, why should we expect to find anymore anywhere, much less in tombs? Hallager would have a stronger argument if these vessels were present in statistically significant numbers. At present, the fact that zero out of nine vessels with painted inscriptions were found in tombs carries little weight. Furthermore, these vessels are open shapes. In tombs we expect closed vessels. Accordingly, it would be odd to find our samples in tombs.<sup>256</sup>

The suggestion that these may therefore be cultic is also debatable. The shapes certainly do not speak to a cultic function. The only tenuous link to cultic context is the Khania shrine dump.<sup>257</sup> Repetition and patterns of assemblage are the archaeological identifiers of cultic contexts. These nine vases suggest anything but repetitive or ritual action. Finally, Hallager makes passing reference to the fact that cultic use of Linear A is

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<sup>255</sup> On prestige items that are recognized as such exclusively by elites, see Bagley 2004.

<sup>256</sup> See for example the assemblages in Deshayes 1966.

<sup>257</sup> Hallager acknowledges that, “this is by no means certain,” (Hallager 1985, p. 72).

well-attested. This may be true, but the comparison is somewhat superficial. The bowls on which Linear B is inscribed are of the *most common* shape in the archaeological record, and are known to be tableware. The identifiably cultic Linear A inscribed vessels from Crete, on the other hand, are chiefly made of stone, with specific cultic, non-domestic functions.<sup>258</sup> Furthermore, most sites at which these Linear A inscribed vessels were found fell out of use as cultic centers before the Mycenaeans arrived in Crete.<sup>259</sup> Juktas continues, and the surviving material from there bears absolutely no resemblance in form, appearance, style of inscription, or find context to the Linear B inscribed vessels in question. If the cultic connection of all of these Linear B vessels were correct, should we not expect to find at least a single example at Juktas? There are none. If the cultic use of Linear A on stone vessels, such as the libation tables, is to stand as evidence for cultic use of Linear B, then we would have to assume that the Mycenaeans were familiar with the Minoan practice of inscribing libation tables and employing them in cultic practice.

Hallager concludes this speculation with the conclusion, “other explanations may also be possible.”<sup>260</sup> However, the interpretation of the inscriptions on these vessels as private is neither a frivolous nor “spontaneous” (as Hallager puts it) reaction. These are very fine vessels with painted decoration, and are common household shapes, even the *most common*. The inscriptions were all added before firing. The surviving fragments suggest very brief inscriptions, displayed prominently on the side,<sup>261</sup> and conform to the pattern of personal names, likely written as a nominative of rubric, as opposed to a

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<sup>258</sup> For an account of these libation tables, see Brice 1983.

<sup>259</sup> Of the eleven clay vessels inscribed with Linear A from Knossos, only one comes from an area with cultic significance. KN Zb <27>, from the Temple Repositories, was incised on its wide rim. The inscription lists a single word, followed by the wine ideogram, and a quantity. It should be noted that the Temple Repositories are a sealed deposit that predate the Mycenaean presence. KN Zb 40 is a coarseware jar from the Unexplored Mansion, but not from a cultic context.

<sup>260</sup> Hallager 1983, p. 73.

<sup>261</sup> TI Z 52 is the exception, for which see p. 102 n. 247

genitive indicating possession of the vessel. None were found in identifiable contexts, much less specific cultic contexts. All were found at known literate centers. It is impossible to fully account for the low numbers of these vessels, but it is an odd argument to suggest that objects cannot be prestige items because they did not survive in large enough numbers relative to non-prestige items. Other explanations may be possible, but I find the present evidence sufficiently compelling to accept these inscribed vessels as special, status-enhancing goods.

All of these cups and bowls come from sites at which ISJs are attested. ISJs are completely absent from Pylos, as are painted inscriptions on vessels.<sup>262</sup> It is not impossible that writing on vessels came to have status as a result of the inscriptions on ISJs, combined with the status that comes inherently with imported vessels. Of course, this would not account for the absence of domestic inscriptions at Thebes, where ISJs were in abundance. However, the sample pool is insufficient for bolstering this idea, but it certainly is tantalizingly worthy of consideration.<sup>263</sup>

The two incised inscriptions are different from the rest. The Khania vessel is a stirrup jar, and may have more in common with the ISJs than with the painted deep bowls and cups. If the *wa* is indeed the abbreviation for *wa-na-ka-te-ro*, then it may have been incised for identification either in distribution, processing at the point of origin to instruct those who had contact with the stirrup jar, or simply to mark its high status for pure

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<sup>262</sup> It should be noted here that the vessels from Pylos are curious in their almost complete lack of painted decoration. Those that are decorated are usually imports. In addition to this fact, the Messenian clay is incredibly fine and soft. As a result of this characteristic, the surfaces of vessels are very often completely eroded before they come to light through excavation or survey. The lack of interest in decoration and the soft clay combine to make it unlikely that any painted inscribed ceramic vessels produced in the region would ever be found in the region. Gulizio *per vocem*, July 2010.

<sup>263</sup> Hallager also implies a causal relationship between the place of origin of the ISJs – namely, West Crete – and the disproportionately high number of inscribed domestic vessels at Khania, suggesting some correlation between inscribed deep bowls and exposure to ISJs. Hallager 1983, p. 73.



display. Unfortunately, there is no way to be sure which way this inscription is functioning.

The same is true of the Pylos inscription. The incision of the sign *ti* on the base of a coarseware pot is unusual. Coarseware is occasionally decorated,<sup>264</sup> but this one inscription is on the base. The location is consistent with potters' marks. It was neither a visible inscription, nor on a coveted vessel. It would thus seem to be intended as a potter's mark, or an instructive/informative mark for the user. On the basis of fabric, mode of inscription, vessel type, and placement, this mark does not belong in the same category as the cup and bowl inscriptions.<sup>265</sup>

If the above-mentioned vessels, with the exception of the vessel with a potter's mark, display prestige inscriptions, they again do not speak to broader levels of literacy. All examples are from palatial centers. Whether or not this is due to the focus of excavation is irrelevant. Linear B tablets were found at every site where a prestige inscription was found. Accordingly, these inscriptions on tableware do not indicate a literate population beyond what we already anticipated based on tablet evidence. However, these inscriptions do demonstrate that writing may have been viewed as prestigious by Mycenaean elites. Whether or not the scribes themselves shared in this status is less clear.

The argument for the non-administrative, prestige function of these inscribed vases may be bolstered by some evidence for nonsense inscriptions, intended to imitate the appearance of Linear B inscriptions. The evidence is at best slight, and is open to broad interpretation. The painted lines on the following vases do not resemble any form of Mycenaean pictorial decoration, or any other form of abstraction. While interpretation is highly subjective, I find their resemblance to ISJ inscriptions striking. Ideally,

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<sup>264</sup> Most notably the plastic decoration on the pithoi at Knossos. *Cf.* Evans 1921-35, p. 460, fig. 330.

<sup>265</sup> On the Cypriot use of potters marks in this period, see Hirschfeld 2002.

nonsense inscriptions that were added for prestige should imitate examples of genuine writing both in their location on the vessel, and in the types of vessels inscribed. The vessel presented here does not conform to any extant combinations of inscription and vessel, but the rarity of excavated inscribed vessels reminds us that other types of vessel inscriptions could very well have existed.

Figures 3.8 and 3.9 are two images of a vessel decorated in an unconventional manner. This vessel, DV 98, is an early Protoegeometric (ca. 1000 BC) vase from Argos.<sup>266</sup> It was found in a Mycenaean tomb in which later burials occur.<sup>267</sup> Decorative motifs or figural decoration on PG vases characteristically fill registers uniformly, and abstract motifs are usually repeated. The decoration in the examples below shows no such attempt. With the exception of the form on the far right in figure 3.8, none of these forms resembles any known Mycenaean decorative motif. They also bear no resemblance to any extant Mycenaean pictorial vase painting. The empty band is filled with non-repeating forms, all of the same height, and all of which are equidistant. The band is otherwise completely vacant. The lack of symmetry, absence of repeating patterns, and distancing of the forms are features unfamiliar to Mycenaean decoration. However, those same features precisely characterize very many ISJ inscriptions.<sup>268</sup> The decoration on this vessel was noted to be reminiscent of writing to both the excavator and Michael Ventris.<sup>269</sup>

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<sup>266</sup> While from a later period, this vessel still has relevance for the current discussion. Given that ceramics survive readily for centuries, and that the tomb in which this vessel was found contained Mycenaean pottery as well, we could propose that the artists were at some point exposed to Linear B inscribed on a ceramic vessel. The PG painter would be unlikely to mimic the Mycenaean example unless it were seen in a context in which the prestige of writing could be inferred. Such contact with writing is not uncommon, as was the case of Cargo cult among Pacific islanders following World War II. See for example Kulick and Stroud 1993.

<sup>267</sup> Deshayes 1966, p. 66.

<sup>268</sup> One could argue for abstract decoration in Figure 3.8, perhaps seeing an abstracted man, kangaroo, and waterfall. Again, this degree of figural abstraction is alien to Mycenaean figural decoration, but is omnipresent in the Linear B script.

<sup>269</sup> Deshayes 1966, p. 66 n. 4 and p. 150.



Figures 3.8 and 3.9: Vessel DV 98 from Argos, Tomb XXIV

Unfortunately, the nonsense inscription is not on a deep bowl. One is on an amphora, and the other is on a wide-necked jug. The argument for nonsense writing would carry more weight if there were such examples. Nonsense inscriptions would be expected to imitate – as closely as possible – the format of actual inscriptions that are worth imitating for prestige value. It is entirely possible that such examples exist. The deep bowl is so ubiquitous during the LH IIIB period, it characterizes the period, overtaking the kylix.<sup>270</sup> These bowls fill every museum storeroom where LBA pottery has been found, resulting in only the finest pieces being selected for display. Fragments of deep bowls bearing nonsense inscriptions would likely not pass muster. Of course, the

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<sup>270</sup> Mountjoy 1986, p. 93. She may be speaking only about decorated pottery, but the point is still clear.

search for possible examples in museum storerooms is not worth the investment of time and effort.

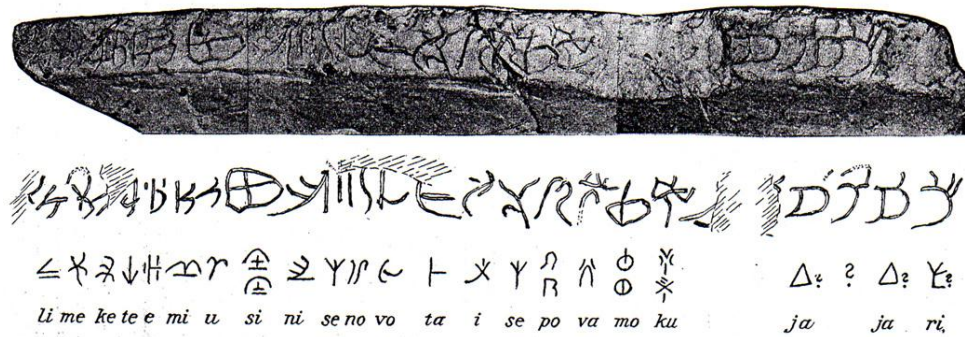


Figure 3.11: Asine rim, with Persson’s proposed transliteration

Less convincing is the Late Helladic inscribed rim from Asine, excavated by Persson.<sup>271</sup> As seen in figure 3.11, the forms incised into the rim bear only a passing resemblance to individual letter forms. The individual motifs are densely packed together, with some forms repeating often. It has the appearance of a hasty and haphazard attempt to cover the rim with random, incised decoration. In fact, as one examines the motif from left to right, one can discern several series’ of similar hand gestures. As can be seen in the illustration above, the first third consists of several short, straight, diagonal lines and small curves, followed by a big circle with a cross inside. The next few motifs consist of longer, straighter lines, followed by a series of more fluid, plant-like lines, followed by a series of crescent-shaped curves. There is little in form or layout of the motif to suggest intentional imitation of writing. I include this example here only because the location of the decoration is consistent with known inscriptions in Linear A. In every other respect, however, these incised forms look like careless

<sup>271</sup> Persson 1938, p. 6. See Raison 1968, p. 227 for discussion.

decoration, which would not be surprising on a large, otherwise-undecorated coarseware vessel.

These vessels offer the possibility of nonsense inscriptions in early Greece. As such, they would provide further evidence for the existence of Linear B prestige inscriptions. Writing itself must have some value before it is worth imitating. Motifs imitating writing are well-known from archaic black- and red-figure Attic vase painting. Egyptian hieroglyphs were also commonly imitated in fake inscriptions.<sup>272</sup> As noted earlier, the ISJs may have made writing more visible, since they are large, and are transported. Tablets, on the other hand generally do not move from the inner areas of the palace. Sealings also travel, but they can hardly be said to have the same level of visibility as the ISJs.<sup>273</sup> Particularly on the mainland, if these stirrup jars were then associated with Cretan imports, and this was the only administrative use of writing on vessels, then writing itself, with ceramic vessels as the writing material, could be equated with the level of status required to import valuable goods from Crete. Writing on tablets and little lumps of clay was related to palatial business. Writing on vessels was more exotic and more visibly connected to conspicuous wealth and status. One could envision this being the context in which writing *in a specific context* attained a level of prestige, whereas sealings and tablets, being local productions did nothing to arouse public interest in the value of writing. In this scenario, the type of vessel on which the inscription is painted need not be relevant for prestige value, which could explain the different pottery shapes on which the above-mentioned possible nonsense inscriptions occur.<sup>274</sup>

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<sup>272</sup> A brief summary of fake inscriptions is offered in Whittaker 2005, pp. 32-33.

<sup>273</sup> As I shall argue in Chapter 5, sealings could be impressed in an outlying area, intended to mark a commodity destined for the palace. The commodity then would travel with sealing intact to the palace, thereby making them (potentially) highly mobile documents.

<sup>274</sup> Williams 2004 discusses the use of runes in prestige writing. In the early use of runes, placing one's name on one's possessions, or even naming one's possessions with an inscription, was the prestige function performed by writing. It was not used in the same manner as the alphabet from which it was derived.

## Writing at Iolkos and in Northern Greece

Two curious examples of writing survive from the site of Bronze Age Dimini/Iolkos.<sup>275</sup> Both were found in rooms in the palatial building. Excavated from this building were a fragment of a painted kylix, IOL Z 2 (Figure 3.12) and an incised stone block, IOL Zh 1 (Figure 3.13). Iolkos, which was apparently a Mycenaean palatial center, unfortunately provides us with no other examples of writing. Both examples recovered are unique in their own respects.

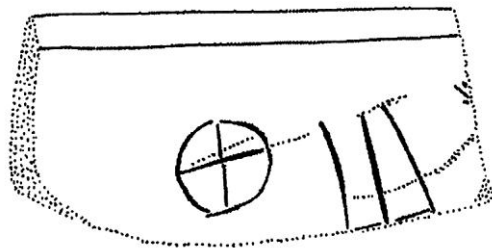


Figure 3.12: IOL Z 2, inscription in a kylix

The first example, IOL Z 2, is an incised inscription on a kylix, or on a kylix sherd. The characters were incised after firing. The fragmentary inscription is read as *ka-ṣi-*], although the second sign is uncertain. None of the previously mentioned inscriptions were necessarily incised after firing. Also curious in this instance is the fact that the characters were incised on the inside, or tondo, of the kylix. For this reason, it may be considered an inscribed sherd rather than an inscribed kylix, perhaps inscribed after the vessel broke.<sup>276</sup> In these respects, this document is unique, and therefore we cannot be sure of its function at present.

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Accordingly, the use and application of prestige writing need not exactly imitate the appearance of the model from which it was derived.

<sup>275</sup> Both inscriptions are discussed in detail with their archaeological context in Adrimi-Sismani and Godart 2005.

<sup>276</sup> Suggested by Adrimi-Sismani and Godart 2005.

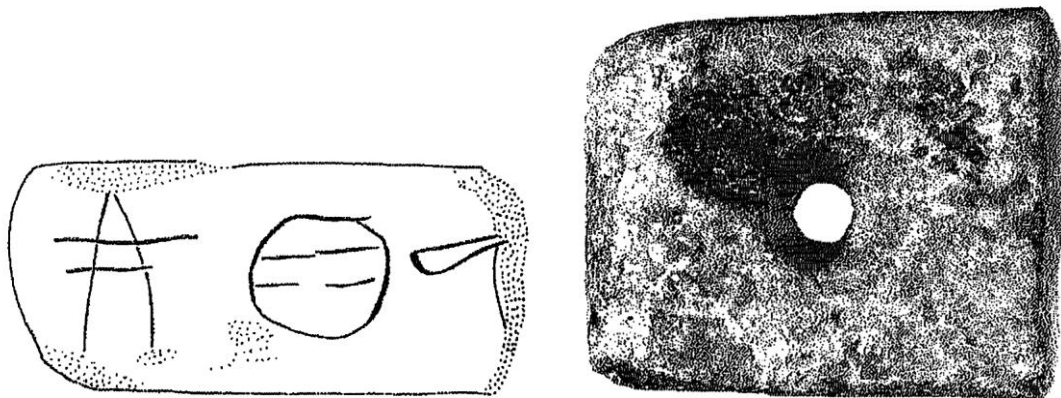


Figure 3.13: IOL Zh 1, inscription on a stone block

IOL Zh 1 is an incised block, partially broken on one side, which is pierced all the way through with a hole in the center, if the piece is in fact intact. The characters incised on the side appear to read *e-qe-qi*[. Again, in the absence of context, only speculative interpretation can be proposed. It has been proposed that this may be some type of weight, which was intended to be suspended via the hole in the center.<sup>277</sup> No other fragments of this object were found in the same area, suggesting either that there is only incidental damage to the right side of the inscribed side, and this is a three-character inscription, or it is from a secondary context and it was originally quite a bit larger. The centrality of the hole would suggest that the object has survived mostly intact, and that the inscription would not have been longer.

These Iolkos inscriptions offer a tantalizing glimpse into the possibilities for the use of Linear B. Is this a regional choice, unique to Iolkos or to northern Greece in general? Or have these types of objects simply failed to survive in the archaeological record elsewhere? The literate administrators at Iolkos seem to have had a broader perception of how writing might function and serve their needs than the administrators at

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<sup>277</sup> Adrimi-Sismani and Godart 2005, p. 60.

other Mycenaean sites. We can only hope that comparanda are uncovered elsewhere to aid us in further interpretation.

One further tantalizing find from Central Greece comes from a tomb in Medeon (CMS V.415). In an LH IIIC context was found a seal inscribed with Linear B signs (Figure 3.14).



Figure 3.14: Seal from tomb in Medeon

The seal, which reads *ja-ko-e* or *e-ko-ja* if impressed – or *ja-mo-ko-e*, of the small sign between *ja* and *ko* is to be read as *mo* – is without parallel or administrative context, and the sign sequence is unique as well. In progressing north from Thebes, then there are only three vestiges of Linear B, all of which are unparalleled elsewhere in Greece. We might assume that the regions of Greece north of Boeotia developed their own ethos regarding the use of writing and their reaction to it. As will be discussed in Chapter 6, both Pylos and Thebes show close administrative affinities with Crete – in paleography at Pylos, and in paleography and palace architecture at Thebes. It is possible that those administrative networks that linked the Peloponnesian and Boeotian centers were weaker as one progressed north, thereby permitting such a distinctive literate presence at sites such as Iolkos and Medeon. We shall have to await further excavation to see how this picture develops.



## Wall Graffiti

Only two examples of possible Linear B signs on walls have thus far been found. Both are from Knossos. Only one of them is still intact. In *Scripta Minoa I*, Evans describes a section of wall covered with graffiti:

“On the West wall of the Room of the Two Cists, beneath the floor of which were afterwards found the Temple Repositories, were visible horizontal lines accompanying graffiti that seemed largely to represent simple scores in the shape of more or less upright lines, but which were also accompanied by certain linear characters apparently belonging to Class B. The stucco surface on which these appeared was subsequently destroyed by a storm...<sup>278</sup>

This is the only description of the inscription. By the time *Palace of Minos* was published, Evans deemed it worthy only of a brief footnote.<sup>279</sup> Because of the rarity of the image, I include it here in Figure 3.15. Evans said nothing else about this room in *Palace of Minos*. This is not surprising, in that the tiny, nondescript room was easily overshadowed by the wealth of finds recovered from below it. Without any published context, and without the actual inscription, only the sketch remains for analysis. Most of the signs that are readily identifiable in the sketch are found in both Linear A and Linear B. On the far left of the second line is *u*, and the first and third signs in the final grouping on the right are certainly *wa* and *ja*. The only other sign that is drawn clearly is that in between the *wa* and *ja*. Unknown from Linear B, the sign resembles \*712, a very rare Linear A sign. It shows up on only two tablets, both from Phaistos, PH 9 and PH 26. On PH 9, \*712 occurs at the very end of a leaf-shaped tablet. On PH 26, the sign is repeated three times vertically. The tablet is broken following this sign. The repetition of \*712 on PH 26 may associate it with fractional values. On the graffito from the Room of the Two Cists, the placement of the sign is inconsistent with the placement of a fractional sign, as

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<sup>278</sup> Evans 1909, p. 50.

<sup>279</sup> Evans 1921-35, vol. I, p. 636, n. 2: “In *Scripta Minoa*, i, p. 51, Fig. 27, I have reproduced a small graffito from the Palace of Knossos which seems to be of Class B.”

it appears in the middle of a grouping of at least three signs. Given the rarity of the sign, we cannot be sure that it does not have a syllabic value as well, or that it actually is a fractional sign. Furthermore, the accuracy of the sketch cannot be guaranteed.<sup>280</sup>

Wall graffiti is a known phenomenon in Linear A, but not in Linear B. Three Linear A wall inscriptions were found at Agia Triada, HT Zd 155, HT Zd 156, and HT Zd 157.<sup>281</sup> Accordingly the evidence would seem to suggest that this wall inscription was actually inscribed in the Linear A script. However, there are a couple of features that point to Linear B as well. The writers of Linear A by and large did not score their texts. Ruled lines are a consistent and unusual Linear B phenomenon, rare in Linear A. It is unclear whether the scoring depicted in the sketch is related to the inscription. The third line runs through all of the signs. Perhaps these scores are architectural, and this is a plaster undercoat on which a scribe jotted some notes, much like a contemporary carpenter doing some quick math on bare drywall, knowing that a coat of paint will hide the marks. The form of the *u* is admittedly more characteristic of Linear B sign forms than Linear A. The sign *u* shows up only twice at Knossos in Linear A, and both times on clay vessels.<sup>282</sup> In both instances, the inscription is awkward, perhaps due to the material and format. In the absence of a date for the wall graffiti, or of a significant sample for the form of *u* at Knossos, or of the actual inscription, it would be unwise to proclaim the script as Linear B because of the shape of a single sign. This inscription very much appears to be Linear A. While it is possible that the script is Linear B, the evidence is far too inadequate to draw such a conclusion. This sketch of wall graffiti should not be used as evidence for Mycenaean use of writing.

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<sup>280</sup> Palaima *per litteras* notes that Evan's drawings were noted by Kober to be extremely accurate.

<sup>281</sup> These can be found in *GORILA IV*, p. 157ff.

<sup>282</sup> KN Zb 27 and KN Zb 40. It should be noted that very few Linear A inscriptions from Knossos survive. Only 31 inscriptions are extant: 4 tablets, 4 sealings, and the remainder are vessels.

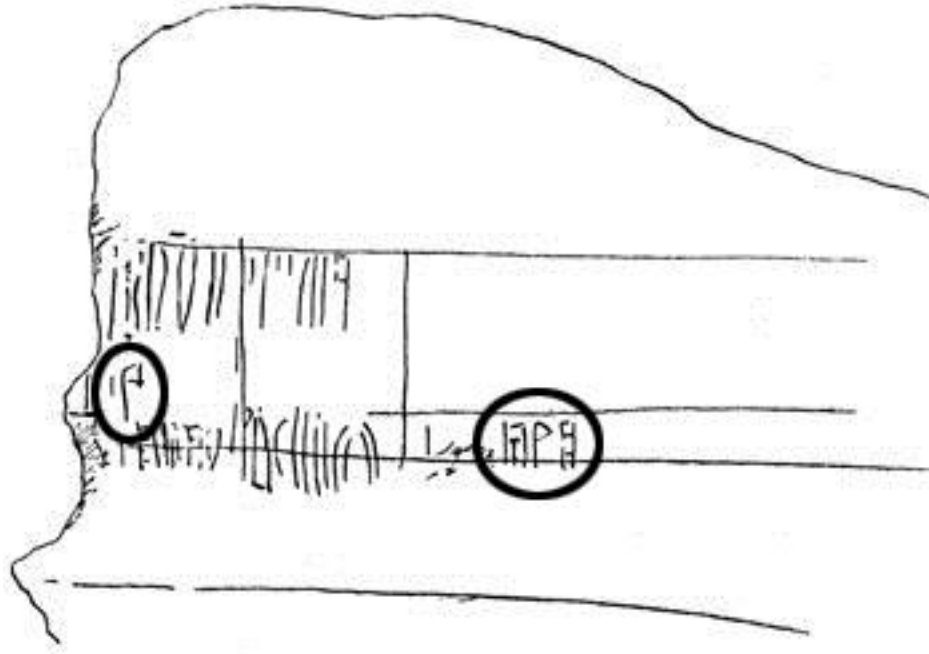


Figure 3.15: Graffiti from the Room of the Two Cists, Knossos. Identifiable signs are circled.



Figure 3.16: Sign *pu* painted on plaster from the Area of the Toreador Frescoes, Knossos

Also from Knossos is the sign *pu*, painted on wall plaster from the Area of the Toreador Frescoes (Figure 3.16).<sup>283</sup> Cameron identifies the sign as Linear A. Palaima has conducted an epigraphical examination of the sign, and concludes that the sign is more consistent with Linear B sign formation. Again the status of the inscription and its context are far too incomplete to warrant a conclusion. It is certainly a possibility, but unless additional comparanda come to light that demonstrate the use of Linear B on

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<sup>283</sup> Treated in Cameron 1965, and Palaima 1981.

walls, no conclusions should be based on such inconclusive evidence. Wall graffiti, for the present, will remain solely the domain of Linear A.

This completes the survey of all Linear B not found on tablets, sealings, or ISJs. It is apparent that the Mycenaeans did not yet fully embrace the use of writing as a prestige item, although perception may have been moving in that direction. In the absence of monumental inscriptions, inscribed objects such as those found inscribed with Linear A, or other more obvious displays of writing, we must assume that the Linear B script was viewed largely as a utilitarian technology and was not intended to convey any symbolic or contextual message to the general Mycenaean population. We will now examine the use of Linear B in its administrative contexts, first on sealings and then on tablets.

## Chapter 4: Minoan Sealing Use<sup>284</sup>

There is little question that the Mycenaeans adapted their sealing practices from a Minoan model.<sup>285</sup> Only a handful of sealings that date prior to the Mycenaean (Late Helladic) period survive, and most of those date to EH II. There is no reason to expect that there is a continuous tradition from EH II to the Mycenaean period. In fact, the evidence would strongly suggest otherwise.<sup>286</sup> Seals really begin to appear again on the mainland in LH I, in Grave Circle B at Mycenae. As noted above, however, no mainland Mycenaean sealings definitively predate LH IIIB.<sup>287</sup> Mycenaean sealing practices on Crete are evident as early as LM II, in the Room of the Chariot Tablets. Even at this early stage, however, the function and application of seals and sealings differ dramatically from the Minoan practice. Here I will address those distinctions.

For the purposes of administrative analysis, there is a sufficient number of surviving Neopalatial seals from Minoan Crete. Although dating seals is difficult, Krzyszkowska estimates that approximately 1800 seals survive from the Neopalatial period.<sup>288</sup> She even allows for the possibility that every adult Minoan owned a seal,

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<sup>284</sup> For our purposes, the term “sealing” is broadly applied. Here it is used to refer to more than small clay nodules that have been impressed by a seal, as there are several small clay nodules that have no seal impressions on them. Hallager extends the definition to describe sealings as “the deliberate securing of the contents of an object (including a document) in such a way that the “sealing” must be physically broken to get at the contents,” (Hallager 2001, p. 3). However, Hallager’s definition would not include one-hole nodules that do not appear to actually secure contents at all, roundels, or nodules that are not fashioned around the knot in a cord. In the present work, all transportable, non-tablet documents of this type are included in the discussion, regardless of whether or not they actually seal anything or are impressed by a seal. The salient feature is their transportability and the fact that they are related to a single commodity, which may or may not be physically present with the sealing.

<sup>285</sup> For a brief summary, see Krzyszkowska 2005, Ch. 9.

<sup>286</sup> For the period EH III-MH, Krzyszkowska asserts that the number of seals amounts to “scarcely more than a handful” (Krzyszkowska 2005, p. 232, n. 1).

<sup>287</sup> Krzyszkowska 2005, p. 234.

<sup>288</sup> Dating seals is problematic because many are heirlooms, and their dates of manufacture may predate the period of their latest use by centuries. In this section, when I refer to Neopalatial seals, I mean seals that were in use in the Neopalatial period, or were excavated in a Neopalatial context. By Neopalatial, I am

although this seems extremely unlikely, at best.<sup>289</sup> In addition to these seals, the LM IB destructions on Crete preserved more than 1800 sealings.<sup>290</sup> Of these 1800 surviving sealings, approximately 1000 are inscribed.<sup>291</sup> Of these 1000 inscribed sealings, however, roughly 840 of them are inscribed with a single sign.<sup>292</sup> Accordingly, 160 of the 1800 surviving Neopalatial sealings (9%), and 16% of inscribed sealings have at least two-character inscriptions. It is impossible to know whether this inscribed/non-inscribed sealing ratio is an accurate representation of what could be expected in Neopalatial Crete. As noted above, archaeological inquiry favors palatial and first-order sites. Despite this fact, as noted by Krzyszkowska, sealings are surprisingly uncommon at the main palatial sites.<sup>293</sup> It should be noted that the small numbers of sealings at palatial sites coincides with small numbers of Linear A tablets as well. At Knossos, this is at least partly due to the continuous use of the palace after the Neopalatial period. Linear A tablets are also extremely uncommon at Knossos, yet we can expect them to have been present in considerable numbers.

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referring to the period from MM III – LM IB, during which the Minoan palaces flourished and were destroyed.

<sup>289</sup> Krzyszkowska 2005, p. 214: “Whether every adult possessed a seal is a matter for speculation, but the possibility exists.” There is no reason to suppose that this possibility was at all a reality.

<sup>290</sup> This total includes all varieties of sealings. These different shapes will be addressed in the next section, which include nodules, *noduli*, roundels and direct-object sealings. .

In this section I will be focusing on the sealings rather than the seals themselves. The seals are often found in burials and sanctuaries, perhaps as dedications. The function of the seals themselves can often be removed from the function of the sealings. Because of the present focus on literacy, and because no inscribed Minoan or Mycenaean seals from the palatial periods have ever been excavated, seals will be mentioned only in relation to sealing practices.

<sup>291</sup> These numbers for surviving sealings should be approached with a fair amount of caution. As noted above, excavations have revealed as many sealings as seals. Those 1800 sealings were impressed by roughly 500 different seals (Krzyszkowska 2005, p. 121). This surviving evidence provides an indication of the broad distribution of sealing practices throughout Neopalatial Crete, the varieties of sealing types, and the repetitive use of seals at administrative centers.

<sup>292</sup> The overwhelming majority of these – roughly 830 of them – are from Agia Triada. They are all single-hole hanging nodules. Only 11 different characters are employed in inscribing these sealings. Several of these signs – including *ka*, *ku*, and \*301 – are inscribed on between 150 and 225 sealings.

<sup>293</sup> Krzyszkowska 2005, p. 121.

Sealings have been recovered at a several sites across all of Crete, including Phaistos, Khania, Agia Triada, Sklavokambos, Zakros, Mallia, Knossos, Gournia, Palaikastro, Pyrgos, and Tyllisos (see Figure 4.1). These sites differ considerably from one another in terms of archaeological remains and in their status and function in the Neopalatial period. Four of these sites – Phaistos, Mallia, Knossos, and Zakros – are the major Neopalatial palaces. Khania may also have been a palatial site.<sup>294</sup> Agia Triada is also a major Minoan site, with palatial buildings.<sup>295</sup> Sklavokambos and Pyrgos are villa sites, and Tyllisos consists of a small cluster of villas.<sup>296</sup> Gournia is a small Minoan town with a small palace building. Finally, Palaikastro is a town without any apparent central administrative building. In terms of geographical sampling, a very wide range of regions are involved in sealing practices, as seen in Figure 4.1.



Figure 4.1: Map of Crete showing distribution of sealings in the Neopalatial period

<sup>294</sup> Khania has been heavily built up over the past several centuries, and the center of town is probably over the center of the Minoan settlement. Only rescue excavations have been able to uncover portions of the settlement. Archaeological work on a grander scale here is unlikely. For a summary, see Andreadaki-Vlaziaki 2010.

<sup>295</sup> See Militello 1999.

<sup>296</sup> By the term *villa* I am referring to small buildings in areas distant from the palaces, which would have served as outposts of palatial representation in things administrative and religious. Evans described these buildings as villas, suggesting they were elite getaways, and the term has stuck. For detailed discussion see Rehak and Younger 2001, pp. 396ff.

The geographical diversity in sealing deposits, as well as the diversity in site hierarchy, suggests that the surviving Neopalatial sealings should serve as a reasonable sample of Minoan sealing practices. However, if we assume that inscribed sealings are more likely to have been used at higher-status sites than at lower-order centers (where uninscribed sealings may be the only administrative documents used), then given the archaeological focus on large sites in Crete – at which we should expect more evidence for writing than at smaller sites – and the ease with which sealings can be overlooked or destroyed in excavation, it is still possible that our evidence is skewed in favor of inscribed sealings. We should not assume that this ratio of 1:9 inscribed:uninscribed sealings is necessarily an adequate representation of sealing use. In spite of the potential error in sampling, it will still be possible to make several observations regarding Minoan seal and sealing use.

Just from this brief survey of sites at which sealings have been found, we can already see a hint of the diversity in the administrative levels at which Neopalatial sealings were used. Sealings are not restricted to the major palatial centers. In fact, as noted above, sealings are conspicuously lacking at the major palatial centers.<sup>297</sup> Unfortunately, despite the publication of all of these seals and sealings in recent *CMS* volumes, reconstructing the exact function of all of these sealings is problematic. What follows is a brief summary of Neopalatial sealing-types and their functions.

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<sup>297</sup> There are several explanations for this phenomenon, however. Most notable are the oft-cited stories of rainstorms and leaky roofs at Knossos that were responsible for melting tablets and sealings (Chadwick 1967a, p. 16). They are also very small in size. Additionally, many of these sites (most notably Knossos, Phaistos, and Agia Triada) were excavated early in the 20<sup>th</sup> century, at a time in which archaeological practices were much less cautious and exacting. Also, given their use at all levels of administration, and at any location within a settlement, it is only by the pure chance of fire destructions that any were saved, and surely many, many more were not. In addition to accidents of archaeological survival, Khania and Knossos continued in use after the Neopalatial period, thereby preventing a unified LM IB destruction of the entire site from being preserved, which one can imagine would have resulted in many Linear A tablets and sealing remains.



## NEOPALATIAL SEALING TYPES<sup>298</sup>

### Nodules

There are many types of nodules in use in Neopalatial Crete. The discernible functions of nodules vary from type to type. Flat-based nodules (Figure 4.2) were impressed on folded parchment wrapped with fine cord.<sup>299</sup> From the impressions on the back of these nodules, it is apparent that the size of these pieces of parchment was rarely bigger than 6x6 cm.<sup>300</sup>



Figure 4.2: Flat-based nodule, showing impression of string and parchment package on reverse (*CMS* II.6, no. 43)

While very little information could be stored on parchment of this size, the Linear A tablets only slightly exceeded these dimensions.<sup>301</sup> One wonders if this was a step in Minoan administration related to the inscription of tablets, in which the data was transferred from one medium to the other. Given the greater numbers of tablets, it would seem that the nodules may have been a way to provide detailed information to the

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<sup>298</sup> Detailed summaries of each type can be found in Krzyszkowska 2005.

<sup>299</sup> This “cord” can be leather or vegetable material. For simplicity, it will simply be referred to as twine.

<sup>300</sup> Hallager suggests they have been much larger (Hallager 1996, pp. 137-145). Krzyszkowska disputes this claim, and cites a *CMS* experiment that casts doubt on Hallager’s assertion (Krzyszkowska 2005, p. 156 n. 11).

<sup>301</sup> A random sampling of six tablets from Agia Triada (HT 118, 33, 35, 90, 93, 101), for which the full height and width is preserved, gives average dimensions of 5.4x7.85 cm, or 43cm<sup>2</sup>. These minor differences in size and overall area can be accounted for by the medium of writing. The Linear A syllabary consists of many signs in which there are curves and crossed lines. Writing Linear A on clay results in clay ridges, which could render the script illegible if inscribed too small. Ink on parchment would enable a writer to easily form much smaller characters, thereby compressing the same amount of information into a smaller space.

administrator responsible for tablet writing.<sup>302</sup> The question remains, however, whether these sealings represent a cache of parchment pieces that were stored with flat-based nodules attached, or whether the parchment had already been extracted from the twine and sealings, and the nodules were stored as receipts or were in the process of being discarded.<sup>303</sup> On Crete, flat-based nodules have been found at most of the above-mentioned sites, including Agia Triada, Zakros, Phaistos, Gournia, Sklavokambos, Knossos, and Mallia.

In addition to flat-based nodules, there are also single-hole and two-hole hanging nodules. The function of both of these sealing types is elusive. The single-hole nodules (Figure 4.3) hang pendant-like from a piece of cord. They are called single-hole nodules because the cord did not pass all the way through the sealing, but instead entered and exited the sealing through the same hole, with a knot in the interior.



Figure 4.3: Single-hole hanging nodule. The twine would enter and exit on the left side (CMS II.6, no. 70)

The clay for the sealing would have been placed around a knot in the cord. This knot was not fashioned by tying the two ends of the cord together, however. Rather, it was

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<sup>302</sup> We shall see later that the Mycenaeanans would often inscribe sealings with one or two terms to further describe the transaction denoted by the sealing. Perhaps the Minoans used the parchment that was sealed by flat-based nodules as a means of conveying a greater amount of information than could be inscribed on a sealing, but still maintaining the authority of the seal impression. This is somewhat supported by the fact that the flat-based nodules are never inscribed, ostensibly because the parchment contains everything that needs to be written.

<sup>303</sup> A total of 708 flat-based nodules have thus far come to light. Of those, 492 were found at Zakros. See Hallager 1996, p. 135 for the numeric breakdown.

fashioned in the middle of the cord, ostensibly to prevent the sealing from shifting. This is curious, since this means that the sealing would not have prevented someone from untying the cord and manipulating the goods that the sealing was intended to seal. Given the lack of security provided by the sealings themselves, they would seem merely to identify a responsible party, rather than to secure the commodities associated with the sealing. A total of 993 examples survive, with 946 coming from Agia Triada.<sup>304</sup> The lack of security is also true of the two-hole hanging nodules. These nodules were similar in appearance to the one-hole variety, except they were wrapped around the cord such that the cord passed through the center of the sealing, leaving two holes. Again, they did not secure the ends of the cord, and so did not properly seal anything. They likely were labels, rather than literal sealings. Single-hole nodules were found chiefly at Agia Triada, where over 900 examples have come to light. They have also been found at Knossos, Khania, and Tylissos. Two-hole nodules were found chiefly at Zakros, where 50-60 were excavated.<sup>305</sup> They have also been found at Knossos and Khania.

### **Direct object sealings**

Direct object sealings, as the name describes, are sealings that have been pressed directly onto an object, such as a box or basket. When the object is first closed with twine it is known as a combination sealing. The clay is pressed onto the object and twine wrapping, and the seal is pressed into the clay. Stoppers for jars also fall into this category. Two direct object sealings have been found at Phaistos, one at Knossos, two at Agia Triada, and at least two impressed and seven unimpressed examples from Khania. They are extremely rare in this period, after having been used more frequently in the Protopalatial period.

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<sup>304</sup> Hallager 1996, p. 161.

<sup>305</sup> There are fewer than 70 total examples.

### ***Noduli* and roundels**

Both *noduli*, which are distinct from the nodules discussed above, and roundels were never attached to anything. They are autonomous clay documents. Both are disks of clay. *Noduli* often have seal impressions on the round surface of the disk. Roundels are impressed with seals along the sides (Figure 4.4).



Figure 4.4: A *nodulus* (left) and roundel from the side (right). Note that neither has any string holes. (CMS II.8, no. 378 and V sup. IA, no. 156, respectively).

Both can be inscribed with Linear A. In his exhaustive study on the subject, Hallager proposes that roundels act as a kind of receipt.<sup>306</sup> A roundel inscribed with the ideogram for a vessel followed by the number five will have five seal impressions around its sides. The roundel may have served as a voucher which an individual would have brought to a storeroom as proof that he was to be given five vessels. *Noduli* on the other hand were usually just impressed with a seal.<sup>307</sup> They may have thus served as tokens to grant the bearer food, employment, or vouch for them in some similar fashion.<sup>308</sup> If these proposals are correct, they are both serving similar functions, at least in the respect that they both function as autonomous clay documents – that is, unlike other sealings, they are not attached to any other physical object. *Noduli* have been excavated in small numbers at Palaikastro (3), Tylissos (2), Zakros (7), and there were 45 each at Knossos and Agia

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<sup>306</sup> Hallager 1996.

<sup>307</sup> Only at Agia Triada were they inscribed with Linear A text.

<sup>308</sup> This is the explanation preferred by Krzyszkowska (Krzyszkowska 2005, p. 162).

Triada. Roundels occur in small numbers at Pyrgos, Tyliossos, Gournia, and Agia Triada. The bulk of roundels were found at Khania. Of the 170 found thus far, 118 come from Khania.

### NEOPALATIAL SEALING USE

Looking at a map of the distribution of sealing types (Figure 4.5), no discernable patterns are visible. Despite some variation in the types of sealings at each individual site, this map does not allow for claims regarding correlations between sealing types and site types.<sup>309</sup>

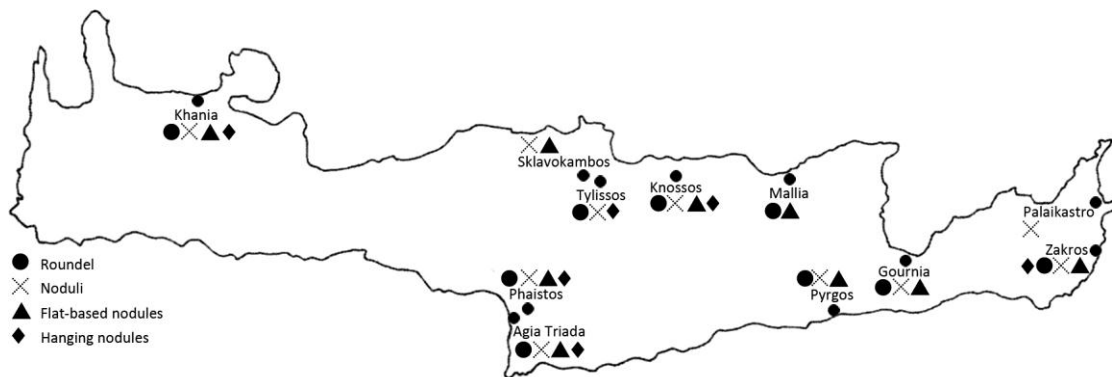


Figure 4.5: Distribution of sealing types at the major sealing deposit sites on Crete (after Hallager 1996)

It would be unwise to build arguments based on the numbers of sealings found at each site and at various site types. Sealings are very small and easy to miss or destroy during excavation, readily disposable after they have served their purpose, and are found at so many sites that we should assume that they were in use throughout Crete, but only survived where there was fire destruction and subsequent careful excavation. Accordingly, we should not expect the sealing numbers to represent numerically the Neopalatial sealing distribution.

<sup>309</sup> By the term *site types*, I am distinguishing between palaces, villas, clusters of villas, towns with small palaces, and towns without any discernable palatial structure.

Yet in the absence of representative numbers, we can still make some observations based on positive evidence. Sealing types are widely distributed among sites. This is not a surprising result. Seals were in continuous development from the Early Minoan through the Neopalatial period on Crete. Sealings are found in every chronological period from EM II forward. Depending on the absolute chronology one prefers, this would mean that seals and sealings were in use on Crete for 800-1000 years.<sup>310</sup> Over such a great span of time, we should expect seal and sealing use to infiltrate many levels of administration and society in general.<sup>311</sup> After a millennium of sealing use and development, and given the variety of uses to which this basic form of authentication can be put, we should expect to see evidence of multiple uses and functions. Furthermore, all of these sealing types have forebears in the Middle Minoan Protopalatial period.<sup>312</sup> If these were newly invented sealing types coinciding with the rise of the Minoan palaces, we might expect that functions would not yet be as varied, that sealing forms would be more limited, that the number of seal users would be fewer, that sealings would be used by higher levels of administration, and that we might have a clearer picture of how they functioned and at what transactional levels. Instead, they were already inextricably linked to modes of transaction and communication prior to the palatial organization of Crete.

Within the Minoan system of seals and sealings, writing features fairly prominently. Even though sealing systems can function entirely as a non-literate mode of

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<sup>310</sup> For present purposes, absolute chronology is not a concern, and accordingly will not be addressed here.

<sup>311</sup> Recall the earlier discussion regarding the use of scripts in Egypt and the Near East. After initial restricted administrative use, over the next 500 years the scripts came to be used for correspondence, writing histories, poetry, incantations, and the like.

<sup>312</sup> The single-hole and two-hole hanging nodules, while not attested in the Protopalatial period, were preceded by a Middle Minoan sealing type known as the crescent shaped nodule. These nodules also labeled rather than truly sealed.

administration, script was introduced into the system at an early period.<sup>313</sup> As early as EM III/MM IA, seals were in use that depicted signs from the so-called “Archanes Script,” which may have been the precursor to the Cretan Hieroglyphic script.<sup>314</sup> Ten signs from this possible script appear on 15 different seals. Cretan Hieroglyphic is found on seals dating from MM II – MM III.<sup>315</sup> However, the use of script on seals must be distinguished from the use of inscriptions on sealings. An inscription on a sealing ostensibly gives further details about the transaction which is represented by the sealing and seal impression. Inscribed seals, on the other hand, can either represent words that are administratively meaningful, or they can represent a symbolic use of writing which serves to denote the seal owner or administrative office, as is the function of all seals whether inscribed or uninscribed.<sup>316</sup> In the terms of the present study, the use of inscriptions on seals does not enhance our knowledge of the use of writing as a representation of language. That is, as with the sealings which are inscribed with only a

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<sup>313</sup> This is not intended to be a history of writing and script development in Crete. While a fascinating subject, we have to restrict focus here to the elements of writing and script use – and their antecedents – that would have served as the model for Mycenaean script use in sealing systems.

<sup>314</sup> For a brief discussion, see Schoep 1999, p. 266.

<sup>315</sup> Krzyszkowska counts Cretan Hieroglyphic on 200 seals and seal impressions, comprising roughly 10 percent of the Protopalatial seal corpus (Krzyszkowska 2005, p. 96).

<sup>316</sup> One could posit that these inscribed seals are intended to serve as stamps that function the same way that an inscription on a sealing would. That is, they would function much the way we use inked stamps in offices to repetitively mark documents the same way, reading “PAID,” “OVERDUE,” “FAX,” “COPY,” etc. There is no discernable pattern of Cretan Hieroglyphic seal usage to support such a proposal, however. Additionally, several of these seals were found in burials, indicating that they were more personal and prestigious than a contemporary rubber stamp.

Some sign groups appear on inscribed seals as well as on inscribed sealings, suggesting administratively meaningful words. Speculation on the significance of this point, in the absence of decipherment, has yielded few meaningful results. Olivier suggests that some may be names that recur in the context of administrative inscriptions. Two sign groups, ‘trowel-arrow’ and ‘trowel-eye,’ occur more than 90 times in the Cretan Hieroglyphic corpus on seals and on clay documents. They also occur together once on a seal, suggesting that they are terms that are somehow related. Olivier’s best guess was that they may mean *temple* and *palace*. There are several reasons for this proposal. First, these two sign groups are the most common, and their usage appears to be parallel, so both are involved in the same type of activity and function. Second, in some instances they occur alone without context, indicating that they are meaningful terms regardless of usage. He therefore sees these likely as two distinct entities, suggesting that “something like ‘palace’ and ‘temple’ would not be unsuitable.” See Olivier 1990, pp. 7-8. This proposal was refuted in Krzyszkowska 2005, p. 98 n. 51. She finds the distinction between secular and sacred anachronistic for Minoan Crete, and considers it odd that they would appear together on the same seal.

single sign, the ability to read and write using a complete writing system would not have been a prerequisite to successfully interact with a sealing impressed by an inscribed seal. Accordingly, such an interaction does not qualify as a sufficiently significant literacy practice for present purposes.<sup>317</sup>

In addition to the survival of sealing types from the Protopalatial to the Neopalatial period, sealing inscriptions are frequent in both periods. Cretan Hieroglyphic inscriptions in the Protopalatial are found on most crescent-shaped nodules.<sup>318</sup> Additionally, at least one Protopalatial Cretan Hieroglyphic inscription has been found on a roundel, whereas all others are inscribed with Linear A.<sup>319</sup> Several of these are inscribed but have no seal impression. Since these nodules did not actually seal anything, just like the Neopalatial single-hole and two-hole hanging nodules, it is not remarkable that the seal impressions can be omitted from these transactional artifacts. What is interesting is that in these instances writing can be functioning as an identifier for the transaction, either replacing or acting in parallel to traditional sealing practices.<sup>320</sup>

Neopalatial administration then had antecedents in the Protopalatial period for seal use, sealing use, sealing types, and writing on sealings. With the rise of palatial administration, the Minoans built on modes of administration that were already familiar. Not only would this ease the transition to the new administrative order for those involved in the previous administration, but it would also maintain the trust of the population when

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<sup>317</sup> I am not stating categorically that this is not a literacy practice. One could certainly define it as such. However, this is comparable to an illiterate being able to sign his name, but otherwise being incapable of using a given writing system. This symbolic functioning of a script does not represent the level of literacy that is of interest in the current inquiry.

<sup>318</sup> Crescent-shaped nodules are extremely rare, with the majority – 26 examples – coming from the so-called “Hieroglyphic Deposit” at Knossos. Of these 26 nodules, 22 (85%) are inscribed. 12 were also excavated at Mallia, and several from Patras (Krzyszowska 2005, p. 112).

<sup>319</sup> The Cretan Hieroglyphic roundel, PE Hc 2, is from Petras in East Crete. Cretan Hieroglyphic and Linear A coexist in the Protopalatial period. Use of Cretan Hieroglyphic is restricted to the North and Northeast of Crete, whereas Linear A is found in the South. See Schoep 1999 for a summary.

<sup>320</sup> We must allow for the possibility that more than one sealing could be attached to a cord, and that the two may act in concert with one another.



they interacted with new modes of control and newly altered administrative practices that would have accompanied the advent of the Minoan palaces.

It has been noted that the use of writing in sealing systems intensified dramatically from the Protopalatial to the Neopalatial periods.<sup>321</sup> Palaima observes that where there are ideograms in use, we can see that Protopalatial writing was restricted to the administration of basic agricultural commodities. Furthermore, these commodities are dealt with singly on individual transactional documents, whether sealings or clay bars. In the Neopalatial system, however, there are complex tablets concerning multiple agricultural commodities as well as manufactured goods. Sealing administration intensifies and becomes considerably more complex, with new varieties of sealing types. Even with the scanty evidence for Neopalatial sealings, we can still see that in this period Minoan administration has intensified the use of clay and parchment documents for oversight of its interests.

Writing is found regularly in the Linear A sealing system. As noted above, 9% of the surviving Neopalatial sealings have inscriptions of two signs or more. However, if we include inscriptions of one sign, which would include the Agia Triada nodules, then roughly 56% of surviving Neopalatial sealings are inscribed. By this point in Minoan history, literate modes have penetrated deeply into what was originally a non-literate mode of accounting. Here we will consider these uses of writing at each site. Of particular interest is the interaction between literate and non-literate sealing practices.

### **Sealing Use at Knossos<sup>322</sup>**

The use of sealings at Knossos is poorly represented, likely as a result of the continued occupation of the palace post-LM IB. Sealings are best represented at Knossos

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<sup>321</sup> Palaima 1990.

<sup>322</sup> All sealing quantities for these surveys of Neopalatial sites are taken from Krzyszkowska 2005, as she provides the most recent overview of all Aegean sealing material.

in the East Temple Repository, one of two stone-lined cists at Knossos containing possible cultic and administrative materials. These two cists – known as the East Temple Repository and West Temple Repository – are 1.10 meters deep and were dug into the floor in a small room. They were called “Temple” repositories because of the perceived religious nature of the finds. Among other things, the Snake Goddess figurines were found in these repositories, as well as several decorated vessels, and gold and faience objects.<sup>323</sup> These repositories were then sealed under stone slabs that were flush with ground level, with no indication that anyone would regularly access them after sealing. Accordingly, this is a secondary context for administrative material, and doesn’t represent the actual administrative setting of these sealings. Roughly 95 sealings were among the items found in this cist. None of these sealings were inscribed. 30 of these sealings are flat-based nodules. As noted previously, flat-based nodules may imply a direct connection with literate administration, since they seal small slips of parchment. However, here we are concerned specifically with the literate and non-literate application of sealings themselves, irrespective of their milieu. There were also 45 *noduli*, six roundels, twelve hanging nodules, and two direct object sealings.

In total from Knossos, six roundels were inscribed, as was one hanging nodule. At least three of the roundels are from the Temple Repositories; the provenance of the remaining roundels and the hanging nodule is unclear.<sup>324</sup> The inscriptions on these sealings consist of two or three signs. An ideogram is found on only one sealing, KN Wc

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<sup>323</sup> In *GORILA* these are recorded as having the West Temple Repository as the provenance (*GORILA* II, p. LVI). In Raison and Pope 1981, however, the Eastern Temple Repository is listed as the point of origin. Evans in *Palace of Minos* describes the sealings as coming from the West Temple Repository. For present purposes, the distinction between the East and West Temple Repositories is irrelevant. They both date to MM IIIB, and that is the salient feature in the present discussion.

<sup>324</sup> The hanging nodule was not published until *GORILA* and is not listed with a find spot. The other three roundels – one of which is in a private collection and the other two are missing, but are known from early photographs and drawings – are without provenance. Two of the roundels may not be from Knossos at all. See Raison and Pope 1981, p. 232.

29, making it difficult to assess the function and administrative sphere of these sealings.<sup>325</sup> The other terms may be place names, personal names, or another term relevant to Minoan sealing administration.<sup>326</sup> What we can note, however, is the restricted use of writing in this sealing assemblage. In the Temple Repositories, the use of writing on sealings is restricted to the roundels, marking 50% of them here. Without a fixed find spot for the remaining sealings, it is impossible to comment on the context of the application of writing found on them.

At this point I would like to stress again that neither Minoan nor Mycenaean sealing assemblages and quantities are accepted here as truly representative of sealing administration. It would not be sound practice to make judgments or draw conclusions from the relative quantities of sealing types. This is especially true in places like the Temple Repositories, where the sealings are, at best, from a secondary context.<sup>327</sup> What we can comment on is the positive evidence for the use of inscribed *versus* uninscribed sealings. In the case of the Temple Repositories, for instance, the use of writing is restricted to one sealing type, the roundel. This is not surprising, given that the Minoan roundel is very commonly inscribed.<sup>328</sup> That writing is also entirely absent from the other 89 sealings is surely significant.<sup>329</sup> In all of these uninscribed instances, the seal

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<sup>325</sup> The ideogram on KN Wc 29 is CAP<sup>f</sup>.

<sup>326</sup> The terms listed are *QA-KI* and *NU-SE* on the hanging nodule, and *RU-JA*, *NI-PI*, *KA*, *JA-RA*, and *KA-I-KA* on the roundels. None of these words recur on other Linear A documents. The *RU-JA* and *NI-PI* are from different sides of the same roundel, KN Wc 26, and so may read as one word *RU-JA-NI-PI*, or vice versa. There is a word on a sealing from Agia Triada, HT Wc 3008, *RU-JA-TA-DI*. Given our current understanding of Linear A, there is no way to know whether they are related at all.

<sup>327</sup> Many of the inscribed finds from Khania may even be from tertiary contexts. That is, their primary context was on an upper story. Then, after a burn destruction, they fell to the ground floor, were baked, damaged, and buried in secondary context. Then, in later Mycenaean rebuilding, as earth was being moved for leveling, they were further scraped and scratched as they were moved into a position that became their tertiary and final context.

<sup>328</sup> In fact the roundel is inscribed more often than not. Hallager and Weingarten note that 78% of existing Minoan roundels are inscribed by at least one sign (Hallager and Weingarten 1993, p. 1).

<sup>329</sup> Again, a great amount of caution is needed in assessing this evidence. Particularly with respect to Linear A documents, we must always be respectful of the accidents of survival. If the sealings of the Temple Repositories do represent the administrative remains of a specific administrative unit, we could

impressions and sealing types apparently were administratively sufficient. However, on the three inscribed roundels, the writer deemed it necessary to provide a term or ideogram that further enhanced the reader's knowledge of the nature of the transaction.

Regardless of the proportions of sealing types or the quantity of sealings, a clear picture of the application of writing emerges from our sample set. In sealings from the East Temple Repository, the use of inscriptions is restricted to a *single* sealing type – the roundel. Thus the application of writing in this context is not haphazard. Naturally, this inquiry would benefit greatly from an understanding of the terms found on the inscribed roundels. Hallager has proposed – as a reasonably possible explanation among many – that the uninscribed roundels represent transactions that have been sealed by administrators who are concerned with only one type of transaction with one type of commodity, so their seal impression would suffice to fully express the nature of the transaction<sup>330</sup> to the concerned administrator.<sup>331</sup> Writing was used only in instances where some elements of the transactions represented by the roundels were unclear. That is, in the case of these roundels, a written description on an inscribed roundel may be serving a function identical and parallel to a seal impression on an uninscribed roundel. Writing is a seamless extension of non-literate modes of administration in explicit and

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assume that this particular unit had little use for roundels, and therefore their remains were largely non-literate. Had this deposit not survived and another one had, however, we might have as evidence an archive comprised almost entirely of roundels. In that case, the majority of our sealing remains would be inscribed. Rather than couch this discussion in terms of percentage inscribed *versus* percentage uninscribed, we should be focused on the administrative input required to deem a transaction as completed and sufficiently recorded, regardless of the literacy/non-literacy of the solution to this requirement. As will be noted, sealing types seem to be the salient feature, rather than merely the numbers of inscribed sealings.

<sup>330</sup> I use the term *transaction* here in a very generic and neutral sense. In every instance in which an administrative document was constructed, there was an administrative purpose behind the manufacture of that document. The transaction is not necessarily between the palace and a second party, but rather indicates the interaction between an administrative reality and the observation by an administrator that this reality requires documentation, whether literate or non-literate. Accordingly for present purposes, we may define the term *transaction* as “the administrative activity that necessitated – in the eyes of an administrator – the manufacture of a document.”

<sup>331</sup> See Hallager 1990, p. 130. Of course, as Hallager himself acknowledges, this is only a possible explanation. Others are certainly plausible. However, the point is made that uninscribed roundels can, and probably do, function the same as inscribed roundels.

clearly defined sealing contexts. If for the moment we accept Hallager's explanation above regarding uninscribed roundels, we can see that the choice of inscribing or not inscribing a roundel is left entirely up to the discretion of the literate administrator responsible. That is, if he finds the sealings to be a sufficient mnemonic for his understanding and recall of a transaction, the inscription is unnecessary. The idea that scribes are using their own discretion to determine which information to describe, as well as the consideration of ultimate intended audience is, I think, central to the understanding of the administrative use of the Aegean linear scripts. This will be a continuing theme throughout the next two chapters.

It may be interesting to note that of the remaining inscribed sealing finds from Knossos, three out of four are also on roundels. Unfortunately, in the absence of any context for these other three roundel inscriptions, one should take this fact with a grain of salt. Finally, little can be said about the remaining inscribed sealing, hanging nodule KN Wb 33, inscribed with the words *QA-KI* and *NU-SE-*. Neither term is recorded elsewhere. Again, given the absence of context, little else can be said about this particular sealing. These strays – while providing additional evidence for writing at Knossos – do not otherwise significantly enhance the picture of Neopalatial seal use at Knossos as evidenced by the Temple Repositories.

### **Agia Triada**

In contrast with Knossos, Agia Triada presents a comparatively massive corpus of Linear A tablets and sealings. Approximately 146 Linear A tablets and 1150 sealings have been excavated there. While these were found in several smaller deposits, the excavation notes were not sufficiently rigorous to assess precise find spots and sealing assemblages. Comments on the general assemblages will have to suffice. The bulk of

the sealings – approximately 1100 – all come from the northwest part of the villa.<sup>332</sup> These all date to LM IB, and were impressed by roughly 150 different seals.<sup>333</sup> The breakdown of sealing types overwhelmingly favors the hanging nodule, with 975 examples from Agia Triada. 90% of these sealings are inscribed with at least one Linear A character. It is difficult to assess the number of administrators responsible for creating this number of sealings. Roughly 75% of these sealings were impressed by one of ten different seals.<sup>334</sup> The authors of *GORILA* identify 58 different scribes inscribing these sealings.<sup>335</sup> As noted above (p. 124), these hanging nodules did not properly *seal* anything in the Neopalatial period, but may have served merely as labels. This poses problems for reconstructing sealing practices. Here we focus on the role of writing within this hanging nodule deposit.

As noted above, nearly all of these nodules were inscribed. However, the inscriptions are exceedingly brief. As already mentioned, 840 of these hanging nodules are inscribed with a single sign. The repertory for these signs is small, being restricted to ten signs: *RO*, *TE*, *A*, *I*, *SI*, *TA*, *O*, *ZE*, *KA*, \*301 and *KU*.<sup>336</sup> Sealings with single inscriptions of two signs are restricted to the terms *DA-KA* on five nodules, *I-RA<sub>2</sub>* on eight nodules, and *SI-KA* on five nodules. Four other nodules have unique inscriptions of

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<sup>332</sup> 45 of the remaining sealings were all found together, and were all impressed by the same seal. These facets of sealing use will be addressed later in the discussion of Mycenaean seal and sealing use. The present survey is intended specifically to gain an understanding of the role of writing in sealing administration.

<sup>333</sup> Krzyszkowska 2005, p. 171.

<sup>334</sup> Krzyszkowska 2005, p. 172.

<sup>335</sup> They do not ascribe a hand to every sealing in the corpus. However, given the brevity of these documents, one should not ascribe too much authority to these scribal assignments, if any. Many of the sealings for which the scribal hands are identified are inscribed with a single sign. Even when these signs are highly diagnostic because of their intricacy, they are still too brief to provide any certainty of attribution. The very nature of writing on a tiny sealing as it rests in one's hand or against an object can alter the appearance of the sign.

<sup>336</sup> As before, Linear B values are employed here in the transliteration of Linear A texts. This is done simply out of convenience, and is not an endorsement of these Linear B values for all Linear A signs.

two to three signs each.<sup>337</sup> In addition to these groups are six sealings (HT Wa 1025-1030) with a single sign on one face, and another sign on another face. The inscriptions of four of these nodules are restricted to the same signs found on the nodules inscribed with a single sign. The other two include a fractional sign on one face.

It has been proposed that these signs represent the types of transactions concerned, rather than storeroom assignment or commodity involved.<sup>338</sup> The low number of signs used to mark these sealings suggests that they are not identifying specific commodities. If that were the intent, we should expect at least some ideograms to be used. The number of sealings with these so-called countermarks would suggest that these are very common transactions, and so would likely involve commodities for which ideograms have been assigned. Given the frequency of the appearance of each of these Linear A characters on this group of nodules, it has further been proposed that at least four of these signs present two groups of binary opposites.<sup>339</sup> *KA* and *KU* each occur roughly 150 times, and *RO* and *SI* occur approximately 87 times each. One sign may represent an incoming transaction, while another the outgoing transaction.<sup>340</sup>

Why use writing in these instances? As already mentioned, 10% of these hanging nodules have no inscription at all. At least some of these transactions, therefore, require no application of writing in the recording process. On the one hand, these transactional records are not necessarily documents for the literate. A single sign can be recognized by any non-literate individual, even if the viewer/reader does not recognize the actual sign

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<sup>337</sup> These are HT 1019, 1020, 121, and <1021 bis>.

<sup>338</sup> See especially Palaima 1994a and Weingarten 1987.

<sup>339</sup> Palaima 1994a, p. 315.

<sup>340</sup> It is difficult to imagine how this administrative process would work, unless units of a commodity came and then departed in exactly the same quantities. That is, 150 incoming shipments of a commodity would not be resorted or restructured or reapportioned, but rather would then go back out as 150 outgoing shipments. While this is not an entirely satisfying reconstruction, the numbers of each inscription must indicate some form of binary transactional type, even if the most logical suggestions of incoming/outgoing or to/from do not quite fit.

value. On the other hand, if this were a truly non-literate document, why use script characters at all? Why not use stars, circles, hash marks, or other pictures? It would seem very likely that the writers – or at least the designers of the system – were literate individuals. Palaima suggested that this use of writing is similar to that found in Linear B, where *o* stands for the term *o-pe-ro*, “owing,” or *wa* for *wa-na-ka-te-ro*, “kingly.” With only ten signs in use in this area of the villa, it is possible that the writers were non-literate.<sup>341</sup> It is also possible that at least some of the anticipated readers were non-literate. This discussion would greatly benefit from a better understanding of how these transactions functioned, how these sealings were integrated into these transactions and the administrative recording process, and from some way of being certain about the scribal hands. In the absence of decipherment, these questions are difficult to answer. We can at least be sure that the impetus for using sealings in this manner is the existence of a literate administration already established at Agia Triada. In these sealings, writing is serving merely as a convenience for categorizing transactions. The use of a script is not necessary, but the convenience of the already-present technology of writing provided a meaningful solution for the administrators involved.

In addition to these hanging nodules, there are also 75 flat-based nodules, 53 *noduli*, 21 roundels, and two direct object sealings. Only the roundels from these sealings are inscribed. All of the roundels from Agia Triada have an inscription. The general pattern of inscription on these roundels is either one or two words, or an ideogram. This fact accords with the use of roundels at Knossos. However, it is not surprising, since almost all roundels were inscribed.

In this assemblage of sealings, we are provided with an interesting picture of the use of writing on sealings in one administrative unit at one site in Neopalatial Crete. In

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<sup>341</sup> On the basis of the existence of the above-mentioned longer inscriptions on sealings, at least some of those inscribing sealings here must have been literate.



the roundels, we see the regular use of writing on a single sealing type, which is consistent throughout all of Crete. In the nodules, however, we are getting a glimpse of the use of characters of a script in a different fashion. While ostensibly written by literate officials, these signs would be familiar to anyone working in this unit whether literate or not. Unfortunately, we are unable to determine whether these abbreviations were administratively expedient for this particular department, or whether they had some greater significance for the transactions. In the absence of the decipherment of Linear A, the precise nature of the transactions represented by these nodules is difficult – if not impossible – to determine. As such, we cannot be certain what these countermarks are intended to represent. It is unclear whether these nodules were intended to represent information that was to be recorded onto tablets or parchment at a later time, or whether they were inscribed solely for the efficient processing of commodities in this particular administrative unit.<sup>342</sup> The flat-based nodules also indirectly represent the use of writing in Minoan administration. In and of themselves, however, they are purely non-literate documents. The use of writing is restricted to certain sealing types at Agia Triada, as at Knossos. It is interesting to note further that the seals impressed on these sealings are not found on more than one sealing type.<sup>343</sup> Writing and seals in this unit are restricted by sealing type.

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<sup>342</sup> The great quantity of sealings, as well as the lack of further identifying information beyond the seal impression and single character speak against the sealings enabling the creation of Linear A texts. This is supported by the fact that no Linear A texts can be shown to have resulted from the information on these sealings. In contrast, as we shall see later in this chapter in the sections on Thebes and Pylos, in the Linear B material, we can identify patterns whereby information from sealings was processed onto tablets for storage. Of course, parchment documentation is always a possibility, especially in the presence of flat-based nodules.

<sup>343</sup> Krzyszkowska 2005, p. 173.

## **Khania**

Khania presents us with many sealings and many sealing types. Unfortunately, as noted above, there is no context for any of the material. They are all from secondary contexts, at best. We cannot know whether these sealings were from one administrative unit or from several. They may also be from one time period or from several. We therefore cannot trust that the proportions of types of sealings are meaningful, *i.e.* that we have meaningful collections of sealings. What we can do is examine the use of writing within the surviving sealing corpus.

From House I at Khania come two *noduli* and one flat-based nodule. None of these is inscribed. The majority of sealing finds come from the Odos Katre excavation area. 82 Linear A tablets were found here. This is also where 112 roundels – accounting for roughly 2/3 of the entire roundel corpus – were found. As with many other roundel finds, these roundels were inscribed.<sup>344</sup> There were also 57 flat-based nodules, one *nodulus*, and 26 hanging nodules. Neither the flat-based nodules nor the *nodulus* were inscribed. As we found at Agia Triada, most of these hanging nodules – twenty of them – were inscribed. The majority were inscribed with only one or two signs. Five of these nodules were inscribed with the sign *ZE*, which was also in use at Agia Triada. Two were inscribed with what appears to be a very sloppy sign \*301 (KH Wa 1011, 1012). Four nodules have single signs on two sides, with sign \*86 on one side and *RO* on the other. \*86 is a rare sign in Linear A, but occurs on several roundels from Khania as well as an ideogram ligatured with sign \*188.<sup>345</sup> Two nodules read *A-KI* on one side and *DA-RO* on another. Two have the very obscure sign \*190c.

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<sup>344</sup> Since Hallager's analysis has demonstrably shown that roundels serve the same function at every site, we will not go into detail about their contents and function here.

<sup>345</sup> Sign \*86 also occurs in Linear B as a syllabogram. Its value is unknown.

The hanging nodules, especially those employing the signs *ZE* and *RO* – which occur on hanging nodules at other sites – suggest that the use of nodules in this manner with these signs in Minoan administration is not an entirely local invention. There is some uniformity between sites throughout Crete. At least the *ZE* and *RO* should be considered “universal” transactional shorthand. It would appear that many of the other countermarks could stand for transactional terms that, for whatever reason, are locally specific.<sup>346</sup> The case of sign \*86 is a curious one. This sign occurs several times on roundels, ligatured with sign \*188. The roundels at Khania all appear to have been inscribed with ideograms for men, vessels, and several unidentified commodities. If all of these signs on roundels are ideograms, then we should expect that \*86 is an ideogram on the hanging nodules as well. It seems that wherever \*86 occurs in the Linear A corpus, it is exclusively as an ideogram.<sup>347</sup> Accordingly, not all of the countermarks on hanging nodules can be construed as shorthand abbreviations for transactional categories.

In summary, the Khania material falls into line with the findings from Knossos and Agia Triada. The use of writing is restricted to particular sealing types, and is used intensively on those types. We should consider hanging nodules and roundels as essentially literate documents. It should be kept in mind that a small percentage of both hanging nodules and roundels are not inscribed, so they can function without the added information provided by writing. The seal impressions and potential for the absence of

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<sup>346</sup> Again, with the LM IB sealing material, we cannot rule out the possibility that our surviving sample is skewed. However, the strong association of sign 86 with Khania on nodules and roundels does lend support to the idea of localized countermarks.

<sup>347</sup> There is a possible exception on HT 140. The reconstruction in *GORILA* puts \*86 on 140.1 and 140.2, apparently serving as a syllabogram. However, there is virtually no justification for reconstructing it on line 2, as there is merely a tiny dash of a line that the authors propose is the leftmost portion of the sign. \*86 clearly does occur in line 1, but the tablet is so damaged both before and after the sign, that there is no solid evidence that this sign is occurring as a syllabogram in conjunction with the following signs. Given that there are 14 other occurrences of this sign in the Linear A corpus, and in every one of those instances it is functioning as an ideogram, it would be reckless to propose that it is functioning as a syllabogram in a single instance on an extremely fragmentary and damaged tablet.

writing keep these sealings in an administrative sphere distinct from the tablets, which are never sealed and are always inscribed. Only flat-based nodules, *noduli*, and direct object sealings appear to function almost entirely without inscriptions, and remain entirely non-literate administrative tools.

## **Zakros**

The majority of sealing finds from Zakros are from House A, along the road from the palace at Zakros to Knossos. The palace itself, because of its marshy location, has revealed only a single *nodulus* from what is believed to be the palatial archives (Room XVI). House A, on the other hand, contained approximately 559 sealings, as well as one Linear A tablet. The majority, roughly 475, are flat-based nodules. These are, as elsewhere, uninscribed. There are four *noduli* and 50-60 uninscribed hanging nodules as well. The nodules are of particular interest. We have seen inscribed hanging nodules at every other major Minoan site. However at Zakros, rather than the single-hole hanging nodules, we find two-hole hanging nodules. This may be a case of form and function. That is, only single-hole nodules required a written countermark in Minoan administration, and the function of these sealings at Zakros was different as indicated by the sealing type. However, since House A was spatially distant from the palace, the specific concerns of this administrative unit may have differed significantly from administration in areas directly connected to the palatial or administrative centers. Again, the flooding of the palace prevents us from recovering potential comparanda to the sealings at Khania, Knossos, and Agia Triada. We can be sure that administration at House A was literate, as evidenced by the presence of a single Linear A tablet.

The roundel from House A, which was impressed twice with the same seal,<sup>348</sup> is the only inscribed sealing from Zakros, and it is a loquacious one. The roundel reads *A-*

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<sup>348</sup> Raison and Pope 1981, p. 325.

*TI-KA-A* on line 1, and *DU-KO* on line 2.<sup>349</sup> Sadly, these terms occur nowhere else, regardless of where the word separator is placed. Nonetheless, for present purposes it is a very interesting document. Only at Khania do ideograms prevail as the inscription on roundels. At Knossos, Agia Triada, and now at Zakros, descriptive terms are the norm. This, too, may be the result of the accidents of survival. Perhaps the administrative units represented by roundels at most sites were not concerned with commodities for which an ideogram existed. We might also assume that there is regional variation in how roundels functioned at each site. For example, at Khania the roundels may generally serve as receipts for standard commodities. At other sites, however, roundels could stand as markers for more general or abstract items. The words on the Zakros roundel could be the names of two individuals, or the names of two sites, or two of anything else. However the evidence is interpreted, it is apparent that the roundel – and any sealing type, for that matter – had a specific function in administration, but could be implemented in several different ways, as needed according to site and administrative unit.

### **Gournia**

At Gournia were found one roundel in House Cf 25, eight *noduli* from House Fg 30, and six sealings from the palace building.<sup>350</sup> The roundel is inscribed on both sides. On side a, it is inscribed *A-SA-ṢU-MA-I-ṢE*. By this point it should come as no surprise that there is no other use of this term in Linear A. On side b is the ideogram BOS<sup>m</sup> and the number 5. As expected, this roundel is impressed five times around the side. In this instance, the combination of ideogram on one side and term on the other is revealing. The ideogram was not sufficient to describe the nature of the transaction. A second term

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<sup>349</sup> The authors of *GORILA* divide the words as *A-TI-KA* and *A-DU-KO*.

<sup>350</sup> These consisted of four *noduli* and one flat-based nodule.

was employed to provide further context for the five oxen involved, whether it described the purpose, type of cattle, or individuals involved in the transaction.

### **Remaining sites**

Four other minor sites have revealed Neopalatial sealings. At Pyrgos were two roundels and one *nodulus*. All were uninscribed. At Palaikastro were two or three *noduli* and 17 impressed ‘loom-weights.’ Again, none were inscribed. Tylissos had two roundels, two *noduli* and one single-hole hanging nodule. None were inscribed. Finally, Sklavokambos had 38 sealings, 35 of which were flat-based nodules. None were inscribed. It should be noted that three of these sites – Pyrgos, Palaikastro, and Tylissos – have revealed at least one Linear A tablet each.<sup>351</sup> Thus, literate administration was in practice at these sites. Likewise, the flat-based nodules at Sklavokambos likely attest to literate administration.

In these examples, we have strikingly mute roundels and one mute single-hole hanging nodule. We could chalk these up to the accidents of survival again. However, it is curious that the only roundels found at these sites are all uninscribed. It may be that these are mute because of the size of administration needed at the town and villa level. A palace, large villa, or villa complex would be concerned with very many types of transactions. A villa or town, however, may use roundels only for a single type of transaction. It is also possible that, as Hallager has proposed for uninscribed roundels, the official who is identified by the seal impressions on the roundel is involved in only one type of transaction, rendering a literate countermark or further description unnecessary.

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<sup>351</sup> Two were found at Pyrgos and Tylissos.

## **Summary of Neopalatial Sealing Use, and the Use of Writing in Sealing Administration**

While we cannot be sure of the accurate numbers of sealings that would have been in use at any given time across the sites in Crete, the archaeological record does suggest that sealings were in use in greater numbers at the major administrative centers. The numbers are decidedly low at Knossos and Zakros, but it is not special pleading to suggest that the continuous use of Knossos after LM IB and the flooding at Zakros contributed to the destruction of sealings at these centers. In fact, the curious deposits at both sites both imply that greater numbers would have existed. That is, if a small fortuitous deposit at Knossos should reveal 95 sealings, and a building far from the palace at Zakros presents over 500 sealings, while the submerged palace still offers up a single sealing, we can expect that the healthy administrative core of these buildings would have contained sealings of several types. The dramatically smaller numbers at the secondary administrative centers are sufficiently consistent that they should not be considered random or anomalous. We should expect a smaller-scale administration at these sites.

Despite the differing numbers of seal types at each site, there seems to be a fair amount of consistency in the use of writing on sealings. Roundels are inscribed with ideograms or ostensibly explanatory text, when necessary. Writing was unnecessary when the seal impressions provided all the information needed for the administrator to identify the purpose of the roundel. Single-hole hanging nodules were countermarked, usually with a single sign, likely as a means of administrative organization for the unit in which they were found. These countermarks suggest a level of uniformity of organization across several sites, but also suggest local variants in the system, as evidenced by the use of sign \*86 only at Khania. Interestingly enough, the roundels and

crescent-shaped nodules (which may have been the precursor of the single-hole hanging nodule) were the two inscribed types of Protopalatial sealings as well, suggesting continuity of administrative styles. Direct object sealings needed no inscription, which is not surprising. In most instances it should be clear what the sealing is fastening, particularly since the majority of these sealings are merely stoppers in jars. Two-hole hanging nodules are also uninscribed, which suggests a use distinct from the single-hole hanging nodule. Unfortunately, the number of surviving examples is far too small to suggest a function and explanation for the absence of written information.

Finally, the flat-based nodules speak to literate administration in every instance of their use. They definitely travelled between sites, transporting literate information from one site to another.<sup>352</sup> It is unclear how many flat-based nodules that have been recovered were still sealing parchment at the time of the destruction.<sup>353</sup> Several, such as those from Thera, appear to have been broken, meaning they no longer sealed anything. Many sealings appear to be unbroken, however. It would be possible to cut through the twine on the underside of the parchment to release the document, but it would make more sense to break open the seal to get at the document. Since these nodules are never inscribed, it would be impossible for anyone to know what the sealed text consisted of specifically, even if the sealing indicated the arena and nature of the message, whether the sender, recipient, general contents, or all/any of the above. Until more progress is made in identifying the intentionally-broken flat-based nodules, their precise administrative function will remain unclear. At least we can assert that everywhere they are present, they attest to the use of writing in Minoan administration.

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<sup>352</sup> Evidenced by the seal impressions. See Krzyszkowska 2005, p. 158.

<sup>353</sup> For a brief description of the problem, see Krzyszkowska 2005, p. 173.



Patterns of seal impressions and seal usage also reveal a great deal about the function of sealings in Minoan administration. Look-alike seals,<sup>354</sup> seal impressions found at different sites, and intensive use of a few seals on large numbers of sealings, all provide hints regarding the function of sealing in Neopalatial Crete. However, this inquiry would go far beyond the scope of the current project. We are concerned with the interface of writing with non-literate and pre-existing modes of administration. While we will certainly focus on the function of seal impressions in Mycenaean Greece, there is no need to do so here, where we are trying to assess the Mycenaean model for use of writing.

The Mycenaeans arrived in a Crete in which writing had entered multiple levels of administration, from the documents of central administration (tablets), to documents that moved from site to site (flat-based nodules), to the literate documents of administrative units (roundels), to the use of writing not as a record of accounts, but as a mode of administrative organization (single-hole hanging nodules). Writing was also found on extrapalatial sanctuary offerings, on administrative vessels, and on a few other non-administrative objects, such as figurines. Not only did writing transcend administrative units within a site, but it was also found at sites of various administrative status throughout Crete. The manner in which the Mycenaeans would incorporate writing into their administration in Crete would depend on how they intended to control their domain in Crete, as compared to the manner in which the Minoans administered the island. In the next section, we will briefly consider the earliest sealing practices among

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<sup>354</sup> Look-alike seals are a common trait of seal/sealing administrations. These are two (or more) seals with the same image on both. Generally, look-alike seals are identified through sealings that look nearly identical and are from the same administrative contexts, but have minor stylistic differences. These look-alikes are understood to provide the same standard of authority to two or more individuals. See Murray and Burnett 1993, p. 440.

the mainland population, and then address their reaction to Minoan models at Knossos in LM II.

## **Chapter 5: Mycenaean Sealing Use**

### **MAINLAND SEAL AND SEALING USE PRIOR TO LH III**

For our purposes, the use of seals and sealings in mainland Greece prior to LH IIIB does little to inform us of their later use. Evidence of administrative functioning of sealings in EH II is well attested.<sup>355</sup> Following this administrative activity, however, seals are found only in funerary settings and in contexts of uncertain date. As noted previously, sealings do not at all occur again until LH IIIB.<sup>356</sup> Accordingly, it is not currently possible to construct a continuous administrative narrative for seal and sealing use on the Greek mainland that spans the time from EH II leading up to and into LH IIIB. Our discussion of mainland Mycenaean seal use will have to start with LH IIIB1.

### **MYCENAEAN SEALING PRACTICES ON CRETE**

Fortunately, there is no gap in the archaeological record between the usage of seals by Minoans in Linear A and Mycenaeans in Linear B. The evidence is scanty, but it offers significant insight into the manner in which sealing practices were modified after Mycenaeans came to power at Knossos. It is somewhat misleading to talk about the *modification* of sealing practices by Mycenaeans on Crete, as it is essentially a wholesale *replacement* of Minoan practices by Mycenaean ones. Virtually all examples of sealings on LM II-III Crete are from Knossos, and all examples of inscribed sealings are from Knossos. Let us now briefly look at these sealings on a site-by-site basis, considering

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<sup>355</sup> See Pullen 1994 for a thorough discussion of sealing practices at Lerna. See also Weingarten 1997 for an opposing view.

<sup>356</sup> Krzyszkowska 2005, p. 234.

numbers and sealing types. Although we are concerned chiefly with writing, the extant sealing types allow for a more thorough analysis of inscribed sealings in context.

### **Mallia**

At Mallia, three late sealings have thus far been excavated. There are two stoppers – one from an LM IIIB context and another impressed by an LM II-III seal. One two-hole hanging nodule also survives.<sup>357</sup>

### **Kommos**

There are between one and three examples of the use of sealings at Kommos. The quantity is uncertain because of the state of the material. All possible examples are stoppers.<sup>358</sup> One example, no. 1524, is definitely impressed with a seal. The other two, however, show no surviving traces of a seal motif. There are symmetrical depressions on nos 1525 and 1283 which suggest the shape of a seal.

### **Khania**

The evidence of sealing practices from Khania is equally unclear. Much of the material thus far excavated is from secondary – and sometimes tertiary – contexts, often making analysis and interpretation difficult. Three to five sealings thus far have been identified.<sup>359</sup> Three of the surviving examples, nos. 1564, 1566, and 1655, are on stoppers. The other two, nos. 1567 and 1568, are direct-object sealings.<sup>360</sup>

### **Palaikastro**

At Palaikastro, there is only one sealing that dates to the period in questions. A sealed loom-weight has been impressed by a seal dated to LM II-III.<sup>361</sup> Because of the

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<sup>357</sup> Krzyszkowska 2005, p. 230.

<sup>358</sup> Museum nos. 1524, 1525, and 1283. See Shaw and Shaw 1992.

<sup>359</sup> Museum nos. 1564, 1566, 1567, 1568 and 1655.

<sup>360</sup> See Krzyszkowska 2005, p. 231.

<sup>361</sup> CMS II.6 no. 248.

domestic character of the object impressed and the lack of administrative context, this example does not fall within the relevant corpus of sealed administrative documents. We need not consider this specimen further.

### **Summary of LM II-III sealing practices outside of Knossos**

The contrast between Minoan and Mycenaean sealing practices throughout Crete is striking. Only around fourteen examples of Mycenaean sealings survive outside of Knossos. Eight to ten of these are stoppers. Stoppers offer little indication of administrative practices and regional interaction, as they function merely to protect the contents of a vessel. Little contextual information is available on the remaining sealings. Even if there were sufficient context, the numbers are low enough to suggest a major shift in the use of seals on Crete. Before drawing conclusions on this small body of material, we should first review the examples of sealing types and inscribed sealings from Mycenaean-period Knossos.

### **Mycenaean sealing usage at Knossos**

Unlike the earlier Minoan sealing material, Mycenaean sealings at Knossos are rather well represented. Unfortunately, as a result of the state of archaeological practices at the time of Evans' excavation of the palace, the find-spots and context for many of the sealings is poorly understood. Very roughly, 750 or so LM II-III sealings are preserved from Knossos, only 400 of which have any provenance.<sup>362</sup> To this number we can add an additional 11 unsealed sealings.<sup>363</sup> Of these circa 760 documents, 29 (4%) are inscribed.<sup>364</sup>

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<sup>362</sup> Krzyszkowska 2005, p. 217

<sup>363</sup> See the beginning of this chapter for the present definition of sealings, which includes all documents of this type, regardless of the presence/absence of a seal impression.

<sup>364</sup> As will be noted below, eight of these documents in the Wm series are considered to be internal labels, rather than true travelling sealings. If we omit those Wm labels from consideration, then our percentage dips to 2.8%.

Compared to the Minoan sealings from Agia Triada, the percentage of inscribed sealings at Knossos is extremely low. However, when inscriptions are present, the number of signs inscribed has increased dramatically from the Minoan material. Whereas the majority of inscriptions on sealings from Agia Triada consist of a single sign, the Knossos sealings are inscribed with complete words and ideograms, generally on two lines on labels, and two faces on sealings.

### ***Sealing types at LM II-III Knossos***

Before addressing the written evidence on sealings, a brief summary of sealing types found at Knossos is in order. Several types of sealings are represented by only a handful of examples. As noted previously in the discussion of the Room of the Chariot Tablets (RCT), four flat-based nodules were found in the RCT. No other examples of flat-based nodules exist in a Mycenaean context. No examples are inscribed.

Also found in small numbers are direct object sealings, *noduli*, and one stopper. Of these examples, only two of the *noduli* have been inscribed. KN Wn 8713 and KN Wn 8752, both impressed by the same seal, were inscribed with the signs for man and woman, respectively. The direct object sealings, two *noduli*, and the stopper bear seal impressions but no inscription.

The vast majority of surviving sealings are two-holed hanging nodules. This form of sealing is by far the most common sealing form in the Mycenaean world, so it is no surprise that they are the most common at Knossos as well. Only 27 of them are inscribed with Linear B. 19 of these sealings comprise the Ws series. The remaining eight comprise the Wm series.

### *Inscriptions on Mycenaean sealings from Knossos*

Since we are concerned here with the transition from Minoan to Mycenaean administration, we should start with the earliest inscribed sealings at Knossos. In addition to the four uninscribed flat-based nodules there are eleven other sealings. These include one combination sealing, while the remainder are two-hole hanging nodules. The RCT presents only four inscribed sealings: Ws 8493, Ws 8496, Ws 8500 and Ws 8712.<sup>365</sup> All four are two-hole hanging nodules. Ws 8493 is inscribed on two faces, while the other three are inscribed with a single ideogram or word.

#### **Ws 8493**

. $\alpha$ <sup>366</sup> se-t $\bar{o}$ -i-ja  
. $\beta\alpha$  ki-ri-ta-de  
. $\beta\beta$  te LANA do-ke

#### **Ws 8496**

. $\alpha$  \*134 *supra sigillum*  
. $\beta$ . $\gamma$  *vacant*

#### **Ws 8500**

. $\alpha$  GRA *supra sigillum*  
. $\beta$ . $\gamma$  *vacant*

#### **Ws 8712**

. $\alpha$  e-po *supra sigillum*  
. $\beta$ . $\gamma$  *vacant*

On Ws 8493, we have a place name, *se-to-i-ja* alone on one seal facet, followed on facet  $\beta$  line  $\alpha$  by another toponym, *ki-ri-ta*, with the allative suffix *-de* implying motion toward the site known as *ki-ri-ta*. The sealing ostensibly indicates that the first site gave a certain type of cloth – indicated by the ideogram LANA+*te* – to the second.

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<sup>365</sup> Ws 8493 was originally Wm 8493, but was reclassified in *KT 6*.

<sup>366</sup> Greek letters are used instead of line numbers to transcribe the contents of sealings. Generally, sealings of this type are considered to have three faces. There is a flat, broader surface that serves as the face of the sealing. This is the face that is impressed with a seal, and occasionally is inscribed over the seal impression. If the sealing is turned over, there can be discerned two other faces. Those two faces vary in shape depending on the type of sealing. In most of our examples, it is perhaps best to think of a deflated American football cut in half length-wise. The concave sides of the football form the other two faces. The *alpha* face is always the impressed face, while the *beta* and *gamma* faces are those formed by pinching the clay in the sealing manufacture. The notations  $\beta\alpha$  and  $\beta\beta$  in the transcription of Ws 8493 indicate the first and second lines of *beta*.

Compared to the earlier Minoan material, this example is striking in its detail. Several words are used to convey meaning, with one face being inscribed in two lines. Additionally, we have a conjugated verb, *do-ke*, “gave.” Third-person singular verbs are extremely rare, even in the tablets. There are only two other instances in which a finite form of a verb is found on a sealing. Also at Knossos, on Ws 1707 the verb *do-ke* is used.<sup>367</sup> On TH Wu 89 is the verb *a-pu-do-ke*.<sup>368</sup> Curiously, this is the only sealing in the group that does not have a seal impression. The other two sealings record only the ideogram for grain, the unidentified ideogram \*134, and the word *e-po*, or “kid.” All three are inscribed over the seal impression.

All four sealings record information and function in the manner that we expect from two-hole hanging nodules. There are place names, commodities, and ideograms. Although one is a bit curious, which we shall address shortly, they are unmistakably Mycenaean in the layout of information and method of inscription. On Ws 8496, Ws 8500 and Ws 8712, the succinct information provided – just an ideogram or term over a seal impression – parallels similar inscriptional layouts on many sealings throughout the Mycenaean world. Several Pylian Wr sealings, Theban Wu sealings, and Mycenaean Wt sealings record information with the same level of brevity.

Interestingly enough, in just these four sealings – along with the remaining uninscribed sealings – we see the broadest possible range in the amount of information conveyed via writing. 13 sealings provide no writing at all, one sealing offers one ideogram, another offers only one two-syllable word, and the third is among the most information-laden sealings in the entire corpus. This pattern would suggest that brevity is the order when possible. When further explication is necessary, however, as it apparently was on Ws 8493, the only limit to length is the clay surface of the sealing.

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<sup>367</sup> Ws 1707 was previously assigned to the Wm series.

<sup>368</sup> On transactional vocabulary, see Palaima 2000a.

Most unusual in the layout of Ws 8493 is the location of the ideogram on the second line of side β. As noted by Duhoux, this is the only instance in the entire Linear B corpus of an ideogram occurring seemingly in the middle of an entry.<sup>369</sup> The ideogram LANA, preceded by the phonetic adjunct *te*, occurs between the allative *ki-ri-ta-de* and the verb *do-ke*. In terms of the standard grammatical construction of an ancient Greek sentence, in which a SOV construction is preferred, all components on this sealing are where we would expect them in the sentence. That is, if one were to say “Setoija gave wool to Kirita” in ancient Greek, the word order would be exactly as it is found on our sealing.<sup>370</sup> The components seem to be arranged grammatically, rather than hierarchically with the ideogram written over the seal impression, which we consider the first or primary facet of the sealing. Here we might be seeing our early Mycenaean scribes wrestling with a new technology, getting a feel for its relation to spoken language.<sup>371</sup>

Additionally, Ws 8493 is one of eleven inscribed sealings at Knossos that lack a seal impression. The majority of the sealings lacking impressions – eight of them – comprise the Wm series. Killen proposes that these Wm sealings were unsealed because they were labels created for materials – in this case garments, wool and textiles – as they came into the palace and were placed into storage. Then, as these materials entered use, the labels were removed and brought into an administrative area to be processed as documents.<sup>372</sup> Since they are serving merely to label items that are newly present in the palace, a seal impression would not serve any useful function. Also, since they are

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<sup>369</sup> Duhoux 1988, p. 57 n. 15.

<sup>370</sup> Relative position of the allative and the object is mutable, but the rest is fixed, and those are the salient features.

<sup>371</sup> This does not imply any autonomy on the part of the script itself. That is, the script is not at all dictating how it functions. This is the scribe’s mind at work, playing with the new tools available to him and figuring out how they may work best.

<sup>372</sup> Killen 2002-2003, p. 105.



already within the system, they might not need any explicit claim that the individual or institution designated by the seal and seal impression is involved or in charge.

Excluding the Wm series because of its labeling function, then, there are three uninscribed sealings at Mycenaean Knossos – Ws 1707, Ws 8499, and our Ws 8493.<sup>373</sup> Ws 1707 is from the North Entrance Passage (NEP), and Ws 8499 is from Magazine XVIII.

**Ws 1707**

.α.1 ]a<sub>3</sub>-wo-re-u-  
.2 -si  
.β do-ke  
. [•]-ja-wo-ṛe

**Ws 8499**

.α pi-mo-no  
.β na-ki-zo  
.γ pa-wo

These are both curious in their own way as well. Ws 8499 is the only document found in Magazine XVIII. On this sealing are inscribed two personal names and the term for cloth, *pa-wo* (=φάρφος). This sealing was inscribed by Hand 103. Several of tablets by this hand were found nearby, outside of Magazine XIII. The name *pi-mo-no* also occurs on a tablet by Hand 103 found in the Long Corridor, outside of Magazine XIII. It is likely that Ws 8499 is connected with these tablets by Hand 103.

Ws 1707 is similar in many ways to Ws 8493. Not only are they both unsealed, but as noted above, they are also the only two sealings at Knossos to record a conjugated verb. The same verb, *do-ke*, is used on both sealings. Ws 1707 records two proper names. *a<sub>3</sub>-wo-re-u-si*, /Aiwoleusi/, has been interpreted as the dative plural of the ethnic “Aeolians.” [•]-*ja-wo-ne* is likely to be read *wi-ja-wo-ne*, the dative of a Greek personal

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<sup>373</sup> All three of these sealings were previously assigned to the Wm series because of the absence of any seal impressions. The content and find-spots of these three contributed to their reassignment to the Ws series, which already is a non-unified series. Wm documents are unified by their use of ideogram \*146 and their use of the descriptive term *me-sa-to*, “of moderate quality,” to describe the cloth.

name ending in *-awōn*. The presence of two dative nouns, a verb, and no subject is certainly problematic, especially given the absence of a description of the commodity given if this interpretation is correct.<sup>374</sup> We also lack any seal impression to serve as the “subject” who is doing the giving.

As noted above, Ws 8493 records a wool transaction between two place names, *se-to-i-ja* and *ki-ri-ta*. It is interesting to note that *se-to-i-ja* is one of the few words in Linear B that also occurs in Linear A. *se-to-i-ja* is found on a libation table from Prassa, just north of Knossos, PR Za 1. It seems appropriate that one of the earliest sealings at Knossos should show some continuity from Minoan administration in the listing of a term found in Linear A. However, the place name *se-to-i-ja* occurs frequently in the Linear B corpus from Knossos, so we should not place too much emphasis on its occurrence here.

Considered together, Ws 1707 and Ws 8493 may speak to the early application of writing in Mycenaean sealing practices at Knossos. As previously discussed, the RCT is the earliest archive at Knossos, and the evidence suggests that the NEP is also earlier than the remaining tablet deposits. The already-noted presence of complete or nearly complete sentences on these sealings may indicate an attempt to over-explain the function of the sealing in question, especially given the absence of a seal impression to provide further context. Inscribed sealings from later contexts frequently list only a destination, recipient, or contributor without a verb or any further context. We might also expect to see fewer sealings pertaining to transportable materials in early contexts. That is, after the Mycenaean came to control Crete, there would likely have been a process whereby it was determined which seals already in circulation among Minoans were to be recognized by the Mycenaean administration, and which were no longer recognized as signifying

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<sup>374</sup> Hajnal proposes that *wi-ja-wo-ne* must be the subject, and that the *-ne* at the end should be considered an example of *plene* spelling. See Hajnal 1999, p. 269, n. 12.

meaningful authority. In the case of a transaction involving the transport of goods from *se-to-i-ja* to *ki-ri-ta*, perhaps there was no seal recognized as authoritative over such a transaction, and only text could provide such authority and documentation. This is only hypothetical, as we are talking about only three unsealed sealings from the Knossian corpus of 19 Ws sealings.

In addition to the three inscribed sealings from the RCT, and the unsealed sealings from the NEP and Magazine XVIII, twelve other inscribed sealings come from known find-spots. They present a mixed bag, as they are scattered throughout the palace.<sup>375</sup> The format of these sealings is standard for Mycenaean sealings. They list an ideogram with a toponym as point of origin, a description of the commodity in question, a personal name either as the sender or recipient, or an occupational description of the workers who are/will be working with, or responsible for, these materials. Commodities include a bronze washing basin, javelin points, and various textiles.

From these observations, we would have to conclude that the use of inscribed sealings in Mycenaean Crete is exceedingly rare, particularly compared to the pattern of usage that existed previously under Minoan rule, in which the majority of sealings were inscribed by at least one sign. Even if we discount the Linear A sealings with only one sign, then 160 of 1800 (9%) Minoan sealings are inscribed. Very few Mycenaean sealings on Crete have been unearthed outside of Knossos, none of which are inscribed.

If we look forward and outward to the broader Mycenaean world, we see that this pattern of sealing usage on Crete accords well with what we know and understand about Mycenaean consolidation of power on Crete. With regards to the latter, even accounting for accidents of survival and archaeological focus on Crete, the documentary and

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<sup>375</sup> The find-spots and numbers from each find-spot: Room of Niche: 3 (Ws 1701, Ws 8494, Ws 8753); Magazine VIII: 1 (Ws 1703); Arsenal: 3 (Ws 1704, Ws 1705, Ws 8495); Corridor of Sword Tablets: 1 (Ws <1708>); Magazine XV: 1 (Ws 8152); Area Bügelkannes: 2 (Ws 8153, Ws 8497); area of SW Pillar Room: 1 (Ws <8754>).

archaeological evidence has consistently pointed to a willful consolidation of power and resources at Knossos, while maintaining the role of previously Minoan centers on Crete at a lower level in the administrative hierarchy.<sup>376</sup> Table 5.1 summarizes the sealing discoveries from LM II-III contexts on Crete.

SITE	UNINSCRIBED SEALINGS	INSCRIBED SEALINGS
Knossos	ca. 750	21
Palaikastro	1	0
Mallia	3	0
Khania	3-5	0
Kommos	1-3	0

Table 5.1: Numbers of sealings from Cretan sites, LM II-III

This pattern of consolidation at Knossos is consistent not only among inscribed and uninscribed sealings, but also in the storage of Linear B tablets, as we shall see in Chapter 6. Khania is the only other site on Crete at which Linear B tablets have been found, and it is also the site which presents the greatest number of sealings. The Khania sealings also present the sealing types that speak to Mycenaean administration, namely the two direct object sealings. With one exception, only stoppers and a loomweight are present at the other sites. The Mallia nodule is intriguing, but does not mean much in the absence of further administrative context. I will argue later in this chapter that sealings travelled with items from outlying sites to administrative centers, and expect them to have been present at lower-level sites. Accordingly, without further context, there is no way to determine what level of administration is represented or present at Mallia on the basis of this nodule alone.

We can say more about the pattern of Mycenaean sealing usage on Crete when we compare it with the sealing evidence as it survives on the Mycenaean mainland. We will

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<sup>376</sup> See especially Bennet 1990.

be looking at mainland sealing usage in great detail in the next section, but for now let us briefly look at sealing usage at Pylos as a point of comparison.<sup>377</sup> Table 5.2 breaks down the proportions of sealings and tablets present in LM II-III Knossos, in the RCT and at Pylos.

A	B	C	D	E	F	G
Site	No. of Inscribed Documents	No. of Sealings	No. of individual seals	No. of inscribed sealings	% of inscribed docs that are sealings	% of sealings that are inscribed
Knossos	ca. 3500	750	250-500	21	17.7	2.8
RCT	ca. 600	15	unknown <sup>378</sup>	4	2.5	27
Pylos	ca. 1200	165	114	23	8.9	14

Table 5.2. Proportion of Tablets and sealings at Knossos and Pylos (numbers are approximate).

Even with roughly approximate numbers, the results are revealing.<sup>379</sup> Overall at Knossos, sealing usage is exceptionally high, but inscription of sealings is exceptionally low. The RCT presents a small number of sealings, but with a higher percentage of inscribed sealings. Administrators at Pylos make much less use of sealings than at Knossos, but they inscribe a much greater percentage of sealings, surpassing even the raw number of inscribed sealings at Knossos.

Even with the large number of sealings in use at LM II-III Knossos, sealing usage still pales in comparison to the numbers from Minoan Crete. From the Neopalatial period

<sup>377</sup> It should be noted that the number of sealings present at any site – palatial or extra-palatial – must have been highly mutable, perhaps even on a day-to-day basis. It is possible, for example, that the sealing cache at Thebes would have been pulped clay if the settlement had been destroyed one day later. Perhaps the sealing at Mallia would have found its way to Knossos within a few days. Despite this daily variability, if we assume that sealing usage was constant and consistent (as we should), then we are always getting an accurate picture of how seals would function at any given time. It should go without saying that context is essential. That is, the tablets from Mycenae are from a qualitatively different deposit than those at Pylos or Knossos.

<sup>378</sup> Several of the sealings have gone missing since excavated.

<sup>379</sup> Numbers will always be approximate with this material for several reasons. Joins between fragments regularly reduce the actual number of tablets and sealings. Sealings without inscriptions are occasionally included in the numbers for administrative documents (if there are traces of writing or possible traces), but otherwise are not included. New finds also continually change the numbers.

on Crete, ca 1800 sealings and 325 tablets have been excavated. Those 1800 sealings were impressed by ca. 500 unique seals.<sup>380</sup> As noted in the previous section, roughly 1000 of those sealings were inscribed with at least one sign. Clearly a dramatic shift has taken place from the Minoan to Mycenaean period.<sup>381</sup>

Unfortunately our earliest tablet deposit does not help much in assessing Mycenaean reaction to the Minoan use of writing on sealings, at least in terms of the quantity of written documents employed. Only 15 sealings are present, with only three inscribed. Whether this is because of the nature of the RCT workspace, early Mycenaean sealing practices on Crete, or experimentation with a new medium for documentation is intractable. There is no way of knowing what was occurring administratively elsewhere in the LM II palace. We cannot know whether or not other, non-central tablet deposits would have seen more sealing activity.<sup>382</sup> From relative numbers of inscribed and uninscribed sealings, however, we can note that non-literate sealings vastly outweighed their literate counterparts, as is found throughout Mycenaean administration.

Whether inscribed or uninscribed, sealings at administrative centers are administrative documents. It is evident from sealing patterns at Knossos that sealings are a more significant component of Mycenaean palatial administration here than at any other palatial center. More importantly, the ca. 730 uninscribed sealings imply a sizeable non-writing-based component to administration. It seems likely that the extensive use of uninscribed sealings is a result of the unique situation of Mycenaean Knossos. Given the extensive use of sealings in Minoan Crete, these could be seen as an attempt to

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<sup>380</sup> Unfortunately, work is still continuing on the seals and sealings from LM II-III contexts on Crete. Accordingly, no reliable numbers are available regarding intensity of seal use.

<sup>381</sup> There are a few factors that skew this comparison somewhat, as we shall see in the next chapter. Key among these factors is the evidence for use of ephemeral materials in Minoan administration. These would greatly augment the number of tablet-length documents. The absence of Linear A remains at Knossos also may play a significant role.

<sup>382</sup> This is certainly the case at Mycenaean centers on the mainland. At Mycenae, Thebes, and Pylos the majority of sealings are from outside of the central palace building.

incorporate some administrative continuity under Mycenaean rule. A system which allows for extensive use of uninscribed documents would also allow the participation of Minoan elites in Mycenaean administration. In this way, there may also be a language component to sealing usage. Uninscribed sealings not only do not require writing, they also do not require language. Accordingly, those that do not either understand Greek or Minoan could still engage in transactions with one another without any administrative difficulty.

So what can we say about Mycenaean literacy and approaches to writing on the basis of the sealing evidence on Crete – both from the Minoan and Mycenaean administrations? Writing appears to have been greatly scaled back and restricted by the Mycenaean at Knossos.<sup>383</sup> Not only is writing restricted to Knossos, but the corpus of inscribed sealings would suggest that the intended audience for their content is a restricted few at the palace. That is, writing is inward-looking towards the palace, not outward. Whether items are in storage, as in the Wm series, or they are outgoing or being transported to the relevant location or workforce, as on Ws 8152, where wool is being sent to the *ne-ki-ri-de*, or on Ws 8493 (transcribed above), where wool has been given to *ki-ri-ta*, or they are incoming, as ostensibly on the majority of Ws sealings, the sealings are being stored in specialized deposits within the palace at Knossos.

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<sup>383</sup> Again we must again consider accidents of survival. The Linear B texts from Knossos frequently name two other toponyms – *pa-i-to* (almost surely Phaistos) and *da-wo*, which has been associated with Agia Triada (Bennet 1985, p. 247). On the basis of the quantities of goods listed in the texts – including 10,000 units of wheat at *da-wo* – these sites would appear to be in charge of significant territory, and would therefore be major centers. Yet no Linear B remains were found either at Phaistos or Agia Triada. Excavators at both sites did find Linear A material. The excavation of Linear A material and sealings at both sites indicates that methodologically both excavations were sufficiently meticulous to uncover Linear B documents, if they had been there. With erosion and lack of sufficient burn destructions, however, they could have just as likely disappeared. We cannot be sure either way in these cases. However, the complete silence of the archaeological record at several well-excavated sites – including Phaistos, Agia Triada, Mallia, and Khania – is not insignificant.

We might also say something about the formality – or lack thereof – of inscriptions on these sealings. Unfortunately, the small number of signs on these sealings does not permit for assignment of scribal hands, outside of a few instances. Such information would enable us to compare sealing formatting between scribes, as well as within the sealing corpus of a single scribe. Only Hand 103 is given credit for at least two sealings.<sup>384</sup> Despite this fact, as can already be seen in the examples presented above, the amount of information contained in sealing inscriptions varies dramatically in length and degree of specificity. In some instances, as in the case of Ws 8153 – a sealing inscribed with the ideogram for cloth – the same seal is used to impress both inscribed and uninscribed sealings.<sup>385</sup> We can come to a couple of conclusions. Perhaps not every transaction taking place here – in this case the Area Bügelkannes – requires a written description; only those transactions which are outside of the norm – on Ws 8153 the cloth is described as *te-pa* – would require further information. We might also conclude that for large transactions, several sealed bundles were transported to the palace, but only one sealing need be inscribed to serve as the information bearer for the entire shipment. As noted earlier, this seems to be the case with the ISJ inscriptions. In any event, given the variability among sealings – especially among the longer inscriptions addressed earlier – it would seem that the scribe was left to his own devices to determine what degree of information was necessary to convey the salient transactional information to the intended audience.<sup>386</sup>

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<sup>384</sup> The only other scribal hand assignment is Ws 8493 to one of the Hand 124 scribes of the RCT. It is likely that the other three sealings from the RCT are by Hand 124, as all other documents which are currently attributed to the RCT were written by a Hand 124 scribe. *Cf.* the writing on these three sealings – on which there is one sign on two sealings and two signs on the other – necessitates caution. Olivier offers the strongest wording one can reasonably muster in his attribution: “je ne pense pas qu’il existe de contre-indication formelle à ce que ces documents soient l’oeuvre d’un des scribes groups sous le numéro «124».” (Olivier 1968, p. 179)

<sup>385</sup> For the case of Ws 8153 see Krzyszkowska 2005, p. 218, n. 86.

<sup>386</sup> With regards to audience, we will discuss this concept more fully in Chapter 6, when we consider the division of Knossos into discrete bureaus.



As a final thought in considering Mycenaean sealing practices on Crete, we might take one more look back to sealing administration among the Minoans. Recall that the majority of Minoan sealings were inscribed with a single sign from a corpus of ten possible signs. Such a system does not imply or require a literate audience or even a literate author. One need not be able to work with a full syllabary and ideograms or even know what sounds the syllabograms represent in order to function within such a system. The Mycenaean sealing system is not at all similar to this earlier system. The disappearance of the Minoan system – if it did indeed disappear – may be because it was a system specific to Agia Triada, and we have no evidence for Mycenaean administration at the site. Furthermore, the consolidation of administration at Knossos eliminated the need for such a system.<sup>387</sup> Regardless of the actual cause(s) for the differences in Minoan and Mycenaean sealing practices, it seems that the Mycenaean quickly determined which sealing types would enable them to regulate the exchange of goods with the palace, as well as the production of material wealth on Crete. Furthermore, by implementing a more verbose style of writing on sealings, the Mycenaean seem to have extended the potential functions of sealings beyond the roles they played in Minoan Crete.

### **MAINLAND MYCENAEAN SEALING PRACTICES IN LH III**

Mycenaean sealing practices on the mainland seem uniform, but from site-to-site there are a significant number of differences. As we shall see, most differences can be attributed to context, rather than to distinctive practices at different Mycenaean sites. As

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<sup>387</sup> Alternatively, the system was so dramatically altered that the archaeological record at Agia Triada leaves no trace. If LM II-III administrators restricted access to seals and seal use, other mechanisms of recording and accountability could have been used, such as tally sticks or wax tablets, which vanish from the archaeological record.

noted above (p. 119), we have no evidence for the use of sealings on the mainland until LH IIIB, with the exception of EH sealings.<sup>388</sup>

Evidence of sealing use is found at all major palatial centers, as well as at sites where no Linear B tablets have been excavated. These sites are Pylos, Mycenae, Thebes, Tiryns, Midea, Aegina and the Menelaion. The varieties of sealing types found on the mainland mirror those found in LM II-III Knossos. Only flat-based nodules are not present, but these were not present in LM III Crete either. Two-hole hanging nodules, stoppers, direct object sealings, and combination sealings persist in usage. Compared with Knossos, however, the total number of sealings (especially uninscribed sealings) at each site is greatly diminished. Let us then look at sealing use at each site in context, assessing the use and function of writing on sealings in each case, noting the assemblages in which only uninscribed sealings are present, only inscribed sealings are present, or there is a combined assemblage. We will start our inquiry with Pylos and Thebes, the sites at which sealings are not only well attested, but come from well-excavated and well-described archaeological and administrative contexts. We will then consider the sites at which the fewest examples are present: Aegina, the Menelaion, Midea, Tiryns, and Mycenae.

### **Seals and their meaning on the Mycenaean mainland**

Prior to the discussion of these sealings, however, we will address the role of seals and function of sealings in Mycenaean administration, as has been thus far adduced on the basis of existing evidence. This discussion is better-suited to the mainland material, as opposed to the Cretan material, since the archaeological and administrative contexts are much clearer, and the frequency of inscribed sealings *versus* uninscribed

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<sup>388</sup> Krzyszkowska proposes a *terminus post quem* for mainland seal use in general at no earlier than LH IIB, Krzyszkowska 2005, p. 280.

sealings is greater. At Knossos, the lack of precise find-spots, the secondary context of much of the most important material, and the low rate of inscribed sealings all combine to make any generalizations regarding seal and sealing usage extremely uncertain and nearly always problematic. The consistency of usage across mainland Greece in LH IIIB (and likely late LH IIIA), however, presents a much more solid foundation on which to build an argument.

The function of Mycenaean sealings has received much attention.<sup>389</sup> Of primary concern here is the two-hole hanging nodule.<sup>390</sup> These sealings served primarily as a means of securing transported or stored goods, or authorizing the transport of goods. Most were found broken, indicating that the contents had at some point been unsecured, and the sealing had fulfilled the first part of its administrative existence. At that point, unified groups of sealings may have then been used as mnemonics to fashion a Linear B tablet recording related groups of commodities. We shall see this most clearly demonstrated in the Wu sealings from Thebes. In addition to these broken two-hole nodules, there is another type of hanging nodule, known as a gable-shaped nodule. The gable-shaped nodules also had two holes and were very frequently found intact, and sometimes were formed around a knot on a cord, rather than the bound ends of the cord. For these reasons, it is believed that the gable-shaped nodules may have served chiefly to label rather than to actually secure. This is a point to which we shall return later.

In any event, all of these two-hole hanging nodules in mainland Mycenaean Greece were impressed by a seal (as opposed to the two inscribed but unimpressed

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<sup>389</sup> References are too numerous to include them all. For the function of seals in Mycenaean administration, see Palaima 2000, 1987a and 1996a, as well as Piteros *et al* 1990. For the most recent inquiry, see Flouda 2010.

<sup>390</sup> Other sealing types, such as direct-object sealings, combination sealings, and stoppers reveal their function with a bit more clarity. The sealing types mentioned here secure the documents, objects, or contents of various packages or containers. The hanging nodules are more problematic, as there is only the impression of the string which runs through them, but the manner of fastening to the goods in question is not indicated by the surface of the sealings.

sealings at Knossos, mentioned previously). For this reason, I would like to consider here the meaning of a seal and its impression prior to itemizing the sealing evidence from the Mycenaean palaces. Seal impressions have been variously interpreted.<sup>391</sup> There is both iconographic and archaeological tomb evidence that individuals often possessed several seals.<sup>392</sup> These may have been used variously depending on the transactional situation of the sealer, whether he was acting on his own behalf, as a professional – whether as an administrator or as a tradesman of some sort – or on behalf of his superior. Given the infrequency of sealing survivals in the archaeological record, a good number of seals may have simply been non-functional heirlooms.<sup>393</sup>

Regardless of which type of seal function is in play, we can at least assert that seal impressions on sealings are intended to identify and certify the presence of an individual within the transaction for which the sealing has been created. Even if the seal impression represents a bureau, collective, or proxy, the sealing still represents a single person at its core. That is, one can look at a seal impression and assert that an individual made an impression, regardless of whether it was made on his own behalf or on behalf of another individual or group of individuals. In this respect, we can say that a seal impression functions much like a modern signature. For example, in contemporary society we can sign checks on our own behalf, on behalf of an individual for whom we claim legal responsibility, or on behalf of a corporation in which we have the authority to sign for legal decisions.

Therein lies the chief difficulty in interpreting Mycenaean sealing evidence. Just as the modern signature can, and does, perform a wide variety of functions – many of

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<sup>391</sup> see Krzyszkowska 2005 for detailed discussion. For our purposes, a brief summarization here will suffice to demonstrate the difficulties in analysis.

<sup>392</sup> See for example Krzyszkowska 2005, p. 167 n. 37.

<sup>393</sup> This is supported by the presence of seals throughout the LH period, but the complete absence of sealings until the end of the period.

which are not legal or are non-binding<sup>394</sup> – we should expect seal impressions to act the same way. There is likely not a single narrative or transactional seal function that would account for all Mycenaean sealing evidence. As noted above, we can at least say that at its core, a seal impression asserts the presence of an authorized sealing individual in reference to the matter being recognized by the creation of the sealing.

The next concern is the matter of who can seal, and what individuals we should expect to have been sealing. Are the seal users the scribes who created the sealings and inscribed them, and are receiving commodities on behalf of the palace, or are they the parties that are delivering goods due to the palace? Again, the user likely varies from situation to situation, but we can make a couple of assertions. First, there is no positively identifiable instance in which a Mycenaean scribe has written on sealings that were each impressed by a different sealing. Every occasion in which an identifiable scribe has inscribed multiple sealings, those sealings all share the same seal impression. This would imply either that these scribes conducted business with only one seal user at any given time – and we have no cases where a scribe has interactions with a second or third seal-user – or that the scribe is the one responsible for the seal impression in the great majority of cases.

A corollary to this is the purpose behind offering a seal impression as a signature. Let us assume that in many instances, the sealing serves as proof of the presence of a sealer in approving a transaction. In most instances of surviving sealings, there would have been no reason for the individual delivering goods to the palace to seal a transaction. That is, there is not often a need for the one making a deposit to say, “I am making this deposit, and I assert with my signature that I myself have made the deposit from my own

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<sup>394</sup> For example, celebrities signing memorabilia, or students signing yearbooks.

resources.”<sup>395</sup> In most cases, as long as the deposit is made, and the payment of debt is credited to the proper person, then there need be no authorization on the part of the debtor.<sup>396</sup> A sealing providing proof/authorization on the part of the shepherd serves no purpose except for identifying the shepherd, but this could have been done by inscribing the name of the shepherd on the sealing.<sup>397</sup> In these instances, it would seem most likely that the sealing is the possession of the scribe, and that he is vouching for the transaction and claiming responsibility for the security and inviolate state of the bundle of commodities in question. It may also alert and inform other administrators in the same area of the palace of the party responsible for those goods.

Of course, there are several additional factors which complicate this picture as well. First of all is the not-discountable randomness of sealing discovery. Since these are such low-level transactions, concerning almost exclusively the transfer of material goods (as opposed to land tenure or personnel concerns), they were likely to have been manufactured and destroyed with great frequency. So a scribe may do business with one seal user over a two-day period, but then engage in a number of transactions with another seal user a few days later. Depending on the time of destruction, it is likely that only one of those deposits would be in existence at the fiery end. As we shall see later, there is

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<sup>395</sup> We do sign the back of checks for deposit, for which see below n. 397. Additionally, political contributions and the like are the modern exceptions, when there are limits on who can receive goods and currency from whom.

<sup>396</sup> If shepherd X owes the palace five cattle, as long as the palace receives five cattle on his behalf and they credit X's account for those five cattle, then it does not really matter who made the deposit. It could have been his friend, shepherd Y.

<sup>397</sup> As a modern parallel, the deposit slips that I receive from my bank do not have a space for my signature. Anybody could deposit money in my bank account, and I encourage them to do so. It is withdrawals or receipt of goods that requires proof of identity. This means no signature is required at all for a cash deposit. We do sign checks that accompany the unsigned deposit slips. However, this seems to serve a different purpose. Unlike cash deposits, a check deposit indicates from whom the money is being received, and can only be used in exchange for currency by the named recipient. A signature does not indicate that “I am making this deposit,” but rather demonstrates that “I now officially turn this check into bearer paper so that anyone can exchange it for currency,” and “I am willing to receive funds from the persons identified on this check, and am comfortable with the association I have made as a result.”

some good evidence that the one sealing inscribed by Hand 2 was not sealed by Hand 2 himself. Accordingly, we should likely expect a mix of scribal impressions and palace-collaborator impressions.

The second major problem with determining seal user is the difficulty in identifying scribal hands on sealings. The number of signs per sealing is obviously quite small. The standard paleographic threshold for identification of a scribal hand is 30 signs. Naturally we never see nearly this many signs on a sealing. One to four signs is the norm. Often these are not distinctive. Piteros, Olivier, and Melena, in their study of sealings at Thebes, chose to assign scribal classes rather than hands, and even suggested that those were very tentative.<sup>398</sup> Palaima has also noted that the difficulty of writing on such a small and odd-shaped piece of clay could further distort the customary sign shapes employed by an individual scribe, further complicating attribution.<sup>399</sup> Despite these problems, we can still assert that tentative scribal hands or classes have been assigned to multiple sealings, and in every instance the same seal has been used for each scribe or scribal class. There is at least no positive evidence for scribes inscribing sealings of different seal users.

The final major concern lies in the uncertainty of this level of Mycenaean administration. That is, it is not entirely clear how far down the administrative ladder seal usage would have travelled. When employed for palatial transactions involving second-order centers, it would seem likely that the sealings would function no lower than a second-order center administrator. If cattle were required from several outlying shepherds, an administrator for the second-order center could collect the cattle on behalf of the palace, and the palatial representative need only deal with that administrator, rather

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<sup>398</sup> Piteros et al 1982, pp. 146-147.

<sup>399</sup> Palaima 2000, p. 226.

than with the shepherds themselves.<sup>400</sup> To this end, Palaima describes a tripartite macro-economic and micro-economic scale.<sup>401</sup> On the macro-economic scale, at the top is the central palace, followed by the second-order centers (district capitals at Pylos), and at the bottom are the smaller settlements under the purview of these second-order centers. On the micro-economic scale, from top to bottom, are administrators, then collectives (such as workshops, shepherds, craftsmen, etc.), and finally individuals within those collectives. As noted above, and as will be addressed in this chapter and the next, most of the documentary evidence suggests that the palace dealt primarily with the second macro-economic level, or the second-order centers. It would be unusual and unlikely for the palace to deal directly with an individual bronzesmith at an outlying settlement of a second-order center.<sup>402</sup> However, the administration at a Mycenaean palace such as Pylos may have been slightly more complex. The palaces served not only as the seat of administration for second-order centers, but also had its own territory to administer as well. So, for example, while the palace at Pylos and its administrators may not deal directly with the distant shepherd<sup>403</sup> at a far-away third-order hamlet outside of the second-order center named *a-pu<sub>2</sub>*, they would have had to be concerned with – and administer – the output and production of shepherds, bronzesmiths, and craftsmen of the lower town of Pylos. While it may be possible that there was some other administrative body in the lower town of Pylos that functioned like a second-order center administration – the same way that a state capital still has a mayor as the administrative head, and that mayor still answers to the governor just like any other city in the state – we must consider

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<sup>400</sup> This pattern of administration will be made most clear following the discussion of tablet administration in Chapter 6, and will be fully discussed in the conclusions.

<sup>401</sup> Palaima 2000, pp. 220-221.

<sup>402</sup> That is not to say that such individuals are not mentioned in the tablets; they often are. There is no indication, however, that palatial administrators would have dealt directly with those individuals.

<sup>403</sup> I am using the term shepherd here literally as one who is charged with physically watching over animals, as opposed to a member of the Mycenaean elite under whose name and authority animals are kept.



the possibility, or likelihood, that Mycenaean palaces were dealing with multiple orders of administration.<sup>404</sup>

As a final thought on the identities of seal users, we should consider the nature of seal iconography and material. First we should consider the identification and recollection of individuals or collectives through pictures. Unlike personal names, which have a limited and familiar repertoire and are directly connected to language, mere imagery is boundless in scope and is completely disconnected from language and linguistic cues. If introduced to a group of five people, one could certainly recall their names with little difficulty. However, if presented with images instead of names, it would be much more difficult to identify Two Dogs Running to the Right, A Crocus with Double Axes Flanking, etc.<sup>405</sup> Accordingly, one wonders how many sealings a given administrator would be able to associate with the individuals they represented, without being overwhelmed. It is likely, as we shall see, that each scribe dealt with a finite group of individuals, based on his scribal role. Each then would have dealt with a manageable number of seal users. The mnemonic function of seals may have also been augmented by the relation of seal iconography and material to administrative status. While no absolutely consistent patterns have been identified, there are strong indications that gold signet rings were used by higher-level administrators than stone seals. Likewise, images of heraldic griffons or lions – or other images that can be construed as totems for any individual palace (such as the octopus found in the throne room at Pylos) – identified scribes of higher status as well. Instead of seal images being completely random, then, an

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<sup>404</sup> To an extent, we do see this two-tiered system of administration at Pylos. In the land tenure tablets, the tracts of land described are in restricted areas, ostensibly those directly under palatial control, as opposed to those under direct control of a second-order center.

<sup>405</sup> To be sure, this is further complicated for us by the fact that we need to memorize far fewer pieces of data than our ancient counterparts. Our memories are comparatively atrophied, and atrophy further with the introduction of new memory-sparing technologies, such as GPS in automobiles. Regardless, even for ancients we can assume that associating ten faces with ten familiar personal names would have been orders easier than associating those same faces with non-linguistic images.

administrator could look at a seal impression and note the relative status or administrative sector of the seal user, thereby limiting the field from which the individual seal user would be identified. Given all of these variables at every level of analysis of sealing use on the Greek mainland, let us examine the sealing remains site by site, beginning with the sites that offer the most evidence.

### **Thebes**

No discussion of mainland Mycenaean sealing practices should begin with anything other than a discussion of the famous sealings from Thebes. Linear B and administrative material has surfaced in all areas of the Kadmeia Hill, which was the extent of the ancient walled settlement into periods well after the Bronze Age. Continuous settlement of the area – which even now is the center of the modern town – has prevented extensive excavation of any specific area. Furthermore, erosion, grading, and successive phases of building in later periods have obliterated much of the Bronze Age archaeological record. Presently, Bronze Age remains are unearthed chiefly through rescue excavations at the site of new building programs and modern infrastructure repairs, for example to the water supply network and electrical grid. Despite the relatively small footprint of these modern excavations, evidence for Mycenaean administration is unearthed with remarkable frequency. Figure 5.1 shows the sites at which Bronze Age artifacts have been uncovered.

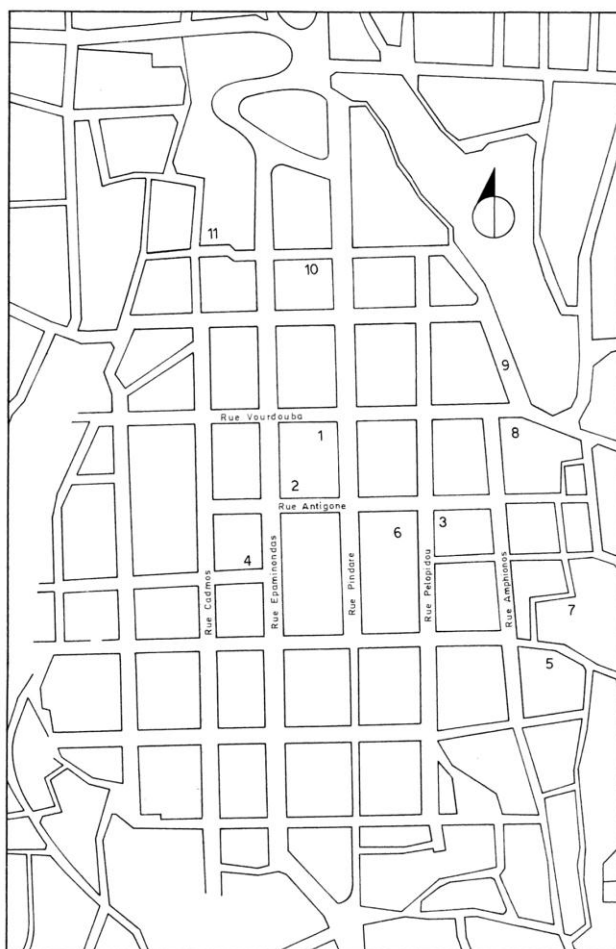


Figure 5.1: Plan of the Kadmeia, Thebes. Numbers indicate the location of Bronze Age remains (After Aravantinos *et al.* 2002).

On the plan in Figure 5.1, administrative documents have been found at numbers 1-5, as well as 11. The likely location of the Mycenaean palace in successive phases is at numbers 1 and 2. The geographical area in which administrative materials have been found is impressive covering a large portion of the Kadmeia.

Sealings have been found at only a couple of locations.<sup>406</sup> Inscribed sealings have been found at two locations – three inscribed sealings and one uninscribed sealing from

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<sup>406</sup> The uninscribed sealings include one stopper and the remainder are nodules.

the so-called Treasury (site number 2 on Figure 5.1), and a sizeable deposit near the city walls (site number 5) on the edge of the Kadmeia. The Treasury was so named because of the range of finds excavated from the room.<sup>407</sup> These finds include fresco fragments, lapis lazuli, and gold and ivory jewelry. The orientation of this room suggests that it is part of the second palace at Thebes, and has been given a date of LH IIIB2.<sup>408</sup> In this admittedly small group of documents, we have the only evidence at Thebes of administrative documents within the Bronze Age palace itself.<sup>409</sup> Only a very small section of the palace has been thus far excavated. Given that this small area revealed Linear B documents, we can be fairly certain that many other deposits would have been present throughout the palace.<sup>410</sup> The three sealings and tablet have not been assigned scribal hands, although Godart has concluded that the tablet, TH Up 432, was written by two different hands.<sup>411</sup>

**TH Up 432**

- .1 e-u-te-we-jo s 1 v 2
- .2 qa-so-pi v 1 po-to-e v 1 z 2
- .3 e-ri-ni-jo v 1
- .4 ]a<sub>2</sub>-jo , v 1 e-ri-ni-jo v 4
- .5 ]wa , v 5 [
- .6 *inf. mut.*

Unfortunately, the texts themselves are varied and the significance of the deposit is unclear. One sealing records a male goat, another an ideogram that may represent an animal hide, and the third records a term, *e-pi-\*19-ta*, whose meaning is unclear. The tablet puts us in no better a position. No ideograms are present, although liquid measures

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<sup>407</sup> For a concise description of early archaeological finds, see Symeonoglou 1985, pp. 226-227.

<sup>408</sup> Aravantinos *et al.* 2006, p. 243.

<sup>409</sup> This does not include the previously-mentioned ISJs, which were excavated from the earlier Mycenaean palace.

<sup>410</sup> It must be acknowledged that Linear B tablets were uncovered at Pylos on the first day of excavations, as they had begun their test trenches right above the AC, the biggest Linear B deposit at Pylos. One should not expect that this would be the norm, however.

<sup>411</sup> Aravantinos *et al.* 2006a, p. 7.

are recorded after seven one-word entries in the dative, each of which is found on no other tablet. Because we have seen these terms at no other site, it seems most likely that they are locally relevant terms, most likely personal names. Unfortunately, we do not know what the liquid distributed was, nor if this document is related to the same administrative event recorded in the three inscribed sealings. Admittedly, it seems unlikely that they are related in any way other than in administrative storage location.

One curiosity does arise within the Treasury material, however, that is worthy of mention here. The uninscribed sealing was impressed by a seal from the so-called Mainland Popular Group (MPG).<sup>412</sup> These seals were carved from soft stone, as opposed to the gold and hard stone seals crafted earlier. The stone – the softest used is steatite – is worn down much more quickly than the hard stone, diminishing the quality of figures carved on them. They are generally found in chamber tombs of modest wealth. The low quality of the stone and the relatively low status of the burials in which they are found suggest that they were carved for non-elites. Such a suggestion is bolstered by the fact that almost no administrative sealings were impressed by any MPG sealing. The sole exception is the uninscribed sealing found in the Treasury. It is curious that the sealing impressed by the low-status seal is the lone uninscribed administrative document out of five. As noted earlier, however, sealer and inscriber need not be the same person, so we should not read too much into this fact.

The texts from this area offer little information, particularly the tablet. In the entire Linear B corpus, one sealing ideogram occurs on only one other text from Knossos, and the term *e-pi-<sup>\*</sup>19-ta* occurs on only one other text from Pylos. It is unfortunate that the state of evidence on the Kadmeia does not permit us to know whether these terms

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<sup>412</sup> This stylistic group of sealings received its most thorough treatment in Younger 1987, p. 65ff.

would be more common in other contexts at Thebes. Much of the lexicon from the largest deposit at Thebes, the Arsenal, is also poorly represented in other contexts.

For our present discussion, the most important area on the Kadmeia is site 5 in Figure 5.1, at which a deposit of 60 sealings – 56 of which were inscribed – was unearthed from an LH IIIB2 context.<sup>413</sup> The archaeological context of these sealings, which were excavated in 1982, has not yet been fully published. However, the context that has thus far been published suggests an administrative building. We should expect the building to be administrative, as the building is next to one of the seven gates of Thebes, and was therefore well-placed to receive and process shipments to the Kadmeia. Also unearthed in the excavation were a number of styli, ostensibly used for inscribing clay documents with Linear B characters.<sup>414</sup> The sealings were clearly gathered together as a single unit. They likely represented several transactions which together constituted a single administrative activity. The function of these sealings was well demonstrated in the 1990 article by Piteros, Olivier, and Melena.

Many of the Thebes sealings were inscribed with ideograms for animals, including goats, pigs, sheep, and cattle, all of both genders. There are a small number of other ideograms used, although it is not always clear what those ideograms represent. These ideograms are \*171, \*190, *WE*, and *PYC*.<sup>415</sup> In this way, for most sealings, it is clear that each represented a single commodity.

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<sup>413</sup> The full report of the archaeological context of these sealings has not been published. The proposed date of these sealings was, until recently, LH IIIB1. In the most recent publication of these documents, however, the date has been expressed as being more likely LH IIIB2. See Aravantinos *et al.* 2006, p. 240.

<sup>414</sup> Only small, scattered descriptions of the excavation context have thus far been published. See especially Piteros, Olivier and Melena 1990, pp. 104-105, which is the most thorough publication these sealings has received.

<sup>415</sup> The first two are unidentified, although context in some instances hints that \*190 may concern the oil industry in some way. *WE* is likely the ideogram for the term *wetalon*, or “yearling calf.” *PYC* is the reverse of the sign for cyperus, a scent or aromatic.

Most sealings have information beyond the ideogram, however. Also present are several personal names, as well as place names in both the nominative and the allative.<sup>416</sup> Several sealings also have additional qualifiers, which further describe the nature of the commodity in question. These include *i-je-ro*, “holy, sacred,” *e-qi-ti-wo-e*, “passed away,” *po-ro-e-ko-to*, “presentable or offered,” and *ro-we-wi-ja*, “hide stained with sumac.” Finally, there is some transactional vocabulary found on a handful of these sealings. We find *a-ko-ra*, “belonging to a collection,” *a-pu-do-ke*, “contributed,” *o-pa*, “brought to a completed state,” *pa-ro*, “from, on behalf of, under the responsibility of” and *qe-te-o/qe-te-a<sub>2</sub>*, “paid as a religious penalty.”<sup>417</sup> We will return to several of these shortly.

In their analysis, Piteros *et al.* demonstrate that the aggregate quantities of animals in this collection of sealings, as well as some of the operative terms listed on the sealings correspond well with the contents of a tablet from Pylos, PY Un 138, which is a record of materials for a feast. Un 138, in the header for the tablet, explains that the location of all of these items is Pylos, that they are paid as a religious penalty, and that the responsible party is a man of considerable status named Dunios.<sup>418</sup> Accordingly, we should see the Thebes sealings as an earlier tier of administration, in which we see the evidence of administrative mobilization and the assembling of resources for a feast.

In the mobilization of administrative resources in this instance, several parties are involved. At least ten scribes are involved. There may be more, but scribal assignments,

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<sup>416</sup> Most notably *te-qa-de*, “to Thebes,” and *a<sub>2</sub>-pa-a<sub>2</sub>-de*, “to *Haphahas*.” These will be discussed in greater detail shortly.

<sup>417</sup> Much of this vocabulary has been analyzed in Palaima 2000a. Some of these terms will be discussed in greater detail presently. Translations can be found in Palaima 2004a.

<sup>418</sup> Dunios is listed on several tablets. Nakassis indicates that there are at least two persons by this name recorded in the Pylos texts. While he has not been associated with a title, he is clearly of high status and a landholder as well. See Nakassis 2006, pp. 420-422. Dunios is the man responsible for this transaction, but that does not imply that he is the man that committed the penalty demanding payment. It merely fell under his purview. We will discuss this more shortly.

as noted before, are difficult and unwise when so few non-diagnostic signs are concerned. The scribes of twenty-five sealings were not assigned a hand number, as attribution was too uncertain. At least twenty-three seals were used to impress these sealings, designated Seals A through W.<sup>419</sup> Additionally, three – and possibly four – of these sealings were not inscribed at all. Interestingly enough, the only two sealings impressed with Seal N were both uninscribed. One wonders if the administrator responsible for these two portions of the process was non-literate, or whether some other factors were at play. It is equally possible that the person responsible for Seal N was known as either a supplier – or administrator responsible for – wine, a specific grain, or some other singular commodity for which no inscription would have been necessary.<sup>420</sup> As noted previously, the corpus of sealings of each identified scribe was impressed by the same seal; there is no overlap identifiable. This means either that the sealings belong to the scribes or that each scribe engaged in transactions with only one extra-palatial administrator. Both possibilities are acceptable. Let us attempt a reconstruction of the events involved in bringing together the resources for this feast.

First, we might suggest that some time has passed between the initiation of this administrative event and its conclusion in the deposit of these sealings within the Theban walls.<sup>421</sup> This may be suggested by the use of the term *e-qi-ti-wo-e*, “passed away,” on Wu 75, to describe some of the pigs. The term may be in the plural, in which case the total would be ambiguous, or the dual.<sup>422</sup> One would not expect that the palace intended originally to collect dead pigs. Rather, the pigs that were to be used for this feast died at

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<sup>419</sup> One sealing was so badly damaged that neither a seal impression nor inscription was perceptible. Nonetheless, it leave open the possibility of one additional seal.

<sup>420</sup> PY Un 138 also lists barley, wine, and olives in addition to the animals. Of course, it is not necessary that we have an exact match between the Thebes sealings and Pylos tablet. Rather, the Pylos tablet reveals the potential gaps which the uninscribed sealings might fill in. It is also entirely possible that not all sealings survived, especially given that one of the sealings is in very poor condition.

<sup>421</sup> This was not likely the intended conclusion of this information; it just turned out that way.

<sup>422</sup> Piteros *et al.* 1990, pp. 156-157 addresses the term in detail.



some point after they had been selected. Perhaps there was originally a sealing describing these animals further, but they died before the assemblage took place, and a new sealing needed to be created to confirm the death. This term is used on a sealing impressed by Seal G. The other two sealings are assigned to Hand ε. There were sufficient differences on the “dead pig” sealing to hinder association with the same hand. Perhaps Hand ε wrote the original sealings for the pigs, but on their death another administrator went to confirm that the animals indeed died of natural causes and inscribed the replacement sealing.<sup>423</sup>

There then is the question of where these animals were physically. The location of the sealings – just inside the gate at Thebes – would suggest that they were outside of the gates somewhere and these sealings represent the time at which they were introduced to the citadel. That could mean they were just outside the walls, or they were at the second- or third-order centers from which they were delivered. In order to definitively identify a specific living animal with a specific sealing, and to ensure that the animal sent to the palace was the animal that the palace wanted, the sealings would have to have been fashioned prior to their arrival at the palace, and likely rather at the point of origin.<sup>424</sup> This raises a couple of questions. First, whose seal is impressed on the sealing? Next, how were these sealings employed?

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<sup>423</sup> Even in this instance, we cannot be entirely sure who did the sealing on the basis of this occurrence alone. Either the pig supplier was the sealer and that is why it was the same in both instances, or the seal represented an administrative bureau to which both Hand ε and the dead-pig scribe belonged.

<sup>424</sup> Unfortunately, these sealings have not been subjected to scientific analysis to determine the source of the clay used in their manufacture. If from different sources, that would suggest they were created and inscribed at different locations. However, it is not impossible – nor, I think, unlikely – that scribes leaving the palaces travelled with at least a small supply of clay, especially if they knew that they were going to be creating documents. Surely a professional writer would have been prepared for any eventuality, even if writing materials were likely to be on hand at the destination. Not all clay is created equal. The clay of the Wu sealings, however, does apparently suggest that the sealings were fashioned far from the Kadmeia (Flouda 2010, p. 60).

Our choices of whom the sealing represented are limited. They either represent the suppliers of commodities, or the administrative officials recording the commodities on behalf of the palace. While either is a valid possibility, I much prefer the latter explanation. If the sealing records the supplier of commodities, then it is difficult to see how the sealing is functioning outside of identifying the supplier. If the sealing merely identifies the supplier, then writing his name on the sealing would have sufficed.<sup>425</sup> There would be no need for further confirmation of the supplier's identity via the seal impression.<sup>426</sup> Furthermore, if, as suggested above, some time has passed since the sealings were fashioned, and the sealings were still at their point of origin, the supplier could simply break the sealing and modify the commodities being delivered, especially if some of the sealings were uninscribed. The fact that each identified scribe is associated with one seal impression is at least consistent with this proposal, even if it does not prove it.

The question then is how these sealings were actually deployed and used. Given the use of sealings to secure commodities to ensure that they are intact and are in fact the commodities in question, one should reasonably expect that these sealings functioned in the same way. This is bolstered by the fact that there is one sealing per animal, except in the case of the dead pigs, which may have been simply an assemblage of carcasses, hides,

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<sup>425</sup> It is possible that the seal impression could be functioning like a signature, indicating the supplier's role in a contractual agreement with the palace. Again, the palace could confirm that his part of the contract was fulfilled by the mere listing of the supplier's name, which is ultimately how the transaction will be recorded on the tablets. A seal impression would bear more weight moving in the other direction, whereby a supplier could later prove that he made the requisite contribution to the palace. The Wu sealings are not functioning in this manner, however. One could propose that by adding his seal impression, a supplier is ensuring that the palace is more likely to identify him correctly as the palatial scribes record the fulfillment of obligations. However, this would be not so much a contractual use of a signature, but rather a form of insurance, assuming that the sealer finds his identity to be more recognizable in the form of a seal impression as opposed to the record of his name in Linear B on the sealing. I find this weak use of seal impressions to be less preferable to the proposal that the seal belongs to the scribe, in which case the seal impression bears considerable transactional authority.

<sup>426</sup> That is, as noted earlier, nobody forges a signature to deposit money on someone else's account. The one receiving payment merely wants what is owed on behalf of the debtor.

or the like. However, this suggestion has met with resistance. In their conclusions, Piteros, Olivier, and Melena assert that one animal or commodity is *represented* per sealing, but they were not actually *attached* to animals or carcasses or anything else.<sup>427</sup> Rather, they accompanied the animals as proof that they were the animals in question. Krzyszkowska further states that “It is certainly hard to imagine them hanging round the animals' necks!”<sup>428</sup>

I find, however, that there is little reason to suspect that they were *not* attached to animals. Farm animals often have items hanging around their necks, such as bells on goats, sheep, and cattle. The only issue, then, would be the ability of a sealing to hold up while attached to an animal. As mentioned earlier (p. 32 n. 48), given that the Mycenaeans made such extensive use of unbaked clay, surely they would have been prepared to protect this medium in conditions that threatened its survival. Otherwise, Mycenaean administration would always be on the verge of losing information, much like Evans did with his leaky roof. Furthermore, if this is something they did frequently, then there likely was a standard waterproofing measure anytime sealings were used in a transport capacity. Something as simple as a wooden clamshell enclosure wrapped with a leather strap treated with wax would certainly do the trick. There would be no damage from contact with the animal, nor from the elements. Conversely, if these sealings were merely kept on strings and held by the administrator, there is a much greater chance of damage as these sealings chafe against each other in a pouch or other container.

The direct attachment of these sealings to an animal also allows time to pass, and for the previously-mentioned pigs to die. Given the elements thus far described, let us describe the entire administrative process as it is proposed. It is decided by the palace that there will be a feast, and that several parties are responsible for contributing animals

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<sup>427</sup> Piteros *et al.* 1990, p. 183.

<sup>428</sup> Krzyszkowska 2005, p. 298.

and other goods.<sup>429</sup> Either a few portions of the feast, or the entire feast, is/are being furnished as a result of a penalty that is to be paid by parties beholden to the palace. Administrators then head out from the palace to the outlying areas from which animals and foodstuffs will be gathered, such as the *koretere* and *porokoretere* did on Jn 829. Upon arrival at those areas, the palatial administrators select animals, or are shown the animals selected locally, that will be sent to the palace for the feast. The administrator attaches a sealing to each animal's neck, and inscribes any additional details that will aid in administration later. The sealing can then be enclosed in a waterproofing device for protection. At this point, the person responsible for supplying animals to the palace cannot substitute a smaller or more sickly animal because the palace has secured the one it wants. A messenger is then sent from the outlying site to bring the animals to the palace. As the animals arrive at the Kadmeia, they are checked in and their sealings are examined to confirm that these are the proper animals. The sealings are then kept together at the gate, and when all animals and foodstuffs have arrived, the sealings can be used to create a final administrative document. However, at least a couple of pigs died on the way. Perhaps the messenger arrived with the pig carcasses intact. An administrator from the relevant bureau comes to confirm the death and inscribes a new sealing to account for both dead pigs. Otherwise, the pigs died before they departed for the palace, and another administrator was summoned to confirm the death and mark the carcasses at the point of origin.<sup>430</sup>

There are a couple of other features of these sealings that are sufficiently curious to require further discussion. One curiosity is the use of the allative in the term *te-qa-de*, “to Thebes,” on Wu 51, 65, and 96. All three of these sealings were impressed by Seal D, and were inscribed by Hand  $\gamma$ . These three sealings together record two pigs – one

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<sup>429</sup> For elements from this portion of the administrative action, see Palaima 2004a.

<sup>430</sup> Again, clay analysis may help clarify these matters.

male and one female – and one female sheep. They are all described as *qe-te-a<sub>2</sub>*, “as a penalty.” In addition to being the only sealings by Hand  $\gamma$  that use the term *te-qa-de*, they are also the only sealings that list animals as *qe-te-a<sub>2</sub>*. The final sealing identified as being inscribed by Hand  $\gamma$ , Wu 94, also uses an allative, with the term *a<sub>2</sub>-pa-a<sub>2</sub>-de*, “to Haphahas.”<sup>431</sup> No other sealings, by Hand  $\gamma$  or any other hand, employ the allative suffix. Nonetheless, they are odd, as Palaima has noted, “the designation ‘to Thebes’ on these two sealings would seem superfluous from the viewpoint of a central administration at Thebes that was ready to receive animals obviously required of outlying individuals, collectives, flocks and/or communities.”<sup>432</sup> There is the further question of why an animal listed as going to another location showed up at Thebes along with the *te-qa-de* animals. It is certainly possible that *a<sub>2</sub>-pa-a<sub>2</sub>* is a site near to Thebes, or perhaps a location within the walls of the Kadmeia.<sup>433</sup>

Lastly is the use of the term *qe-te-o/a<sub>2</sub>*. The term has been almost universally described as related to the Greek verb τίνω, “to pay a penalty.” It is related to the concept of ποινή, “blood money, wergild.” There is also a more explicit mention of wergild in the tablet PY Ea 805.

(S28 H 43)

**PY Ea 805**

o-pe-te-re-u , e-ne-ka , a-no-qa-si-ja GRA 2

On this tablet, a man named *Opheltreus* is recorded alongside of 192 liters of wheat, and some element of the record is described as “because of manslaughter” (\*ἀνορ-χ<sup>w</sup>ασία,

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<sup>431</sup> Some have suggested that this term refers to the sanctuary of Aphaia on Aegina (Aravantinos 1987, p. 19 n. 31). The assignment is unlikely for a couple of reasons. First, the allative suffix *-de* appears as yet exclusively with place names or places, but never to a personal name. Second, Athens sits between Aegina and Thebes. Given that Athens was a Mycenaean center in the Bronze Age, it is highly unlikely that Thebes was able to leapfrog Athens and maintain Aegina as their own second-order center. For a more detailed analysis of Theban territory in Boeotia, including Karystos and Amarynthos, see Palaima 2009.

<sup>432</sup> Palaima 2000, p. 223.

<sup>433</sup> Suggested by Piteros *et al.* 1990, p. 153, as well as in Palaima 2000, p. 223.

related to the term ἀνδροφόντης, “man-slayer”). Killen has proposed that Opheltreus holds the land as a payment of weregild.<sup>434</sup>

While several scholars have discussed, described, and defined *qe-te-o/a<sub>2</sub>* and *a-no-qa-si-ja*, it is still not entirely clear why it occurs in the Linear B texts. In the same way that the dispute with Eritha bleeds into the economic sphere, this penalty also somehow gets realized as a payment to the central palatial administration, also without further explanation. I think that we can find a means to an approach by considering a much later, but strikingly relevant source.

In England, for the administrative year 1173-1174 – a little over a century after the Norman Conquest – the chief archivist for administrative accounts, Robert Fitz Nigel, produced an impressively exhaustive and thorough account of all of the parties involved in the conduct and recording and accounting of administrative transactions of concern to the central administration.<sup>435</sup> Robert Fitz Nigel was the Treasurer under Henry II. The text, *Dialogus de Scaccario*, or *Course of the Exchequer* can serve as a healthy source of inspiration for the examination of Mycenaean literate administration.<sup>436</sup> While most of the points of comparison between the two administrations are better addressed along with a discussion of tablet administration (in Chapter 6), it is wise here to note an administrative penalty which would seem to parallel that of Mycenaean *qe-te-o*.

Even a century after the Norman Conquest, which introduced a new ruling class and dismantled previous English nobility, there was still a great deal of mistrust and animosity addressed towards the new Norman rulers. As a result, Normans were frequently assaulted and murdered in outlying areas. In towns where the negative

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<sup>434</sup> Killen 1992, pp. 379-380.

<sup>435</sup> The similarity of administrative focus and modes of transaction to Mycenaean administration will be introduced at the outset of Chapter 6.

<sup>436</sup> The term Exchequer refers to the body that was responsible for accounting for the wealth of the kingdom. The king’s treasurer was in charge of the process. It is derived from the word for “chessboard,” since there was a series of squares on the table to aid in accounting organization.

sentiment was intense, no witnesses ever came present. As a result, the English murder of Normans often went unpunished. As Fitz Nigel describes (Johnson translation):

In the period immediately following the Conquest what were left of the conquered English lay in ambush for the suspected and hated Normans and murdered them secretly in woods and unfrequented places as opportunity offered. Now when the kings and their ministers had for some years inflicted the most severe penalties on the English without effect, it was finally decided that the hundred<sup>437</sup> in which a Norman was found killed... should be mulcted<sup>438</sup> a large sum of assayed silver, £36 to £44<sup>439</sup>... This is said to have been done for the security of travellers and to induce all men to make haste to punish such a crime or to deliver up to judgment the man by whose fault so great a loss injured the whole neighborhood.<sup>440</sup>

Obviously, the situations need not be identical in both administrations. However, this example from Norman England does provide an inroad into understanding what may be occurring in the Linear B texts. On Un 138, for example, the person who is responsible for the *qe-te-a<sub>2</sub>* payment is Dunios, a very prominent individual. Surely he has not committed the offense, but rather is the administrator in charge of the goods involved. The same situation may be taking place in the Thebes sealings. In these instances, then, there is further evidence of the interface between other realms of non-literate administration with the literate administration of economy. An oversight committee decided that an economic sanction was warranted, but the economic administrators merely record that there was a sanction, since the actual details of the matter do not affect the collection and recording process of the literate palatial officials.

With regards to information layout, there is a general uniformity among the proposed scribes, although they appear to have been granted some license with regards to the manner in which they chose to record their information. If PY Un 138 is any

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<sup>437</sup> A hundred is an administrative subdivision of a county.

<sup>438</sup> *Mulct* means “to punish by means of a fine or tax.”

<sup>439</sup> As a point of reference, in Norman England, Alan the Red (1040-1089) had a fortune of £11,000. A 2007 study estimated this to be worth a current £81 billion. See Beresford and Rubinstein 2007.

<sup>440</sup> Fitz Nigel 1983, pp. 52-53.

indication, we should expect that these sealings would have been assembled into a single tablet record of materials for a feast. Naturally, only one scribe would make up the tablet from the sealing records of at least ten different scribes. Those scribes needed to be sure that they provided sufficient information for the scribe responsible for the concatenation of data. For example, in the case of Hand  $\gamma$ , he recorded three sealings as animals headed to Thebes as payment for a penalty, and one animal with no further description headed to Haphahas. It has been noted that the numbers and types of animals in the Thebes sealings are almost identical to those on PY Un 138.<sup>441</sup> One of the exceptions is the number of goats. On Un 138, 13 goats are recorded, but the Thebes sealings record 14 goats. The sealings of Hand  $\gamma$  list two pigs and one sheep for the penalty feast, and one female goat headed elsewhere. If we subtract this goat from the total, then there is an equal number of goats at both the Thebes and Pylos events. If this reconstruction is correct, then we see that Hand  $\gamma$  was using the allative, as well as the term *qe-te-a<sub>2</sub>*, to make it perfectly clear that three animals were intended for *the penalty feast at Thebes*, while one did not, but was instead to go to another location. As is evident from the other sealings, neither one of the descriptive terms on the three *qe-te-a<sub>2</sub>* sealings was *necessary*, but he made a personal decision to ensure that the administrative information was abundantly clear to the scribe responsible for the tablet.

The suggestion that the inscription of sealings is the personal choice of a particular administrator, and not the result of a strict administrative inscriptional format, is further evidenced by the remainder of the sealings for which a scribe has been identified. For example, Hand  $\alpha$  (Wu 46, 56, 58, 76, 88) lists all of his animals using a descriptive term, personal name, or place name, always followed by the term *o-pa*. Hand  $\beta$  (Wu 49, 50, 53) records every entry as *qe-te-o*. Hands  $\varepsilon$  (Wu 54, 62) and  $\theta$  (Wu 79, 83,

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<sup>441</sup> See Piteros *et al.* 1990, p. 174.



84, 85, 91) do not bother with additional information, and merely include the type of animal. Hand ζ (Wu 59, 60) lists his animals as being *pa-ro sa-me-we*, with the latter likely being the personal name Sameus. As this is reminiscent of the header of Un 138, perhaps Sameus is the administrator ultimately responsible for the feast. When examined hand-by-hand, we see that the Thebes sealings were inscribed with great intrascribal uniformity, but virtually no interscribal uniformity, save for the consistent recording of the relevant ideogram. If we return again to Un 138, the only information recorded about the animals on the tablet is the type and sex of the animal in question. We might see all other information on the Thebes sealings as aiding the scribe responsible in writing up the relevant information and informing him of additional information that might help the administrator to associate the sealings with the proper administrative event, and to serve as a mnemonic where he is reporting on the deliveries.

The Thebes sealings provide a good deal of information about potential sealing movement, as well as the roles and functions of literate officials. In the reconstruction above, I have suggested an administrative possibility which involves the maximum possible degree of transmission of writing, both in terms of distance from the palace and in terms of non-palatial contact with writing. That is, according to the above proposal, the sealings were inscribed on site at various lower-order centers in Theban territory, and would have been left in the care of lower-level administrators, or even heads of herds, for transport to the palace.<sup>442</sup> However, the text was not intended for anyone outside of the palace. The sealing is the important feature that must be revered by those who were to transfer the commodities. The scale of the text is minuscule, and is inscribed on a minuscule document. There is no conceivable way that the text was intended to evoke

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<sup>442</sup> These centers include the sites of Amarynthos and Karystos, both of which are known locations in Euboeia. It would seem – although there is no absolute proof – that the sites in Euboeia and on the sealings are the same. See again Palaima 2009.

reverence, or function in some talismanic fashion. The sealing was the feature that would have been recognizable as an administrative lock. To put it another way, the sealing looked outward (from central administration) and downward (from higher levels of administration), while the text looks upward (to the highest levels of administration) and inward (to the central administration). Beyond this, as mentioned above, some fashion of waterproofing would have been likely, which would have obscured the writing entirely.<sup>443</sup> The responsible party need only know that there was a sealing to be respected underneath. Here, in our most detailed and well-studied account of Mycenaean sealing practices, in which the sealings may have physically brought writing many miles away from the palatial center to lower-level officials, there was no effort to induce the respect of administrative writing in extrapalatial subordinates. Extrapalatial officials may have observed a palatial representative inscribing a sealing, but the sealing itself conveyed the power of the palace, and ensured the integrity of the transaction. Beyond this, the palatial representatives and the power of the central authority backed the authority of the sealing. Writing in this case was not intended to serve as an instrument of awe, as a means of ensuring obedience, as that is the job of the sealing itself. Writing serves the center. Of course, sealings do not function in one administrative capacity. Several other possible uses exist and are practiced. Let us turn our attention then to Pylos, where the greatest number of Mycenaean sealings – but not in a single deposit, as at Thebes – has come to light.

## **Pylos**

At the Palace of Nestor at Pylos, there are 165 sealings, impressed by 114 different seals. 23 of these sealings are inscribed. There is a wide distribution of sealings

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<sup>443</sup> Clay bullae in the Near East served to protect tokens and documents, concealing their contents. See Schmandt-Besserat 1996, pp. 41-42.

throughout the palace. They can be found in the AC, the oil stores, the wine magazine, and two workshop buildings – the NE Building and the SW Building. Figure 5.2 highlights the locations of these sealings.

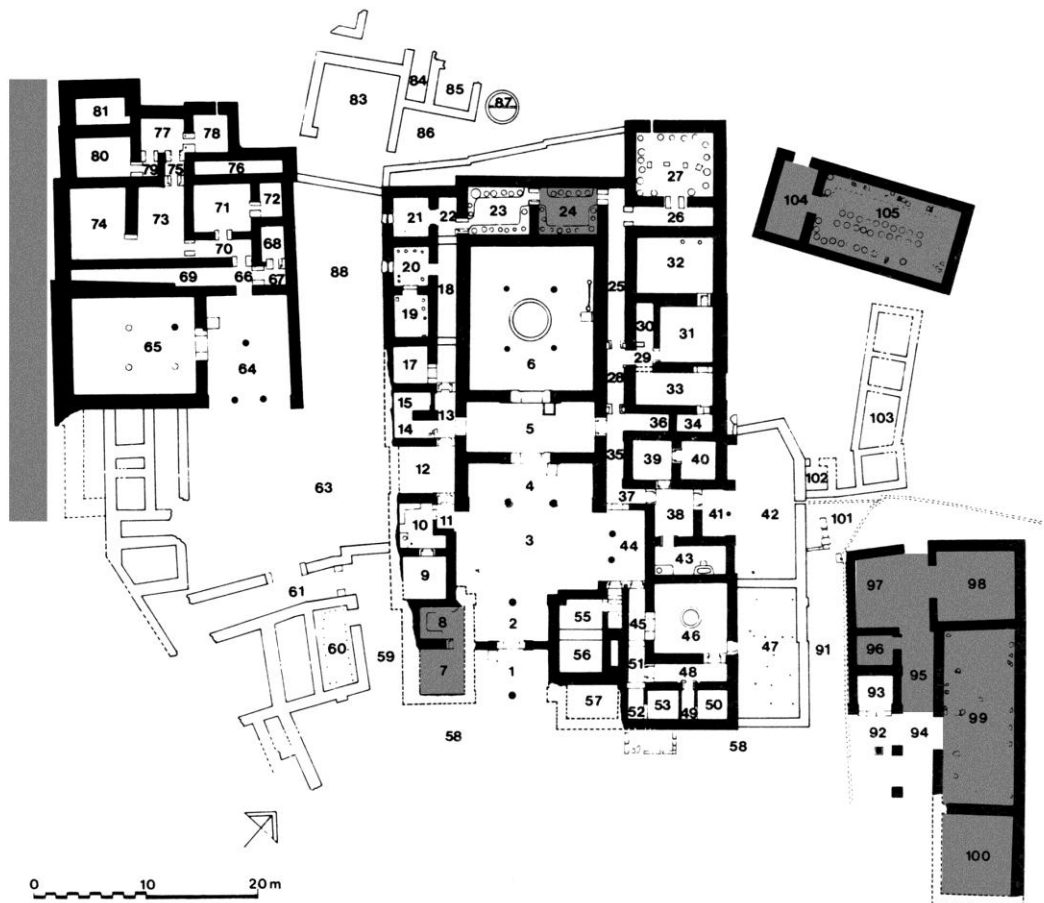


Figure 5.2: Palace of Nestor at Pylos. Sealing deposits found in the following rooms (shaded): 7, 8, 24, 92-100 (NE Building), 104, to the west of Rooms 65, 74, 80, 81 (SW Building). One sealing was found in Room 32.

All of these sealings are scattered throughout workspaces. As Krzyszkowska notes, there are no deposits such as those just discussed at Thebes or at Mycenae in the

House of the Sphinxes.<sup>444</sup> The locations of the sealings can be divided into three different types of spaces: (1) spaces dedicated to a specific type of storage (Wine Magazine, Oil Magazines), (2) spaces in which various workshop operations are conducted or organized (SW Building, NW Building), (3) space dedicated to the central administration (Rooms 7 and 8 = the Archives Complex). We will start by examining sealings in the Type 1 spaces, and work towards Type 3.

### ***Wine and Oil Magazine, Pylos***

Rooms 104 and 105, known as the Wine Magazine, were used for storing wine, naturally.<sup>445</sup> Here 48 sealings were recovered. Curiously, these 48 sealings were impressed by 40 different seals. It has been noted that a non-intensive pattern of seal usage – which is defined as a sealing deposit in which there are many different sealings with many different seal impressions<sup>446</sup> – indicates that the seal impressions were made by extra-palatial individuals.<sup>447</sup> Surely there are not 40 regular administrators functioning in this small two-room space. For this reason, we may propose that sealings accompanied shipments of wine from outlying regions, and were impressed by the seals of the wine distributors rather than by palatial officials.

We cannot be certain that this pattern of sealing usage was practiced throughout the entire LBA at Pylos. Four of these sealings are inscribed, Wr 1358-1361. All four inscribed sealings are gable-shaped sealings. Two merely record the wine ideogram. The other two record the wine ideogram as well as an additional term. Wr 1359 lists the term *e-ti-wa-*[], for which a meaning has not been proposed. Wr 1360 records the term *me-ri-ti-jo*, which may be a personal name, or it may indicate that the wine is sweetened

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<sup>444</sup> Krzyszkowska 2005, pp. 290, 294.

<sup>445</sup> For a thorough account of wine in the palaces, see Palmer 1994.

<sup>446</sup> The opposite is the intensive pattern of usage, in which a small number of seals are responsible for a large number of seal impressions.

<sup>447</sup> Krzyszkowska 2005, p. 295.

with honey, or is perhaps mead. Three of these sealings are impressed by the same seal. Given the general picture of non-intensive seal usage in the Wine Magazine, the use of the same seal on three of four inscribed sealings would seem to indicate that the inscribed sealings are actually functioning differently from the uninscribed sealings in the Wine Magazine. Even in the same sealing deposit, we cannot assume that all sealings performed a single function. It is somewhat doubtful that these sealings relate to the functions of other sealings within the palace, however. It has been noted that the style of these inscribed sealings is rather archaic, and may belong to an earlier administrative period.<sup>448</sup>

Room 24 is one of the Oil Magazines at the Palace. Only two sealings are present here, Wr 1247 and Wr 1437. Both are inscribed, while only one has a seal impression.<sup>449</sup> Neither sheds light on sealing practices, except to note that sealings did not long remain in this room. One sealing lists a *hapax* which may be a personal name. The other records the term for oil, *AREPA*. This is similar to the manner in which sealings functioned in the wine magazines, in that the sealing describes the commodities stored in the room in which it was found. The sealing in good condition is also a gable-shaped nodule.

### ***NE Building (areas 92-100)***

The Northeast Building is a multi-room complex, the remains of which indicate a wide range of workshop activity, as well as some cultic function. There are 59 sealings from this complex, the majority of which are from Rooms 98 and 99. In Room 98 were found 31 sealings, five of which are inscribed. Room 99 contained 17 sealings, seven of which were inscribed.<sup>450</sup> In terms of inscribed sealings, this area of the palace is the

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<sup>448</sup> Palaima 2000, p. 225.

<sup>449</sup> The unimpressed sealing, Wr 1247 is in very poor condition and is barely legible. It is possible that there would have been an impression originally.

<sup>450</sup> Numbers from Hofstra 2000, p. 282.

richest in sealing concentration. A greater number of sealings was recovered from the Southwest Building.

The function of this area has long been in question. Hofstra has indicated that the lack of evidence for heavy industry indicates that the area likely served as a finishing workshop, and only for the needs of the palace.<sup>451</sup> That is, it was not equipped to fashion weapons, chariots, or anything else for the entire region. Nor was it equipped to tan hides or craft leather. Most likely, components arrived here for final assembly, and only for palace use. Beyond functioning as a workshop, there are indications that administration of some laborers would have taken place here as well. If we are to summarize its proposed function as we now understand it, the NE Building administrators accepted nearly completed commodities or as-yet unassigned personnel to completion, and distributed those items to their appropriate locations.<sup>452</sup>

There should be no surprise, then, that so many sealings were found here. Given their lower status in administrative concerns, most commodities coming through would likely have a sealing attached. In Room 98, we also see the largest number of sealings impressed by the same seal. In the catalog of sealings at Pylos,<sup>453</sup> seal 39 was used on seven sealings, seal 40 was used for eleven different sealings, and seal 41 was used on 13 different sealings. All of the above-mentioned sealings are from the NE Building. All but one of the Seal 39 sealings were inscribed. Only two of the Seal 40 sealings were inscribed, and none of the Seal 41 sealings were inscribed. This information is summarized in Table 5.3.

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<sup>451</sup> See Hofstra 2000, p. 281ff.

<sup>452</sup> See also Palaima 1996a for the processing of goods through the NE Building.

<sup>453</sup> Pini 1997.

Seal Number	Number of Sealings	Number of Inscribed Sealings
39	7	6
40	11	2
41	13	0

Table 5.3: Sealings from the NE Building

No other seal at Pylos is accountable for more than five sealings, and that happens only once in the Wine Magazine. The seals in question impress various forms of sealings, but with little exception, all of the inscribed sealings are gable-shaped.<sup>454</sup> These sealings, as well as all of the other sealings from the NE building, are scattered throughout the rooms. That is not to say that all three of these groups do not indicate a unified administrative action. As will be shown here, the sealings impressed by Seal 39, for example, would be consistent with a single event.<sup>455</sup> All of the inscribed sealings impressed by Seal 39 were found in Room 99. However, they are found in a few different locations within this room. Wr 1331 and 1332 were found together with several other sealings impressed by different seals, while Wr 1334 was found roughly 1.5m away.<sup>456</sup> The unscribed sealing impressed by Seal 39 was found in Area 95, which is slightly down the hall from Room 99. All sealings of this group that are legible involve animals, including goats and sheep, and the term *o-pa*. One sealing in the group, Wr 1332, records *WI*, which has been reasonably interpreted as *wi-ri-no*, i.e. “ox-hide.”<sup>457</sup> Given the seeming uniformity of commodities listed, but with variability in find context, we may wonder whether NE Building administrators or suppliers were responsible for the

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<sup>454</sup> One curious exception is Wr 1327. The sealing is unique in content, in that it records at least 350 pigs. Its shape has been described as unusual (Aravantinos 1990, p. 156), as well as the size of the hole through the middle. We may consider this one an exception to normal inscribed sealing practices. See.

<sup>455</sup> The inscribed sealings impressed by Seal 39 are Wr 1331, 1332, 1333, 1334, 1458, and 1459. No certain scribal hands are assigned to these inscribed sealings.

<sup>456</sup> See Palaima 1988, pp. 157-159 for details of archaeological context.

<sup>457</sup> See Killen 1999a, p. 333.

seal impression. Flouda prefers to see *o-pa* sealings as impressed by the supplier, since that seems to be a detail that is usually included in *o-pa* tablets.<sup>458</sup> As noted previously, however, there may be other ways of knowing who was responsible for the *o-pa* work, without having it explicitly made known by the name or seal impression. We should look at the other sealing groups for any indication of patterns.

Unfortunately, most of these sealings are unimpressed. However, a few intriguing features show up on the sealings impressed by Seal 40. Only two are inscribed, but they are found in two different places and are concerned with seemingly different administrative matters.

**PY Wr 1326**

. $\alpha$  *sigillum*  
. $\beta$  *deest*  
. $\gamma$  de-mi-ni-jo

Translation: beds

**PY Wr 1330**

. $\alpha$  *sigillum*  
. $\beta$  *vacat*  
. $\gamma$  ]*o-pa*

Translation: refurbish/finish

Wr 1326 was found in Room 98 in the north corner with Wr 1327 and Wr 1328, and describes beds, possibly for the individuals mentioned in one of the tablets found in the area.<sup>459</sup> However, Wr 1330, also impressed by Seal 40 and inscribed with the term *o-pa*, was found in Room 99 with the previously mentioned *o-pa* sealing. These two sealings, Wr 1326 and Wr 1330 were inscribed by two different scribes.<sup>460</sup> The remainder of Seal

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<sup>458</sup> Flouda 2010, p. 69.

<sup>459</sup> The scribe responsible for Wr 1326 also wrote several Ac tablets, recording non-specialized workers. Hofstra suggests the beds and the record of workers are directly related. See Hofstra 2000, p. 288

<sup>460</sup> Palaima assigns the same Stylus group to Wr 1330 – impressed by Seal 40 – and seals Wr 1325 and 1331-1334. However, he notes that in these instances, there is insufficient evidence to say that this Stylus group is a single scribal hand. See Palaima 1988, p. 30.



40 sealings are uninscribed. Flouda also would like the owner of Seal 40 to be the person responsible for the shipments of commodities related to the sealings, rather than the administrator who inscribed the sealings.<sup>461</sup> Here we run into some confusion. The sealings of Seal 40 record both the shipping of beds, as well as the shipping of animals. Additionally, both are inscribed by a different scribe. So Seal 40 either represents a distant responsible party who is in charge of both beds and animals – which would seem to indicate that he, too, is an administrator who is of high enough status to be responsible for bedmakers and shepherds, perhaps among other things – or it represents the scribes of the NE Building, at least two of whom share responsibility for Seal 40. Both explanations are problematic. The seal impression indicates that Seal 40 is a gold ring, and bears the image of a central octopus above several dolphins. The high status of seal material, as well as the iconography of the sealing – which is relevant to the palace at Pylos, given the image of the octopus on the floor of the throne room in front of the throne – would suggest that it was possessed by an administrator of high status.<sup>462</sup> Perhaps it is the seal of a key administrator at a second-order center, and that is why both beds and animals would be shipped by the same individual. Unfortunately, this does not well explain why only three sealings are extensively used here. Such a pattern would be better explained if the seals were possessions of the NE Building, and functioned much as the Thebes sealings did.<sup>463</sup>

Regardless of who owned these sealings, we again see diversity of sealing use. Most are uninscribed. Most seals used on these documents impressed only a single

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<sup>461</sup> On the other hand, Flouda likes to see Seal 41 as belonging to an administrator of the NE Building (Flouda 2010, p. 74).

<sup>462</sup> Sealings bearing impressions from metal rings at Pylos are found in the AC, NEB, and SWB only.

<sup>463</sup> Both Seal 39 and Seal 40 were gold rings, indicating the high status of the owners/users. The most-used seal, Seal 41, is not a precious material. Curiously, Seal 41 is also the only seal which is used solely on uninscribed sealings. In these instances, we may see circumstantial evidence that the seals were owned by those responsible for the inscriptions, with the gold seals shared by high-status, literate administrators.

sealing. Various sealing shapes are present in the NE Building, but 19 of them are gable-shaped. Nine of those gable-shaped sealings are inscribed. It has been noted before that very few inscribed sealings are not gable shaped.<sup>464</sup> Rather than indicating that they are merely labels, perhaps we may instead posit that gable-shaped sealings indicated transactions that were intended to be recorded further up the administrative chain. That is, a tablet was to be written up to detail the transaction. Other sealings simply secure shipments, but the shipment itself is not of concern to central administration. We might also suggest that gable-shaped nodules represent actions in which the central administration was responsible for fashioning the sealing, whereas irregular nodules were created by suppliers. The inscriptional evidence suggests that all activity here looked internally and was of palatial interest only. Hofstra also notes that the activity in the NE Building could not have had impact outside of the palace, but that rather all activity here served only the palace.<sup>465</sup> In light of all of this evidence, and given that we have already seen that non-intensive seal use should indicate impressions of suppliers, in this area that demonstrates intensive seal use, I think we should probably see these three seals as belonging to officials of the central administration.

### ***SW Building***

The documents from the SW Building were found to the west, outside of the building proper. Twenty sealings were found in this group, with only a single sealing inscribed. The documents from the area are concerned with textiles, as is the single inscribed sealing, Wr 1374. Shelmerdine has reconstructed the function of this building unit.<sup>466</sup> She proposes that the administrators of the department monitor garment manufacture and also collect garments from outlying production centers of the Hither

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<sup>464</sup> Already mentioned was Wr 1327.

<sup>465</sup> Hofstra 2000, p. 293.

<sup>466</sup> Shelmerdine 1998-1999.

Province, and then distribute those garments as required. Wr 1374 is impressed by Seal 24, which is also a gold ring. Given that this is the sole impression made by Seal 24, we do not have sufficient data to construct a scenario that would aid in determining who the seal user is. We can note, however, that seal usage here is impressively non-intensive, with two seals used three times, and all others once. Unfortunately, the SW Building material does not inform us further on the use of writing at Pylos.

### *Archives Complex*

The Archives Complex is perhaps the least likely place we should expect to find sealings, at least given the manner of their use seen thus far. We expect sealings to be used as an accompaniment to commodities, and we should not expect commodities to be found in what amounts to a records room. Nonetheless, 18 sealings were found here. Only two of the 18 are gable-shaped. Only one, Wr 1457, is inscribed. The sealings here are scattered throughout Rooms 7 and 8. There are a few sealings impressed by the same seal. Two seals are used three times in the AC, and one is used twice. It should be noted that nowhere at Pylos is the same seal found on sealings from different locations. There is a clear administrative compartmentalization when it comes to sealing practices. Flouda also notes that there are very many precious-metal ring impressions among the sealings from the AC. Since we should expect only administrators to contribute materials to the AC, these rings are indeed identifying high administrative status.<sup>467</sup>

The sealings here offer a glimpse into sealing administration, even if they do not directly address the matter of Mycenaean writing and its consequences. First are the impressions made by Seal 21. Both are object sealings, and were impressed against something flat and wrapped with bands. Both were found in the vicinity of small hinges

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<sup>467</sup> Flouda 2010, p. 80. She further notes that the seals that are used for multiple sealings in the AC are “among the largest and most elaborate ones attested in the Pylian corpus” (Flouda 2010, p. 65).

in Room 8, likely from boxes.<sup>468</sup> Accordingly, It is likely these were impressed on the boxes represented by the hinges. I have proposed elsewhere that these boxes may have contained previous years' records on ephemeral materials – perhaps parchment – which could be used for reference on the current year's documents.<sup>469</sup> Let us keep this point in mind while considering a sealing impressed by a related seal, also from the AC.

Another sealing found in the AC was impressed by Seal 20. This seal and Seal 21 are look-alikes. That is, they have the same motif – two men fighting lions – but slight differences in the seal impressions indicate that they were made by different seals.<sup>470</sup> The sealing impressed by Seal 21 was found in Room 7 with the Es series of tablets. The Es series records land allotments and contributions of wheat. Furthermore, with one exception, the Es series was written by Hand 1. As noted earlier, Hand 1 is believed to have worked in the AC, and is considered to be the master scribe or Archivist for the palace. Additionally he had Hand 2 as his subordinate and working companion in the AC.

One curious tablet in the Es series, Es 644, lists contributions of wheat that are described as *we-te-i-we-te-i*, or “year-by-year, annual.” It would seem that the only way to keep track of annual contributions would be to have some record of the previous year's contributions. Given that Seals 20 and 21 are look-alikes, that Seal 20 was found with the Es series, and Seal 21 was impressed on boxes, we may propose that these were the seals of Hands 1 and 2, since both appear to function in the same capacity as archivists for the AC. The seals were broken on the boxes to retrieve the previous year's accounts, Hand 1 used those accounts to write up Es 644, and once they were written, Hand 2

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<sup>468</sup> Room 8 is likely the room where final documents were stored, as if in a filing cabinet. Room 7 appears to have been used by those responsible for the storage of tablets in conducting the archival work needed for storage, as well as for writing tablets. See Pluta 1996-1997 for a more detailed description.

<sup>469</sup> Pluta 2000, p. 42.

<sup>470</sup> See Pini 1997, pp. 11-12.

replaced the records, and rewrapped and sealed the boxes. The seals were also metal rings, again indicating high status for the users, which Hands 1 and 2 surely must have been, as we shall discuss at the outset of Chapter 6.

While this proposal is attractive, we do run into a potential problem in considering the sealing impressed by Seal 32. This sealing, Wr 1457, is also inscribed. Furthermore, it is inscribed by Hand 2, whom we have just associated with Seal 21. The sealing records the ideogram \*152, and the term *a-pu-do-si*, “tax.” Both items associate the sealing definitively with the Ma series written by Hand 2, which is both a record of taxation and is concerned with the ideogram \*152 as a unit of taxation. The reason for the presence of this sealing is something of a mystery. Olivier suggests that either it is a chance survival, or that it was perhaps related somehow to work being done on the series.<sup>471</sup> The Ma taxation records are complicated. They record the tax contributions of the second-order centers in terms of several commodities. A sample from the series follows:

(S90 H 2)

**PY Ma 123**

.1 ti-mi-to-a-ke-e \*146 24 RI M 24 KE M 7 \*152 10 O M 5 ME 500  
 .2 a-pu-do-si \*146 21 o 2 RI M KE M \*152 O M ME  
 .3 o-da-a<sub>2</sub>, ka-ke-we, o-u-di-do-si \*146 1 RI M 1 ME 10

Notes:

- *ti-mi-to-a-ke-e* denotes in the dative case one of the 16 second-order centers under the palace at Pylos
- the identifications of the commodities listed (\*146, RI, KE, \*152, O, ME) are debated<sup>472</sup>
- *a-pu-do-si* indicates the actual contribution
- the *o* in Line 2 indicates the amount that was not paid of the amount due (*o* = *o-pe-ro* = ὄφελος, “owing, deficit”)
- Line 3 indicates that the bronzesmiths (*ka-ke-we* = χαλκῆρες) and the amounts that they are not required to contribute: “Thus the bronzesimths do not give/contribute”

<sup>471</sup> Olivier 1997, p. 71

<sup>472</sup> See Shelmerdine 1973 for a detailed discussion of this series.

The tablets list the quantities of each commodity required, but they also record the amounts not given, both still owed and now exempted. The sealing may relate to a quantity of \*152 just received, and Hand 2 must alter the original record to input the new arrival. In such an instance, the sealing would likely identify the second-order center that made the contribution. Such a proposal would be more attractive if the seal were a metal ring. Instead, it is an heirloom from LB I, and is a hard stone of amygdaloid shape. Such a seal could still be considered high status, if not as high status as a gold ring.<sup>473</sup> Whatever the story, if we are to associate Hand 2 with Seal 21, how can we reconcile that proposal with Wr 1457? It is possible that Hand 2 has more than one seal, and uses them depending on his administrative capacity. As the vice-archivist, he would use the AC seal, and as the keeper of taxation records, he would use the seal of the tax man. We would certainly benefit greatly from a deposit of \*152 sealings to help us determine how the seal impression functioned in this group. In any event, he wrote the sealing, and then wrote the tablets to which the sealing was related. In this instance, we see that the writing on a sealing can be described definitively as a note from Hand 2 to himself. No other scribe need be involved, and no other audience is necessary. The focus of this sealing is as inward and internal as it could be.

At Pylos then, the sealings function undoubtedly in several capacities. They likely were impressed at times by Pylian administrators and at times by suppliers of various commodities. In the case of inscribed sealings, the inscription, even if written at a site away from the palace, was for the benefit solely of administrators within the palace. Unfortunately, it is often difficult, if not impossible, to tell who did the impressing on inscribed sealings. A case can be made for the seal user to be the supplier or the

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<sup>473</sup> As noted earlier (p. 175), the soft sealstones of the Mainland Popular Group (MPG) were likely lower-class possessions. Most seals found in LH III contexts are of the MPG (Flouda 2010, p. 63). One could argue that the remaining gold rings and hard stone sealings indicate higher status.

administrative recipient at the palace. The case of Hand 2 and Wr 1457 seems to present the strongest evidence for an instance in which the seal user and scribe are different people. Even if that is not the case with Wr 1457, it also presents the strongest evidence for sealings being little more than personal notes for later tablet work. There is nothing official about the inscriptions, nor should they be considered necessary.<sup>474</sup> In every case that we can assess, the sealing text looks inward and upward.

### **Kolonna, Aegina**

At Kolonna on Aegina, a single sealing has been excavated.<sup>475</sup> This sealing bears the impression of several crisscrossing cords, but unfortunately it is otherwise poorly preserved. No seal impression or inscription survives, if there ever were any.<sup>476</sup> Nonetheless, the discovery provides us with two critical points of data. First, we have yet another site at which sealing practices were likely to be taking place, assuming that there was in fact a seal impression on this sealing. Second, the find context provides a firm LH IIIA date for the deposit in which the sealing was contained. As we shall see in Chapter 6, on the basis of evidence from Pylos and Mycenae, the *terminus ante quem* for the start of Linear B usage on the mainland is firmly fixed in LH IIIA. We may have the first solid evidence here of sealing practices beginning in the same period.<sup>477</sup>

### **Menelaion, Sparta**

The Menelaion at Sparta presents only two stoppers as evidence for sealing practices there.<sup>478</sup> Only one of these two stoppers was impressed with a seal. Recall that stoppers were the most common extra-palatial sealings on Crete as well. The proposed

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<sup>474</sup> Clearly they are not, as most sealings are uninscribed.

<sup>475</sup> Cat. no. Q3/48-10.

<sup>476</sup> See Gauss 2007, pp. 166-167, Abb. 6.

<sup>477</sup> We should expect to find sealing usage at the same time as tablet usage, of course. Positive evidence has been lacking to this point, however.

<sup>478</sup> Dawkins and Woodward 1910, pp. 9-10.

date for these sealings is LH IIIB2. Outside of these two stoppers, evidence for administration elsewhere at the site is absent.

## **Midea**

In recent years, four inscribed sealings have been unearthed at the site of Midea in the Argolid.<sup>479</sup> It seems likely that there originally would have been many more, but unfortunately – just as at the citadel of Mycenae – erosion at the acropolis has washed away much of the archaeological evidence for the center and highest point of the settlement. Excavation has focused on two areas – the so-called West Gate Area, and the area to the north of the Megaron Complex. In the West Gate area, one inscribed sealing (MI Wv 3) has come to light. In the area north of the Megaron Complex, four sealings have been unearthed, three of which are inscribed. All are gable-shaped, and all date to LH IIIB2. No two sealings were impressed by the same seal. The seals read as follows:

### **MI Wv 1 (CMS V, Suppl 3, no. 238)**

.α OLE  
.β ro-zo

### **MI Wv 3 (CMS V, Suppl 3, no. 236)**

.α GRA

### **MI Wv 5 (CMS V, Suppl 3, no. 240)**

.α OLE  
.β pa-zo-jo

### **MI Wv 6 (CMS V, Suppl 3, no. 237)**

.α o-pa  
.β1 me-ka-ro-de  
.β2 *vacat*  
.γ a<sub>3</sub>-so-ni-jo

Note that the texts of Wv 1 and Wv 3 are nearly identical – listing the ideogram for oil, followed by a name – with two minor differences. First, the name on Wv 1

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<sup>479</sup> For detailed discussion of this site, see Walberg 2007.



occurs in the nominative, while the name occurs in the genitive on Wv 5. Given all of the similarities, it is probable that these sealings were intended to record the same name, but in one instance there is a scribal error. The signs for *ro* and *pa* are nearly identical. The sign *ro* has one long vertical stroke, with one short horizontal stroke. The sign *pa* has two vertical strokes.<sup>480</sup> At the very least, Wv 1 and Wv 5 indicate repeated activity involving oil in the area north of the Megaron, and may further indicate more than one transaction involving the same person.

The texts on all four of these sealings are common in terms of format and information provided. A name, place, and ideogram generally appear on Mycenaean sealings, in various combinations. The lengthiest sealing, Wv 6, uses the allative to express motion ‘to the megaron.’ The name in question on the last line, Aisonios, is found on three Linear B tablets from Pylos.<sup>481</sup> Finally, the descriptive term at the beginning of the sealing, *o-pa*, indicates that whatever physical thing the sealing represents is the product of “finishing” work.<sup>482</sup>

All four sealings, as well as the fifth unscribed sealing, are gable-shaped nodules. Figure 5.3 demonstrates the difference between gable-shaped nodules and irregular two-hole hanging nodules. The gable-shaped nodules are very regular in shape, forming a domed “gable” that can serve as a single writing face, or two writing faces divided lengthwise. Irregular two-hole hanging nodules have no standard shape; some are pyramidal, some are flat, and most are oddly shaped with an irregularly shaped sealing surface.

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<sup>480</sup> The definitive example of this form of scribal error can be found on PY Un 718, where the scribe has recorded the term *a-re-ro*, instead of what was surely meant to be *a-re-pa*, or ἄλειφαρ, unguent.

<sup>481</sup> These are almost certainly not the same people. This fact is mentioned here merely to note that this is a relatively common Mycenaean personal name.

<sup>482</sup> The term is used in various contexts to describe weapons, armor, vehicles, and livestock. To broadly apply to any of these contexts, it can broadly be interpreted simply as ‘work.’ See above reference to *o-pa* in Thebes tablets, p. 177.

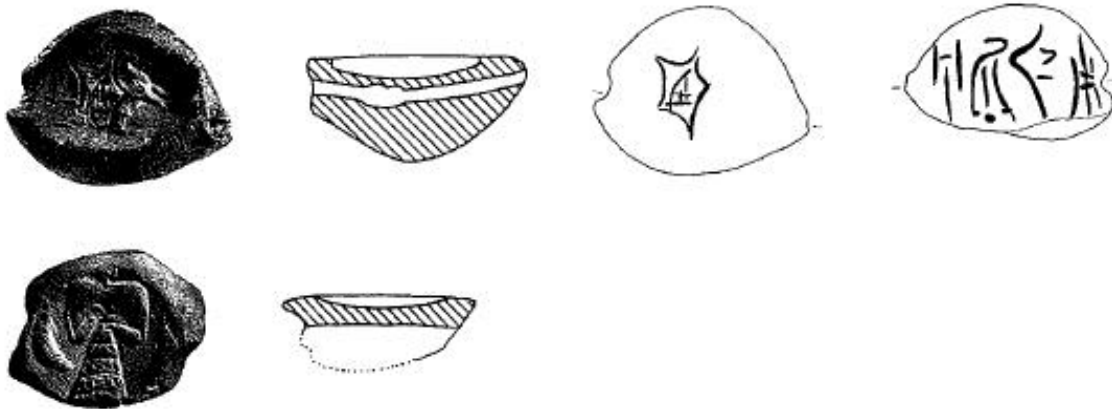


Figure 5.3: At top, a gable-shaped nodule (PY Wr 1457 – all four images) compared to *CMS* I no. 344, an irregular two-hole hanging nodule also from Pylos (bottom). Note the regularity of the impressed face and the smooth dome of the gable-shaped nodule. The irregular two-hole nodule, as usual, is constructed with less care and precision (after Krzyszkowska 2005, p. 281)

Krzyszkowska suggests that the gable-shaped sealings may function differently from other two-holed hanging nodules. As noted earlier, gable-shaped nodules are found almost always intact, and this may indicate that the gable-shaped nodules merely label, while the irregular nodules actually seal materials.<sup>483</sup> There certainly may be other explanations for variations in state, however. After an analysis of sealings at each site, we will consider the distinctions between our gable-shaped nodules and other two-holed nodules from the mainland.

On the basis of the limited evidence from Midea, as well as the other mainland sites, it would seem that inscriptions on sealings are much more frequent on the mainland than they are at Knossos. A full 80% of sealings from Midea are inscribed, whereas at LM II-III Knossos only 2.8% were inscribed. Admittedly the sample size is extremely low. However, as Table 5.4 shows, the intense pattern of inscription is supported elsewhere.

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<sup>483</sup> Krzyszkowska 2005, p. 280.

A	B	E	G
Site	No. of Sealings	No. of inscribed sealings	% of sealings that are inscribed
Pylos	165	23	14%
Thebes	64	59	92%
Mycenae	38	8	21%
Midea	5	4	80%

Table 5.4: Proportion of inscribed sealings from major Mycenaean mainland sites

In any event, we can at least assert that the use of inscribed sealings was intense in the areas close to the megaron, even if we cannot comment on sealing usage throughout the settlement. As noted, however, since these are gable-shaped nodules, they may simply be internal labeling documents, and not necessarily travelling sealings. Still, for our purposes the interface between seal impression and text is significant in assessing the importance of – and Mycenaean reaction to – writing as an administrative tool.

### **Tiryns**

Tiryns is similar to both Midea and Mycenae, in that at all of these sites erosion and exposure to the elements has undoubtedly long-since destroyed the vast majority of administrative texts that would have been present. Only two sealings survive, both impressed by the same seal, and both uninscribed. They are both stoppers. The context for these two sealings is curious, as they were found above an LH IIIC floor.<sup>484</sup> Stratigraphy at Tiryns is extremely problematic, as finds from the Unterburg are often in secondary or tertiary contexts. These should not be considered evidence of continuation of seal usage after the destruction of the palaces in LH IIIB2.<sup>485</sup>

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<sup>484</sup> For discussion, see Krzyszkowska 2005, p. 300.

<sup>485</sup> Tiryns is yet another site where the only surviving sealings are stoppers. One wonders whether they were simply ubiquitous, or whether their greater mass (as compared to nodules) offered these sealing types a better chance at survival.

## Mycenae

At Mycenae there are several locations where inscribed sealings were found, including one small sealing deposit. Most of these sealings – as well as most of the Linear B tablets from Mycenae – were excavated in contexts outside of the walls of the citadel. (Figure 5.4)

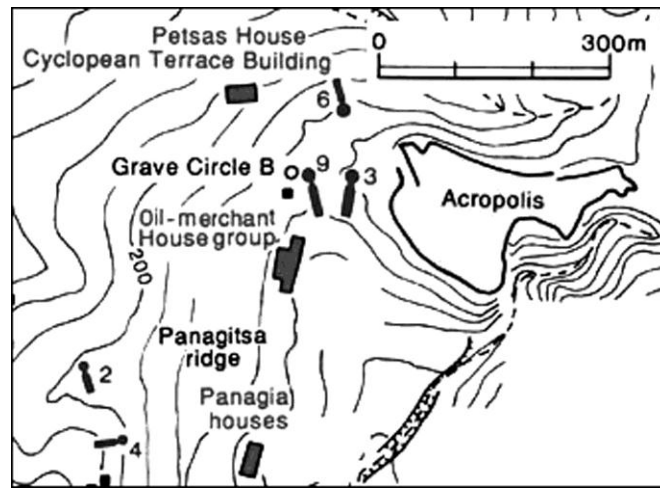


Figure 5.4: Plan of Mycenae acropolis, showing the Petsas house, the Panagia houses, and the West House Group (after <http://www.mycenae-excavations.org>)

Ten tablets and tablet fragments, and one inscribed sealing, were excavated inside of the Mycenae citadel. The majority of sealings, as well as Linear B tablets, from Mycenae come from the group of houses in the lower center of Figure 5.4. This block of buildings is divided into four units: the House of the Oil Merchant (HOM), the House of Sphinxes (HSph), the West House (WH) and the House of Shields. The first three of these houses contained a number of administrative documents, whereas the House of Shields contained only a single fragment of an administrative document. This block of buildings (which will be referred to as the West House Group, or WHG) can be better viewed in Figure 5.5, in which all of the respective houses are labelled.

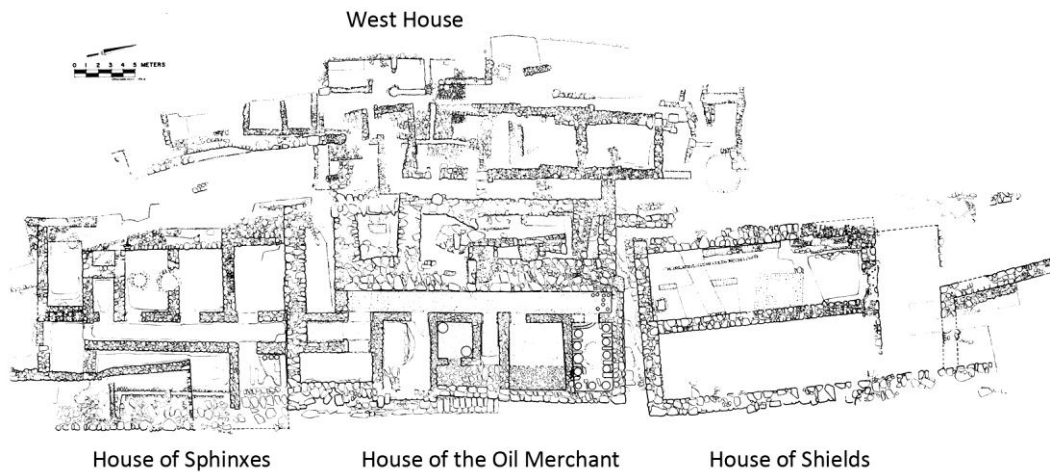


Figure 5.5: West House Group with each of the four units labeled.

For quite some time after their discovery, there was debate as to whether these buildings constituted a sector of palatial administration outside of the citadel walls, or whether the documents found there demonstrated private, non-centralized use of writing and literate administrative practices.<sup>486</sup> It is now nearly universally accepted that these buildings and their contents represent a branch of centralized Mycenaean administration that is merely spatially distinct from the citadel. Varias García has most recently – and very succinctly – summarized the arguments supporting the centralized status of these houses.<sup>487</sup> He introduces three points to this conclusion: (1) the format and text of five tablets from HSph are consistent with palatial tax records from Pylos and Knossos, (2) the documents from various houses in this unit address the same personal names,

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<sup>486</sup> Andronicos 1969 represents well the arguments for these documents being private. It should also be noted that the terms “centralized,” “decentralized,” and “non-centralized” mean various things according to various authors in various contexts – sometimes within the same article. In this text, the term “centralized” will always refer to the conceptual status of artifacts, rather than spatial location of artifacts. Anything labeled “centralized” herein implies that the artifact(s) in question were the creation, concern, or possession of some branch of the administrative organ at the settlement in question. Other terminology will always be employed to describe artifacts as being geographically remote from the palace or acropolis of a settlement.

<sup>487</sup> Varias García 1999, pp. 595-596. See also Killen 1983a and Tornavitou 1990.

suggesting functional unity, and (3) the high number and nature of transactions from WH indicate the presence of a high-level administrator, thereby indicating that this is an administrative building.

Several other individual sealings were found in other areas of the Mycenaean settlement. New finds are also being found a few hundred meters north of the West House Group, in a building known as Petsas House (shown in Figure 5.4). Volumes of decorated pottery, as well as a number of Linear B tablets have been excavated from this building. On analogy with the West House Group, as well as the content and formatting of the documents found there, this building is functioning administratively as well.<sup>488</sup> Excavations here are both recent and ongoing, so the overall functional conception of this space may very well change as work progresses. One inscribed label has thus far been excavated from this building.<sup>489</sup> Finally, one inscribed sealing and two uninscribed sealings were found in the Panagia houses, to the south of WHG, and as mentioned above, one sealing comes from within the citadel itself. These sealings are addressed below in their respective sections.

Although we have lost the majority of material remains from the acropolis, including from areas where the main palace archives were likeliest to have been, the extramural focus of archaeological investigation at Mycenae has demonstrated how widespread sealing use – as well as tablet use – was in the surrounding area. This serves as a reminder that without question our impression of sealings from surviving examples is skewed towards intra-palatial finds. At this point we should run through each of the sealing deposits at Mycenae and their contexts.

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<sup>488</sup> For a brief discussion of the building and the Linear B found there, see Shelton 2002-2003. The excavators assert that this building is most definitely associated with central administration.

<sup>489</sup> The label from Petsas House, MY Wq 4 is *not* a sealing, but is clearly a label. That is, it is a flat, small, tablet-shaped piece of clay that was impressed into a wicker mesh. Unfortunately, the text has been virtually obliterated. Nonetheless, it definitely does not speak to sealing use at Mycenae.

### ***Citadel House Area***

Citadel House is within the walls of the Mycenaean acropolis, but is not very close to the megaron complex at all. Because several other houses have since been excavated, the name 'Citadel House' has not stuck. The house is one of many structures just inside the western citadel wall, next to Grave Circle A. Figure 5.6 shows where the structure is and where the sealing was found. Several tablets and uninscribed sealings were found in this area as well. The tablets and inscribed sealing are clearly related to the same administrative function. They all employ the ideogram \*190, which is a sign for an unknown commodity. It is possible that it relates to oil in some way, although this is not certain.<sup>490</sup> This ideogram also occurs on two tablets outside of the walls, in HSph. The sealing from this area, Wt 700, is simply the ideogram \*190, impressed *supra sigillum*. Such a paucity of inscribed information is very common, and accordingly does not indicate any special instance of the use of writing within the walls as opposed to outside of them. At the very least, this group provides evidence that writing was employed in administration throughout the settlement at Mycenae, even if those specific sites were specialized administrative centers. We shall see the same level of distribution of writing on the Theban plateau.

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<sup>490</sup> Melena 1983, p. 95.

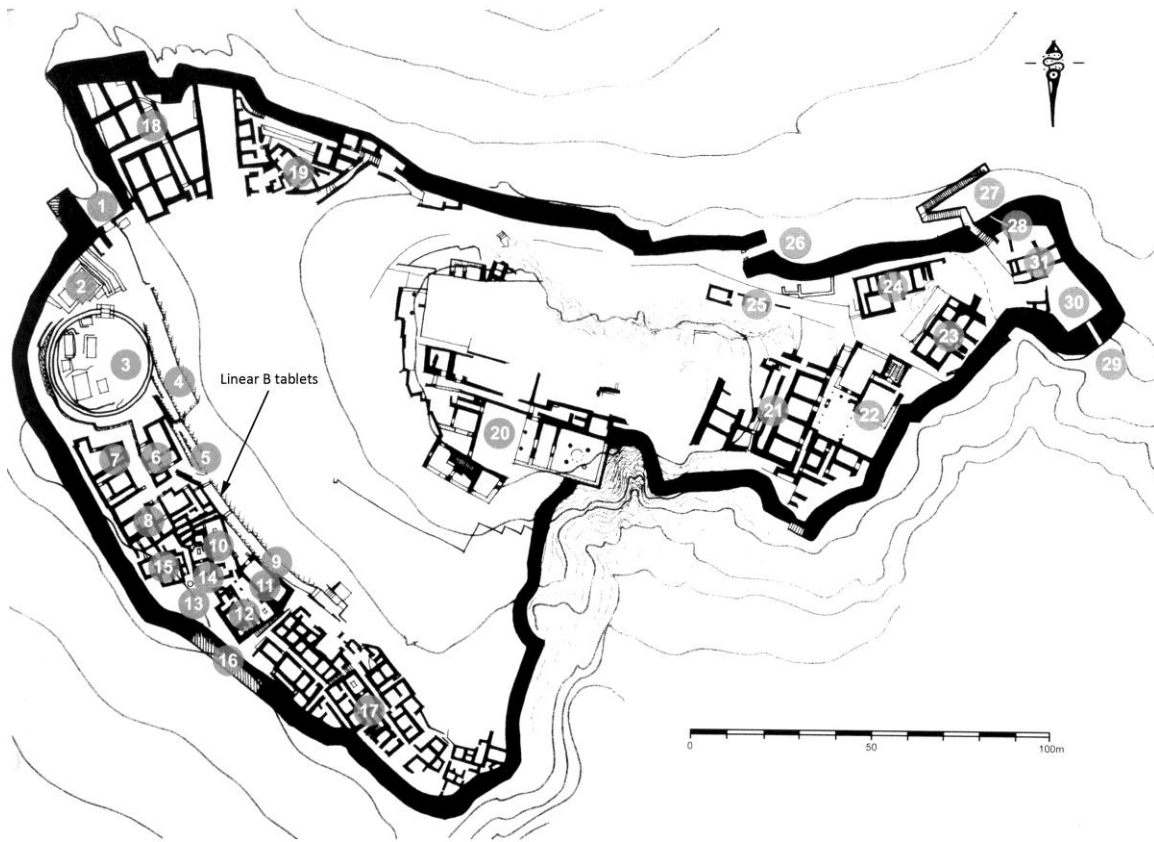


Figure 5.6: Plan of the Citadel at Mycenae, with an arrow indicating the location of the Linear B tablets and sealing (after French 2002)

There were also two other locations within the citadel from which uninscribed sealings were excavated. A *nodulus* was excavated from the so-called Rhyton Well, to the northeast of the Citadel House area, and a stopper from the House of Columns (number 22 in Figure 5.6). The Rhyton Well *nodulus* is a lone find, associated with no other sealings, tablets, or administrative documents, while a single wool tablet, L 710, was excavated from the House of Columns.<sup>491</sup> For our purposes, both of these finds are important in demonstrating the greater spread of non-literate sealings throughout the site. As Palaima has noted, even though the percentage of inscribed vs. uninscribed sealings

<sup>491</sup> Two ISJs were also found at the House of Columns, Z 204 and Z 205.



on the mainland is greater than on Crete, the percentage is still extremely low (14% at Pylos). We would be wise to remember that sealing administration is chiefly non-literate and we should expect seals and sealings to have been employed by non-literate officials at various levels of administration.<sup>492</sup>

### ***Panagia Houses***

From the Panagia Houses is the lone inscribed sealing MY Wt 712. Two unscribed sealings were also found here. Originally the sealing was published as unscribed, but upon re-examination by Pini for the *CMS* volume, it was determined that it has the ideogram *A*<sup>493</sup> inscribed *supra sigillum*, and on another face the possible place name *a-pe-we-de*.<sup>494</sup> Additionally, the two unscribed sealings were impressed by the same seal. All three are gable-shaped nodules.

Curiously for our purposes, the Panagia Houses have been published consistently as domestic buildings.<sup>495</sup> This is unusual because it is the only instance in which administrative documents come from a building identified as domestic. Unfortunately, since it is thus far a unique occurrence and *testis unus testis nullus*, it is difficult to draw conclusions. We should not be surprised to find unscribed sealings in a domestic context. It is a non-literate mode of communication using objects that were around well before the rise of the mainland palaces.

The inscribed sealing is peculiar. One could posit several reasons for its presence, but without comparanda such an explanation would not carry much weight. It is possible that these are the quarters of a literate administrator. One could also suggest that literacy

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<sup>492</sup> Palaima 2003, p. 174.

<sup>493</sup> The ideogram *A* occurs alone elsewhere only on MY Ui 651 and PY Un 1320. The significance of this ideogram is unknown.

<sup>494</sup> The surfaces of this sealing are badly worn, making it extremely difficult to identify signs. For the inscription see Müller *et al.* 1998.

<sup>495</sup> Shear 1987, Shelmerdine 1997, pp. 542.

and writing were being used outside of administration. It is also possible that the inscribed sealing was attached to an item that was transferred from the palace to a private individual. The sealing in this case might have already served its purpose and stayed connected to the vessel or commodity to which it was originally attached. This would be parallel to the way that the inscriptions on ISJs had fulfilled their function once the administration of their contents had been completed at the point of origin. We also might recall again the reconstructed sealing process at Thebes. When administrators reach out from the palace to seal commodities intended for shipment to the central administration, there is a window between the sealing of an item and the shipment of that item, during which an inscribed sealing would exist at a non-centralized location. Perhaps we have an instance of such an occurrence here.

Of the possibilities discussed here, we should probably give the least weight to the suggestion that writing had filtered far down the administrative hierarchy and into domestic use. Thus far, the evidence for private use of writing is entirely lacking, and we should not be willing to sacrifice all other evidence at hand – both positive and negative – in the face of an *unicum* coming from an anomalous context.<sup>496</sup> If more examples are uncovered as archaeological focus shifts from palaces to lower towns and second-order centers, then we will be in a better position to interpret this sealing group. Until then, we can only say that Wt 712 shows us that sealing use and the levels of administration at which inscribed sealings may occur were as diverse and variable as we expected they might be.

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<sup>496</sup> This is always good practice when dealing with matters of Linear B archaeological remains. Recall the discussion of the Kafkania pebble.

### ***West House Group***

In the West House Group, only seven inscribed sealings have survived, all of which are gable shaped. All seven are from the House of the Sphinxes, and have been impressed by the same, soft-stone lentoid seal.<sup>497</sup> All seven sealings have been assigned to the same scribal hand, Hand 65. Hand 65 has not been associated with any other tablets or sealings at Mycenae, including the tablets in the House of the Sphinxes, which were assigned chiefly to Hand 57, with a couple of exceptions.

#### **MY Wt 501**

- .α *sigillum*
- .β1 a-ta-ra-qe
- .β2 e-ku-se-we-qe
- .γ *vacat*

#### **MY Wt 502**

- .α *sigillum*
- .β ka-na-to
- .γ *vacat*

#### **MY Wt 503**

- .α *sigillum*
- .β ke-ni-qe
- .γ -te-we

#### **MY Wt 504**

- .α *sigillum*
- .β qe-ti-ja
- .γ *vacat*

#### **MY Wt 505**

- .α *sigillum*
- .β pa-kō-to
- .γ *vacat*

#### **MY Wt 506**

- .β ka-na-to
- .γ pa-ke-te-ri-
- .α -ja *supra sigillum*

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<sup>497</sup> CMS I, no. 163.

**MY Wt 507**

.α *sigillum*  
 .β ka-ra-se-  
 .γ -ti-ri-jo

These seven sealings average 5.4 signs each, which is a relatively high number for a sealing group of this size. Furthermore, no uninscribed sealings were found in this building. All sealings are inscribed and appear to relate to the same singular administrative event, which would be the record of incoming commodities.

The seven HSpH sealings – Wt 501-507 – each list either one or two types of vases. No other information is provided, apart from the seal impression. This series is particularly useful for determining sealing function, since tablet Ue 611 from the House of the Sphinxes also lists vases.

**MY Ue 611**

.0 ] *vacat*  
 .1 ]pe-ra 4 a-po-re-we 2 pe-ri-ke 3  
 .2 ]ka-ra-te-ra 1 po-ro-ko-wo 4 a-ta-ra 10  
 .3 ]pa-ke-te-re 30 ka-na-to 5 qe-ti-ja 10  
 .4 ]qe-to 2 ti-ri-po-di-ko 8 ka-ra-ti-ri-jo 7  
 .5 ]*vac.*[  
     *inf. mut.*  
 v.  
 .1 [\*]pi-ro-qe-mo , a-ke  
 .2 OLIV + TI 3 OLIV 1 NI 2 VIN S 2[  
 .3 *vacat* [  
     *inf. mut.*

Translation: *recto*: [several types of vessels listed by name]  
*verso*: *Piroqemo* brings olives, figs, and wine

Ue 611, the *recto* of which was inscribed by Hand 60, is the only tablet written by this scribe. Five of the vases listed on the Wt sealings are also found on Ue 611. Furthermore, the House of the Sphinxes was filled with pottery of various shapes at the time of destruction. Because of the large quantity of pottery found there, we can assume

that whatever the primary function of this area, the administrators here worked with vessels of various shapes frequently in their work. Given the frequency of work with various vases, as Shelmerdine has noted, we need not assume that the Wt sealings were the primary documents from which Ue 611 was written.<sup>498</sup> There is every possibility that they simply involve another transaction involving vases. However, given the fact that these seven sealings were found together, and given the fact that we find the same types of vessels on the tablet Ue 611 as we do on the sealings, we may assume that the Wt sealings were either together for the purpose of fashioning a tablet from the information that they provided, or that the sealings would have been destroyed. We cannot be sure whether Hand 65 would have written the tablet himself, or whether another scribe in the building would have been responsible for the transfer of information.

Given the administrative scenario outlined above, what is the purpose of these sealings exactly, and how does the image of the seal impression and text on the sealings interact? Hand 65 demonstrates an idiosyncrasy in his writing in which he extends a single word over two faces of a sealing. He does this on three out of the seven sealings. For comparison, this happens four times on 56 sealings at Thebes, and never happens at Pylos. Either the sealings were intended for his own reference and use, and he would have made up the tablet from these sealings later, assuming that a tablet would have been made at all, or the vocabulary is so technical and specific, there would have been no difficulty in interpreting. Given the fact that we today have little trouble understanding the inscriptions, we could assume either possibility.

These sealings also serve as an excellent case study in considering the brevity of data provided. Only a seal impression and vase name is provided. No personal names, quantities, or place designations are provided. They would seem to serve little purpose at

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<sup>498</sup> Shelmerdine 1999, pp. 571-572.

the place of storage, since the vase types would be perfectly clear from observation.<sup>499</sup> That is, if there is a shelf full of amphorae, there is no need to label them as amphorae, since that fact is readily apparent. An uninscribed sealing would suffice to convey the information contained in the seal impression. We should thus consider that the inscription was relevant either for the segment of this transaction prior to storage of the vessels, or for the segment immediately thereafter. If prior, we could reconstruct an administrative process in which the sealing was produced at the place of manufacture of the vessels. We could imagine that each was affixed to a cord that was run through the handles of the relevant vessels. Then, upon arrival at the House of the Sphinxes, the text of the sealing would confirm that the proper vessels were delivered, as well as the party responsible. The seal impression itself could serve this purpose, however, simply by confirming that the cord was never broken. The text may thus serve as an aide in fashioning the tablet that concatenates the sealing information. The number of vessels

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<sup>499</sup> Bennett 1958, p. 103, proposes the possibility that these sealings served as labels on cabinets in which the vessels were stored. The text therefore informed the reader what type of vessel was contained in the cabinet. The difficulty here arises from the fact that these were all found in a cluster together, and not in situ scattered about the room with the vessels that they describe, nor were any sealings found in such a state. See Bennett 1958, p. 104. It seems unlikely that the practice would have been to label all cabinets and cupboards in the House of the Sphinxes according to contents, but at the time of destruction all of the labels had been cut off of the doors and were all held together.

If we were to consider these labels – and recall that Krzyszkowska suggests that all gable-shaped nodules, because of their intactness, are labels – we would maybe have to consider them parallel in function to the so-called transport labels at Pylos. Transport labels are small, flat units of clay that were impressed onto wicker baskets and inscribed with information that described the tablets that were contained in the basket. Once the tablets in their basket arrived in the Archives Complex, they were removed from the transport basket and were filed. At this point, the label and basket were no longer functioning administratively, and were returned to another room, where they were stored together. This is why the labels are all found in the same place in the AC at Pylos. See Palaima and Wright 1985 for the full archaeological description. This point will be addressed later in Chapter 6.

The primary difference between our sealing group and the labels from the AC – apart from the fact that sealings are sealings and labels are never impressed by a seal, nor are they attached to a cord – is that the labels were made by several different hands – usually the hand that was responsible for the tablet series described in the label – but our sealings were all impressed by the same seal and inscribed by the same hand. That being said, in all of the discussion of sealings to this point, they have effectively been described as transport labels, only they are labels for commodities rather than tablets, and usually have the added security of a seal impression.

could be determined simply by looking at the vessels.<sup>500</sup> However the process was intended to work, Hand 65 clearly had a *modus operandi* for transactions such as this, and found that he needed only the seal impression – whether his or the person on the other end of the transaction – and the type of vessel. If we recall the administrative process involved in the Thebes sealings as reconstructed earlier, perhaps the vessels in question had been put in crates for transport at the point of origin, and the sealing with inscription was attached at that time. When the vessels ultimately arrived at the House of Sphinxes, the vessel description on each sealing would enable a rapid inventory to be taken. If a crate was missing, it would be very easy to determine which vessel type was missing.

In comparison to other sealings, including Wt 700 and Wt 712 from the Citadel House and Panagia Houses respectively, we can see that Hand 57 chose to leave the seal impression inviolate on all sealings, rather than inscribing *supra sigillum*, as happened on both Wt 700 and Wt 712.<sup>501</sup>

**MY Wt 700**

- .α \*190      *supra sigillum*
- .β *vacat*
- .γ *vacat*

**MY Wt 712**

- .α A      *supra sigillum*
- .β a-pe-we-ḏe

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<sup>500</sup> There are other possibilities, of course. We cannot be sure that the data from these sealings would ever have been assembled on a tablet. Tablet Oe 611 lists several vessels as well as foodstuffs, ostensibly for a banquet, including olives, figs, and wine. That is, the contents of this tablet appear to be outgoing goods. The vessels of the Wt sealings, however, would seem to be incoming goods. Given the number of vessels found here, it would seem that pottery was frequently delivered to this building, yet there is only a single tablet that records vessels.

<sup>501</sup> Bennett proposes that the seal impression may also serve as security for the inscription. That is, anyone wishing to alter the inscription would rub out the seal impression, thereby indicating tampering. However, there is not a large window of opportunity in which to inscribe clay, as it dries quickly. Additionally, most sealings were uninscribed, so if seal impressions were being used in this manner, it was extremely infrequently.

Wt 700 is inscribed with only an ideogram, and Wt 712 is inscribed with a single sign *supra sigillum* and an allative place name. The find contexts indicate that the respective functions of these different sealings are diverse. Furthermore, it is clear that there is not always a higher function for sealings. That is, they are not always the lower order of pre-tablet information. Even though they are inscribed, their effective administrative life may end at the sealing stage. Even the cache from the House of Sphinxes does not necessarily come together into a tablet, even though the grouping would suggest that they will serve a further administrative purpose. As Palaima has noted, sealings were found frequently in what could be considered ‘second-level’ or ‘semi-independent’ arenas, such as workshops.<sup>502</sup> These documents may simply be used for maintenance of their own workshop inventory, but need not be passed up the administrative hierarchy to the level of archival tablet, or even workshop tablet.<sup>503</sup> The overall impression at Mycenae is that notes on sealings are intensely personal, with a limited audience of perhaps just the scribe himself, or possibly his immediate superior as well. The seal impression would have served its purpose in maintaining the integrity of the transaction, either for the sender or for the recipient. We should not expect, however, that the text was for the benefit of the administrator responsible for manufacturing or delivering the vessels. Administrative writing appears to look upward and inward, never outward or downward. The use of sealings is spread throughout the settlement at Mycenae, and we should expect that it involved every level of administration.

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<sup>502</sup> Palaima 2000, p. 220.

<sup>503</sup> Eleven tablets were found in the House of the Sphinxes, the majority of which were concerned with spices. As noted above, the single tablet that is concerned with vessels, Ue 611, also lists large quantities of olives, figs, and wine. It seems likely that these two groups were intended for use together in a banquet. The primary focus of this administrative unit would seem to be foodstuffs, with the vessels serving only in a support role for containing the food as needed. Accordingly, we should not assume that vessel administration is the key function of this area, despite the total focus of the sealing deposit on vessels.



## **Concluding remarks on sealing use in the Mycenaean world**

In the transition from Minoan to Mycenaean sealing use, we can note a few trends and make some general observations. At Knossos, Mycenaean sealing use was greatly restricted compared to that of the Minoans. A much smaller number of seal impressions appear to have been in use, and those seals are not being used intensively, as they were under the Minoans. Furthermore, a much smaller number of sealing types is used by the Mycenaeans. As we shall address shortly, writing occurs infrequently on Mycenaean sealings. They are usually non-literate documents, allowing anyone with access to a seal to participate in their use.

This pattern of seal use is found on the mainland as well. The use of seals in this manner appears to be entirely imported from Crete. Seals are found in contexts spanning the entire Bronze Age, from EH to LH, yet sealings do not appear to have been used until literate administration is introduced, likely in LH IIB/LH IIIA1. The introduction of sealings into administration in the fashion they were used is an elegant administrative solution. Even if sealings were unfamiliar administrative documents, the seals themselves were certainly familiar. Accordingly, there is at least a seamless transition from the familiar (seals) to the novel (sealings). Furthermore, the use of writing on sealings does not restrict the meaning of the seal impression in any way. Non-literate administrators can still appreciate the function of the sealing, even if the writing is not understood by all parties involved. Sealing administration allows for a mode of communication between officials without requiring that everyone be literate. These documents thus serve as a well-designed interface between various levels of administration. If we recall the Linear A sealings from Agia Triada on which single signs were inscribed, we can see a similar interface between literate and non-literate

administration. The signs likely had logographic significance for literate administrators, but the system was simplified to such a degree that non-literates were also able to participate. The Minoans appear to have been thoughtful about the interface between a more accessible non-literate administration – via the use of seal impressions – and a more restricted literate mode, via the use of writing. Single-sign inscriptions serve as a suitable interface, and it would seem that the Mycenaeans then learned from the Minoan treatment of the literate/non-literate interface.

We should also revisit the function of the seal impressions on Mycenaean sealings. If we include the material from Knossos, percentage-wise, very few sealings were inscribed. On the other hand, in at least five instances at Pylos and Knossos, there are sealings without seal impressions.<sup>504</sup> Most of the writing on sealings is inscribed *supra sigillum*, but in many instances – notably all of the sealings from the House of the Sphinxes at Mycenae – the facet with the seal impression is left untouched, and the inscription is placed on the other facets. In the case of the sealings without impression, Palaima has noted that in all of the instances of unimpressed sealings, there is a personal name in the inscription. Accordingly, this personal name may be taking the place of the seal impression in identifying the responsible party.<sup>505</sup> If this is correct, then a remarkably small percentage of sealings – five out of 800 (0.6%) – use a name written in script to identify the responsible party in the identification of the administrative activity represented by the sealing. This may very well be a demonstration of the limitations of Mycenaean perceptions of writing and what functions writing serves administratively. Until the introduction of writing in the Mycenaean world, in any exchange or transaction between two parties in which a record of the transaction was required, the action and/or

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<sup>504</sup> Pylos: PY Wr 1199 from Room 32 and Wr 1247 from Room 24. Knossos: KN Ws 1707 from the NEP, Ws 8493 from the RCT, and Ws 8499 from Magazine XVIII.

<sup>505</sup> Palaima 1987a, pp. 259-260.

parties involved would have been represented through non-literate means, either by icons or talismans.<sup>506</sup> Such a process lends itself readily to the use of seal impressions as a means of identification. As seal use blends with writing, however, the interface is uncertain. The sealing still represents a concerned party, with the text aiding the administrator involved in recalling certain aspects of the transaction. The leap from sealing use to writing being the sole means of representation is quite significant. Any literate individual could write a name, and no illiterate person could identify that name. There is no talismanic proof of the individual whom the sealing would have represented.

Such a situation was met with great unease in England, which is why the name Domesday Book was applied to the great land survey completed in 1086. The idea that unverifiable written words, without the backing of any tangible evidence, dictated immutably the size and type of land owned by all individuals in the kingdom was disconcerting. Likewise, in the absence of a seal impression, writing on sealings lacks the backing of tangible evidence. They merely record, without offering proof. Such a practice should be expected only at higher levels of administration, within the palace or in the final archiving and collecting of data. That is, the transactional information should be at a point where confirmation has already been made, or, if the record was created for internal purposes – as with a label – such confirmation was unnecessary.

In the action of transactions, however, sealings likely served as proof in some way. If anything is clear from this survey of sealing practices on the Mycenaean mainland, it is that sealings can function as proof or security measures in several different ways. It is likely that the sealer was sometimes the sender, and sometimes the palatial

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<sup>506</sup> In Norman England, a transfer of property or other significant transaction could be represented in several ways. A square of sod with an heirloom dagger embedded in it would have been a common means of marking and identifying the exchange and the parties involved. Very often these transactions involved the exchange of symbolic heirloom objects, which the community could easily tie to its original owner, thus confirming the legitimacy of the transaction. See Clanchy 1979, pp. 20-23, particularly p. 23.

recipient. There is also some evidence that seal users were always of high status, and that lower-status individuals were not permitted to engage in sealing practices. The fact that only a single sealing in the entire corpus was impressed by a seal from the Mainland Popular Group – a subset of seals believed to be manufactured for those of lower status than those functioning at palaces and second-order centers – would suggest that the sealings we study were impressed by high level officials. The gold-ring seals also attest to this fact. The palace was likely never doing business directly with the individuals actually watching over flocks or workgroups, but rather with a high-level official from the appropriate population center that was superior to, and responsible for, those shepherds and workgroups.

In the case of inscribed sealings, we cannot be entirely sure who was responsible for the seal that was impressed. Almost universally a scribe is never observed to inscribe sealings impressed by different seals. There are possible exceptions in the AC at Pylos and in the NE Building at Pylos. If we trust our impression of sealing administration as represented by archaeological remains, we have to say either that scribes almost always conducted business with the same suppliers, or that the suppliers were responsible for the seal. However, I am not so sure we can trust the picture as represented by the archaeological remains. Sealings surely were created and pulped with great frequency. They are often little more than Post-it notes in terms of administration.

As commodities entered the palace, we should expect that they often would be brought in sealed. The description on the sealing and the sealed commodity could then be compared and confirmed. Then the seal could be broken and the commodities could enter into use. The scribe responsible likely would not let sealings from multiple transactions pile up, but rather would be dealing only with the latest set of sealings to come in. Such a scenario would increase the likelihood that in most cases, all of the

sealings of a given scribe at any given time would be from one or two suppliers. Recall that Krzyszkowska proposed that gable-shaped sealings were labels, since they were unbroken, and only the irregular nodules actually sealed, since they were always found broken. In light of all of the above reconstructions, it seems more likely that sealings simply survived until the end of their administrative lives. Irregular nodules did not bear information that needed recording on tablets, whereas gable-shaped nodules did.

Further complicating our ability to interpret these items is the fact that they are laconic or mute. Even when inscribed, the information is minimal. It must be stressed that the bulk of information regarding these transactions had to be inferred from, and/or was implied by, non-literate data. In the interpretation of these documents, we must assume that not all elements of a transaction – commodity, supplier, location, purpose of contribution, quantity, etc. – were important or relevant to the administrator for whom the sealing was drawn up. To put another way, it is a dubious argument to assert, “Information X must have been needed by the scribe in this transaction. X is not inscribed on the sealing. Therefore the seal impression represents X.” Virtually anything is possible depending on context, and only complete reconstructions of transactions involving literate sealing practices – from start to finish – can help us move forward with more thorough interpretation of these documents.

We can assert, however, that when writing is used, the writing looks internally and looks up the administrative chain, never down or outward. The inscriptions are extremely small in size, and are written on extremely small documents. They are not intended to be viewed, revered, or even acknowledged by a non-literate population. The variety of information that sealings display, particularly when they are all part of the same administrative event – as in the Thebes sealings – suggests that scribes had autonomy in deciding what text would be needed by their audience. In those cases where

they were their own audience, the texts they wrote on sealings could conceivably be terse. If they conceived of the texts as needed by someone else, then their texts might be longer, and there might be a few more explanatory words. The Thebes scribes varied in the amount of information they felt was necessary to accurately document the transaction. Three of the sealings had no inscriptional information at all. Again, at its heart, sealing administration is a non-literate practice.

In no instance can we claim that the text is intended for someone outside of palatial administration, yet in many instances we can confirm that palatial administrators were the intended audience. The sealing from the Panagia Houses at Mycenae is perhaps the most intriguing of the bunch. Again, however, we are hampered by archaeological focus. Perhaps the current excavations at Iklaina will shed some light on sealing practices removed from palatial administration.<sup>507</sup> We need further extrapalatial sealing evidence so that we can see the other side of these transactions, if they existed. On the basis of all of the previous discussion of writing, however, I do not expect that we will ever find evidence that Mycenaean writing was intended for a non-palatial audience, in sealing form or otherwise. In this light, we can now turn our attention to the most centralized, both administratively and spatially, examples of writing in the Bronze Age: the tablets.

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<sup>507</sup> Recall, however, that it is possible that writing at second-order centers is effectively centralized, and does not indicate the spread of writing outside of palatial control.

## Chapter 6: The Linear B Tablets and the Scribes who Wrote Them

By far the largest, most numerous, and most verbose documents in Mycenaean Greece are the Linear B tablets. Linear B tablets have been found at several sites throughout Greece: Knossos and Khania on Crete; Pylos, Iklaina, and Ayios Vasilios (near Sparta) in the Peloponnese; Mycenae and Tiryns in the Argolid; Thebes in Central Greece. As noted previously, the earliest Linear B tablets are in the RCT at Knossos. As Palaima has argued, Knossos is the likely point of origin at which Linear B first was devised and came into use.<sup>508</sup>

The tablets record various commodities and transactions, detailing allotments of rations, receipt of taxed items, bronze, livestock, assignment of palace personnel, oil allotments, weapons and armor, land allotments, feasting equipment and foodstuffs, and the like. While tablets vary in details from site to site, the commodities, terminology, ideograms, tablet layout, weights and measures, and tablet size are uniform. These similarities reveal an intentional uniformity among Mycenaean administrative centers and systems. They also demonstrate the close contact between these first-order centers. The connections between these centers extend beyond the tablet layouts. Palaima has noted similarities between the earliest tablets at Pylos and the Knossos writing styles.<sup>509</sup> The new tablet from Iklaina also exhibits graphic similarities to the tablets of the RCT.<sup>510</sup> At Thebes, there is also evidence of close contact with Crete. The similarities between Theban and Cretan burial larnakes have been cited as evidence of a close connection, as

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<sup>508</sup> Palaima 1988a.

<sup>509</sup> Palaima 1983. For further discussion of Knossian-Pylian similarities see Skelton 2008.

<sup>510</sup> The Iklaina tablet has not yet been fully published. Preliminary comments can be found at <http://www.utexas.edu/research/pasp/iklaina.html>.

have the perceived Minoan influences in Theban palatial architecture.<sup>511</sup> Furthermore, the ISJs demonstrate regular contact between Crete and the mainland at several sites. Given these similarities and the evidence for close contact between the first-order centers in Mycenaean Greece, we might assume that they acted in concert with one another to ensure that they maintained control of their territories.

Tablets are found in significant quantities only at Pylos, Knossos, and Thebes. A few dozen tablets were found at Mycenae and Tiryns. Only tablet fragments have been found at Iklaina, Khania, and Ayios Vasilios. Table 6.1 provides an approximate account of the numbers of tablets at each site.<sup>512</sup>

Site	Number of Tablets
Pylos	1200
Knossos	3500
Thebes	370
Mycenae	70
Tiryns	27
Iklaina	1
Khania	3
Ayios Vasilios	3

Table 6.1: Quantity of Linear B tablets and fragments found at each site

With few exceptions, inscribed sealings and tablets are concurrent at Mycenaean sites. Only at four sites – Midea, Iklaina, Ayios Vasilios, and Khania – does one or the

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<sup>511</sup> Dakouri-Hild 2001. She downplays the significance of the architectural influences from Crete, but otherwise acknowledges an “intricate” relationship between Crete and Boeotia (p. 106). To this evidence we might also add the occurrence of the rare ideogram \*180, found only at Thebes (TH Ws 429) and Knossos (KN U 172).

<sup>512</sup> When dealing with numbers of Mycenaean documents, the totals are always approximate. The number of tablets found at each site is fluid, and is recorded differently in nearly every modern account of tablet totals. There are several reasons for this fluidity. First, epigraphers regularly make joins between tablets and tablet fragments, continually reducing the total number. Additionally, even small tablet fragments with only a single character or character fragment are assigned a tablet number. Some authors may deem it inappropriate to count these fragments – known as the X series at every site – in the total count. New finds and reassignments of tablet series also occasionally add further confusion. Fragments are included in totals here.



other occur (sealings at Midea, tablets at the other three sites). In each of these four instances fewer than four documents survive. As a result, our samples are too small for us to draw any conclusions. In fact, given that we find inscribed sealings and tablets together at so many other sites, we should probably assume that our sample is inaccurate.<sup>513</sup> Of the sites mentioned above, all but three (and maybe two) are palatial, or first order, in character. Iklaina is likely a second-order center. The status of Khania remains to be clarified, either as a first-order center that is smaller – in terms of territory commanded – than Knossos, or as a second-order center under the control of Knossos. Finally, the Ayios Vasilios tablets were surface finds without context, in an area where LH III sherds were spread over an area 250x120m.<sup>514</sup> The site seems to be a satellite center to the Bronze Age settlement at Vapheio:Palaiopyrgi.

In all places where tablets are found, the tablet shapes and layout of the tablets are markedly standardized. All Linear B tablets can be divided roughly into three tablet shapes – and could even be simplified to two – which are illustrated in Figure 6.1.

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<sup>513</sup> This is an oversimplification of the situation. In the absence of papyrus or parchment documents, tablets represent the highest/final form of clay record-keeping in Linear B. Accordingly, at sites where tablets are present, we should expect to find documents that represent lower levels of administration as well, *i.e.* inscribed sealings. However, at Midea, where only inscribed sealings were found, we have no reason to expect that tablets – representing a higher level of administration – would likely have been in use there. The settlement at Midea was significant, with inscribed sealings and an ISJ indicating some level of administrative status. However, the excavators acknowledge that the site was not as prominent as those at Mycenae and Tiryns. Given the data and the settlements status, whether or not there were tablets in use at Midea is uncertain. For a description of the role of the settlement at Midea in the LBA, see Demakopoulou 2007.

<sup>514</sup> Hope Simpson and Dickinson 1979, p. 110. For spatial reference, the site is roughly seven miles SSE of the modern town of Sparta, and three miles SSE of the settlement at Vaphio:Palaiopyrgi. As noted by Hope Simpson and Dickinson, “The Mycenaean settlement [at Palaiopyrgi] is the largest in Laconia, as indicated by the spread of potsherds (over about 200,000 square m.),” (Hope Simpson and Dickinson 1979, p. 109).

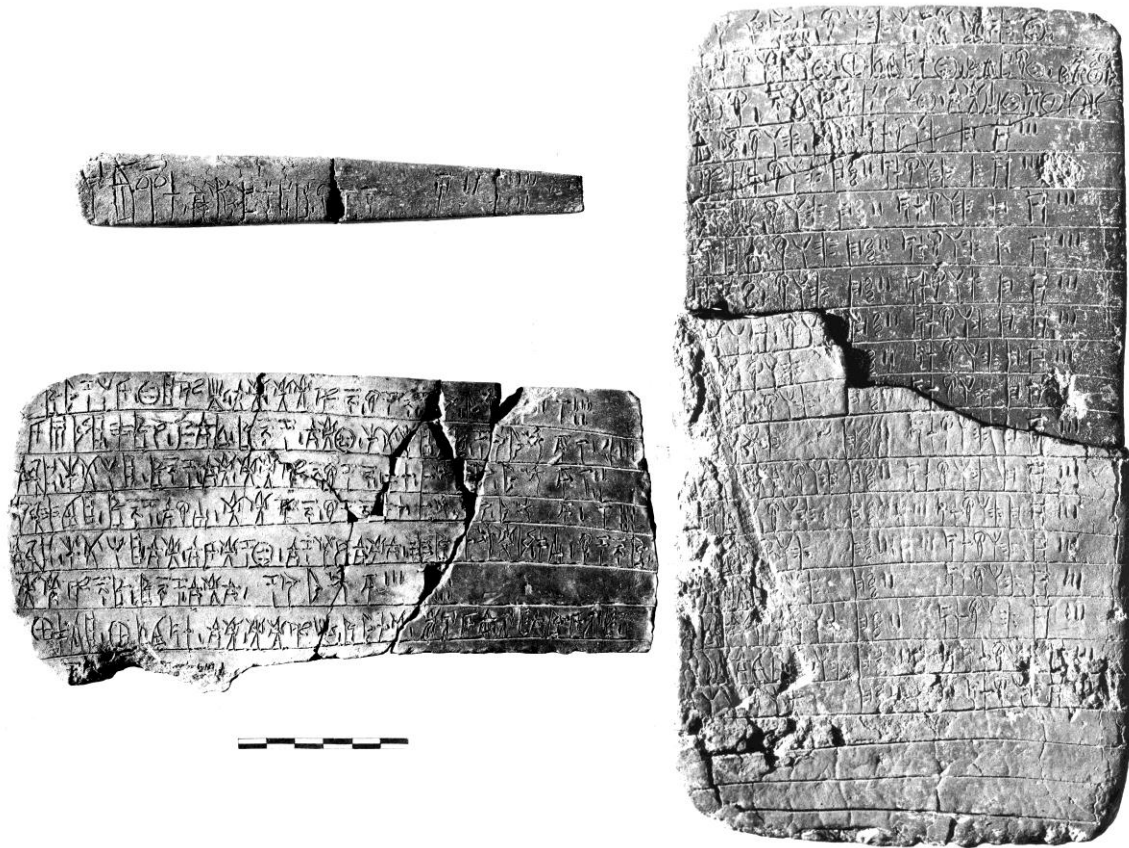


Figure 6.1: Linear B tablet shapes. Clockwise from upper left: Leaf-shaped (PY Ea 303), Page-shaped (PY Jn 829), and Card-shaped (PY Ep 704)

The most common form is the leaf-shaped tablet. These tablets normally list only a single transaction, or a single element (at most a few elements) of a transaction involving multiple persons, commodities, or items. The example in figure 6.1 is from the Ea series of tablets at Pylos and records a single allotment of land held on behalf of a swineherd. In the case of most leaf-shaped tablets, they are incomplete records on their own. Normally, they form a tablet series with other leaf-shaped tablets that deal with the same types of transactions, usually all written by the same scribe.<sup>515</sup> For example, the other Ea

<sup>515</sup> Sometimes this is not the case. There are occasions where a tablet series is written by more than one scribe. Additionally, the prefix of a tablet series does not always indicate a unified set of documents. For example, the An tablets at Pylos are all page-shaped tablets that are concerned with personnel. However, these tablets should not be considered as a single unit, as they do not indicate a single administrative action.

tablets list allotments of land to other persons in the Pylian kingdom, with one entry per tablet. Leaf-shaped tablets are the only tablet types that are not always ruled with lines. When the information can be contained on one line, they are only rarely ruled. Occasionally they contain two or three lines of information, in which cases they are always ruled.

The card-shaped tablets and page-shaped tablets are much longer. Card-shaped tablets are essentially page-shaped tablets that have been cut in half, so that they are slightly longer than they are tall. Both page-shaped and card-shaped tablets detail multiple transactions or records, usually one per line. In most cases, these tablets begin with a one- or two-line header that contextualizes the line items that follow. For example, in the above-illustrated tablet PY Jn 829 in Figure 6.1, the first three lines inform the reader that the tablet records the collection of “temple bronze” for the making of arrowheads. The lines that follow then list officials at each of the 16 second-order centers of the Pylian state and the quantities of bronze that they are to supply to the palace.<sup>516</sup>

There is some evidence that these longer tablets sometimes were created from assembling the data from series of leaf-shaped tablets.<sup>517</sup> Additionally, we have already seen evidence in the Thebes sealings that data can be transcribed from sealings directly onto longer tablets. At Pylos, Hand 1 is responsible for the majority of page-shaped

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The prefix An is assigned indiscriminately to tablets that involve personnel and are page-shaped, regardless of scribal hand. On the other hand, the Ad tablets were all written by a single scribe and the information included is uniform in layout and content, and should therefore be considered as a unified series.

<sup>516</sup> On the 16 second-order centers, see Bennet 1998.

<sup>517</sup> Scraps of broken leaf-shaped Cc (livestock) tablets in Room 8 suggest that the Cc tablets were not being kept as archival records, but may have been assembled into larger page-shaped records. It should be noted that the contents of the Cc tablet fragments are not found on any page-shaped Cn tablets. It is possible that the Cc tablets were no longer needed and had been scrapped, surviving only by chance. In Room 7 at Pylos was a large pithos that would have been filled with water. This would have provided the tablet workers with a source of water both for manufacture of new tablets and the destruction of tablets that were no longer needed. The fragmentary Cc remains in Room 7 may have just missed the pithos when they were being discarded.

tablets, and most of those are found in Room 8.<sup>518</sup> Given that Hand 1 is likely the archivist (see above p. 79), and that the page-shaped tablets can be seen as final records of transactions, it makes sense to see Room 8 is an archival tablet storage area.

The functions of these tablets vary as greatly as the functions of the sealings described in Chapter 5. Some tablets record the receipt of taxes, others record shipments of goods from the palace. Some record neither income or expenditure, such as the landholding tablets or inventories (for which see the next paragraph). They can be records of interest only to a specialized bureau or department, or they can be relevant to the highest level of administration. As we shall discuss below, the unifying theme of the tablets seems to be the management of the resources of the kingdom. However, the specific function of any tablet or tablet series within that broader theme variable.

In terms of general layout of information on the tablets and the information provided, there is a great deal of diversity. For example, as noted above, Jn 829 offers an elaborate (for Linear B) description of the collection of bronze, from where the bronze is being collected, and the purposes to which it will be put. The heading tablet of the Ta series, Ta 711, likewise offers a comparatively lengthy description of the purposes behind a furniture inventory (see below, p. 259 for discussion of Ta tablets). Other tablets, however, are more terse, sometimes not even offering a header. The header of tablet An 610 simply notes that the tablet records rowers for a man named *me-za-wo*.<sup>519</sup> In the Eo series, which records allotments of land, no tablet has a header describing the intent of the tablet series. We also discussed the Aa, Ab, Ad series tablets that record similar information, but with different purposes.

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<sup>518</sup> 119 of 439 texts in Room 8 are page-shaped (27.1%), while 22 of 180 tablets in Room 7 are page-shaped (12.2%). Some of the Room 7 page-shaped tablets – those of the Jn series – can be demonstrated to be works in progress, and so should not yet be in their final storage area.

<sup>519</sup> See Palaima 2004 for a discussion of this tablet.

While tablet layout, terminology, and ideograms are all fairly consistent, the information that each scribe decides to record is not very consistent at all. There are likely a few factors at play. First would be the perceived clarity of information for the intended audience. In the case of Hand 1, since he is the archivist, he likely wrote several tablets for which he himself would be the sole intended audience. Accordingly, he needed only make notes that he deemed necessary to understand the tablet later. Hand 1 wrote the above-mentioned An 610 tablet. He likely knows who *me-za-wo* is, and he understands the significance of the number of rowers listed, likely assessed for purposes of tax exemptions and perhaps rations.<sup>520</sup> In other instances, a verbose header may indicate that an activity was not standard practice. In the case of Jn 829, for example, we should not necessarily expect that temple bronze was sent to the palace for the manufacture of arrowheads on an annual basis, although that may be the case. This may be a semi-regular or unique occasion. Accordingly, without a header, the tablet would list only allotments of bronze from all second-order centers, leaving the reader to wonder why the bronze was sent to the palace, and where it came from. These individual decisions about information listed would seem to occur on a series-by-series basis. In all instances, *what* was written is clear enough, but *why* it was written required varying degrees of clarification.

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<sup>520</sup> We should consider the possibility that Linear B tablets frequently had multiple purposes. Landholding tablets could be used not only to assess taxes in a region, but also to keep track of who owns land and where and why. In the case of An 610, the lack of specificity in the header or contents may further indicate that the document could be used for several purposes. A header that stated “Thus *me-za-wo* will not pay a contribution on account of rowers” would imply that the tablet could be used only to add up tax exemptions. With a non-specific header, the administration can also determine rations, allocation of military assets, regional distribution of personnel, and perhaps even later awards of land allotments, etc.

## COMPARISON OF LINEAR B TABLETS TO LINEAR A TABLETS

The Linear B tablet formats that were outlined above differ significantly from their Linear A predecessors. Figure 6.2 illustrates the standard – and only – tablet format found in the Linear A tablet corpus.

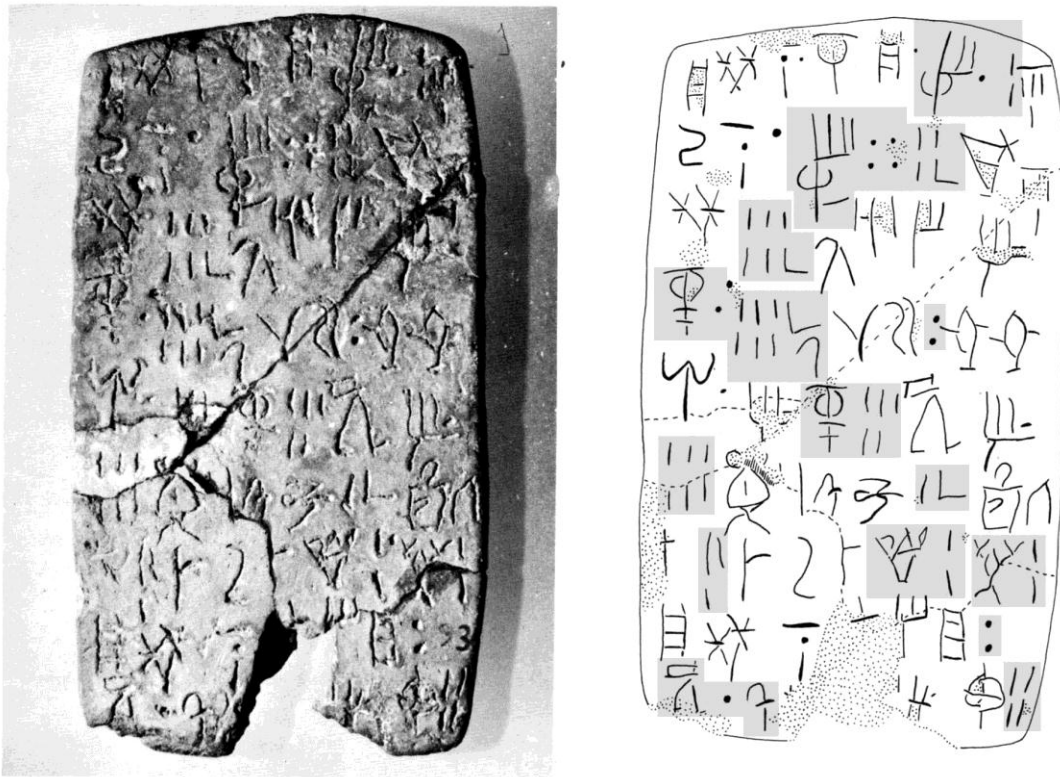


Figure 6.2: Linear A tablet HT 93 (6.10 x 10.70 cm). The drawing on the right highlights the location of ideograms and quantities.

Linear A tablets are not ruled, nor do they show any kind of tabular layout of information. The tablet pictured, from Ayia Triada, is one of the longer tablets, with nine lines of entries. Tablets differ in length – as few as four lines, but usually between five and seven lines – but the vertical rectangular layout is consistently used. Unlike what we find in Linear B administration, there are not smaller tablets akin to the single-entry leaf-shaped tablets. Additionally, there are no instances in which we can trace how

administration proceeds from sealing to page-shaped tablet, as we can with the Linear B sealings at Thebes, for example.<sup>521</sup> We might expect that Minoan administration involved one further step, in which information was transcribed onto papyrus or parchment for archival storage. The Linear A tablets may therefore be preliminary information to be set forth in a different format on parchment.

If we compare the layout of the tablet in figure 6.2 to a Linear B page-shaped tablet (Figure 6.3), we can easily see how the Mycenaeans altered their Minoan model.



Figure 6.3: Linear B tablet KN Fp 1. Ideograms and quantities are highlighted on the right, as in Figure 6.2.

<sup>521</sup> That is not to say that Linear A sealing and tablet administration were completely separate modes of administration. The lack of detailed texts on Minoan sealings prevents such a reconstruction.

The tablets are similar in their rectangular layout, and are almost identical in size. They are the same width, but the Linear A tablet is 10.7 cm long, whereas the Linear B tablet is 12.7 cm long. The Linear B tablet concerns offerings of oil made during a certain month, as indicated in the header *de-u-ki-jo-jo me-no*, “in the month of *Deukios*.” The Linear A tablet is concerned with quantities of several different subjects, including wheat and men. It may or may not have a header.<sup>522</sup>

The key difference here is tablet layout. The first apparent difference is that the Linear B tablet is ruled. Additionally, Linear B page-shaped tablets generally list entries in a tabular format. Often there is only one entry per line. In Figure 6.3, for example, the ideogram for oil and the quantity of oil are always the last entry on a line. It should be noted that this tablet is even a little less orderly than many other page-shaped tablets. For example, in Figure 6.1, even though the text in the image of the page-shaped tablet PY Jn 829 is too small to read, if one looks down the tablet just to the right of center, one can see that the entries are all aligned one below the other in the manner of a later Greek stoichedon inscription (this is the word *po-ro-ko-re-te*, one of the officials at each site responsible for sending bronze to the palace). Even the earliest Linear B tablets from the RCT display this uniformity of layout, always with ruled lines. Such an orderly appearance is never seen on a Linear A tablet. The tablet in Figure 6.2 is typical. Again, the ideograms and quantities for each entry are shaded. It is readily apparent that the information on the tablet was written much as I am writing now, in that the scribe simply wrote from left to right and filled each line to the end before moving on to the next one.

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<sup>522</sup> The undeciphered state of Linear A greatly limits the confidence with which one can make assertions about Minoan tablet administration. Outside of the words *ku-ro* and *ki-ro* – both of which are related to “total” – virtually no Minoan vocabulary is certain or understood. We cannot even be sure whether a word is a place name, personal name, occupational name, etc. The fractional system is still not fully understood. Several ideograms represent unknown commodities. Many Linear A tablets have headers, yet we do not know what any headers say. What remains is a small number of ideograms that are identical to ideograms in Linear B, and therefore can be understood by us.



In several instances, a word is even divided between two lines, such as the word extending between lines 1 and 2.

Several possibilities could account for these differences. First, impressions on the bottom of flat-based nodules inform us that Minoans made extensive use of parchment and papyrus. As noted above, the surviving Linear A tablets may serve as a notational system one step prior to the final archival document.<sup>523</sup> The layout may have been more structured in the final layout. In the layout of Linear B tablets, we might also see an effort to enhance the clarity of the contents. While Minoan scribes were clearly comfortable working with non-ruled tablets on which entries were written continuously across the tablet, we, as newcomers to their record-keeping system, have a hard time determining where the entries are and where the ideograms and numbers are. One would expect Mycenaean newcomers to this system also to be intimidated by the lack of organization, and establish a system whereby greater clarity was introduced.

This argument might find some support in the history of Minoan administration. The use of writing on Crete predates Linear A by roughly two hundred years. Seals inscribed with signs from the earlier Cretan Hieroglyphic script are found in contexts as early as MM I (ca. 1900 BC).<sup>524</sup> The earliest Linear A documents are from MM III contexts (ca. 1700 BC). Writing in Cretan Hieroglyphic is often more orderly and organized than the Linear A corpus that has survived. Figure 6.4 shows one side each from two different Cretan Hieroglyphic bars.

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<sup>523</sup> Palaima 2000, p. 219 suggests that the Linear A tablets are “at a ‘simpler’ stage of application” than the Mycenaean Linear B tablets.

<sup>524</sup> For a concise history of writing on Crete, see Ventris and Chadwick 1973, p. 28ff.



Figure 6.4: Cretan Hieroglyphic bars. Left: KN Hh (06) 01, side a. Right: MA/P Hh (07) 02, side b.

On both of these bars, there are two lines of text divided by a rule line. There are also word divider lines on the example on the right. The appearance of Cretan Hieroglyphic on bars varies significantly. Many examples display information in nearly as disorderly a fashion as the Linear A tablet in Figure 6.2. However, many are also more neatly written than the above examples, with very precisely drawn signs. It seems that writing was originally very neat and orderly on Crete. Over centuries, however, as literate officials became more accustomed to the technology of writing, the format became looser and no longer needed such formal rigidity to be legible to administrators. With Linear B, writing was introduced to a newly literate population. Just as Minoan writing was more orderly in the beginning, we should expect Mycenaean writing to be equally structured. As Linear B administration started, with the advent of a new script and, as I shall argue shortly, the introduction of new Mycenaean scribes, a more structured tablet layout was needed for greater legibility. Conservatism in format may have been preserved through

LH III B2 in the interest of maintaining uniformity throughout Mycenaean first-order centers.

To this discussion of the Mycenaean desire for greater clarity, we might also introduce the wordiness of the Linear B tablets as compared to Linear A tablets. Linear A tablets are terse. The vast majority of entries are single words, usually two-to-four characters long. The headers of Linear A tablets are similarly brief. Generally they are single words – or at most two words – also of similar length to the words in the individual tablet entries. On the example in Figure 6.2, the tablet is introduced by a three-character word, followed by a two-character word, followed by an ideogram. We cannot be entirely sure whether this is a header or just the first entry on the tablet, although it is likely an entry and not a header.<sup>525</sup> By contrast, Linear B tablets frequently offer quite a few more words and descriptors. Headers often include complete sentences with conjugated verbs. Entries can be single words, but they can also be highly descriptive. For example, vessels on the tablets of the PY Ta series are described in great detail. On Ta 711, a vessel known as a *qerana* is further described as “queenly, with a bull’s head, with shell decoration.”<sup>526</sup> Plots of land are frequently described with similar detail.

#### **PY Ea 800**

ke-re-te-u , e-ke , o-na-to , pa-ro , mo-ro-qo-ro po-me-ne GRA 2 [

Kretheus holds a lease of land on behalf of the shepherd M. WHEAT 192 liters

We learn the name of the landholder and his official title (shepherd), the name of the lessee, the type of land he holds, and the extent of that land measured in seed grain.<sup>527</sup>

Never is such detail offered in Linear A tablets. We also noted a similar situation on

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<sup>525</sup> To clarify, a header provides contextual information for all entries on the tablet. For example, in Figure 6.3, the header explains that all of the entries involve oil distributions during a specific month. The word that introduces the tablet, MBA-NI-NA if we use Linear B values, occurs also on another tablet, HT 6, as an entry lower down on the tablet. The same word also occurs at the start of line 8 in Figure 6.3.

<sup>526</sup> *qe-ra-na* , *wa-na-se-wi-ja* , *qo-u-ka-ra* , *ko-ki-re-ja*

<sup>527</sup> This is the amount of grain that would be required to fully sow the plot.

sealings. In Chapters 4 and 5, we addressed the greater length of entries on inscribed sealings in Linear B.

To these examples of detailed Linear B entries we should also address the concept of double writing, in which the Mycenaean scribes would write out a term alongside of the ideogram for that term. On Jn 725, for example, several entries read *to-so-de ka-ko*, “so much bronze,” which are then followed by the ideogram for bronze. Likewise in the Ta series, the names of vases are listed, and are then followed by the ideograms for those vases. In these instances, however, it seems preferable not to see the combination of description and ideogram as merely a duplication of information, but rather as a distinction between the descriptive element and quantitative element of an entry. Let us consider four relevant lines from the above-mentioned Jn text:

**PY Jn 725**

- .14 ]-nu-we-jo , a-pi-jo 1 AES M 5 ne-qe-u AES M 3
- .15 ]ne-u AES M 1[ ]e-u-me-ne AES M 3
- .16 ]e-ru-ta-jo AES M 4
  
- .25 to-so-de , ka-ko           AES M 12

*Recto originalis*

- .21                           to-so-de , ka-ko AES M 12
- .22 to-so-de , ka-ko       AES M 30           [ ] *vacat*

Each one of the lines transcribed above concern bronze (AES) in various quantities. In the first three lines, only the ideogram is present followed by a quantity. However, in the final three lines the ideogram is present as well as the word for bronze, *ka-ko*. In each instance of double writing, the entry is *to-so-de ka-ko*, “so much bronze.” These are totaling lines, as opposed to the first three lines, which are single entries. Accordingly, we cannot say that the scribe – in this case Hand 2 – is adding using a combination of term and ideogram for the sake of added clarity, since he does not do it in every instance. In the first three lines transcribed above, each entry is a personal name, followed by a

quantity of bronze. The descriptive element is the personal name. The quantitative element is the total bronze outlay. In the final three lines transcribed above, the descriptive entry notes that the bronze is being totaled. The scribe does not write the term *to-so-de*, “so much,” without writing out what was being totaled, in this case *ka-ko*. Otherwise, the reader would have to read the ideogram as a linguistic element (*i.e.*, in the expression *to-so-de* AES). Not only does this never occur in the Linear B texts, but to do so would also blend the descriptive and quantitative elements of the entry. Likewise in the Ta series, the vessels are named in the descriptive element of the entry, and the ideogram for the vessel is then used in the quantitative element of the entry. This is not pure double writing. That is, the use of the term and the ideogram is not intended purely to enhance the description of the item in question, but rather is a consequence of the highly descriptive character, and internal order, of Linear B tablets.

Finally, in the consideration of Minoan and Mycenaean tablet layout, we are unable to take into consideration the differences between Minoan and Mycenaean tablet administrations. As noted previously, our inability to translate the Minoan tablets makes it impossible to be sure how the contents of those tablets functioned in the administration. Without some idea of commodities, place names, occupations, and header information, we cannot know what function these tablets served, and how they related to one another and to their find-spots. Surely to some degree the modes of administration dictated the layout and organization of information in tablets and tablet series. Unfortunately, in Linear A documentation, we cannot address these modes of administration as evidenced by tablet contents. Nonetheless, we are able to talk in detail about Mycenaean tablets, their contents, and the scribes in their administrative contexts.

## TABLET ADMINISTRATION AT PYLOS

Many details of Mycenaean administration as evidenced by the Linear B tablets can be addressed at only two sites – Pylos and Knossos. As noted in Table 6.1, only three sites currently have more than 300 Linear B tablets: Pylos, Knossos, and Thebes. The ca. 370 Thebes tablets come from small and often fragmentary tablet caches throughout the Kadmeia.<sup>528</sup> There have been no substantial deposits recovered from the Theban palace itself. Consequently, the Thebes material does not provide a sufficiently detailed picture of palatial administration for our purposes. Knossos is also problematic. The precise find-spots of tablets were not recorded, many tablets were destroyed after excavation, and the majority of tablets are in secondary context, having fallen from the floor above. In addition, the Knossos tablet deposits are not all from the same time period, with the RCT dating to LM II, the NEP dating to LH IIIA 1, and the other deposits dating to the final destruction at Knossos. All of these factors combine to complicate the discussion of how tablets functioned within the palace for the administration of the Knossian realm. We will return to Knossos, however, in the discussion of scribal specialization.

At Pylos, on the other hand, the tablets were meticulously excavated, with the precise find-spot of nearly every fragment being recorded. There are several deposits of varying sizes and components. The scribal hands have been identified, revealing their respective milieus. The archaeology of each area in which tablets have been excavated reveals a great deal about the character of the area, further aiding in interpretation.

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<sup>528</sup> The largest of these deposits – the so-called “Arsenal” – was of indeterminate function. The tablets found there mention allocations of grain, wine, olives, personnel, wool, and textiles. One tablet also mentions a chariot. This assemblage is not as varied as we would expect a central archive to be, but is not as specialized as a bureau (for which, see below). The significance of this assemblage is still uncertain.

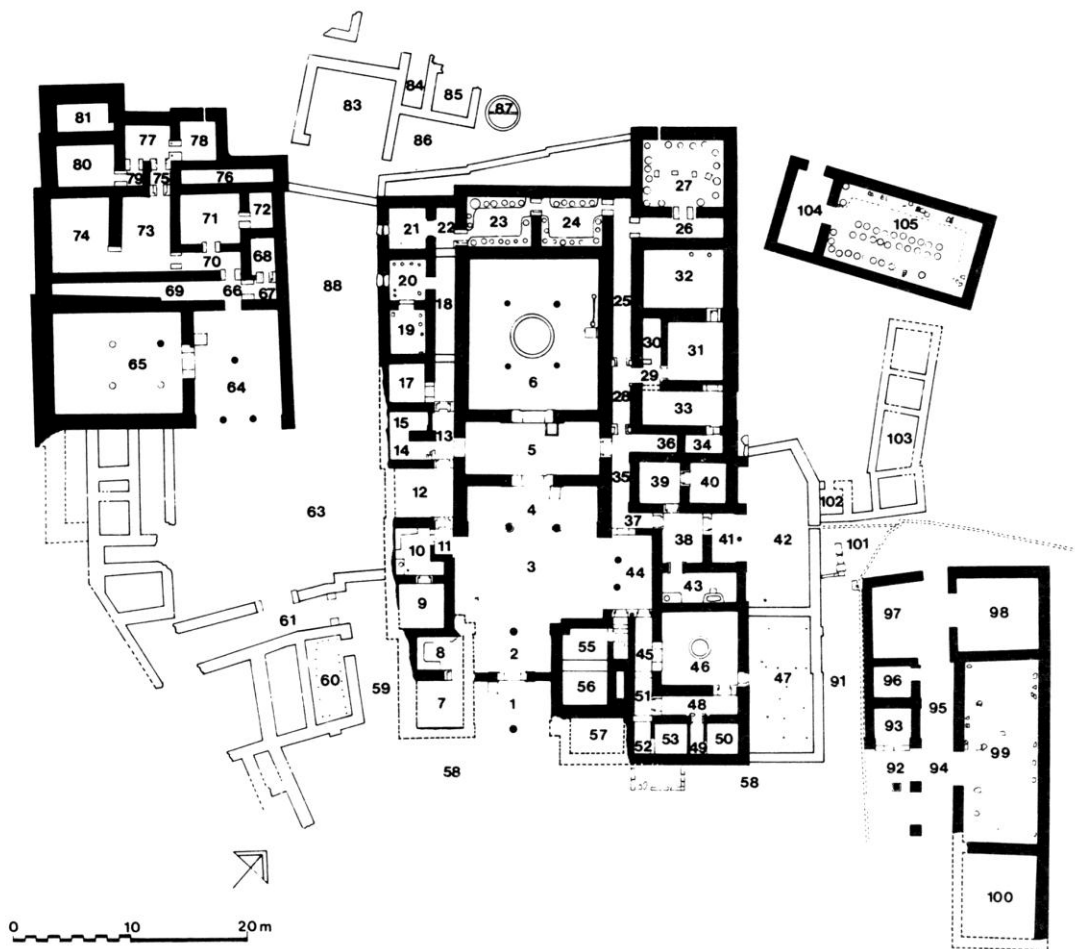


Figure 6.5: Palace of Nestor at Pylos

Tablets at Pylos are found not only in the AC (Rooms 7 and 8), but also in other active areas of the palace, albeit in much smaller numbers.<sup>529</sup> For example, oil tablets were found in the oil storerooms (Rooms 23 and 24), a single tablet dealing with vessels was found in Room 20, which was filled with ceramic vessels, and there were large assemblages from the area of the SW Building (Rooms 64-80), as well as the NE building (Rooms 92-100). Only in the AC does there appear to be a space dedicated explicitly to

<sup>529</sup> 81% of all tablets – including fragments – at Pylos are from the AC. See Bendall 2003, p. 196.

the assemblage of written information concerned with diverse activities, with little other additional activity taking place in the space. Room 8 in the AC is described as an archive because it meets the criteria for identifying an archive, as opposed to a specialized tablet bureau. These criteria were outlined by Palaima.<sup>530</sup> They are as follows: (1) there is a significant number of page-shaped tablets in Room 8 (119 of 439 tablets, or 27.1%), indicating that information has reached a final stage of organization; (2) there are tablets dealing with a broad range of topics; (3) the tablets in Room 8 can be organized into discrete tablet sets or series, such as the Aa series tablets listing female workers, or the Ea series tablets, which describe plots of land belonging to Pylian officials; (4) several different scribes are represented in Room 8 (roughly 26 hands); (5) there is an organizational system in place for storing tablets; (6) the work of different scribes can be found on the same tablet, or it can be shown that one scribe altered or transcribed the work of another, as Hand 2 did with the tablets of the Jn series, originally written by Hand 21. All other areas in which tablets have been found are specialized deposits that are concerned with a limited range of activity, or in the case of the NE Building, a clearinghouse for all materials entering the palace to be recorded and processed.<sup>531</sup> Table 6.2 outlines the tablets found in all areas of the palace.<sup>532</sup>

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<sup>530</sup> Palaima 1988, p. 180. Revisited in Palaima 2003.

<sup>531</sup> On the SW Building, see Shelmerdine 1998-1999. On the NE Building, see Hofstra 2000 and Bendall 2003.

<sup>532</sup> Addressed in detail in Palaima 1988, p. 135ff. Detailed descriptions of each room are available in Blegen and Rawson 1966.



Room Numbers	Number of Tablets	Description of Tablets	Description of Area
Rooms 7-8	700+	Highly diverse: personnel, livestock/animals, arms and armor, land tenure, agricultural products, furniture, oil, metals, taxation, feasting, labels	Central palace archives
Rooms 5-6	15	Primarily cloth and weaving tablets	Throne room area – tablets likely fell from floor above, and may be chronologically earlier
Room 20	1	Record of vessels	Room filled with over 100 ceramic vessels of various types
Room 23	14	Oil tablets	Oil storeroom
Room 32	3	Oil tablets	Oil storeroom
Rooms 38-41	12	Oil tablets	Tablets fell from above, where there was likely oil storage
Rooms 71-72	5	Fragmentary and unclear	Storeroom
Rooms 98-99	79	Personnel, livestock, bronze, textiles, wheels, skins, agricultural products, wine, bedding	Northeastern Building; clearinghouse for the introduction of materials from outside of the palace
SW Area	37	Textiles	Southwest Building: Handling of incoming and outgoing textiles from the palace

Table 6.2: Tablet deposits at the Palace of Nestor, Pylos

Tablets are found in nine different areas of the palace. However, an assemblage of more than 15 tablets is found only in three areas: the AC (Rooms 7-8), the Northeastern Building (Rooms 98-99), and the Southwestern Building (displaced tablets, probably associated with Room 65). Of these three areas, those from the SW Area are fairly unified by content. Shelmerdine has demonstrated that this area likely received certain types of textiles and managed their import, the quantities to be sent to the palace, and their distribution.<sup>533</sup> The other two areas have also received a fair amount of scholarly attention, and we are in a better position to discuss the position of each within Pylian tablet administration.

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<sup>533</sup> Shelmerdine 1998-1999.

The AC and the NE Building (NEB) are unique at Pylos, in that they both have material that matches the criteria for a tablet archive. As just mentioned, the AC appears to be the central archive for the palace. The NEB tablets have many features in common with the AC – several scribes, page-shaped tablets, variety of subjects – yet all these features are present in the NEB on a greatly reduced scale. There are only ca. 79 tablets, as opposed to the 700+ of the AC. There are seven scribal hands identified, compared with 26 identifiable in the AC. Four of the NEB scribes – Hands 12, 15, 21, and 26 – also write tablets found in the AC. There is further evidence that at least some transactions introduced into the NEB would be recorded on tablets that were stored in the AC. For example, Palaima has demonstrated that sealings found in the NEB that were used to seal shipments of wood rods suitable for axles and spear handles (Wr 1328, Wr 1329, Wr 1480) record descriptions of these rods that ultimately were transcribed onto tablet Vn 10, which was stored in the AC.<sup>534</sup>

The archival appearance of the tablets in the NEB, the connections of the NEB to the AC, and the raw materials present in the NEB, led Hofstra and Bendall to the conclusion that the NEB was not a workshop or tablet deposit, but rather a palace clearinghouse. That is, most commodities, transactional information, and shipments were delivered directly to the NEB from outside the palace. Incoming materials were processed here, and the NEB kept its own records at this initial level of palatial administration. Relevant economic information would then work its way up to the AC – the summit of central administration – where tablets or tablet series would be stored. We shall return to the AC-NEB relationship shortly.

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<sup>534</sup> Palaima 2000a, pp. 269ff.

## Comparison of Pylos tablet deposits to deposits at Knossos

Unfortunately, this picture of a strong central tablet repository with satellite workshop or bureaucratic deposits does not necessarily exist outside of Pylos. At Knossos, for example, there may be a centralized tablet storeroom in the NEP (as discussed earlier, p. 65), and the RCT may have been a central tablet storeroom as well. However, the NEP and RCT predate all other tablet deposits at Knossos, and so should not factor in to the discussion of a unified account of Knossos tablet administration in its final phase. All other tablet deposits are bureaucratic in nature, in which tablet deposits are more specialized.<sup>535</sup> Figure 6.6 shows the location of tablet deposits at Knossos. Table 5.3 outlines the tablet deposits at Knossos.<sup>536</sup>

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<sup>535</sup> By the term “central” I am referring to the idea that the NEP and RCT contained tablets that concerned work done in other areas of the palace and the Knossian kingdom. The tablets stored here represent the highest level of clay tablet administration. Compare this to “non-central” deposits, in which tablets of concern only to that particular bureau are stored. Scribal specialization and bureaucratization will be addressed shortly.

<sup>536</sup> These deposits were analyzed and summarized in detail in Shelmerdine 1988, pp. 345ff.

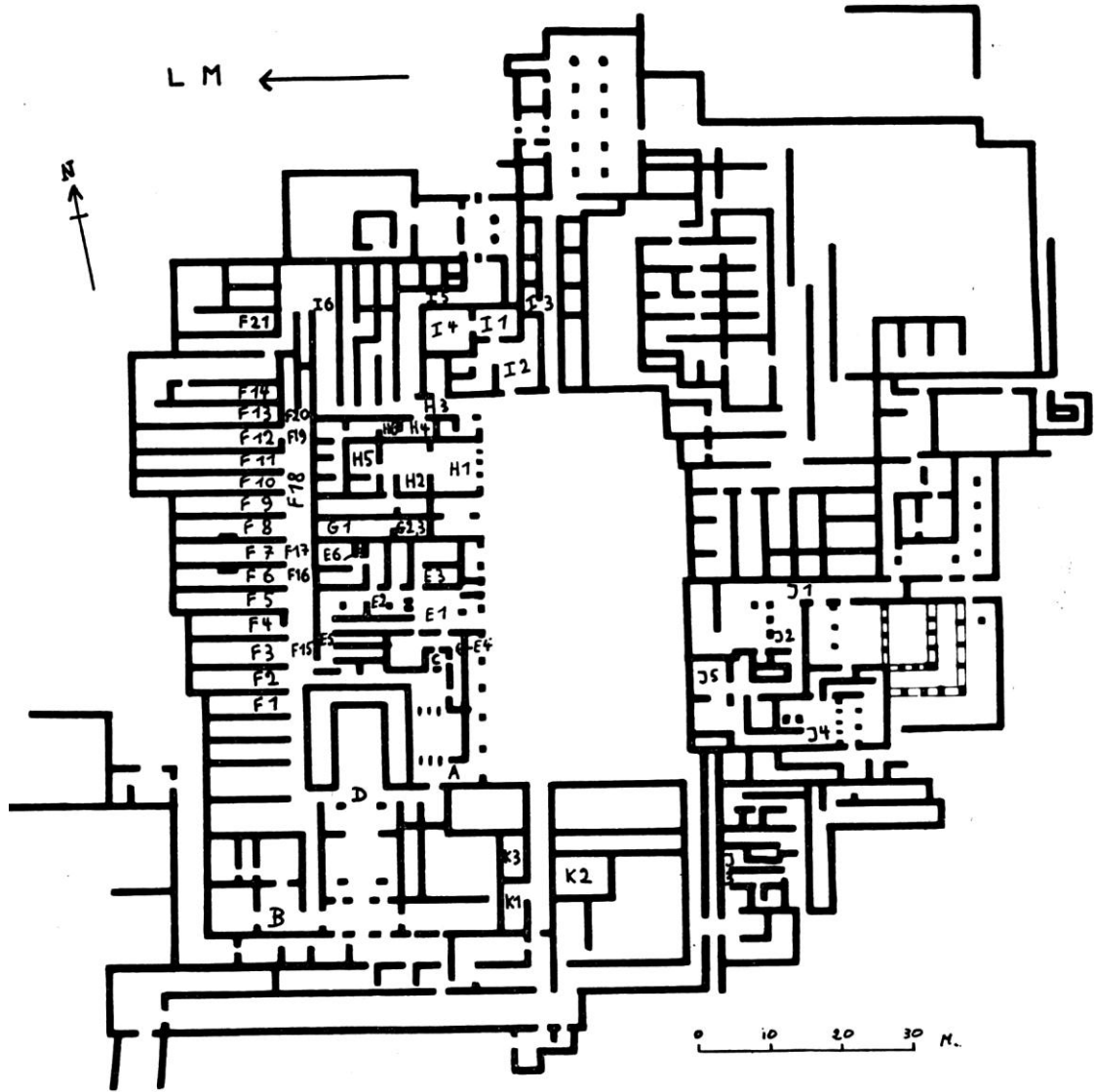


Figure 6.6: Palace of Knossos, with tablet deposits labeled (after Olivier 1967)

<b>Deposit Label</b>	<b>Description of Tablets</b>
Deposit C (RCT)	varied subjects: personnel, chariots, land tenure, agricultural products, livestock, vessels, cloth
Deposit E1	Oil tablets
Deposit F1, F2, F3, F15	Sheep tablets
Deposit E5, F3, F6-8, F15, F17, F18, G1, G2	Aromatics, spices, honey, offerings
Deposit F3-14, F16-19, F21, F2, E5	Textile tablets
Deposit I1, I2, I3 (NEP)	Personnel, cattle, sheep, agricultural products, vases, textiles, chariots, land tenure
Deposit J1, J4	Sheep tablets
Deposit J2, J3	Personnel tablets
Deposit L	Chariot, wheel tablets
Deposit I.4	Offering tablets
Deposit H1	Ingots
Deposit J3	Swords
Deposit J4	Spices

Table 6.3: Tablets deposits of the Palace of Knossos, as summarized in Shelmerdine 1988<sup>537</sup>

We can see in Table 6.3 that most tablet deposits at Knossos are concerned with a restricted sector of the palatial economy. Only the RCT and NEP exhibit characteristics of an archive, and both of these archives are earlier than the other tablet deposits. We should expect that the palace at Knossos would have had a central archive in its final phase, such as that at Pylos. There were tablet archives in LM II (RCT) and LM IIIA (NEP), and we should expect the administrative practice to continue into LM IIIB.

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<sup>537</sup> Tablet numbers are not provided for these deposits for two reasons. First, there is uncertainty about the find-spots of many Knossos tablets. In the case of smaller deposits, these uncertain tablets can skew the numbers significantly. The primary reason, however, is that the numbers are not revelatory at Knossos as they were at Pylos. I included the numbers with the Pylos material in order to demonstrate the intensive storage of tablets in the AC and the NEB, and to compare that with the small size of specialized deposits. At Knossos, however, the only archival deposits are the RCT and the NEP, both of which predate the specialized deposits, rendering relative quantities of tablets unimportant. The only thing we can attain from tablet numbers at Knossos is the relative size of specialized departments, which is unimportant for present purposes.

Likewise, the description of the archaeological context is less informative than at Pylos, as these tablets are all from secondary contexts. The column describing the description of the find area has thus been omitted.

Additionally, given that the Linear B tablets are all accounting documents, there must have been an administrator at Knossos who was ultimately responsible for accounting for the material wealth of the kingdom. If this administrator were making an assessment of the state of the kingdom, it would be administratively inefficient for him to have to visit eleven different specialized tablet deposit areas of the palace to accomplish a task that he would be able to achieve in a single visit to a central archive. It is possible that the LM IIIB central archive at Knossos did not survive the destruction, or was in an area of the palace – or just outside of the palace – that suffered more weather damage over the successive centuries, or perhaps it was entirely comprised of ephemeral materials. However, the presence or absence of a central archive is just speculation in the absence of any evidence. For this reason, the evidence from Knossos does not provide as complete a picture of palatial administration as that from Pylos.

Likewise at Thebes and Mycenae – the only other sites at which tablets have been found in any significant number – there appear to be numerous specialized areas in which tablets are found. The number of discrete deposits in which tablets are found at Mycenae and Thebes do not significantly differ from the number of deposits at Pylos,<sup>538</sup> but they are spread over a much greater area (see earlier Figures 4.6 and 4.9).<sup>539</sup> Our understanding of tablet deposits at all of the above-mentioned sites is affected by the differing states of archaeology recovery at these sites. At Mycenae, erosion obliterated all tablets that would have been found in the main palace building. At Thebes, because of

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<sup>538</sup> Roughly 13 tablet deposits are identified at Knossos. The number of deposits at Knossos is problematic, since most of the tablets fell from an upper story in the destruction of the palace. As the tablets fell from above, they often fell on opposite sides of several walls on the lower level. Thirteen deposits is a conservative estimate. There are roughly nine deposits at Mycenae. Pylos has roughly nine tablet deposits as well.

<sup>539</sup> It must be stressed that the lower town at Pylos has not been excavated. Based on analogy with tablet distribution at Mycenae and Thebes, we should expect there to be several specialized deposits in the lower town. For an idea of distribution of tablets at Thebes and Mycenae, the two tablet deposits furthest from one another at both sites are roughly 0.5 km. apart. The furthest tablet deposits at Pylos are nearly 100 m. apart.

the continuous settlement on the Kadmeia, later building projects likely destroyed much of the central palace. At Pylos, the lower town has not been excavated, and it is possible that we would see much more bureaucratization there. Nonetheless, we should probably anticipate regional differences. It is likely that varied administrative and geographical concerns would have been unique to each region and would therefore have accounted for distinctions.<sup>540</sup>

### **Scribal Specialization and Status at Pylos, with Comparison to Knossos**

Within the above-mentioned tablet deposits, there are varied numbers of scribes writing tablets. Some write tablets dealing only with one element within a single economic sphere, others are responsible for a broader range of activities within a single economic sphere, and still others are responsible for drafting tablets that concern several economic spheres. These scribes have been referred to as fully specialized, semi-specialized, and non-specialized, respectively.<sup>541</sup> Table 6.4 shows the numbers of scribes according to specialization, as presented in Shelmerdine 1999.<sup>542</sup>

	<b>Knossos</b>	<b>Pylos</b>
Fully specialized	44	6
Semi-specialized	14	6
Non-specialized	4	11

Table 6.4: Number of scribes at Knossos and Pylos, according to specialization

As is apparent in the above table, Shelmerdine notes that scribal specialization and bureaucratization is more standardized and regular among scribes at Knossos. With very few exceptions, Knossos scribes are confined to a single aspect of the economy, and

<sup>540</sup> Shelmerdine 1999 outlines these differences in detail, with a focus on settlement patterns, the rise of the state in each region, and modes of elite display.

<sup>541</sup> On this subject, see especially Shelmerdine 1988 and Shelmerdine 1999.

<sup>542</sup> Shelmerdine 1999, p. 565, Table 2. These numbers do not account for all identified scribes at each site, but rather only the scribes for whom a degree of specialization could be ascertained based on the surviving tablet evidence.

usually to a single action within that single aspect of the economy. These specialized scribes are responsible for tablets only in a single tablet series, and their tablets are almost always found within a single tablet deposit.<sup>543</sup> For example, Hand 121 is responsible for nine tablets. All nine of those tablets are from the Dq series, and are counts of sheep at various sites and under the authority of named individuals.

**KN Dq(1) 439**

.A da-\*22-to OVIS<sup>m</sup> 50  
 .B i-ti-nu-ri / o-re-te-wo o OVIS<sup>m</sup> 50

At *Dabinthos* 50 rams  
*Itinuri* deficit 50 rams, of the collector *Orestheus*

This layout is standard in all of the tablets written by Hand 121.

Analysis of scribal specialization proceeds in the same manner at Pylos. Twelve scribes are either fully specialized or semi-specialized, in that all of their tablet output involves a single sphere of the economy. Curiously at Pylos, nearly the same number of scribes are non-specialized as are semi- and fully specialized. Eleven scribes are characterized as non-specialized. The scribes and their tablet output are listed in Table 6.5.

Scribe	Number of tablets
Hand 1	237
Hand 2	87
Hand 3	15
Hand 4	16
Hand 11	2
Hand 13	14
Hand 15	23
Hand 21	70
Hand 41	109
Hand 42	19
Hand 43	70

Table 6.5: Non-specialized scribes at Pylos

<sup>543</sup> Only six scribes have tablets in more than one deposit. See Shelmerdine 1988, pp. 359-360.



Several of these scribes are evidenced to be only slightly non-specialized, in that they are responsible for only a single tablet outside of an otherwise specialized group. These scribes are Hands 4, 13, 15, 41, and 42.<sup>544</sup> Nonetheless, they all inscribe at least one tablet in more than one sphere of the economy, which is sufficient to label them as non-specialized. The difficulty lies in the interpretation of non-specialized scribal output. One could argue that a non-specialized scribe is of higher status because he oversees several aspects of the economy. Alternatively, one could suggest that a scribe that writes tablets in a number of areas is of lower status, since he is doing the menial labor of recording for more important administrators as he is needed (if one assumes that the act of writing is menial labor). One could also propose that a non-specialized scribe is from a proper scribal class – that is, he is tasked with writing for whomever is in need of a professional writer, as was the case in medieval England. All options are possible and, as we shall see, likely coexist at the same time.

In order to better assess the status of these non-specialized scribes, we cannot rely on the numbers of tablets alone. Additional contextual cues will help us account for the lack of specialization by each individual scribe. For example, as previously mentioned (p. 69ff.), Hands 1 and 2 are responsible for a substantial number of tablets in several arenas of the economy, and so they are considered non-specialized. They also correct and re-transcribe the work of other scribes, and have a significant presence in the AC. These additional attributes suggest that they are scribes of the highest status at Pylos, and in this context their non-specialization can be taken as an indicator of their high status. The same cannot be said for most other scribes on this list, so we might expect that their lack of specialization is due to different reasons altogether.

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<sup>544</sup> Shelmerdine 1988, p. 360.

It should be noted that patterns of specialization can be found at Thebes and Mycenae as well. However, without greater context afforded by a broader picture of Mycenaean tablet administration, we are not in a position to assess the significance of specialization at these sites. We have only a poor representation of administrative hierarchy, so at these sites we are in a poor position to assess the relative status of scribes and their broader role in administration. Likewise, at Knossos we have only specialized bureaus in the LM IIIB period. This pattern of distinct tablet deposits with little overlap between scribes makes it difficult to suggest much administrative hierarchy beyond what has already been discussed in Chapter 2 regarding the relative status of scribes exhibiting similar paleography (see p. 72ff.). Additionally, we cannot be sure that there would not have been a central archive at Knossos, which could serve to unify these disparate bureaus and provide a nucleus from which to analyze scribal hierarchy. Accordingly, we will limit discussion of the role and status of Mycenaean scribes as evidenced by the tablets to the scribes of Pylos.

Beyond Hands 1 and 2 at Pylos, we can also address the status of one other scribe. Hand 21 is responsible for 70 tablets at Pylos. He records personnel, livestock, and bronze. Four of his tablets – all leaf-shaped tablets of the Cc series, with two listing goats and two listing sheep – were found in the NE Building. The rest of his tablets were found in the AC. Hand 21 appears to have a special relationship with Hands 1 and 2.<sup>545</sup> He writes page-shaped livestock tablets of the Cn series along with Hand 1. Hand 21 and Hand 1 are both responsible for writing two of the Cn tablets. On Cn 599, Hand 1 writes line 8 – the last line on the tablet. On Cn 655, Hand 21 writes the first two lines and Hand 1 writes the rest of the twenty total lines. Hand 21 also writes several of the page-shaped Jn tablets, which were in the process of being reordered and rewritten by Hand 2

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<sup>545</sup> Discussed in Palaima 1988, pp. 84-85. Also detailed in Kyriakidis and Pluta 2001.

(see p. 69). Additionally, he writes the entire Ab series recording rations for women workers. As noted earlier (p. 19ff.), the Ab series parallels the Aa and Ad series. The Aa series was also recorded by Hand 1. Finally, Hand 21 writes the two Aq tablets, Aq 64 and Aq 218, which record men and the ideogram *ZE*, but also include vocabulary that may be related to landholding.<sup>546</sup> Eleven names from these two tablets also occur on a unified set of five personnel tablets written by Hand 1.<sup>547</sup> Furthermore, Palaima notes that Hand 21 is not geographically specialized.<sup>548</sup> Therefore, it would seem, on the basis of his working relationships, the variety of subjects addressed, and the lack of regional specialization, that Hand 21 is best defined by his close relationship with Hands 1 and 2. The corrections to both his Cn tablet and Jn tablets would suggest that his role is subordinate to those of Hand 1 and 2. Combined with the fact that he is responsible for page-shaped tablets – which represent a final clay archival document – and is involved in a variety of subjects, it would seem that Hand 21 is of a high status as well, albeit lesser than that of Hands 1 and 2. His Cc tablets in the NE Building indicate a working connection with that area of the palace. We shall explore this relationship further in the discussion of scribal status.

Administration and scribal hierarchy is critical in understanding Mycenaean literacy and the use of writing. To this end, we must understand who was doing the writing in Mycenaean Greece, and what status they held within the administration. This information is best gleaned from the tablet evidence, as it our most abundant source of information on both economy and on the individuals who wrote them. While the focus of this chapter is the Linear B tablets, it is through the vehicle of the tablets that we are most capable of understanding who the writers were.

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<sup>546</sup> Palaima 1988, p. 83.

<sup>547</sup> See Nakassis 2006, pp. 218ff.

<sup>548</sup> Palaima 1988, p. 85.

## **THE MYCENAEAN SCRIBES AS EVIDENCED BY THE TABLETS**

In the present work, we cannot hope to account for all scribal and administrative differences between sites – or the hierarchy of all scribes within a single site – nor is that necessary for present purposes. Our inquiry is concerned with literacy and the use of writing, and we shall examine Mycenaean administration only as necessary. As Baines eloquently observed regarding the study of literacy and use of writing, “the first question to ask is not so much what function writing had in the wider society, but who it served at the center and how it contributed to patterns of social inequality and access to symbolic resources, including those of administration, in early states.”<sup>549</sup> To this end, we must refocus on those who actually made use of the technology of writing, and consider who these individuals were.

In an effort to fully explore the roles of Mycenaean scribes beyond the examples above, we would be well-served by examining parallels and models in other societies. The Near East and Egypt are frequently looked to as models. They are contemporary civilizations, they make use of scribes for recording administrative information, and they are geographically close. As noted in the previous chapter (p. 184), we might also turn our attention to England in the years following the Norman Conquest. Before examining potential models for the activities of literate officials in the Mycenaean economy, we should first consider the application of the title ‘scribe’ for the creators of Linear B texts.

### **The Invention of Titles for Mycenaean Offices**

It has been an unfortunate burden – but likely unavoidable – for Mycenologists and Bronze Age archaeologists to have been saddled with the term ‘scribe’ to label their

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<sup>549</sup> Baines 2004, p. 184-185. I would disagree only slightly with the statement, since it is difficult to understand who writing served without understanding the administration in which it is put to use. Rather, the two mutually inform one another. The questions should be asked, and answers explored, simultaneously.

literate officials. Admittedly, it makes good sense that this label was applied. In both contemporary Egypt and the Near East, surviving texts make frequent mention of scribes. In Ancient Egypt, there are textual descriptions of scribes and scribal practices, and even statues of scribes that are labeled as such.<sup>550</sup> Likewise in the ancient Near East – a region which is used frequently as a model and parallel to Mycenaean administrative practices – scribes are often mentioned in the texts. Not only are scribes named by function in the tablets, but there are also narrative descriptions of scribal training practices.<sup>551</sup> The use of the term ‘scribe’ in the Near East stems from the translation of the Sumerian term *dub-sar*, which literally means ‘tablet writer.’<sup>552</sup> This term shows up frequently in Near Eastern texts, with over 1500 scribes known from the Ur III period (2112-2004 BC).<sup>553</sup>

The term ‘scribe’ is chiefly problematic in Mycenaean studies because of its long history in the English language. Medieval scribes were purely of a professional scribal class. That is, there were other literate officials, but those that did the recording and transcribing professionally were the only ones to be designated as ‘scribes.’<sup>554</sup> They were associated with monasteries and performed the duty of transcribing texts for broader dissemination. In Norman England, they were brought in to the secular sphere to aid with administration. The scribes in these instances were silent officials, who merely transcribed the transactions described to them by administrators.<sup>555</sup>

In the Near East, despite being categorized as scribes, these literate individuals often had titles as well, including perfume maker, herdsman, sailor, recorder, and mayor.<sup>556</sup> The title *dub-sar* would seem to be a title of convenience that simply indicates

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<sup>550</sup> For a brief overview, see Williams 1972.

<sup>551</sup> See Tinney 1998.

<sup>552</sup> Michalowski 1987, p. 62.

<sup>553</sup> *ibid.*

<sup>554</sup> See Clanchy 1979 for a detailed discussion of scribes in Norman England.

<sup>555</sup> See Fitz Nigel 1983 for a discussion of the role of scribes in administration.

<sup>556</sup> Michalowski 1987, p. 62.

an official who has the ability to write tablets, is required to do so in his professional capacity, and belongs to an administrative status that allows him to be engaged in the practice of writing official documents. As noted in Chapter 3, the training that these literate officials received in the Near East indicated a high social status, and served to reinforce their loyalty to the king and his palatial officials.

It has been noted that in the Linear B texts, there is no word for ‘scribe.’<sup>557</sup> It has been applied merely as a matter of convenience.<sup>558</sup> Linear B tablets were first unearthed by Evans at Knossos in 1900, but were not deciphered until 1952. For over 50 years, the tablets were studied with only an understanding of some ideograms and the numerical system. The Mycenaean authors and their functions and duties beyond the tablets were virtually unknown. Given the modern focus on writing, and the lack of understanding of Linear B administration, the use of the term ‘scribe’ seems to have been a logical and suitable description of the individuals responsible for writing these texts. Surely it is easier to talk about scribes rather than using a cumbersome term such as ‘literate administrators’ *vel sim.*

Unfortunately, there are some negative consequences that come with the adoption of the term ‘scribe’ in Mycenaeanology. First is the above-noted association of the term ‘scribe’ with the idea of a professional writer who writes documents for administrative officials as they are needed. That is, they are not administrators who are engaged in the work that they transcribe. A true ‘scribe’ who writes a tablet concerning livestock being brought to the palace does not necessarily know anything about the transaction, livestock in general, the people involved, or the administrative steps that led to the tablet being created. All of those administrative details would be the responsibility of the official for whom the scribe is working. For this reason, a true scribe could be employed to write

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<sup>557</sup> Palaima 2003, p. 153.

<sup>558</sup> On the subject of Linear B scribes, see the thorough treatment in Palaima forthcoming.

texts on any subject for any administrator, since the only requirement for such activity would be that he can write. Non-specialization is therefore a possible feature of any administration that makes use of a professional scribal class. Of course, not all professional scribes would have to be non-specialized. It may be preferable to employ scribes within a single sphere of the administration. The specialization of terminology and preferences regarding the layout of information on the texts in different bureaus might encourage scribal specialization. As an analogy, contemporary administrative assistants can work in many different spheres as long as they have the requisite skill set. However, there are still specialized administrative assistants – particularly in the legal and medical fields – where a more detailed knowledge of the field is preferable, given the specialized language and greater need for a high level of accuracy. That being said, in other professional arenas outside of these areas of specialization, there are assistants working in so-called typing or secretarial pools, who perform clerical and administrative tasks for any executive in need of such assistance. Even in the case of professional scribes non-specialization can exist alongside of full specialization.

In the Mycenaean world, the evidence seems to support the proposal that at least not all scribes are of a professional class, but rather are literate officials.<sup>559</sup> One of the chief arguments for scribes being more than just professional writers is that the tablets occur in such small numbers. For example, at Pylos fewer than 20 tablets each have been written by Hands 3, 4, 6, 11, 12, 13, 22, 24, 25, 31, 32, 33, 34, 42, and 45. Several of these scribes are responsible for only two or three tablets. If these scribal hands do not perform the work required to assemble the information recorded in the tablets, but rather record what they are told by another administrator, then they would likely have a great

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<sup>559</sup> Scribes as officials have been addressed in detail in Bennet 2001. Also Kyriakidis 1996-1997, pp. 219ff.

deal of free time.<sup>560</sup> It seems unlikely that so many scribes would be put through the rigor of learning how to write in the service of Mycenaean administration only to write a couple of tablets per year.<sup>561</sup> If we are still to consider the existence of a professional scribal class we would have to suggest either that (1) some of the scribal hands mentioned above were not professional scribes but were literate officials that only occasionally had to write up a document, and therefore literate officials and professional scribes coexisted at Mycenaean sites, or (2) we are missing substantial portions of each scribe's written output either because they did not survive the destruction, they were on ephemeral materials, or the bulk of their records were kept at an as-yet unexcavated site. As noted earlier (p. 198), there is some evidence for records on ephemeral materials, particularly in the use of the term *we-te-i-we-te-i*, or "year-by-year." However, there is no evidence for extensive use of ephemeral materials. It is unlikely that they could account for such an increase in the written output of all of these scribes. The latter option, therefore, seems like special pleading.

If there were professional scribes in the Mycenaean world, we should expect that they coexisted alongside of literate officials. Shelmerdine acknowledges the possibility of professional scribes at Pylos on the basis of the number of non-specialized scribes present (11 non-specialized, as opposed to 12 fully- and semi- specialized).<sup>562</sup> As noted earlier, the lack of specialization indicates activity in multiple economic spheres, which is what we would expect of a professional scribe. Similarly, Palaima argues that some 'scribes' should be considered literate officials of high status, but argues that several scribes exhibit characteristics of a scribal class. Not only do they function in diverse

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<sup>560</sup> It has been estimated that the tablets at Pylos represent between two and five months of work (Palaima 2003, p. 177).

<sup>561</sup> Of course, many more tablets could have been written during these months but were pulped when no longer needed. Even so, we still must assume that in the creation of the tablets, these scribes were involved in administrative procedures that extended beyond the act of writing.

<sup>562</sup> Shelmerdine 1999, p. 565.



economic spheres, but they are also not restricted in the geographic focus of their tablets.<sup>563</sup>

Most notable for lack of specialization are Hands 1 and 2. Hand 1 has already been discussed in detail, and would appear to be the ‘archivist,’ or literate official in charge of all written information. Hand 2, with whom Hand 1 works in the AC, is a slightly different case. He corrects the tablets of Hand 21 in the Jn series, writes taxation tablets in the Ma series, writes a series of oil tablets, and records an inventory of furniture in the Ta series. Of special interest here is the header for the Ta tablets.

#### **PY Ta 711**

- .1 o-wi-de , pu<sub>2</sub>-ke-qi-ri , o-te , wa-na-ka , te-ke , au-ke-wa , da-mo-ko-ro
- .2 qe-ra-na , wa-na-se-wi-ja , qo-u-ka-ra , ko-ki-re-ja \*204<sup>VAS</sup> 1 qe-ra-na , a-mo-te-wi-ja , ko-ro-no-we-sa
- .3 qe-ra-na , wa-na-se-wi-ja , ku-na-ja , qo-u-ka-ra 1 , to-qi-de-we-sa \*204<sup>VAS</sup> 1

Thus *Phugebris* saw when the wanax appointed *Augewas* as *damokoro*...

In the following lines and on later Ta tablets, Hand 2 records vessels, chairs, footstools, and tables with elaborate description. This series is unusual because of the amount of descriptive detail that went in to each entry. There is not the normal order and symmetry that we have come to expect from Linear B tablets. Chiefly for this reason, Palaima has suggested that these tablets were written by Hand 2 while following an official named *Phugebris* through an inventory of vessels and furniture.<sup>564</sup> The official stopped at each object and described it to the best of his ability to ensure that each item could be matched up with a tablet entry, and Hand 2 recorded the information as he spoke. In this instance, either Hand 2 is acting very much like a professional scribe, or we have to say that he is *Phugebris*. This is the only mention of the name *pu<sub>2</sub>-ke-qi-ri*, which offers little support for associating this name with Hand 2. In this instance we have the best evidence for a ‘scribe’ acting as a scribe.

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<sup>563</sup> Palaima 2003, p. 176.

<sup>564</sup> Palaima 2000b.

However, the role of Hand 2 is slightly more complicated. Hand 2 is a close associate of Hand 1, and both would seem to be of high administrative status. As noted previously (p. 198), there is evidence to suggest that the sealings in the AC (Cat. nos. 20 and 21) that were impressed by look-alike gold signet rings would have been the property of Hands 1 and 2. These possessions would also suggest a high status for both scribes. Furthermore, the Jn tablets indicate that Hand 2 was senior to Hand 21, a scribe who also appears to be of high administrative status. Hand 2 does not seem to be exclusively a professional scribe, but may just function as one in situations that warrant such activity. For example, perhaps Phugebris is a religious official who is not regularly involved with economic administration – and the fact that his name occurs nowhere else at Pylos supports this proposal – and so he is either not literate or not versed in the manufacture of tablets. However, he is in charge of heirloom feasting furniture, and the palace requires a record of these material goods. A literate palace official is therefore required to accompany Phugebris in this inventory. We could suggest either that this inventory falls within the economic sphere that Hand 2 manages, or that only a scribe of the central archive would be considered sufficiently well versed to address a non-standard inventory such as this, and therefore Hand 2 was sent to perform the task. We shall address the idea of non-specialized scribes in more detail later.

The second problem associated with the use of the term ‘scribe’ is the fact that this term levels out all literate officials at the palace.<sup>565</sup> By this title, logically they are all perceived as scribes or writers. We can still consider relative status between them, with the existence of higher-status scribes, fully specialized scribes, and scribes responsible for only a few tablets, but we still conceptually think of these individuals as a group. This is not entirely a bad thing. In the RCT at Knossos, for example, the palaeography of

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<sup>565</sup> As I will discuss momentarily, this can also be a positive feature.

the scribes is so uniform that we can see that they were in fact treated as a group. Conceptually, they actually were unified by their ability to write. The downside to this grouping is that our assessment of scribes consequently can be somewhat reductive. Regardless of their function, we first define them by their ability to write. Such leveling might cause us to miss real issues of administrative hierarchy and palatial organization. Perhaps there is no word for ‘scribe’ in Mycenaean because they did not perceive themselves as such.<sup>566</sup>

We can also see the negative effects of a convenient term at play in another Mycenological term of convenience: ‘collector.’ Just like the term ‘scribe,’ this title also occurs nowhere in Linear B, but rather was coined by Mycenologists. On several tablets of the Cn series, which record quantities of livestock, animals are often recorded as being in the *a-ko-ra*, or ‘collection’ of a named administrator.<sup>567</sup>

**PY Cn 453**

.a ka-pe-se-wa-o , wo-wo , pa-ro[ ]ne , a-ko-so-ta-o , a-ko-ra 46 CAPf

[In] the boundary of *Skapseus*, with [personal name], collection of *Akosota* 46 female goats

In the above example of Cn 453, the region is described as the territory of a man Skepseus, the shepherd in charge of the flocks is [ ]ne, and the ‘collector’ is *Akosota*.<sup>568</sup> These administrators – of which there are four at Pylos – have been called ‘collectors’ because of the term ‘collection’ or the use of the verb *a-ke-re*, “collects.”<sup>569</sup> Just like the scribes, they are never actually called collectors in the tablets. Because of the large number of animals counted in their collections – 3892 goats and sheep are counted in the

<sup>566</sup> It should be noted that titles are uncommon in the Linear B texts. Personal names are preferred.

<sup>567</sup> Collectors occur at Knossos as well, with a slightly varied interpretation. Because of the present focus on Pylos in the current section, we will confine our discussion of collectors to this region.

<sup>568</sup> For a detailed discussion of collectors, particularly at Pylos, see Carlier 1992 and Godart 1992. Also Bennet 1992.

<sup>569</sup> For a recent and thorough summary of work on the subject, and prosopographical analysis of the named collectors at Pylos, see Nakassis 2006, pp. 60-64, 328-340.

collections of the four collectors at Pylos – the high status of these individuals is assured. The general consensus is that these individuals are very close to the king, and have been granted management of these animals by the king. That is, they are not the outright owners of these animals, but manage them for the kingdom and therefore can profit from their ownership outside of their responsibilities to the palace.<sup>570</sup>

However, as Nakassis has noted, when their presence in other tablets is examined, it is clear that in terms of administrative function, these individuals are dissimilar to one another. The four collectors are named *Akeo*, *Akosota*, *Apimede*, and *Wedaneu*. Outside of their control of animals, the manner in which these four individuals are represented in the Linear B tablets indicates that they otherwise have little in common. On other tablets from Pylos, *Akeo* receives textiles. *Akosota* oversees landholding, receives beds, provides aromatics, and is named on a tablet listing ivory.<sup>571</sup> *Apimede* is also a landholder. He holds another title, that of ‘follower’ (*hequetas*). The Followers are believed to have formed the court of the king, *inter alia*.<sup>572</sup> Finally, *Wedaneu* provides flax to the palace, provides rowers, and possesses land. From this brief summary of collector prosopography, it is apparent that these individuals have only the artificial title of “collector” in common with one another. Just as with the title ‘scribe,’ the use of the term ‘collector’ has advantages and disadvantages. On the one hand, it allows us to see these individuals as a unit – as surely they are in this context – which we would otherwise not understand, and an opportunity for understanding Mycenaean administration would be lost. On the other hand, the term is also reductive and could lead to a two-dimensional study of the role of ‘collector,’ as well as of the individuals listed as ‘collectors.’ Only through diligent analysis of all facets of these individuals as represented in the texts can

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<sup>570</sup> Nakassis *op.cit.* Bennet 1992 also provides a summary of the assessment of collectors as determined by Carlier, Godart, Driessen and Bennet on the basis of their presentations at the Mykenaiika conference.

<sup>571</sup> Eq 213, Pn 30, Un 267, Va 482.

<sup>572</sup> Again for summary, see Nakassis 2006, pp. 57ff.

we understand their roles in the Mycenaean elite. The same goes for the scribes themselves. While all are literate officials – and so are conveniently bound by the title ‘scribe’ – their respective corpora of documents indicate different levels of status and administrative responsibility. As I shall argue, the status of several important scribes appears to be obscured by the use of the term ‘scribe.’

### **Norman England as a Model for Mycenaean Use of Writing**

In order to resolve these issues regarding the scribes, their roles in the palace, and their respective status, we would do well to look elsewhere for models and parallels. As mentioned earlier, the administrative system in place in Norman England appears to be similar in many respects to the Mycenaean system. The *Dialogus de Scaccario*, or *Course of the Exchequer* (henceforth referred to as *Dialogus*), is a detailed record of how the central administration processed the material wealth of the kingdom in the late 12<sup>th</sup> century. The text was written by Robert Fitz Neal, the Treasurer of Henry II. This treatise is virtually unique in terms of the meticulous detail with which it describes these mundane administrative processes.<sup>573</sup> Several points of Norman-Mycenaean similarity can be noted, which will be discussed in detail below. Common features of both administrations include the focus on the wealth of the kingdom, division of capital districts, the importation of literate administration where previously administration had been non-literate, reception and processing of wealth/goods at the palace, and mention of judicial matters and administrative exceptions including land disputes, manslaughter, and exceptions for the guardians of the coast.

Before engaging this text as a point of comparison, we should address its viability as a model. Near Eastern models that are contemporary with the Mycenaean have generally been preferred, as aspects of their economy and some elements of their tablet

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<sup>573</sup> Only modern descriptions of archival practices rival its detail.

record-keeping strategies appear to be similar.<sup>574</sup> With regards to Norman-Mycenaean comparisons, there are significant points of distinction between the two societies. First and foremost is that Norman England operated in a monetary economy. Assessments, fines, taxes, and payments were all received and distributed in coinage. This means that the entirety of the material wealth used in the administration of the kingdom could be stored in one place. This is hardly true in Mycenaean Greece. Livestock, agricultural products, and other commodities would all have to be processed, stored, and distributed in a different manner. This distinction between the two administrations does not preclude the use of Norman England as a model, but rather needs to be accounted for when comparing the two systems.

The timing of the administrative accounts in the *Dialogus* is also distinctive and probably dissimilar to what we see in the Linear B texts. The full accounting of the material wealth of the kingdom took place only two times per year.<sup>575</sup> At those two times, all administrative officials in charge of aspects of the palatial economy would present their payments and records to the officials that comprised the Exchequer. In the United States, our central administration reckons accounts once a year on April 15<sup>th</sup> for private individuals. This efficient approach to accounting for the state's wealth is possible in a monetary economy. Organizationally, the Exchequer was also able to handle accounts strictly on a county-by-county basis. That is, all records were organized according to individual second-order centers. In contrast, when a state must account for its wealth by dealing directly with animals, agriculture, and personnel, timing and organization cannot be so constrained. Certain crops are harvested at different times of year and are likely coming from different regions, personnel and livestock are needed

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<sup>574</sup> For a recent discussion, see Killen 2008.

<sup>575</sup> Of course, payments and expenses entered and left the system regularly throughout the year. Writs were issued to cover all of these transactions. Twice a year, these writs were totaled and accounted for along with the remainder of the accounts, which we will discuss shortly.

sometimes on an *ad hoc* basis and are coming from and going to different centers. In the Mycenaean world, accounting for various aspects of the kingdom's wealth must have been a year-round activity, and could not be organized according to region. Acquiring and then writing up the information on these tablets would have been time consuming on its own. We cannot hope that we have exactly one year's worth of records in the AC with rigid and standardized organization of information.

Also of concern is the type of economy operating in both systems. Norman England operated under a feudal economy, in which the king granted plots of his land to those in his service. These men then acted as local elites, who could in turn grant plots from this land to their subordinates. All plots owed taxes to the king, but could otherwise be exploited by those in charge of the plot however they saw fit.<sup>576</sup> For administrative purposes, these plots of land were organized into *counties* or *shires*, which served as second-order centers.<sup>577</sup> Counties were often controlled by Earls or Counts appointed by the king.<sup>578</sup> In every county, the *sheriff* was responsible for administering the king's farm – from which the sheriff received his profits after taxation – as well as the land of lesser tenants on those farms. Counties were subdivided into *hundreds*. Hundreds were subdivided into *hides*, which were initially units of 120 acres. In this way, we may see four levels of administration: kingdom, county, hundred, hide. We should now examine the suitability of the feudal model for comparison to the Mycenaean administration of economy.

### **Mycenaean Economy**

In order to ascertain the information listed on the tablets, the status of scribes, and the possible external sources for comparanda, we must at least understand the basic

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<sup>576</sup> For a detailed discussion of feudal society, see Bloch 1989.

<sup>577</sup> See Fitz Nigel 1983 pp. 62ff for a discussion of administrative units of land.

<sup>578</sup> Not every county had an Earl but merely had a sheriff to manage the king's land in the territory.

structure of Mycenaean economy and how the tablets fit into the management of that economy. Our understanding of Mycenaean economy has changed dramatically within the last decade or so. Until recently, the economy of the Bronze Age Greek mainland was always described as redistributive.<sup>579</sup> That is, raw materials and natural resources were collected from lower-order centers, gathered at the palace for counting, and then they were rationed back to the lower-order centers. After rationing, the remainder of the goods stayed at the palace. In this way, the king or *wanax* attained his personal wealth and resources for maintaining his kingdom. Control of the economy was considered highly centralized, with the palace exerting almost total control over the output of its territories and subject states.

This perception of the Mycenaean economy has been challenged recently in the work of Nakassis, Parkinson, and Galaty.<sup>580</sup> They suggest that Mycenaean economy was only partially redistributive. Rather, there were several spheres mostly outside of palatial economic control, such as ceramic production. The Mycenaean palatial economy could be called both selective in terms of the spheres that it chose to control<sup>581</sup> as well as limited in terms of the geographical extent of intensive administrative control. That is, the major centers are represented in several spheres of the economy, while other toponyms often occur only once.<sup>582</sup> As an example, let us consider the second-order center *a-pu<sub>2</sub>*. The site occurs on seven tablets: a wine tablet (Vn 20), a tablet on which five men are listed as temple attendants (An 427) – *da-ko-ro*, or ζακόροι – a tablet listing

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<sup>579</sup> For a thorough discussion of redistributive aspects of Mycenaean economy, see Killen 1988. See also Killen 2008.

<sup>580</sup> See especially Nakassis *et al.* 2010 and Nakassis *et al.* 2011.

<sup>581</sup> Nakassis *et al.* 2010, p. 245, note the intensive control of perfumed oil production and bronze as examples of selectivity.

<sup>582</sup> By this, I mean that other toponyms are represented with far less frequency. There were many place names other than the sixteen regional capitals in the Pylos texts. Bennet estimates the total at ca. 220 (see Bennet 2001, p. 32 n. 44). Bennet also cites Lang's assessment that at least 80 of these place names occur in only one sphere of the economy (Bennet 2001, p. 32).



pigs (Cn 608), two tablets concerning bronze (Jn 693, Jn 829), a taxation tablet (Ma 124), and a tablet listing ideogram \*189 (Qa 1294). On five of these tablets – Vn 20, Cn 608, Jn 693, Jn 829, and Ma 124 – *a-pu<sub>2</sub>* is listed alongside of several other second-order centers. On An 427, the site is listed alongside two other second-order centers and two lower-order centers. On Qa 1294, *a-pu<sub>2</sub>* is listed as the location of a person named *pu-ti-ja*. In the majority of these tablets, then, the palace is dealing with *a-pu<sub>2</sub>* as a subordinate administrative unit, as opposed to dealing with people who happened to be located at *a-pu<sub>2</sub>*. The palatial focus on major centers is greater than on smaller, lower-order centers. We should not expect that the palace was in control of all aspects of the economy everywhere. To this end we might also consider the quantities in which the second-order centers are being taxed. In the Ma taxation tablets, for example, one of the commodities involved is oxhides. The site of *pi*-\*82, which is the most heavily taxed, must contribute 22 oxhides to the palace. This amounts to fewer than two per month over the course of a full year. Given these small numbers, lower-order centers would be of insufficient scale to concern the palace.

### **Mycenaean Economy *versus* Norman Feudalism**

In his original treatment of Mycenaean economy, Killen raised objections to classifying the situation in Mycenaean Greece as feudalism.<sup>583</sup> In his recent revision of his original article on Mycenaean economy, Killen has omitted this section.<sup>584</sup> We might surmise that he no longer objects to such an assessment. Nonetheless, the original objections serve as a logical starting point from which to assess the evidence. The primary objection was that a feudal economy implies powerful local chieftains who

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<sup>583</sup> He did not explicitly object to the use of a feudal model for understanding Mycenaean administration, however. See Killen 1988, p. 260.

<sup>584</sup> Killen 2008.

dictate the levels of their contributions to the central authority, yet these local chieftains are not evident in the Linear B texts. Furthermore, Killen argued:

“[If it] were local ‘barons’ that collected the taxes, we should presumably expect to find in the records of taxation notes of how much in particular areas powerful local chieftains had seen fit to contribute to the centre, but no details provided of how, within these districts, those taxes had been acquired...Not only do [the Mycenaean taxation records] contain no mention of powerful local chieftains (as distinct from local representatives of the centre): they provide clear evidence for an interest by the centre in the detailed breakdown of contributors and contributions.

He preferred so-called ‘classical’ bureaucracies with a strong center and a non-market economy. Feudal society presents too great a “fragmentation of authority,” with land being granted by local chieftains rather than the king himself. In light of the recent analyses by Nakassis, Parkinson, and Galaty, however, we could argue that local chieftains do not appear in the texts because when they offered parcels of their own land to subordinates – land that wasn’t deemed a palatial possession – the palace is not concerned. It is a matter that falls outside of the central administrative purview.<sup>585</sup> We might characterize the contents of the Linear B tablets as records of the material wealth of the kingdom – as well as related elements that affect the wealth of the kingdom (most notably the records of the status of certain workgroups, such as the bronzesmiths, for whom tax exemptions are offered – which is used explicitly in the maintenance of the affairs of the state. If we return to the collectors and their livestock, for example, it is understood that those collectors will benefit and profit from the livestock they tend on behalf of the palace. The palace, however, is concerned only with its due from the herd.

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<sup>585</sup> I assume that these new assessments of a less authoritative center are the reason why this section was removed from Killen’s 2008 revision.

We find one other minor similarity between feudalism and the Mycenaean economy in the En/Eo series tablets at Pylos.<sup>586</sup> The Eo tablets, written by Hand 41, record landholdings in a well-organized fashion.

**PY Eo 160**

- |    |   |                  |           |
|----|---|------------------|-----------|
| .1 | pi-ke-re-wo , ko-to-na , ki-ti-me-na  | to-so-de , pe-mo | GRA 2 T 6 |
| .2 | a <sub>3</sub> -wa-ja , te-o-jo , do-e-ra , e-ke-qe , o-na-to , pa-ro , pi-ke-re-we |                  | GRA T 1   |
| .A |   | pi-ke-ṛe-we      |           |
| .3 | ]pe-ki-ta , ka-na-pe-u , wa-na-ka-te-ro e-ke-qe , o-na-to , pa-ṛo                   |                  | GRA T 2   |
| .4 | ko-ri-]ši-ja , te-o-jo , do-e-ra , e-ke-qe , o-na-to , pa-ro , pi-ke-re-we          |                  | GRA T 5   |

In this tablet, the first line records the total landholding of Pikreus. The plot of land is of such size that it would take GRA 2 T 6 units of seed-grain to sow (249.6 liters). The landholdings listed below are subplots of Pikreus' land that are managed by others.<sup>587</sup> The other tablets of the Eo series follow the same pattern. This picture of landholding is similar to that of feudalism, but with a few key distinctions. First, if this were a conventionally feudal relationship, then the palace should be concerned only with the original plot owned by Pikreus. If he granted plots to others using his own discretion, then his profit from those arrangements should be his own concern and should not affect his standard rate of taxation for the whole plot by the palace.<sup>588</sup> Additionally, the E-series landholding texts at Pylos do not cover the entire kingdom. Rather, as they survive, they address landholdings in areas very close to the palace at Pylos.<sup>589</sup> These records may be devoted to the administration of the territory of the palace as a settlement, as opposed to the administration of the entire kingdom. If this is an accurate picture of Mycenaean administration, then these landholdings may have been decided by the palace as opposed to Pikreus himself. That would help to explain why the palace is concerned

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<sup>586</sup> The En and Eo series present virtually the same information but in a different layout.

<sup>587</sup> For a detailed discussion of this series, see Bennett 1956.

<sup>588</sup> One could argue that the landholdings in lines .2-.4 are presented as a means of demonstrating some sort of exemption to the palace.

<sup>589</sup> Killen 2008, pp. 166-167.

with secondary plottolders and the type of landholding they possess.<sup>590</sup> In this scenario, we do not have a true feudal structure; it is merely nested landholding at the discretion of the palace.

Also in support of this assessment of the Linear B texts are the comments made by Killen regarding the lack of mentions of trade in the tablets.<sup>591</sup> He offers three proposals for its absence from the texts: (1) trade happened only occasionally, so would not show up often in the tablets, (2) trade is in the texts, but we fail to recognize it, or (3) there were trade texts, but they did not survive. He concludes that the absence of trade in the texts “remains something of a mystery.”<sup>592</sup> We should expect trade to play in to the overall economy, so it is an odd lacuna.

A starting point for analyzing this situation may be found in the *Dialogus*. In this account of the treasurer’s work, there is also no mention of trade. Rather, the Robert Fitz Nigel explains his role in keeping these records:

Those whose duty it is to guard [wealth] have no excuse for slackness, but must give anxious care to its collection, preservation, and distribution, as they that must give account of the state of the realm, the security of which depends upon its wealth.<sup>593</sup>

Again, the focus is on the wealth of the kingdom, for maintaining the state of the realm. Nowhere does trade enter into these records either. If we take into account the current assessment of the Mycenaean economy that oversight was not as intensive as previously thought, we could suggest that administratively, trade was considered to fall outside of the maintenance of the immediate needs of the kingdom. Accordingly, trade may have involved discretionary resources held by the king and other elites. Just as we have no

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<sup>590</sup> Alternatively, it is also possible that the type of land itself – *onato* land – is of interest to the palace, even though it is in the purview of Pikreus.

<sup>591</sup> Killen 2008, pp. 181-189.

<sup>592</sup> Killen 2008, p. 189.

<sup>593</sup> Fitz Nigel 1983, pp. 1-2.

record of how much the collectors profited from their herds, we also surely do not have a complete record of all of the resources available to the king.<sup>594</sup> We have no record of trade because our officials were not responsible for maintaining either the resources available for trade or for resources imported as a result of trade.

Beyond the absence of trade, there are also several other administrative similarities between the Linear B records and the Exchequer. We already mentioned previously (p. 184ff.) that punishments pertaining to manslaughter were present in both sets of accounting records. There are two other special exceptions that are present in both administrations. First, the concept of *Danegeld* is present in the Exchequer accounts, and may have existed in Mycenaean Greece as well. *Danegeld* is payment for protection against piracy and sea raiders. According to the Fitz Nigel in the *Dialogus*, “For defence against these enemies the kings of England decreed that two shillings should be paid ever after from each hide of land in the kingdom for the wages of stout fellows who should patrol the coasts and keep diligent watch to repel hostile attacks.”<sup>595</sup> In the Pylian texts, there are records of men serving in the same capacity. These tablets, known as the *o-ka* tablets, are introduced by the header on PY An 657.<sup>596</sup>

**PY An 657**

- .1 o-u-ru-to , o-pi-a<sub>2</sub>-ra , e-pi-ko-wo
- .2 ma-re-wo , o-ka , o-wi-to-no
- .3 a-pe-ri-ta-wo , o-re-ta , e-te-wa , ko-ki-jo ,
- .4 su-we-ro-wi-jo , o-wi-ti-ni-jo , o-ka-ra<sub>3</sub> VIR 50

Thus the guards are watching the coast.  
 The unit of Maleus at Owitono:  
 Apeiritawon, Orestas, Etewas, Kokkion [all personal names]  
 50 *okara<sub>3</sub> suwerowijo* Owitonian men [first two terms uncertain]

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<sup>594</sup> For example, mention of gold occurs on only two tablets at Pylos, Tn 316 and Tn 996. In both cases, they refer to gold vessels that are likely offerings. We know from material remains that there was quite a bit more gold around. See Blegen and Rawson 1966, p. 429 for the index entry of gold objects.

<sup>595</sup> Fitz Nigel 1983, pp. 55ff.

<sup>596</sup> The term *o-ka* likely refers to an organized/military unit. See Aura Jorro 1985-1993, vol II., pp. 19-20.

This header is followed by contingents of men, or *o-ka*, each listed under the command of a personal name. The first unit listed above records fifty men under Maleus. Several individuals listed in command on these tablets can be identified as members of the Pylian elite.<sup>597</sup> Many of these names are also found together on two related tablets, Aq 64 and Aq 218. These two tablets list men and record pairs (indicated by the ideogram *ZE*) of ideogram \*171, which is unknown. While the function of these two tablets is not readily apparent, they appear to involve landholding on the basis of some of the terminology found on the tablets.<sup>598</sup> The administrative function of the *o-ka* texts and their administrative relation to the Aq tablets are not evident. The Aq tablets could indicate some benefit for the individuals in the *o-ka* tablets. We may also be too literal or reductive in our analysis of the Linear B texts in general. That is, we describe the *o-ka* tablets as a record of personnel. The purpose of the record, however, may not be concerned with accounting for personnel. Rather, if we refer to the example of *Danegeld* mentioned above, perhaps these men are being recorded to obtain a head count of those who are to receive economic benefits or rations. For their service in protecting the coast, they will receive some compensation that is known to the administrators but did not need to be recorded on the tablets. In this scenario, the men on the tablets are recorded as a unit under a commander not merely in order to establish a record of military organization, but also to document which elite administrators are to receive compensation to distribute to their contingents, and how much that compensation is to be.<sup>599</sup> It would be easier for us to come to that conclusion if these texts listed men with a record of their compensation. These texts were not written for us, however. As noted in Chapter 5, we

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<sup>597</sup> See Nakassis 2006, pp. 217ff.

<sup>598</sup> *idem*

<sup>599</sup> We may also add to this discussion the previously-mentioned tablet An 610. Beyond *Danegeld*, there was also a fee paid to knights when they were needed for protection (Fitz Nigel 1983, p. 52). This fee, known as *scutage*, might also be behind the creation of many of the Mycenaean personnel tablets.

can be sure that there is a great deal of implicit information in the texts. No administrator that required access to these documents would have trouble understanding the significance of the administration. It is possible that we frequently confuse what a tablet says, what a scribe records, and the economic significance of the tablet, as well as the role of the scribe who wrote it. This is a point to which we shall be returning.

There is also evidence of land disputes in both sets of records. We have already addressed tablet Ep 704, on which is described the claim of the priestess Eritha to hold one type of land, but the land-holding council asserted that she held a different type of land. It makes sense that different types of landholdings would be taxed differently, depending on the amount of arable land, whether there were any tax exemptions for religion or otherwise, whether there were other natural resources obtained from the land (*e.g.* timber or minerals), etc. The records of the Exchequer detail similar disputes. These disagreements over land tenure, however, were often resolved by consultation of the *Domesday Book*, rather than by a council.<sup>600</sup>

In the above examples, there are elements of the judiciary that have seeped into economic oversight. This should not come entirely as a surprise, as where finance is involved there are likely to be disputes. The Exchequer was equipped to deal with such disputes via a board of barons who were loyal to the king.<sup>601</sup> In cases where taxes are owed, where percentages of material wealth are collected, and where herds are counted for the purposes of later accounting, there are bound to be attempts at corruption. It makes sense that in both systems we see these issues being accounted for and resolved.

The Exchequer and Mycenaean administration are also similar in two matters of procedure. The first is the manner in which they process material wealth as it enters the palace/central administrative complex. The second relates to the fact that both

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<sup>600</sup> For examples of medieval land disputes, see Round 1909, pp. 142ff.

<sup>601</sup> Poole 1973, p. 102-103.

administrations are literate in regions where the use of writing for administration previously did not exist. As we shall see, the differing levels of literacy in both regions result in differences between the two systems. First let us address the system whereby wealth entered and was processed.

At Pylos, there is no indication that the AC actually stored any items of material wealth, nor is there much room for storage of raw materials. The records of the AC refer to, and account for, goods that are processed and stored at locations other than the AC. As the studies of Shelmerdine, Hofstra, and Bendall have suggested, these goods first entered the palace through a clearinghouse system, whereby they were assessed, accounted for, and processed as needed.<sup>602</sup> As noted previously, the C-series tablets by Hands 1 and 21, and the Jn tablets by Hands 2 and 21 demonstrate the process in which resources are initially processed by one scribe, and then further processed for permanent storage by another. As noted earlier (p. 235), Palaima has also followed the import and recording of wood rods for axles and spear handles from the NEB to the AC. This final transaction involves a few elements that should be addressed here. The final record of this transaction, tablet PY Vn 10, was stored in the AC.

**PY Vn 10**

- .1 o-di-do-si , du-ru-to-mo
- .2 a-mo-te-jo-na-de , e-pi-\*19-ta 50
- .3 a-ko-so-ne-qe 50
- .4 to-sa-de , ro-u-si-jo , a-ko-ro , a-ko-so-ne
- .5 100 , to-sa-de , e-pi-\*19-ta 100

Thus the wood-cutters give  
to the wheel-fitting workshop: saplings 50  
axles 50  
So many the territory of Lousos, axles  
100, so many saplings 100

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<sup>602</sup> Shelmerdine 1998-1999 on the processing of textiles through the Southwestern Building. Hofstra 2000 and Bendall 2003 address the NEB as a clearinghouse.



Here we learn that the woodcutters and the Lousians were providing the wood to the palace. As Palaima notes, several sealings in the NEB mention wood for axles, including Va 1323 and Va 1324, yet nowhere in the NEB documents is the sender of the axles mentioned.<sup>603</sup> Nowhere in the initial documents (the ones that survive, at least) are the woodcutters or Lousians mentioned. This may be another instance in which information is implicit and understood by administrators, but is unclear to us out of context.

Similar to the AC and the NEB, the Exchequer processed incoming wealth in two different places. There was the Upper Exchequer and the Lower Exchequer.<sup>604</sup> Just as the Treasurer runs the Upper Exchequer, the Treasurer's Clerk was in charge of the Lower Exchequer. Once income was processed, counted, and weighed in the Lower Exchequer, it was then deemed ready to be accounted for in the rolls of the Upper Exchequer.

The evidence of the scribes in the NEB accords well with this two-step process. There are seven scribes in the NEB – Hands 12, 15, 21, 26, 31, 32, and 34. Four of these scribes also have tablets in the AC. Tablets by these scribes occur nowhere else in the palace, indicating a clear relationship between NEB activity and the AC.<sup>605</sup> It is tempting to see Hand 21 as the administrator in charge of the NEB. He is closely associated with Hands 1 and 2, both in terms of tablet production as well as in orthography (see p. 70). He also writes 70 tablets, which is at least 25 more than any other NEB scribe, and as noted earlier he is a non-specialized scribe.<sup>606</sup> However, Hand 21 has only four tablets in the NEB, all of which are Cc texts. Yet we should not necessarily expect the

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<sup>603</sup> Palaima 2000a, pp. 269-270.

<sup>604</sup> Fitz Nigel 1983, pp. 8ff.

<sup>605</sup> Sealing Wo 1199 has also been assigned to Hand 34. This sealing was found in Room 32. However, the attribution of sealings to a scribal hand is always speculative. Olivier 1997, p. 81 suggests the evidence is insufficient for the attribution.

<sup>606</sup> To be fair, the majority of those tablets (50) are the texts comprising the Ab series.

administrator in charge of the NEB to be represented by the greatest number of tablets there. Consider the breakdown of tablet production in the NEB in Table 6.6.

<b>Scribal Hand</b>	<b>No. of Tablets</b>	<b>No. in NEB</b>
12	2	1
15	23	22
21	70	4
26	35	1
31	2	2
32	3	3
34	1 <sup>607</sup>	1

Table 6.6: Number of tablets in the NEB by scribe

Tablets are not well represented in the NEB. In the case of most scribes, it would seem that the NEB is a pass-through for tablets as they make their way to the AC. Much of the tablet material in the NEB may simply be the result of the time of the destruction. If Hand 15 had delivered his Qa tablets to the AC, for example, he would not be represented at all in the NEB. Because of the status of the NEB as a clearinghouse, and because administrative documents appear to pass through to the AC, the quantity of NEB tablets by any given scribe should not be considered a factor in establishing his status. On the other hand, the total output by Hand 21 and his relationship with the two most important scribes at Pylos would make him a suitable candidate for administration of the NEB. If correct, this would very closely parallel the situation in the Upper and Lower Exchequer.

One final procedural similarity between the Norman and Mycenaean economic administrations is the introduction of writing. Prior to the rise of the palace at Pylos, administration of the Messenian territory was achieved through non-literate means. Likewise, prior to the Norman Conquest in 1066, administration in England was non-literate. Coincidentally, the amount of time that had passed between the Norman

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<sup>607</sup> If Wo 1199 is discounted.

Conquest and the *Dialogus* – little more than a century – is the same amount of time that has been estimated to pass at Pylos from the introduction of writing to the surviving LH III B2 tablets.<sup>608</sup> The outcome of the use of writing, however, is very different in several ways. In Norman England, script and writing were technologies that were not new to those living in England prior to the Normans. In the Mycenaean period, on the other hand, script and writing did not predate palatial administration. Until 1066, however, writing was primarily used for ecclesiastical purposes. Clerical scribes reproduced religious texts, which would have been visible to the broader population. Administrative writing was deliberately associated with religious texts to afford it protection and to grant it religious authority, and thereby acceptance and approval.<sup>609</sup> In order to establish a sense of trust in these new literate modes of administration, receipts were standard. However, these too had a significant non-literate component. Tally sticks, for example, would be inscribed with names and business to record a transaction. The sticks would then be notched and split in half for both parties, thereby confirming both sides of a transaction.<sup>610</sup> Through the use of receipts, trust in the written administrative process could begin to be established. Seals were frequently used in these transactions as well.<sup>611</sup> In building on both non-literate modes of administration, and by introducing writing in a religious context, the literate administrators of the Normans were able to gain the trust and acceptance of their subjects.

In Mycenaean Greece, however, there is no evidence of receipts of any kind. The Mycenaeans were not using writing in any fashion prior to the rise of the palaces. Furthermore, as noted earlier, there are no indications of public displays of writing to

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<sup>608</sup> Palaima 2004, p. 282: “the stage where the central palatial complex of Pylos and its surrounding community were fully integrated into and in some sense in control of an overall unified territory consisting of two provinces and pyramidally organized districts and centers likely lasted little more than a century.”

<sup>609</sup> Clanchy 1979, p. 126 and n. 36.

<sup>610</sup> Clanchy 1979, p. 96.

<sup>611</sup> Clanchy 1979, p. 57, 63, 69, *passim*.

establish the public trust in writing. Accordingly, writing does not seem to have been introduced at all to the Mycenaean population at large. Administrators seem to have avoided promoting a more general contact with writing. Instead they seem to have allowed previous administrative practices at the lower levels of the administrative hierarchy to maintain the trust and confidence of the population in palatial administration. Receipts were therefore not necessary, as writing does not appear to have been intended to engage lower levels of administration. These distinctions between the Normans and Mycenaeans appear to be a result of the situation that preceded the use of administrative literacy.

This survey of features of economic administration seems to support the use of Norman administration as a model for Mycenaean administration. They are similar in the focus on the resources of the kingdom. They both involve elements of judiciary system – particularly in the treatment of murder, land disputes, and tax exemption. They are both systems that do not assess the entirety of material wealth of the realm but rather are concerned only with land and resources that are deemed either possessions of the palace or taxable by the palace. The processes by which wealth is accounted for once it enters the palace are similar. Finally, they are at similar stages in the use of writing in administration, with the key difference of precedents.

### **The Scribes of Linear B**

Ironically, the function of Norman scribes does not accord well with the functions of Mycenaean scribes. In Norman administration, the scribes are copyists. They write down what is dictated to them by the administrators who are in charge of the Exchequer.<sup>612</sup> Three scribes are present at the Exchequer. All three are copying the same information to be stored at three different locations, both for safekeeping and to ensure

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<sup>612</sup> Fitz Nigel 1983, pp. 29ff.

the veracity of the contents. In the course of recording, they are closely watched by their administrative superiors.<sup>613</sup> These three scribes do not record their names in the rolls, and they write down everything as accounts are reckoned. That is, they are not specialized according to subject matter, region, or personnel.<sup>614</sup>

For the most part, Mycenaean scribal practices do not appear to be indiscriminate or haphazard. As mentioned previously, many scribes are specialized. Of those scribes that are not specialized, we can account for the lack of specialization by several of them. Hands 1, 2, and 21 appear to be high-level officials rather than simply professional scribes. In the administration of the Mycenaean economy, these scribes are fulfilling the roles of administrators rather than of pure copyists. To take this a step further, let us consider the respective Norman and Mycenaean heads of economic administration: the Treasurer of Henry II and Hand 1.

The Treasury and Treasurer were of the greatest importance in Norman England. As Fitz Nigel describes it, “he is trusted with the care of the whole realm, and indeed with the King’s very heart. For it is written, ‘Where your treasure is, there will your heart be also.’”<sup>615</sup> Even though he is talking about himself, we can deduce that this is logically so. He was at the top of the administration of the entire wealth of the kingdom. In the treasury – for which he was responsible – was the king’s wealth (in coinage), a copy of the king’s seal, as well as the documents recording the wealth of the kingdom, which included the *Domesday Book*. As Poole notes, “it was the very centre of the administration of the Court.”<sup>616</sup> Given the amount of authority and control possessed by the Treasurer, the king must have had the utmost trust in his integrity.

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<sup>613</sup> Fitz Nigel 1983, p. 18.

<sup>614</sup> Scribal organization was a later innovation. See Clanchy 1979, pp. 40-41.

<sup>615</sup> Fitz Nigel 1983, p. 16.

<sup>616</sup> Poole 1973, p. 36.

Hand 1 would appear to be in a similar situation. One major distinction is that the AC, where Hand 1 worked and stored records, was not a store of material wealth. Livestock would have been in pastures, agricultural products would have been in granaries and storage magazines, oil in the oil stores, wine in wine stores, precious gold vases and costly items of furniture and clothing would likewise have been in appropriate storerooms, etc. However, Hand 1 would appear to exert complete authority over the records in the AC. Not only does he write roughly 237 tablets – over 100 more than the second most prolific scribe – but he also corrects and augments tablets by Hands 21 and 41, and inscribes transport labels for the tablets of other scribes.<sup>617</sup> The tablets themselves have no unalterable markers by which their inviolate state is assured. There are no seal impressions, and there are only 18 sealings in the AC (for which see Chapter 5). Hand 1 could theoretically alter any quantities, names, or line items to his own benefit if he should so choose. While the AC does not *physically* store the wealth of the kingdom, it *symbolically* stores everything in the assertions put forth by the tablets. In this way, the material wealth of the kingdom can be unified under one roof. As with any accountant, Hand 1 is in a prime position to engage in embezzlement. The king's trust in him must therefore be absolute. In this respect, the Treasurer and Hand 1 are remarkably similar. Additionally, we again can see one of the potential problems associated with the use of the term 'scribe.' Since Hand 1 is analyzed strictly in terms of his written output, the artificial title of 'Archivist' involves his relationship with writing. If we flesh out the character of Hand 1, however, we might associate him more closely with the maintenance

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<sup>617</sup> Transport labels are a special class of documents. When tablets were brought to the AC, they were normally placed together in a basket, and a lump of clay was pressed onto the front of the basket and inscribed with a brief description of the tablet contents. These labels were not found with tablet series stored in Room 8, but rather were all together in a pile in Room 7. Because they did not stay with the tablet series in Room 8, they are assumed to have been written up solely to provide a summary of series contents upon introduction to the AC. After the tablets were processed and stored, the labels were no longer necessary. See Palaima and Wright 1985 for detailed discussion.

of material wealth, as opposed to the inscription of documents that maintain material wealth. Conceptually, he is more a Treasurer than an Archivist.<sup>618</sup>

In the same fashion we might consider the roles of all of the scribes at Pylos. At the Exchequer, the Treasurer processed the accounts of all lower-level administrators. As noted earlier, these accounts differ significantly from the Mycenaean accounts in that they are almost purely regional. The majority of the accounts are presented by the sheriffs of each county. Besides the sheriffs, there were several other officials required to reckon accounts at the Exchequer: “There were also stewards and bailiffs of honours, bailiffs and reeves of towns. There were guardians of the temporalities of vacant bishoprics and abbacies, and there were guardians of escheated baronies and other fiefs. Guilds of craftsmen too...”<sup>619</sup> As sheriffs came to the Exchequer, they would account for all taxable landholdings, as well as all other incoming and outgoing expenses (writs).<sup>620</sup> Disputes or disagreements were overseen by a council of barons appointed by the king. Again, this level of efficiency is possible only in a monetary economy, when all wealth can neatly be summarized and accounted for at specified times of the year.

We cannot hope to have as orderly a situation in Mycenaean Greece. There are few indications of regional specialization among the scribes. On the other hand, several scribes appear to be specialized very specifically according to commodities. Hand 23 writes only the Ad tablets, concerned with women workers throughout the Hither Province, their children, and their rations. Hand 26 records details of wheel manufacture

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<sup>618</sup> I am not advocating or encouraging a change in terminology. The term ‘scribe’ is invaluable in unifying these administrators who share a common skill that is decidedly uncommon elsewhere. Likewise, the term Archivist serves us well in distinguishing the function of Hand 1 in opposition to the other Pylian scribes. I am introducing new terminology here simply to highlight the broader significance and work, and even worth, of these officials outside of the realm of writing.

<sup>619</sup> Poole 1973, p. 126. For our purposes, the administrative functions of these individuals is not relevant. I do not wish to map medieval offices directly onto Mycenaean ones, as this surely is not the case. The intent here is to demonstrate that just as a diverse group of administrators answered to a chief accountant, so do we see the same pattern of scribal practice in the Linear B texts.

<sup>620</sup> Fitz Nigel 1983, pp. 68ff. describes this procedure in great detail.

in the Sa series. Hand 45 writes tablets of the Fn series that list quantities of barley and olives. As noted earlier, not all scribes can be so easily categorized. We should consider the possibility that at least a few of the Mycenaean scribes were not actually employed at the palace itself. Rather, they came to the palace to settle accounts with central administration as needed. The tablets of eight scribes – Hands 1, 6, 11, 22, 23, 24, 25 and 42 – are found only in the AC. With the exception of Hand 1, there is no evidence to indicate that these scribes worked in the AC. Since they are not represented elsewhere in the palace, it is possible that they did not work at all in the palace, but only came to the center to bring records needed by the palace.<sup>621</sup> We have previously addressed some of the possible indicators that scribes functioned away from the palace. As I suggested earlier (p. 85) there may have been scribes at second-order or lower-order centers serving as embassies of the central administration. These individuals would likely have to create tablets for the palace to account for activity in their region that involved resources of interest to the palace.

Several pieces of evidence can support such a scenario. First, there are tablets that seem to have been found outside of palatial centers. Most notable is the recent discovery of a Linear B tablet at Iklaina. Also significant is the tablet from Khania by scribe KH 115. The paleography of this scribe indicates a close association with the palace at Knossos. The chief issue here is whether Khania is a second-order center on Crete in LM II-III, or whether it exercised greater autonomy. This question as yet remains unanswered, but the possibility certainly exists that KH 115 is a Knossian literate

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<sup>621</sup> We will address Hand 24 in greater detail shortly. The presence of tablets in the AC alone is insufficient to suggest that a scribe is stationed outside of the palace. In several instances a scribe is represented only in the AC with the exception of a single tablet, or a small number of tablets elsewhere. A single tablet by Hand 26 was found in the NEB, while the rest of his corpus was in the AC. Hand 21 wrote four Cc tablets that are in the NEB. To recall the example of Hand 15, if his Qa tablets had been transported to the AC, then he would be exclusively represented in the AC. I would suggest that scribes with tablets only in the AC and which do not show a lack of regional specialization could work regularly outside of the palace.



official functioning as the supervisor of Knossian interests in the region covered by Khania.<sup>622</sup>

We might also consider issues of orthographic variation. As noted earlier (p. 54, n. 101), there are certain spelling variations that have been attributed to the mixing of dialects. The identification of a second dialect on the basis of a small number of spelling variants (as few as three and as many as five) is dubious and problematic. However, these spelling variants do exist, and we can legitimately discuss them as such. In summary, the most common variants are:<sup>623</sup>

- 1) athematic dative singular *-e* vs. *-i* (*po-se-da-o-ni* vs. *po-se-da-o-ne*)
- 2) sonant nasals in the environment of bilabial consonants *o* vs. *a* (*pe-mo* vs. *pe-ma*)
- 3) *e* vs. *i* in the environment of a labial consonant. (*a-ti-mi-to* vs. *a-te-mi-to*)

The variants have been discussed as evidence of a substrate dialect called “Special Mycenaean (SM),” while the absence of variation is called “Normal Mycenaean (NM).” Scribes exhibit differing levels of variation in their texts. It is possible that scribes who are stationed at points away from the palace are more likely to come into contact with these variations and incorporate them into their texts. Palaima described these variations as reflections of “extra-palatial language.”<sup>624</sup> In the same article, he makes a compelling argument that Hand 24, who is responsible for only three tablets (Er 312, Er 880, and Un 718), was involved in matters dealing directly with the king. Er 880 and Un 718 mention the region *sa-ra-pe-da*, where the king holds a *temenos*, a type of landholding mentioned only on this tablet.<sup>625</sup> Only the king and the *lawagetas* – another high level official –

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<sup>622</sup> See earlier discussion of KH 115 on p. 74.

<sup>623</sup> Risch 1966.

<sup>624</sup> Palaima 2002, p. 210.

<sup>625</sup> The third tablet, Er 312, seems to be related to the contents of Un 718. See Palaima 2002, p. 220.

possess a *temenos*.<sup>626</sup> Furthermore, in these few texts, Hand 24 exhibits orthographic variations. Palaima concludes that Hand 24 could have been stationed in *sa-ra-pe-da*. It is for this reason that Hand 24 exhibits variations from NM orthography. It also could account for the small number of tablets by Hand 24 present at the palace.

On the above evidence, we can propose that at least a few scribes were not stationed at the palace. There may have been small contingents throughout the kingdom overseeing palatial interests. Such a situation still would have not significantly increased the visibility of writing in Mycenaean Greece. The tablets are all strictly internal documents and were not intended for public consumption, and were likely written at the palace at Pylos. As discussed earlier, these deposits likely would have been concerned only with palatial activity, and not with the detailed administration of the second-order center. As such, we might expect them to be rather small deposits, with only one or two scribes present in each. Currently, we can consider the tablets from Iklaina (1), Khania (3), and Ayios Vasilios (3) to be the extant corpus of non-palatial Linear B.<sup>627</sup> Hopefully in the coming years the excavations at Iklaina will uncover a tablet deposit that will help us better understand the other side of the palatial transactions represented in the texts at the palace.

This raises another important point regarding the status of scribes in Mycenaean Greece. Again, we should view these scribes as administrators. Each scribe averages only 32 tablets, and some write far fewer.<sup>628</sup> Loyalty and trust therefore are no less critical with these literate individuals than they were with Hand 1. All Mycenaean scribes are in a position to manipulate numbers and quantities to their personal benefit.

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<sup>626</sup> The role of the *lawagetas* is not entirely clear. He may have been a military commander. Nikoloudis has recently proposed that he acts as a liaison between the center and non-local populations in Messenia. See Nikoloudis 2006.

<sup>627</sup> It must be acknowledged that we do not know whether Khania or Ayios Vasilios were palatial first-order centers.

<sup>628</sup> Bennet 2001, p. 29.

With most tablets, there is no seal or other authoritative mark confirming the accuracy of the quantities contained in the texts. As Flouda notes, “Mycenaean scribes did not authenticate the information of their tablets by applying seals directly to them, as their Near Eastern colleagues often did. This acceptance of full responsibility implies that they were not just literate palatial employees but active administrators, possibly members of the elite.”<sup>629</sup> In the AC, tablets are not organized according to scribe. Rather, they are all treated equally in storage. Tablet series are kept together as units, but the filing system otherwise treats these tablets equally, suggesting that these tablets were trusted as fact when filed.<sup>630</sup> Such a level of trust in the scribes implies that many – if not all – of these scribes were among the most trusted officials in the palace. In Norman England, the staff of the Exchequer – both because it reckoned the accounts of the realm and because it had to decide judicial disputes pertaining to the economy – was as powerful and trusted an authority as there was. As Fitz Nigel notes, “[the Exchequer] is so potent owing to the authority of its Barons that no man may break its laws or be bold enough to resist them.”<sup>631</sup> Later, when discussing the officials appointed to decide matters involving land disputes, manslaughter, and tax exemptions, he notes that, “[The assessors of the Chief Justiciar], appointed merely by the King’s command... are among the greatest and most prudent in the realm.”<sup>632</sup> We should expect elite administrators functioning at this level of the economic system. That being said, there is certainly room for lower-level bureaucrats in the Mycenaean system. At least half of the scribes at Pylos are tied to the processing of one sector of the economy. A specialized scribe who is subordinate to another scribe in the same bureau could very well have every aspect of his work checked

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<sup>629</sup> Flouda 2010, p. 58.

<sup>630</sup> See Pluta 1996-1997 for the organization of the AC. It is possible that the Na tablets concerning flax, composed by Hand 1, were stored in a closed basket, treating them somewhat differently from the rest. Other tablets seem to have been stored in the open on wooden shelves.

<sup>631</sup> Fitz Nigel 1983, p. 14.

<sup>632</sup> Fitz Nigel 1983, p. 15.

and approved by his superior. Some scribes are accountable to greater oversight than others.

This is a key distinction between the accounting procedures of the Exchequer and those of the palace at Pylos. In Norman England, all officials engaged in accounting are, for the purposes of accounting only, handled with the same degree of oversight. They all pass through the Exchequer in turn to reckon their accounts. Administrators subordinate to the sheriffs, bailiffs, bishops, and others who pass before the Exchequer are invisible. In Mycenaean Greece, on the other hand, we can observe literate accounting practices well below the level of the AC. In the examples of extra-palatial Linear B, we see officials that may never have written tablets that would be present at the palace. There are more levels of hierarchy evident in the Mycenaean material.

This perception of scribes (or at least many of the scribes) as trusted and elite administrators has several consequences. Bennet has also argued for viewing the scribes as administrators.<sup>633</sup> However, he has also taken this argument a step further. Given that the scribes should be considered elites, he proposes that they ought to be among the named individuals in the texts.<sup>634</sup> I am inclined to agree. Nakassis has concluded that around 800 individuals are named in the tablets, with elites being more likely to be represented than individuals of lower status.<sup>635</sup> If our scribes are in fact elite and trusted by the king, they surely must possess land, livestock, or other taxable material wealth that is recorded in the tablets. In the *Dialogus*, clerks are granted land in various regions of the kingdom, from which they can benefit while in office. If their term or appointment ends, or if they are replaced in their position as clerk, then they cede the land to their

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<sup>633</sup> See especially Bennet 2001.

<sup>634</sup> The arguments that follow can be found in Bennet 2001, pp. 31ff.

<sup>635</sup> Nakassis 2006, p. 156.

replacement.<sup>636</sup> Because the names of at least some of the scribes should occur in the tablets, Bennet suggests that *pu<sub>2</sub>-ke-qi-ri*, mentioned as taking the Ta series inventory on Ta 711, may be equated with Hand 2, who is the author of these texts.<sup>637</sup> In a similar fashion, Bennet notes that an individual named *a-ko-so-ta* – previously discussed (p. 261ff.) as a “collector” – is recorded on Un 267, a tablet written by Hand 1, as having provided aromatics (*o-do-ke*, *a-ko-so-ta*, “thus Akosota gave”). He also receives (*de-ka-sa-to*) commodity \*169 on Pn 30. His name is also present on several other tablets (An 39, Cn 40, Eq 213, Va 482, Wa 917). These other tablets list elite administrators, livestock, landholdings, and unknown items, respectively. Given his presence in several arenas of the economy, the fact that he both receives and gives commodities, and given that nowhere in the texts do the scribes refer to themselves as “I” – because without seals or other identifying markers, there is no decontextualized way of knowing who wrote a tablet<sup>638</sup> – Bennet proposes that *a-ko-so-ta* is the name of Hand 1.<sup>639</sup>

It is certainly possible – as one possibility among many – that Hand 1 is *a-ko-so-ta*. Hand 1 writes tablets detailing several arenas of the economy, and he certainly is an elite administrator. However, we have to be extremely cautious when assessing the precise function of non-specialized scribes on the basis of Linear B evidence. As mentioned previously, the Linear B texts do not cover all aspects of the economy, nor do they cover all the material wealth in the Pylian kingdom. Below the level of tablets and sealings, administration was almost certainly non-literate. Accordingly, we surely do not have a full picture of Mycenaean administration. The oral component must have been

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<sup>636</sup> Poole 1973, pp. 123-124.

<sup>637</sup> Note our earlier discussion of these tablets, p. 259. Without further evidence, this attribution seems highly doubtful. As a direct subordinate of Hand 1 – perhaps the Vice Archivist – we should expect Hand 2 to be a trusted elite as well. Accordingly, we should expect that his name occur in the tablets as more than simply the recorder of an inventory.

<sup>638</sup> It would be very surprising, however, if Hand 1 did not know, on the basis of content and tablet structure, which scribe, or at least what department, was responsible for writing it.

<sup>639</sup> Kyriakidis came to the same conclusion independently. See Kyriakidis 1996-1997, p. 220.

significant at lower levels, and we should expect that there was a significant amount of dialog exchanged between scribes as well. These absences must be anticipated when interpreting administration via the Mycenaean texts.

Two comments in the *Dialogus* provide an excellent analog for the Mycenaean material. In the accounts of the Exchequer under Henry II, there is an individual recorded named Thomas Brown.<sup>640</sup> The amount of his wages and the type of land he holds is described. Within the administrative documents themselves, he is otherwise unknown. In the *Dialogus*, however, we are informed that Thomas Brown has a seat at the Exchequer. As described by Fitz Nigel,

It is a strong and cogent proof of his loyalty and prudence that so wise a prince chose him to have a third Roll, contrary to the ancient constitution of the Exchequer, in which to write the laws of the realm and the secrets of the King, to keep it in his own hands and to carry it about with him whithersoever he will. He also has a clerk in the Lower Exchequer, who sits next to the Treasurer's Clerk, and has full freedom to take notes of all the receipts and expenses of the Treasury.<sup>641</sup>

Further history of his background with the king is provided as well. He is an important elite figure, an important economic figure, and a figure about whom the accounting records are almost entirely silent. We cannot underestimate the silence of the texts and their ability to distort the importance of individuals contained therein.<sup>642</sup>

In a similar fashion, it may be difficult to assess the role of scribes of all levels of administration by analysis of the contents of their tablets. Again the *Dialogus* makes this point clear. In a brief section, Fitz Nigel recollects a time before all accounts were reckoned in coinage:

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<sup>640</sup> Poole 1973, p. 122.

<sup>641</sup> Fitz Nigel 1983, p. 35.

<sup>642</sup> That being said, relative landholdings and titles enable us to say a fair amount about the individuals represented in the tablets. Again, Nakassis 2006 is the newest and most detailed prosopographical analysis of the people at Pylos.

As it has been handed down to us by our fathers, in the early state of the kingdom after the Conquest, the kings received from their manors not sums of gold or silver but only payments in kind (*victualia*) which furnished the necessaries for the daily use of the king's household. And the officials appointed for the business know how much was due from each manor...and the officials of the king's household knew precisely from which counties wheat was due, and from which various kinds of fleshmeat and horses' forage and other requisites.<sup>643</sup>

The critical point here is at the end of the paragraph, in which he mentions that the officials knew “from which counties wheat was due, and from which various kinds of fleshmeat...[were due].” The Norman king had land throughout the realm, and the Mycenaean king had land throughout his realm as well. Some farms produced foodstuffs, others were pastures for livestock. In this light, let us say that the king's land in County W is suitable for growing wheat, and his land in County L is suitable for livestock. He appoints two administrators (W and L) to manage his land in each county, with both administrators being of the same status and assigned the same function. In accounting documents, the administrator of County W will be recording wheat, and the administrator of County L will be recording livestock. In the Linear B texts, we would say that Hand L is a scribe responsible for recording livestock and that Hand W is responsible for recording wheat. Such an assessment would be true, but it would also be overly reductive and would cloud their true function. Fortunately, greater context within the palace often prevents such mistakes from occurring. As noted previously, lack of geographic specification by several Mycenaean scribes suggests that the commodity is in fact their focus. Additionally, the find-spots of tablets within specialized bureaus confirm the scribe's relationship with a specific commodity.<sup>644</sup> In the case of non-specialized scribes, however, there may be complex resource management issues that are invisible to

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<sup>643</sup> Poole 1973, p. 27.

<sup>644</sup> Even this association is not entirely certain, however. A scribe who manages landholdings that produce only wine might record tablets that are found only in the wine stores. Again, he is tied to land rather than the commodity.

us that dictate their corpus of documents. Accordingly, the status and true function of many of the non-specialized scribes is less clear, making it difficult to assign a name to a scribe.

If we return to the question of Hand 1 and *a-ko-so-ta*, it is possible that *a-ko-so-ta* is Hand 1. Surely Hand 1 held significant tracts of land which was part of the Mycenaean economy. However, it is no less likely that *a-ko-so-ta* is an altogether different administrator responsible for lands that produce the commodities listed. There is nothing that specifically associates the Hand 1 with this name. The tablets are far too silent on matters of administrators of the kingdom. The king certainly had advisors and a trusted court that possessed land, but were not otherwise involved in the economy, and perhaps were not literate. Much like Thomas Brown, there must have been elites who were at or above the level of status of Hand 1, who would be equally suitable candidates for *a-ko-so-ta*. For present purposes, the assessment of scribes as trusted administrators is sufficient.

Issues of trust and loyalty are augmented by distance. A palatial official who is a representative of the interests of the palace at a second-order center is geographically closer to those being taxed than to the center itself.<sup>645</sup> In order to protect the wealth of the kingdom, official oversight of palatial interests at second-order centers would have had to be performed by administrators whose allegiance lies with the palace itself and not with the local community. These scribes/administrators would be working directly at the interface between local-nonliterate/palatial-literate economy. At this interface, there would be greater opportunity to manipulate economic information for personal gain. If an official in this position were more closely associated with local elites than the palace, there would be a greater likelihood that he might be more interested in creating an

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<sup>645</sup> Addressed in Killen 1988, p. 257. Killen is speaking more to logistical difficulties and palatial oversight, although trust and loyalty seem to be implicit in his discussion as well.



advantage for local elites – and therefore for himself in the local community – rather than for the palace and its interests in the area. To counteract such a situation, these distant scribes, such as Hand 24 and the scribe(s) at Iklaina, would have to be elites close to the king, and likely appointed by the king himself.

In this context, let us turn to the scribes at Knossos. I have argued above that scribes must be elite because of the trust the king must have in the veracity of their documents as a result of their authority. Accordingly, the Mycenaean kings on the mainland likely had Mycenaean scribes keeping documents in Mycenaean Greek. There is some debate about the situation at Knossos, however. In a recent article on the disappearance of Linear A, Bennet argues that the shift from Linear A administration, in which the Minoan language was used, to a Linear B administration, in which the Mycenaean Greek language was used, was a decision made by a bilingual Knossian ruling elite.<sup>646</sup> He argues against this transition being a Mycenaean innovation, suggesting that “mid-twentieth-century attitudes to ancient identity and its essentialist link to language led to mainland Greek speakers (‘Mycenaeans’) being ‘framed’ for this murder [of Linear A].”<sup>647</sup> As an analogy, he compares the situation in Ur III, in which administrative practice and language were willfully and dramatically altered as a means of establishing a new administration and a new elite.<sup>648</sup>

While I agree with Bennet’s assessment that the Minoans were complicit in the change of administrations, I think we should more emphatically acknowledge the role of Mycenaean identity in this change. To this end, it should be noted that the situation in Ur III is quite different from that in LM II Crete. Under the reign of king Shulgi, there were dramatic shifts in administration. Weights and measures, administrative practices, and

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<sup>646</sup> Bennet 2008.

<sup>647</sup> Bennet 2008, p. 22.

<sup>648</sup> Bennet 2008, p. 20-21.

administrative language were all changed.<sup>649</sup> The intent of these shifts was to create a clean break with the preceding administration. Old elites were disempowered by the introduction of entirely new systems. Accordingly, only those trained in the new systems would have access to administration and therefore to elite status. In the case of Ur III, the shift in language was from Akkadian to Sumerian. Both languages were in use for bureaucratic purposes. Prior to Shulgi, Akkadian was the *primary* (not sole) language for administration. Under the new regime of Shulgi, the administrative language was shifted to Sumerian. There is a clear rejection of Akkadian language – and in turn the Akkadian administration that preceded them – and a return to Sumerian. Both languages were familiar and had been used previously within the territory of Shulgi’s kingdom.<sup>650</sup>

In LM II Crete, there is also a shift in weights and measures as well as administrative language and script. These all likewise indicate a change in administration and the marginalization of former elites. However, these new weights and measures, language, and script are also found among the Mycenaeans on the mainland. That is, in separating themselves from prior elites and prior administration, elites at LM II Knossos did not select an identity-less chancellery language.<sup>651</sup> Unlike the language used by the elites under Shulgi – which identify with a previous era – the language chosen at Knossos looks directly across the Mediterranean to the Mycenaean mainland. This cannot have occurred without the intent to establish a Mycenaean identity at Knossos. The link between language and identity is not entirely a twentieth-century attitude.<sup>652</sup> The story of

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<sup>649</sup> See Michalowski 1987, p. 60.

<sup>650</sup> Because both languages had been used, this era is known as the “Sumerian Renaissance.” See Kuhrt 1995, pp. 58-60.

<sup>651</sup> One would be hard-pressed to demonstrate an occasion when language does not equate with identity, at least in some fashion. Even in the Ur III period, the choice of Sumerian by Shulgi represented a return to an era prior to the rule of the previous administration.

It should also be noted that language change was also not entirely necessary for the displacement of earlier elites. For example, a significant revision of the script in use with a shift in sealing practices would have effectively expelled old administration from the resources of the central authority.

<sup>652</sup> The link suggested here is between language and *identity*, not language and *ethnicity*.

the Tower of Babel in Genesis (*Gen.* 1-9) describes the division of societies on the basis of language. Even neurologically, primary language acquisition is encoded beginning in infancy.<sup>653</sup>

The LM II Knossian elite identity goes well beyond language, however. Bennet also notes the new tombs on Crete of a mainland character.<sup>654</sup> Additionally, in the Linear B texts themselves, there are mentions of Greek gods. As early as the RCT, Zeus and his female counterpart Diwia are recorded.<sup>655</sup> Greek names are abundant in the Linear B texts from Knossos. In the RCT material – which is the LM II deposit at Knossos – Driessen estimates that 70-90% of the names listed are Greek.<sup>656</sup> At the same time, religious practices change dramatically.<sup>657</sup> As noted above, all of these administrative features – weights and measures, script, tablet layout, language, Greek names, Greek gods – are all features of mainland administration as well. This series of changes would seem to represent something significantly more dramatic than the exclusion of prior elites. In Ur III, the choice of Sumerian displaced old elites but also sought to rebuild on former glory. In LM II Crete, the abundance of change not only upended the former elites, but is also looking forward to the establishment of a new order. In this case, the new order is Mycenaean. It seems inescapable that there is a continuum of administration across mainland Greece and Crete. I would agree with the assessment that the new administration was intended to divest the old elites of their authority. However, rather than being an internally-focused decision on behalf of the Knossian elite, the

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<sup>653</sup> See Chomsky 1965.

<sup>654</sup> Bennet 2008, p. 20.

<sup>655</sup> KN F 51 and KN Xd 97, respectively. Originally, the tablet V 52 was assigned to the RCT. This tablet further records Poseidon and the Furies. Skelton 2008 has convincingly demonstrated that the paleography of V 52 comes from a much later period than the other RCT texts.

<sup>656</sup> Driessen 2000, pp. 191-192.

<sup>657</sup> See Gulizio 2011 for detailed analysis. Several places of worship fall out of use in this period, most notably the peak sanctuaries.

evidence suggests that there is a willful intent to identify Knossian elite with Mycenaeans.

To be fair, archaeologists have previously been hasty in associating change with new populations, and destructions with invasions. For that reason, it is easy to understand the hesitation to associate a change in administration with a new population. If the parameters were the same as those discussed in the Ur III analog, then it would seem to be an internal decision without any external influence. In this case, with such a preponderance of changes, most of which point to the Mycenaeans in so many different facets, I find that the burden of proof for the presence of Mycenaeans on Crete has been satisfied. As Driessen and Macdonald have addressed, the Mycenaean presence on Crete does not have the character of invasion, but rather seems willfully to preserve many indigenous elements of Minoan society, including aspects of Minoan religion and palatial architecture.<sup>658</sup>

In this scenario, if there are rulers at Knossos who identify themselves as Mycenaean, we must consider their relationship with the scribes at Knossos. The same issues of trust and loyalty as found on the mainland are even more significant here. On the mainland, the Mycenaean palaces established a central authority over regional capitals that were also Mycenaean. On Crete, however, the majority of the population ruled by the palaces would have been Minoan. Minoan scribes and Minoan officials writing in Linear A would have been tied to old elites, to Minoan regional populations, and to Minoan interests. For a new Mycenaean ruling elite at Knossos, the only way to ensure the preservation of the material wealth needed for maintaining the state would be to employ scribes who would be loyal to the ruling elite. There would be no guarantee that Linear A scribes would be loyal to the new Mycenaean administration, and might

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<sup>658</sup> Driessen and Macdonald 1997.

rather seek advantage for the Minoan population with whom they had contact in the performance of their duties. Additionally, if the new rulers of Crete were to employ the scribes who were already writing in Linear A, then there would have been no reason to change the script, language, and weights and measures in an effort to displace them. The entire transition makes no sense if there is a continuity of high level officials. Accordingly, new Mycenaean scribes would be needed. The RCT indicates that a significant number of scribes were newly trained together, and their records mentioned individuals chiefly with Greek names. The new script, new layout, and new language excluded the previous scribes from participating.<sup>659</sup>

In these above examples, we can see the reasons that literacy and the use of writing appear to have been greatly restricted. By restricting access to literacy – and in the case of Knossos, access to literacy in the authoritative script and language – the ruling elite protect the authority of the written word. Only trusted administrators and officials could record documents, thereby ensuring that tablets in and of themselves could be considered authoritative, without need for additional means of verification. If the technology of writing were spread more broadly, a system of checks and balances would need to be imposed to ensure that written documents were legitimate. To this end, scribes were likely kept to a minimum, with new scribes being trained *ad hoc* by other scribes. Writing was never used for display purposes, as that would also undermine the cloistering of the technology of writing. The Mycenaean populace likely never had intentional or meaningful contact with writing. Accordingly, there was no need to establish public confidence in writing by using it in displays or as receipts.

In this light, if we consider again the inscribed personal vessels, and they are in fact prestige items, then there is no need to wonder why there are so few. There were

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<sup>659</sup> Also see Bennet 1990 for broader changes in administration employed to establish a new administration on Crete.

only a very small number of individuals at each site who would be able to appreciate the significance and power of writing. These elite displays would have had meaning only to other elites. Without such a restriction, the function and use of Mycenaean writing likely would not have resembled the present depiction of Mycenaean administration in many significant respects. One wonders if we would have seen something similar to the administrations of the Near East.

The restricted use and awareness of Mycenaean writing also would have allowed for a relatively easy transition from an earlier division of territory into local districts to palatial control of the region. When palatial control of the entire region began, the local rulers of second-order centers would have been able to stay intact with no disruption. That is, in the same way that a change of script and language displaced former elites on Crete, the use of writing in Pylian administration would have excluded the illiterate local rulers from the administration of the kingdom. As Michalowski noted, in a significant change in administration, it would be preferable to keep the lower elites in power.<sup>660</sup> Otherwise, there is too much upheaval, resulting in chaos. The use of writing effectively creates an administrative boundary, beyond which the local elites are unable to cross. However, the implementation of a largely non-literate seal/sealing administration would still invite local elites to participate at lower levels in the central administration. Since local elites were able to retain their authority over their territories, and were afforded at least restricted participation in palatial administration, they could be kept appeased and satisfied. Writing, however, would keep them in their place and ensure that the palace remained in control of the region.

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<sup>660</sup> Michalowski 1987, p. 59.

## Conclusions

Let us briefly return to Baines' quote on the study of literacy and the use of writing:

The first question to ask is not so much what function writing had in the wider society, but who it served at the center and how it contributed to patterns of social inequality and access to symbolic resources, including those of administration, in early states.

So whom did it serve at the center? How did it contribute to patterns of social inequality and access to symbolic resources? At its core, Mycenaean writing served the king and his closest elites. It created a closed-off system of reckoning at the highest levels of administration, in which non-literate members of society were not welcome to participate. In effect, writing was used to create a sort of administrative man behind the curtain. Former, pre-literate means of administration continued to function at the levels that most Mycenaean would be aware of. The continuation of old patterns ensured that the Mycenaean populace trusted in, and were comfortable with, the new palatial system.

Above this non-literate level, writing was used to label, quantify, and consolidate resources to the greatest extent possible. Maintenance of annual records allowed for contributions to be fixed and adjusted for additions and future changes, such as the use of previously unused portions of a plot for agriculture. In answer to Baines' second question, Mycenaean elites used writing to mobilize and maximize resources while the broader population was satisfied with the continuation of familiar modes of administration. By carefully selecting who could read and write, and ensuring that those who were trained in writing would function in the interests of the Mycenaean elites, the king could ensure the health of the Mycenaean economy and thereby the Mycenaean kingdom. The continuity of several facets of literate administration across Mycenaean

sites throughout Greece would ensure that there was a network of similarly-run palatial territories with which to ally.

When looked at through the lens of literacy, a number of disparate issues related both to the Linear B script and Mycenaean administration coalesce into a single narrative. We have considered inscriptions on vessels, the crossover from Linear A to Linear B administration on Crete, the relationships between scribal hands, appearance of dialectal differences (although more likely merely orthographic variations), and the status of scribes. All of these issues, elements and concerns can be better understood – and better understood together – through the lens of literacy studies. We can appreciate that our scribes were literate officials who were close to the king. Several scribes likely were not positioned at the palace itself, but were located at sites throughout the kingdom, acting on behalf of the king. Regional variations in speech likely contributed to variations in orthography. The scribes were normally trained on an *ad hoc* basis as they were needed by their king, and would have been culled from those of elite status and those who were decidedly loyal to their ruler. In the case of Crete, a number of these scribes had to be trained as a unit in order to deal with the crossover from Minoan administration to Mycenaean administration. In order to subvert the power of the old elites, the change in language, script, tablet layout, and weights and measures introduced a Mycenaean order to business. This transition effectively rendered those literate in Linear A as marginalized subordinates.

Beyond these points, the information contained in the tablets and its relation to the Mycenaean economy can be better understood as well. When the contents of the tablets are considered for the purposes of literacy studies, we can see that the tablet writing is unique to each scribe, and that these documents cover only very specific aspects of the economy. When the process of writing tablets is considered in relation with sealings, we



see that several bits of information disappear prior to the tablet phase of economic oversight, while new information is added. We can thus appreciate how significant the oral/non-literate component of administration must have been, especially in the use of sealings. All writing – sealings and tablets – constitutes only the very apex of administration, with a vast non-literate component beneath. The tablets tell us only what the palace was concerned with, and they further imply that there was a vast amount of economic activity that the palace was not at all concerned with recording.

Following the use of writing backwards from tablets to seals, we see how the administration kept writing at the very top, with only minor literate tendrils – in the form of inscribed sealings – reaching out from the center. Uninscribed sealings formed the non-literate/literate interface between lower-order economy and the palace. These non-literate modes permitted local elites and elites outside of central administration to be involved with administration, without giving them full access. Beneath this level, we can assume that to the common Mycenaean, administration appeared unchanged from the prepalatial era, as most would still be involved only with their local rulers and workgroups.

Most importantly, nearly every bit of evidence we have for Linear B indicates that writing was a protected technology. The protection afforded to literacy granted its power and authority, and allowed any written word to be deemed authoritative. The script was never celebrated – except perhaps occasionally in elite circles with the inscription of personal vessels – and was never visibly introduced to the Mycenaean public. For this reason, Mycenaean tablets never required stamping or sealing to insure their validity or accuracy. Every text spoke on behalf of a trusted member of the Mycenaean elite. As long as the technology stayed that way, writing needed never be doubted. The use of writing by central administration also allowed for economic forecasting, ensuring the

maximization of resource acquisition. Writing empowered those at the center and provided them with a tool for maintaining the consolidation of their power. As long as literate administration continued to rest on top of ancient, well-established, non-literate modes for all other Mycenaeans involved in the economy, the common man would take no notice of the central authority and be blissfully ignorant of the machinations of those far more powerful than him.

In summation, we can say that the administrative function of writing was to maximize the acquisition and use of material wealth of the kingdom, to police its collection, and to aid in the management of resources. In terms of literacy theory, writing was used in these processes as a means of restricting participation in administration. Writing is never *required* in the maintenance of a complex administration. However, its use prevents previous elites and local elites from participation. Through writing, the palace maintains a restrictive cloister at the top of the administration food chain, permitting only those whom it deems most trustworthy to participate. In this way, writing can be viewed as the technology with which the Mycenaeans protected the economic security of their kingdoms.

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## Vita

Kevin Michael Pluta was born in Ann Arbor, Michigan. After completing his work at Bowie Senior High School, Bowie, Maryland, in 1988, he entered the United States Coast Guard Academy in New London, Connecticut. In 1990, he transferred to the University of North Carolina at Greensboro, in Greensboro, North Carolina. In 1991, he transferred to New York University in New York City, New York. He received the degree of Bachelor of Arts from New York University in May 1993. During the following years he was employed by the Metropolitan Museum of Art and the Pierpont Morgan Library. He received a second Bachelor of Arts degree from The University of Texas in 1998. In 1998, he entered The Graduate School at The University of Texas and received a Master of Arts degree in 2000. Kevin has published articles on Linear A and Linear B.

E-mail address: [kevin.pluta@gmail.com](mailto:kevin.pluta@gmail.com)

This dissertation was typed by the author.