

North Kharga Oasis Survey 2004 Preliminary Report: Ain el-Tarakwa, Ain el-Dabashiya and Darb Ain Amur

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(Plates 23–24)

The North Kharga Oasis Survey (NKOS) completed its fourth season in 2004. The goals of the project are to document, map, and plan the antiquities in the oasis north of Kharga town and the areas to the west that link the two oases of Kharga and Dakhla. The urgency of recording the sites in this oasis was emphasized by the increased evidence of recent looting throughout the more accessible parts of the oasis. Some areas are so remote that large-scale destruction can be carried out without immediate detection, as has unfortunately occurred at Umm el-Dabadib, where a front-loader has recently devastated the archaeological remains¹.

This season marked the final year of active exploration prior to the publication of a map and an initial monograph on the northern part of the oasis². The primary focus was surveying and recording the adjoining sites of Ain el-Tarakwa and Ain Dabashiya and their environs. Geophysical work was carried out at Ain el-Tarakwa and also at the site of Muhammed Tuleib, in order to augment the initial work carried out there in 2001–2002. A few days were also dedicated to a general survey of the antiquities of Ain el-Lebekha. Finally, the survey continued the exploration of the Darb Ain Amur, the network of ancient caravan routes that criss-cross the desert between the mini oases of Umm el-Dabadib and Ain Amur. Archaeobotanical and ceramic studies were also carried out on the material gathered from these and other sites explored in earlier seasons.

Methodology and Aims

For all the areas studied this season, save the Darb Ain Amur, NKOS used a combination of theodolite and GPS (Global Positioning System) survey to map the different sites. Areas with a concentration of archaeological remains were recorded by theodolite, while less dense and more distant locations mapped in using the GPS. A number of points were surveyed with both systems in order

¹ C. ROSSI/S. IKRAM et al., *North Kharga Oasis Survey. 2003 Preliminary Report: Umm el-Dabadib*, in: *MDAIK* 62, 2006 (hereafter cited as ROSSI/IKRAM, *MDAIK* 62).

² S. IKRAM/C. ROSSI et al., *North Kharga Oasis Survey. 2001–2002 Preliminary Report: Ain Gib and Qasr el-Sumayra*, *MDAIK* 60, 2004, pp. 69–92; C. ROSSI/S. IKRAM, *North Kharga Oasis Survey. 2003 Preliminary Report: Umm el Dabadib*, in: *MDAIK* 62, 2006.

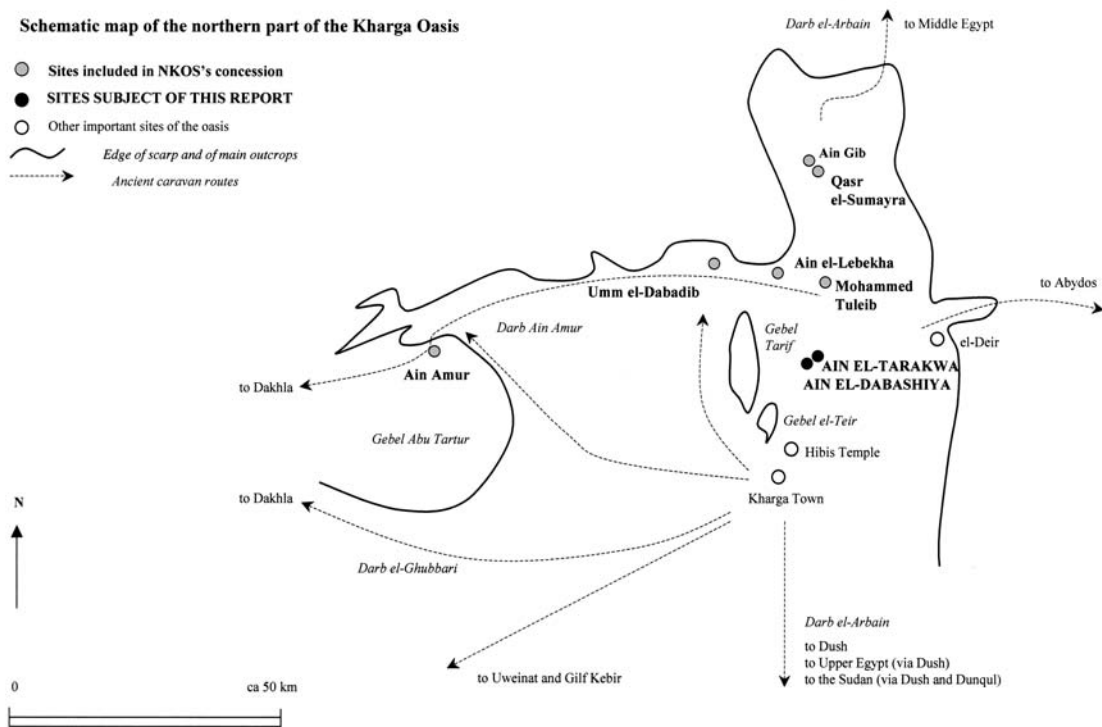


Fig. 1: Schematic map of the northern area of the Kharga Oasis, showing Ain el-Tarakwa and Ain el-Dabashiya and other major sites included in NKOS's concession (drawing by C. Rossi, ©NKOS)

to link the two sets of data and to correct any problems of orientation. Where possible, standing buildings and tombs were surveyed in detail and drawn in plan and elevation. For the site of Ain el-Lebekha, for which no general map exists although isolated remains have been studied in the past by several teams³, NKOS carried out a GPS survey in order to produce a comprehensive map of the entire area including the position of the main groups of archaeological remains, the boundaries of the ancient cultivation, and the extent of the subterranean aqueducts.

A geophysical (magnetometric) survey was carried out in portions of the sites of Ain el-Tarakwa and Muhammed Tuleib to see what could be discerned of the underlying structures, and whether this technology could be used effectively to document the archaeological remains of the oasis with minimal excavation.

A study of grave-types was also carried out in order to establish a typology of tombs and to correlate the burials found here with others documented in earlier seasons in other parts of the oasis. Human and animal remains were examined *in situ*, and botanical remains, in the form of samples as well as mud-bricks, were taken to the Kharga Inspectorate and studied there. Small finds and pottery collected in the different sites were examined, photographed, drawn when appropriate, and then stored in the local Inspectorate.

³ Ain el-Lebekha has never been systematically studied. The SCA has done some work in the area of the settlement (personal communication), some of the necropoleis have been examined by the SCA and FRANÇOISE DUNAND and her team, a chapel has been published by A. HUSSEIN, *Le sanctuaire rupestre de Piyris, Ayn al-Labakha*, Cairo 2000, other areas have been explored by the IFAO (N. GRIMAL, *Travaux de l'IFAO*, in: *BIFAO* 92, 1992, p. 237), and the fort also has been surveyed by the IFAO (N. GRIMAL, *Travaux de l'IFAO*, in: *BIFAO* 90, 1990, p. 379; M. REDDÉ, *Sites militaires romains de l'oasis de Kharga*, in: *BIFAO* 99, 1999, figs. 18–21).

The Darb Ain Amur area was surveyed solely by GPS. The route was identified and explored by car and on foot, and the sites along the route numbered and/or named. The main concentrations of archaeological remains were located around large sandstone rocks that provided shelter to travellers, and consisted of petroglyphs from different periods and areas of intense pottery scatter. The petroglyphs were documented photographically and in some instances were also drawn, while diagnostic ceramics were collected and taken to the Kharga Inspectorate for analysis.

The Sites

As several sites were examined this season, the results for each are provided below. The ritual and residential areas of Ain el-Tarakwa (and environs) and Ain el-Dabashiya are presented first, followed by the settlement and temple of site of Muhammed Tuleib, and culminating in the sites found along the Darb Ain Amur (Fig. 1).

Ain el-Tarakwa

The site is located approximately 20 kilometres north of Kharga town and west of the village of Attara (Ezbet 55). The site, almost completely buried under the sand, includes a small stone temple surrounded by a mud-brick settlement, and a cemetery to the south (Fig. 2). The entire area between Ain el-Tarakwa and Ain el-Dabashiya is riddled with large wells, some of which may have been used until the 1950s, when the water level dropped due to the installation of motorized water pumps in other parts of the oasis.

The temple shares certain features with others in this oasis: it was situated on a north-south axis; and portions were constructed of sandstone covered with lime plaster, with the remainder being made out of mud-brick, notably the enclosure wall (Pl. 23a). The tripartite sanctuary, pronaos, and main gate are of sandstone, with the doorways enhanced by cavetto cornices and torus mouldings. The central chamber was larger than those flanking it (Fig. 3). The corners of the buildings are also adorned with unfinished torus mouldings. At some point within the past 20 years, looters have driven heavy equipment through a part of the northern mud-brick enclosure wall and destroyed the central and western chambers of the sanctuary. Many of the blocks that were consequently dislodged from the fabric of the building seem to have been removed by thieves, especially decorated blocks. Only a single decorated fragment from the dado survives. It is inscribed in sunk relief with papyrus plants that presumably surmounted the head of an image of Hapi or another fecundity figure. Part of the register line enhanced with five-pointed stars is also visible on the fragment. Presumably the temple originally had more decorated portions which are now lost.

The main access to the temple enclosure lies to the south, thus protecting it from the prevailing north wind. This orientation is commonly found in many other large official buildings in the oasis, regardless of period, including some of the Roman forts. The portal is also constructed of sandstone, with a cavetto cornice and torus moulding. The portions that were exposed to the wind are very eroded, and no trace of any decoration was found. The portal fits into a thick mud-brick enclosure wall that varies in its thickness from 60 to 100 centimetres. The corners of the wall are buttressed, and some additional buttressing can be seen on the eastern, western, and northern faces. Secondary entrances, possibly of a later date, pierce the north-eastern and south-western sides of the enclosure wall.

The temple enclosure was reused in later periods and evidence of secondary habitation and usage was found throughout the area. The most notable example of this is a mud-brick church that is constructed on an east-west axis, and that stands before the entrance of the temple's sanctuary. Its

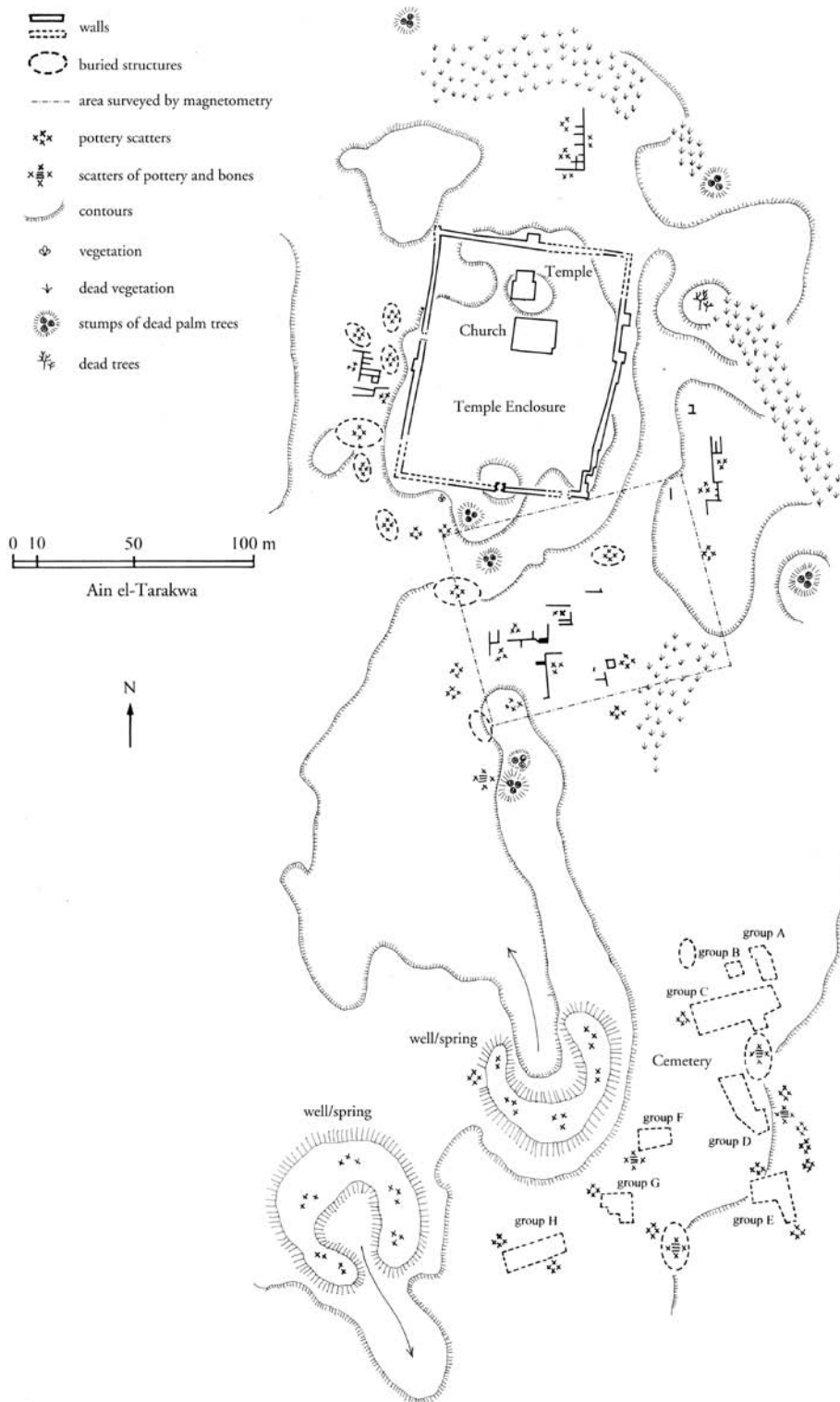


Fig. 2: General sketch map of the archaeological area of Ain el-Tarakwa (drawing by C. Rossi, ©NKOS)

entrance deliberately blocked the way to the temple and changed the focal point of the enclosure, orienting it to the church. To further nullify the power of the temple, its doors were filled in with stone rubble held together with mud mortar, thus effectively ‘killing’ the potency of the building.

The church was entered through a vestibule, which was separated from the body of the church at the nave’s western end by four pillars crowned by gradated mouldings. The church proper consisted of a tripartite nave, with the central area separated from each side-aisle by a row of three pillars that are also surmounted by gradated mouldings. These pillars are preserved to their full height. The church has a rounded apse enhanced by a series of four round-topped niches, possibly representing each of the four evangelists. The niches are adorned with miniature columns, and are reminiscent of the entrances to the Bagawat tombs, as well as the rounded niches found in the houses at Umm el-Dabadib⁴. The absence of any indication of vaulting, together with the pillars, suggests that the church was covered by a flat roof of palm logs and matting, such as the one found in ancient Kellis in Dakhla oasis⁵. Three windows pierce the southern wall of the church and have chamfered sills, while the northern wall is blank. The location of the windows and the southern entrance are due to the practical considerations of the strong northern winds that sweep through the oasis.

Other buildings from a secondary or tertiary occupational phase were also found within the temple enclosure. It is possible that a small settlement grew up around the church at a later date, protected by the ancient temple enclosure wall. This pattern is also found at the temples of Qasr el-Ghuweita and Qasr Zayyan, both in the southern part of Kharga Oasis. One of the mud-brick structures built onto the inner face of the eastern side of the enclosure wall appears to have been a textile production area: a dense concentration of round and oval loom-weights made of unbaked clay were found here.

Outside the temple enclosure wall, other modest but well-built mud-brick structures were recorded, particularly to the east and the west. The buildings all have vaulted roofs and appear to be multi-chambered and could conceivably have been part of the original settlement associated with the temple. The area directly in front (i. e. to the south) of the temple enclosure appears to have contained some large buildings. It is unclear if these were contemporary with the temple, or with the later Christian occupation. A few fragments of mud-brick pierce the surface of the sand, but the most striking evidence comes from the magnetometry survey that was carried out in the area by Dr. TOMASZ HERBICH. This shows a series of long walls, some isolated, and others forming a few rooms whose function cannot be determined without excavation.

An area lying approximately 200 metres to the south of the temple enclosure is densely packed with a series of tombs. These were dug into the desert *tafla* and then lined with mud-brick⁶ and covered with vaults. This tomb type is recorded at other sites in the oasis by NKOS as well as by other teams⁷. The burials appear to have been placed at or above ground-level, although this cannot be clearly determined without excavation. Several bodies occupied a single structure. Perhaps they were family vaults that were used repeatedly, or perhaps the mass burials indicate recycling. Certainly some of the burials that lay exposed were deposited on an east-west axis, as opposed to those below them that were oriented north-south. The change of orientation could suggest a change in belief system, presumably the adoption of Christianity by the area’s inhabitants.

⁴ ROSSI/IKRAM, *MDAIK* 62.

⁵ G. E. BOWEN, *The Fourth Century Churches at Ismant el-Kharab*, in: C. A. HOPE/G. E. BOWEN (eds.), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxford 2002, p. 66.

⁶ Each brick, made of sand and yardang mud measures 15 × 34 × 9 cm.

⁷ S. IKRAM/C. ROSSI et al., *North Kharga Oasis Survey 2001–2002. Preliminary Report: Ain Gib and Qasr el-Sumayra*, in: *MDAIK* 60, 2004, pp. 81–83; F. DUNAND/J.-L. HEIM/N. HENEIN/R. LICHTENBERG, *La Nécropole de Douch (Oasis de Kharga)*, Cairo 1992, pp. 2–7.

Due to its geographical and geological location in the flatter part of the oasis's depression, Ain el-Tarakwa's water supply seems to have come from natural springs or wells rather than *qanats* found in other parts of the oasis that are situated closer to the escarpment and on a slight incline⁸. Ain el-Tarakwa shares this water supply system with Ain el-Dabashiya, and Muhammed Tuleib (see below), that are situated in similar low-lying areas.

At Ain el-Tarakwa, the remains of two major springs or wells are located to the south of the temple, one apparently open northwards (but this might be the result of later work), the other southwards (Fig. 2). The majority of the water for this site appears to have been provided by these two sources, although their close proximity to the cemetery raises the question of their relative chronology. Several other smaller water sources are scattered throughout the area surrounding the temple, and these might all have been responsible for providing the inhabitants and their fields with water. As many of the wells have been enlarged and re-dug several times up until the 1950s, it is impossible to determine their origin. It is entirely possible that at least some of them were originally natural springs; this is especially probable for those located near temples⁹.

The entire area between Ain el-Tarakwa and Ain el-Dabashiya is dotted by large wells of similar size and shape. It is unclear how many of these are ancient wells that were reused in modern times, and how many are purely modern wells. The associated field systems, whether ancient or modern, are completely covered by sand, and their location can only be guessed by the position of the various water sources and occasional portions of exposed soil.

Notable amongst the many wells found here is one located to the south-east of the temple and another situated nearly 1.3 kilometres to the south. Both of these water sources are also significant sites for concentrations of prehistoric remains, primarily flints and grinding stones. The latter site also has a dense surface scatter of ostrich egg-shells, together with flints and grinding stones, suggesting evidence of prehistoric occupation of the area.

Tarakwa Environs

Several new sites were located to the north of Tarakwa as well as to the north-west and north-east. Directly to the north, a little more than a kilometre away, lies 'North Tarakwa', a site consisting of a series of wells surrounded by mud-brick buildings. Some of these had limestone thresholds, lintels and door sockets which still remain *in situ*. Signs of baking, possibly brewing (grain processing impedimenta in the form of grinders), agriculture, and pottery production were found here. Fragments of glass, granite, and faience suggest a certain degree of wealth. One of the more eastern wells shows evidence of concentrated prehistoric activities.

A series of large protruding rocky knolls lie to the west of this settlement. Into these, the ancient inhabitants cut tombs of varying sizes, most consisting of single chambers. These tombs contained mummies, and, in some instances, wooden coffins for their burials. All were robbed, and many of the mummies were found disarticulated and strewn about. Mummification of different types was practiced. Some bodies were eviscerated, while others had resins and oils poured over

⁸ For Ain Gib see I. SCHACHT in S. IKRAM/C. ROSSI, in: *MDAIK* 60, 2004, pp. 84-6; for Umm el-Dabadib see C. ROSSI in ROSSI/IKRAM, *MDAIK* 62. On this subject, see also I. SCHACHT, *A Preliminary Survey of the Ancient Qanat System of the Northern Kharga Oasis*, in: *MDAIK* 59, 2003, pp. 411-23.

⁹ Cfr. the wells/springs of Ain el-Dabashiya, below, the well/spring at Umm el-Dabadib (ROSSI/IKRAM, *MDAIK* 62) and the two wells/springs at Ain Lebekha.

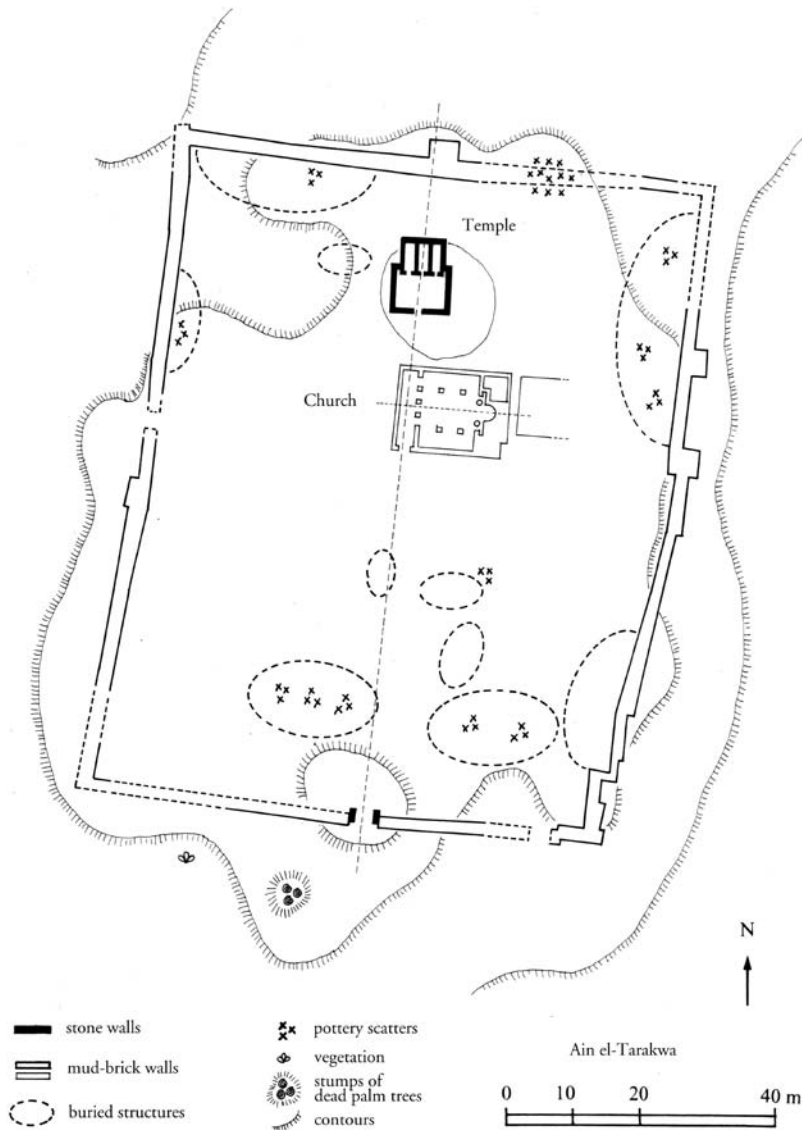


Fig. 3: Sketch map of the temple enclosure of Ain el-Tarakwa (drawing by C. Rossi, ©NKOS)

them; excerebration was also practiced unevenly. All the bodies had once been wrapped in what appear to be linen bandages. No obvious child burials were identified, although the bodies of men and women of varying ages were found, with hair and skin well preserved. Some of the men had facial hair that, together with the hair on their heads, seems to be blond. Whether this was an artefact of the mummification process, or the natural colour of the hair is uncertain; perhaps future testing of the hair will shed some light on this matter and help in the ethnic identification of the population that is buried here. The bodies seemed to have been laid out with the hands placed on the thighs or covering the genitals.

To the north-east of Ain el-Tarakwa lie other areas of Roman occupation. In some cases, the Roman dwellings have been built over and reused in the modern period (probably up to the 1940s

or 1950s), while in others they remain in their original state. It is quite possible that the Roman level, together with the modern reuse, covers an even earlier occupational deposit. These sites are unnamed locally, but have been temporarily designated Tarakwa North-East A, B, C, D, E, and F. Tarakwa North-East A is a site with two large wells and pottery scatters. Tarakwa North-East B shows a large and intense area of pottery scatter and might have been the upper eroded level of mud-brick structures. Remains of the wells can still be found in the area. Tarakwa North-East C is deeply buried under sand; all that protrudes from the sand are a series of tombs cut into sandstone rock. Some of these were lined with mud-plaster, and others with mud-brick. The latter were also roofed with mud-brick vaults. Other outcrops in the area also seem to have been used for more tombs. Doubtless the settlement is nearby, but no visible traces are evident.

Site Tarakwa North-East D consists mainly of wells; virtually no habitation is visible and what little can be seen is buried deep in sand. Tarakwa North-East E is a very large area, consisting of modern buildings built over ancient ones. In a few cases the ancient buildings have been repaired and reused, and in others their bricks have been used in newer structures. The pottery scatter in the area is predominantly of modern material, although a few ancient sherds were tentatively identified. The last area, Tarakwa North-East F, is in view of the asphalt road north of Ezbet 55. At least two or three blocks of mud-brick structures are clearly visible through the encroaching sand. Some wells and a possible cemetery were located nearby.

Ain el-Dabashiya

Ain el-Dabashiya is a large site and consists of a mud-brick temple, wells, fields, a pigeon tower to the north, an administrative centre and grain processing facility to the north-east, outbuildings to the south, and an extensive cemetery to the west and north-west (Fig. 4). This entire area was surveyed by theodolite. As with Ain el-Tarakwa, the main focus of this site was the temple. However, unlike the temple at Tarakwa, this temple was constructed exclusively of mud-brick¹⁰ that was once stuccoed.

The temple is rectangular in plan, situated on a north-south axis. The main doorway has a niche on the west side with no matching one on the eastern side, a feature to which there are no parallels amongst the standing temples in Kharga Oasis. It is possible that the lost façades of the temples at Ain Lebekha or Beleida shared this feature, but there is no clear evidence for this. The niche is 0.93 metres deep, 0.97 metres high, and 0.55 metres wide, and would have been large enough to accommodate an image. The presence of doors cannot be determined as the sill and the lintel area are both destroyed.

The first room of the temple is 17.2 metres long and 6.5 metres wide and was originally covered by a flat roof made of wood. Both the longitudinal sides of the room are pierced by four windows with chamfered lower sills. A smaller vaulted room lies to the north (8 metres x 3.6 metres); this was presumably the original sanctuary. Behind it lies a small narrow vaulted room with a large niche at the north, a possible smaller niche lower down to the north-west, and a window in the eastern wall. Its diminutive size (3.60 metres in width and 0.63 metres in length) argues against it being a later sanctuary; it is more likely that it was a storage area for religious paraphernalia, although it might have acted as a *contra* temple. Any further details of the temple's interior are obscured due to the mud huts and sand that choke it. There are no clear indications of an enclosure wall, but this might have been dismantled by the *sebbakhin*.

¹⁰ The bricks, like those from Tarakwa, are made of sand and mud, and measure 34 × 18 × 10 cm.

The site is particularly difficult to survey as the temple was inhabited by some sixty families belonging to the clan of Dabasha until the mid 1950s, when they abandoned the site for the village of Mounira that lies to the east. This clan had re-dug the ancient wells in the area and cultivated rice, *ber-sim*, and wheat here. They built their houses within the walls of the ancient temple and reused several surrounding structures as well. As a result, the temple is so damaged and in-built that its original plan and dimensions are difficult to determine. Some of the area of the ancient settlement had been turned into new fields, with the old mud-brick providing the *sebbakh* or fertilizer for the new fields.

The remains of three wells/springs lie just east of the ancient temple. As for the other water sources of the area, it is difficult to tell how ancient these are. The third well to the south still shows the remains of a network of winding channels used to distribute the water from the well into the fields. Even if these remains probably date to only a few decades ago, it is likely that the ancient system was very similar, if not identical.

An extensive stretch of desert around Ain el-Dabashiya still bears traces of cultivations, and it is possible to make a distinction between plots of smaller size, that are more visible and better preserved, and faded plots of larger size that appear especially in the northern area (Fig. 4). Umm el-Dabadib shows the same pattern and the same preservation difference, and it may be concluded that the smaller plots are relatively recent (in fact they look very similar in size and shape to the modern cultivations of the oasis), whilst the large ones are much older, probably of Roman date. As may be expected, the modern plots 'cover' the ancient fields, that is, the same areas which were once cultivated by the Romans were re-used by the farmers of more recent times.

The ancient settlement appears to have lain around the temple area at some distance away, although differential levels of preservation might be responsible for this impression. If any closer dwellings existed in antiquity they have been obscured by modern huts, middens, and the encroaching sand. A small portion of the settlement that is largely obscured was located north of the temple. The remains of several mud-brick buildings lie further to the north-east. These seem to be associated with at least two wells and a large grain processing area where several grinding stones, large storage vessels, and possible beer producing vessels were found. This appears to be a large-scale food-producing centre that catered to the temple and dependent buildings. South and south-east of the temple are other areas where there is evidence of dispersed ancient habitation. A large and well-preserved south-eastern structure, consisting of a series of rooms, and located near a spring or well, was reused in the 20th century.

A spectacular square pigeon tower is also situated to the north of the temple (Pl. 23b). Similar towers have been found in other parts of the oasis, including Dush, Umm el-Dabadib, and the area between Mustafa Kashef and Beleida. The tower was entered at high level via a ladder located on the west, thus protecting the pigeons from the attack of carnivorous animals. Up to a height of a few metres the corners are chamfered, with the upper portions of the structure being rounded. Internally, the tower could be accessed by a mud-brick stairway, of which only a portion survives. The interior is made up of several small loculi that would have housed the birds. The vast number of shattered remains of pigeon pots found around the base of the building indicate that the tower was extended vertically and finished off using pigeon pots set in mud plaster.

The pigeon tower is located at a short distance from a well. The well differs from others in the area as a dry-stone wall protects the northern, windy side, keeping out the sand that would enter the shaft with the prevailing wind. Perhaps this is a relic of the 20th century inhabitants of the site as it was more common in antiquity for the diggings from the well to be deposited in a horseshoe shape surrounding it, thereby protecting it from the prevailing north wind and the attendant sand. In addition to Roman ceramics several lithics were noted here; clearly it was the site of prehistoric activity.

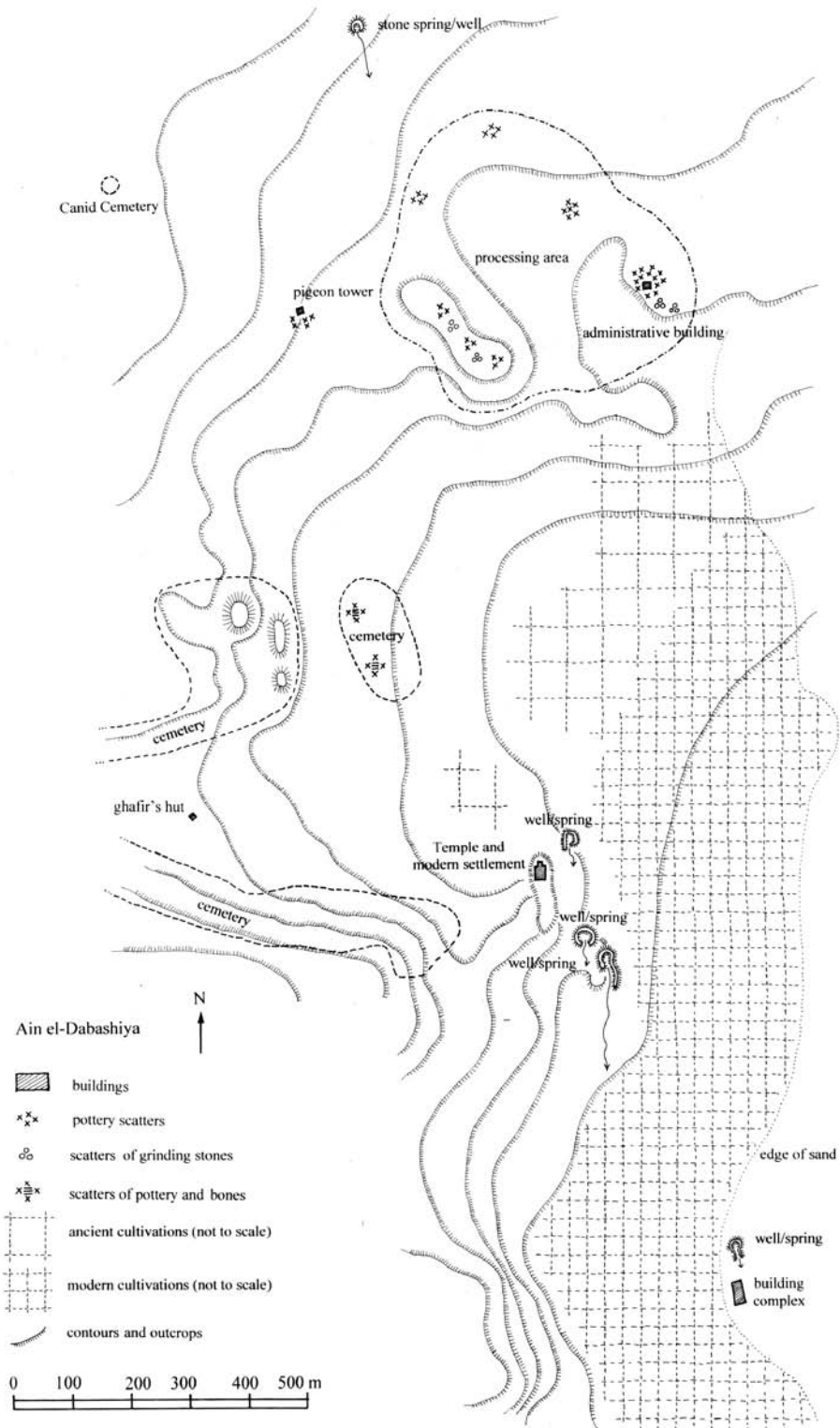


Fig. 4: Sketch map of the archaeological area of Ain el-Dabashiya (drawing by C. Rossi, ©NKOS)

The cemetery for the area is significant, and starts south-west of the temple, continuing to the north, ending a little beyond the area marked by the pigeon tower, a distance of more than one kilometre. The graves are of several different types: rock cut, where good-quality rock is available; unlined shafts; mud-brick or mud-lined shafts. A relatively poor cemetery with very simple pit or shallow shaft graves is located in the plain between the pigeon tower and the temple. Many of the graves, especially the rock-cut ones, contained several burials. The dates of these tombs no doubt varies; earlier work at the site, carried out by the Supreme Council of Antiquities (SCA), had revealed what is probably a Late Ptolemaic burial. This season's investigation revealed a tomb that was robbed save for a group of pots that have tentatively been dated to the 1st century AD (see GASCOIGNE below) (Pl. 24a).

A variety of mummification techniques were practiced upon the bodies. Some were eviscerated and excerebrated, while others were just eviscerated. Many showed no evidence of evisceration from the side or per anum. Large quantities of resin/pitch/bitumen were used in the mummification process, in addition to the desiccation material (salt/natron), prior to wrapping the corpses in several layers of linen.

Another cemetery devoted to sacred/votive dogs was located north-west of the pigeon tower. It contains dog mummies and perhaps at least one human. As it was not excavated, it is difficult to determine how many human burials it contained; only one human fibula had made its way to the surface. The dogs were mummified using oils, resins, and possibly pitch or bitumen, and then wrapped. Natron or salt might also have been used, but without tests this cannot be determined. Dogs of all ages, from newborns to old dogs, were mummified, as is attested by the epiphysial fusion of the long bones, the and eruption and wear patters seen on their teeth. A variety of linen types were used, although the majority appear to have been quite coarse.

Earlier work in 1994 carried out by the SCA, had revealed a tomb filled with dog mummies (tomb 41), set within the human tombs, just west of the temple. The tomb consisted of a shaft cut into the bedrock, leading to two chambers, one going westward, the other eastward. These chambers contained both canid and human mummified remains. Clearly the site of Dabashiya was sacred to Anubis, as well as to other deities. The location of this canid cult is particularly interesting as it was also celebrated at the site of el-Deir, located directly to the east of the Dabashiya-Tarakwa temple and settlement zones¹¹. Whether the god whose cult was celebrated was Anubis or Wepwawet, or some other canid deity, is currently unknown. However, it is interesting to note the presence of this cult in Kharga. Most of the other cults known from Egypt's western oases seem to be devoted to birds, either ibises or raptors. Perhaps this canid cult links Kharga to the Asyut/Abydos region, the starting point for many of the desert routes leading to Kharga (cfr. Fig. 1)? Certainly it would suggest that the Dabashiya temple might have been dedicated in part, if not entirely, to a canid deity. Such deities were not only associated with funerary beliefs, but with opening roads and protecting voyagers, and were commonly invoked by travellers throughout Egyptian history, being particular favourites of Roman soldiers.

Muhammed Tuleib

Muhammed Tuleib had undergone a preliminary study in NKOS's 2001 season and had proved to be an interesting and promising site, but rather difficult to survey because of the presence of a thick layer of sand and scrub. In 2004 NKOS returned to the site and carried out some further

¹¹ F. DUNAND 2004, personal communication.

work, including the magnetometry survey of a settlement area and further observation of the standing remains. The magnetometric survey, carried out by Dr. TOMASZ HERBICH, yielded encouraging results. Several kilns were found, indicating a settlement with significant industrial activity. Lines of walls that were completely buried by sand and thus invisible to the naked eye were also located.

It appears that this site was originally a temple that was later expanded and modified, eventually becoming a fort or fortified enclosure. The archaeological remains also include a settlement arranged around this central structure and two main cemeteries (extensively to the east and on a more limited scale to the north-west). Remains of an irrigated field system are visible to the west; presumably the cultivated area was once much more extensive, but only a limited amount is now visible due to the nature of the terrain.

Only the eastern wall of the original temple that initially formed the focus of the site is visible. The exterior façade is enhanced by a cavetto cornice and torus moulding. It appears that the original access to the building from the east side, where vestiges of a door can be seen. Due to the secondary building activity at the site, it is impossible to determine if there were other accesses to the temple. The temple was originally plastered and painted. The decorated plaster recovered from the area show that, in addition to the cavetto cornice and torus moulding being painted, the temple was further adorned with images of papyrus thickets, figures of gods and kings. Part of an inscription was also discovered. This was located near the door to the temple and is translated as: “Words spoken by Horus, son of Isis, Lord of Uu-[...]” (Pl. 24b). Unfortunately which particular locality called Uu is meant is unclear as the determinative has broken off; at least a few other towns of that name are known. From the Late Period onward, “uu” can mean agricultural land, and is only a precise toponym when used with the name of a god or area (*WB I*, 289). Uu-Hor is a common name in both Upper and Lower Egypt, including the area of Edfu. The inscription from this temple is sadly incomplete, so it is not possible to determine the precise toponym that was used here.

The temple’s interior plan was not retrievable as it was choked with sand and had also been modified later on, as the temple was incorporated within, or perhaps entirely taken over by a small Roman fort. A monumental mud-brick gateway with elements covered in thick plaster was located twenty-seven metres to the east of the doorway of the temple. The gate might have been flanked by an enclosure wall, but no clear evidence for this remains. If it existed, it has now since been subsumed by sand or removed by later inhabitants as no trace could be identified. Further settlement lay to the east of the temple-fort.

A large cemetery consisting of shallow graves dug into the *tafla* as well as shaft tombs was found to the east of the fort. Another series of as well as another set that was situated to the west of the fort. Another huge cemetery, excavated by the SCA previously to prevent looters, has also been located further west at the site of Ain el-Gebel. It is possible that this cemetery was associated with a different settlement site; however, this seems to be covered by sand dunes and thus unidentifiable.

Darb Ain Amur and Ain Amur

The name Darb Ain Amur seems to cover several different tracks that led to the spring of Ain Amur from the mini-oasis of Umm el-Dabadib. Broadly speaking, the main tracks seem to run parallel to the northern scarp and to follow the outline of Gebel Abu Tartur, with a series of additional shortcuts that cross the plain in the middle (cfr. Fig. 1). In the eastern area, close to Umm el-Dabadib, all the tracks had to traverse several chains of dunes. In this area, it is likely that at different periods travellers used varying paths. The direction, however, seem to have been marked by cairns

placed on rock outcrops that were high enough not to be swallowed by the moving dunes. These cairns continue westward beyond the sandy area. In one instance, a large cairn built on flat terrain marks the crossroad where two important routes met in the middle of the plain.

A portion of this season's work focussed on tracing the ancient route and documenting the activities along it. Rocky outcrops provided the richest areas for finds. Petroglyphs from the prehistoric period were the most common finds; however, ceramic evidence shows that some rocky outcrops had also served as shelters for travellers from the earliest times through the Ottoman period, if not more recently.

The most significant find was located on a sandstone massif some 10-12 kilometres south-west of Umm el-Dabadib. The eastern face of this rock was inscribed with a *serekh* surmounted by a falcon, and containing the name that we have interpreted as: '(A), an apparently hitherto unattested name¹². The presence here of a royal name is extremely important as it shows evidence of royal activity in the farther reaches of the Western Desert as early as the Protodynastic period. It is still unclear as to where or what the goals of these very early travellers was; were they going to Dakhla, travelling further south into the Sudan, or beyond into deeper Africa? Was the mission military, trading, or exploratory? This stone also was inscribed with two additional pharaonic inscriptions on its northern face. One was one vertical line long, while the other consisted of two vertical registers of text enclosed in a box. Their condition renders it difficult to interpret them, especially since the former appears to have been inscribed over an older inscription incised into the rock at a larger scale. In the latter, the name of Intef is clearly identifiable, with an implication that he travelled here with several donkeys (that glyph is relatively clear) suggesting a date of the very late Old Kingdom or, more likely, the First Intermediate Period. It is very probable that other inscriptions were originally incised on this rock, but they have eroded or are buried by rock falls and desert sand. Perhaps future excavations of this area would yield some interesting results.

Another rock, located much closer to Ain Amur, was also inscribed with the name and possibly the titles of a New Kingdom scribe, Userhat¹³. Another faint hieroglyphic inscription was found on a rock half-way between Ain Amur and Umm el-Dabadib. However, it is very faint and difficult to decipher. This rock also had a curious image of three seated men with an ankh over the central man, perhaps implying that they wished to live through their journey.

The outcrops mentioned above, as well as other rocks found along the route, were also the site of more ancient prehistoric petroglyphs. The rock of King Aa had a particularly beautiful tableau of giraffes being led by men using leading ropes carved into its south-eastern face. Other animals found on the different rocks included more giraffes, antelopes of different types, canids, and even a few fish. In addition to the sites mentioned above, a few other sites with pottery scatters were located on the route between Ain Amur and Umm el-Dabadib. The pottery found included New Kingdom oasis amphorae and a Nile valley transport jar of the 8th century BC; however the majority of ceramic material identified along the route dated from the Roman period to Ottoman times, including a few clay pipes.

During the course of the survey, a series of curious sites were found a few kilometres east of Umm el-Dabadib, each separated by one or more kilometres distance. These consisted of deep diggings in the desert *tafla*, surrounded by crude stone-built structures, some consisting of a few rooms. The pottery from these areas varied and has yet to be properly examined, but it appears to be of a

¹² S. IKRAM/C. ROSSI, *A New Serekh from Kharga Oasis*, in: *JEA* 90, 2005, pp. ADD.

¹³ It is possible that this scribe was one of the Userhats buried in Thebes, although this is a matter of some speculation. This inscription will be published separately.

Roman date. At one of the largest of these sites, fragments of the common Nile silt amphorae LRA 7 and the imported LRA1 (see below for references to this typology) were far more numerous than those of oasis-ware jars and kegs. The significance of this is uncertain, but would seem to indicate a difference in supply patterns between this and the other related settlements. The nature of the diggings that constitute the reason for these crude settlements is unclear. They do not appear to have been for water, and the plethora of pottery jars and kegs suggest that water was brought to the site; there is also some evidence for wells in this area. Perhaps some un-guessed of mineral wealth was being sought here? Certainly geologists have not been able to identify any mineral that might have been sought here, other than alum, which is plentiful in the main part of the oasis, and thus an unlikely material to seek in such inhospitable surroundings.

Ain Amur is known for its Roman temple, spring, and mud-brick enclosure wall. This season we located a large cemetery to the south of the temple. Looters seem to be active in this area as many of the tombs were disturbed and human and ceramic remains scattered about in the cemetery area. About 2.5 to 3 kilometres north-west of Ain Amur, toward the escarpment, several crude stone huts were found, with one pair flanking a path leading up the escarpment. These structures were probably associated with the people who kept watch over one of the access routes over the escarpment that led from Kharga to Dakhla over the Abu Tartur plateau. The upper part of the plateau is deeply marked by tyre-marks left by local pick-ups that evidently come and go from Dakhla. Traces of at least one ancient site, almost completely destroyed, has been recorded along the initial eastern portion of this track.

S. I./C. R.

Ceramic Report

During the January 2004 season, NKOS ceramicists AMANDA DUNSMORE and ALISON GASCOIGNE carried out sampling and analysis of the pottery assemblages from the sites of Ain el-Tarakwa and Ain el-Dabashiya, and continued studying ceramics from Umm el-Dabadib, collected in January 2003 and subsequently stored in the Supreme Council of Antiquities' magazine at Kharga Town.

Ain el-Tarakwa

The density of diagnostic sherds at Tarakwa, and their state of preservation, was generally low. As a result, only one random sample was made, the corpus being supplemented with selected sherds from across the site. Although far more compact than Umm el-Dabadib, the site of Tarakwa nonetheless comprises several areas of activity separated from each other by tracts of apparently barren desert. Sherds were collected across the site, with the main emphasis on the temple enclosure where a three-metre diameter circle sample was taken in the north-east corner. These ceramics were grouped under the fabric system created by DUNSMORE during previous seasons, and a high proportion of the diagnostic sherds were drawn, the exceptions being duplicate forms and eroded pieces. A number of surface sherds were also collected and recorded from elsewhere in Tarakwa, notably the cemetery to the south of the temple enclosure and adjacent wells, the northern settlement, a well some distance to the south and the north tombs.

The ceramic corpus from Tarakwa corresponds reasonably closely to that recorded at Umm el-Dabadib in 2003. The site yielded no examples of the sigillata-type forms (e. g. the flange-rimmed bowl) associated with the 5th and 6th centuries, and it appears that occupation of the area, as at Dabadib, ended

at some point during the 4th century. The majority of the pottery appears to be 3rd and 4th century in date, though some earlier Roman material has been tentatively identified in the cemetery area.

Ain el-Dabashiya

At Ain el-Dabashiya, the ceramic corpus is a mixture of Roman material, and pottery associated with the 20th century resettlement of the site. No random samples were taken from here, the density of diagnostic sherds being simply too low for this to be a practical option. Instead, the least eroded diagnostic sherds were collected from the area around the temple and the well immediately to the south-east, the south 'farmhouse' complex, the pigeon tower and the tombs. The Roman corpus from the temple and well areas was very similar to the Tarakwa material, being apparently primarily 3rd and 4th century in date. In order to reflect fully all phases of site use, a number of modern pieces were drawn and added to the ceramic corpus; these were unsurprisingly similar in appearance to the modern pottery associated with 20th century reoccupation at Umm el-Dabadib.

The earliest pottery identified during the season was from the corpus collected from the Dabashiya tombs. In addition to surface sherds, a group of pots (four of them intact) were recovered from a single tomb (Pl. 24a). One of these, a distinctive spouted bowl, is paralleled at Dakhla by forms known to have been in use between the 27th dynasty and the 1st century AD¹⁴. It is likely that the Dabashiya piece dates to the later end of this range, but it nonetheless represents a ceramic tradition significantly predating the pottery from the main site.

Umm el-Dabadib 'watchpost/hermitage'

During a brief visit to the site, a number of vessels were collected from a small, remote rock shelter located on the escarpment some distance north of the main site on the line of *qanat* 6. This shelter has been very tentatively identified as a hermitage (partly on the basis of the similarity of its ceramic corpus to that of the hermitage found along Aqueduct 4) but it may equally have been a guard post. The pots from this location include an unusually high proportion of Nile silt fabrics, including two cooking pots, a bowl, a base and at least five examples of the common brown silt Egyptian amphorae (Late Roman Amphora type 7¹⁵). The amphorae were reconstructed, and three of these proved to be extremely small in size, slightly more than half the usual length of these vessels. In addition, a pot-stand, a cooking pot and two bases of oasis ware (one of which is paralleled from Dush, and represents the base of a form the upper parts of which were found in 2003 in the hermitage of Aqueduct 4) were drawn. Also recovered was a very well preserved basket; another pot-stand, secured into a wall with mud plaster, was left *in situ*. This hermitage or watch-post, being more remote and some distance from a water source, was clearly much more limited in use than the hermitage of Aqueduct 4, and the pottery is comparatively reduced in quantity and variation. The watch-post/hermitage corpus probably dates from around the 4th century.

A. G.

¹⁴ C. HOPE, personal communication.

¹⁵ J. A. RILEY, *The coarse pottery from Berenice*, in: J. A. LLOYD (ed.), *Excavations at Sidi Khrebish, Benghazi (Berenice)* 2, Tripoli 1979, pp. 91–467; J. A. RILEY, *The pottery from the cisterns 1977.1, 1977.2 and 1977.3*, in: J. H. HUMPHREYS (ed.), *Excavations at Carthage 1977 conducted by the University of Michigan* 6, Ann Arbor 1981, pp. 85–124.

Archaeobotanical Report

Ten mud-brick samples and three other samples collected in the 2002 season, together with three mud-brick samples collected during the 2004 season were processed and scanned by the archaeobotanical team, consisting of A. J. CLAPHAM (University of Durham) and M.-A. EL DORRY (American University of Cairo).

Methodology

The mud-bricks were first crushed within a container using a heavy hammer and the resulting residue was passed through a series of sieves. Each fraction was then scanned under a low-power (x10-x30) stereomicroscope and the plant remains were extracted. The main method of preservation of the plant remains was by desiccation although some fragments were preserved by charring.

As this project is a survey, no excavated samples were available and therefore it was decided that mud-bricks from the tumbles associated with the archaeological sites could be used to help determine the kind of crops grown in the area at the time of occupation. Mud-bricks will provide some evidence of the crops grown as crop-processing waste is usually added to the mud to form a more resilient brick. It is acknowledged that using mud-brick evidence will not provide a complete picture of the crop production and plant use in the area. It is hoped that future seasons will provide excavated samples that will demonstrate a more defined picture of crops grown and economic activity of the area.

Results

The majority of the samples (13) were collected in the 2002 season, coming from Ain Gib, Qasr el-Sumayra, and Settlement A. Ten samples were from mud-bricks, three were taken from house 1 (the northernmost) in Settlement A, and one from house 2 in the south of Settlement A. The remainder were taken from the Sumayra area. Three samples were taken from deposits close to the surface, no excavation was involved in their collection and it is possible that these samples may represent modern reuse of the area.

The crops identified from the samples consisted of cereal chaff, fruit-stones and leaves and the remains of fibre crops. Some seeds of the larger weed seeds were also present. There appears to be little variation in the species found in each location and therefore it is possible to conclude that the remains within the mud-bricks date from a similar period. The composition of the surface samples also agrees with that of the mud-bricks, and can be considered to be contemporary with them.

Species recovered

Listed below are the species and the type of remains that were identified from this assessment.

Cereals

Triticum aestivum (bread wheat): rachis fragments, glumes, palea/lemmas, grain

Hordeum vulgare (6-row hulled barley): rachis fragments and grain

Culm nodes and bases: these are the remains of straw which may have been of either wheat or barley or both.

Sorghum bicolor subspecies *bicolor* (sorghum): glumes

Fruits

Olea europaea (olive): fruitstones and leaves

Vitis vinifera (grapes): seeds

Phoenix dactylifera (dates): fruitstones, calices and male flowers

Punica granatum (pomegranite): seed fragments

Fibre crops

Linum usitatissimum (flax/linen): capsule fragments and seeds

Gossypium sp. (cotton): seeds, seed fragments, kernals and thread

Flavourings etc.

Coriandrum sativum (coriander): seed fragments

Foeniculum vulgare (fennel): seeds

Carthamus tinctorius (safflower): seed fragments

Weed species

Lolium temulentum (darnel): seeds

Euphorbia peplus (purple spurge): seeds

Avena sp. (oats): seeds

Phalaris minor (canary grass): seeds

Conclusion

An assessment of the mud-brick samples and the three surface samples from the Sumayra area of the North Kharga Oasis has shown that a wide variety of crops and fruits were grown in the area during the occupation of area in the Roman period. The main cereal was bread wheat with some barley and the possibility of sorghum although this may be considered as a modern intrusion. Of interest is the presence of two fibre crops (which have a secondary use as oilseed crops), cotton and flax. Fruits such as olives, dates and grapes were also grown and consumed in the area as the evidence from their remains suggests. Flavourings and colourings were also present in the samples. The limited number of weed seeds identified may be due to the nature of the assessment – only the coarse fraction was scanned. It is hoped that a full analysis will provide a more complete list of crops and weed seeds present in the area during the Roman occupation.

The results for this area seem to agree with the results from the Dakhla Oasis Project.

A. J. C./M-A. El-D.

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NKOS 2004

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Abstract

The goals of the North Kharga Oasis Survey (NKOS) have been to identify, record and survey the major archaeological sites of the northern part of Kharga Oasis. The work of the final season in the first cycle of exploration of the area focussed on the sites of Ain el-Tarakwa and Ain el-Dabas-hiya, and the Darb Ain Amur, the desert route between Ain Umm el-Dabadib and Ain Amur. In the former areas the survey recorded two temples, several tombs, an animal cemetery, and a variety of buildings, including a church. The Darb Ain Amur survey yielded many rock-art sites, as well as several locations that marked the route between the two springs.