

SUDAN & NUBIA

The Sudan Archaeological Research Society



Bulletin No. 16 2012





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Front cover: Excavations in progress in the *Kerma Ancien* cemetery at site H29 in the Northern Dongola Reach (photo D. A. Welsby).

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The *Kerma Ancien* cemetery at site H29 in the Northern Dongola Reach

Derek A. Welsby

Introduction

Beginning in January 1993 the Sudan Archaeological Research Society, supported by the British Museum, undertook at the request of the National Corporation for Antiquities and Museums a survey in the Northern Dongola Reach. The concession consisted of an 80km stretch of the Nile valley on the east bank of the river between Mulwad in the south and Eimani and extended to the edge of the desert plateau, a maximum of 18km from the river. Over four seasons a total of 450 sites were recorded, artefacts were collected and studied and the sites were planned as appropriate. The survey was able to partially reconstruct the settlement patterns in the region over a period of 7000 years from the Neolithic onwards and the responses of the local population both to climatic degradation following on from the Holocene wet phase and to fluctuations in the Nile flow. As the desert encroached the Nile assumed ever increasing importance with settlements focussed on the Nile banks, but more importantly on the banks of two channels flowing well to the east of the present-day channel which was also active. The increasingly arid conditions coupled with the demise of the two eastern channels resulted, around the later second millennium BC, in a major population collapse. Of the approximately 150 Kerma rural settlements and cemeteries dating to the period *c.* 2400-1450 BC, only a few survived into the early first millennium BC and by the beginning of our era Kawa may have been the only major site still occupied on the east bank. The bulk of the population must have relocated and certainly in later periods the main focus of settlement in this reach of the Nile has been on the west bank. In an attempt to solve some of the key issues raised by the survey an additional season of excavation was undertaken.¹ Over the last decade agricultural development of the region continues with some large mechanised farms being worked just a little south of Kawa as well as more small scale farming activities. Meanwhile a spin-off project from the Merowe Dam will focus on the Northern Dongola Reach where the intention is to build canals at 15km intervals extending from the river to the east. This project has not yet commenced but if it does it could lead to the almost total destruction of all the archaeological sites in the region. In light of these various threats SARS and the British Museum are well aware of the need to undertake rescue excavations if at all possible.

Following a visit to the southern part of the concession in early 2011 one site stood out in view of its nature, standard

¹ For a full report on the survey and excavations see Welsby 2001.

of preservation and the imminent threat to its survival. Site H29, which lies close to the Hawawiya Nile a few kilometres downstream of its diffuence from the Alfreda Nile (Plate 2), is the best preserved of all the *Kerma Ancien* cemeteries (*c.* 2400- 2050 BC) located by the survey (Plate 3) with some of its tomb monuments still retaining parts of the concentric rings of small stones set upright on their crest. The excellent preservation along with the relatively small size of the cemetery, offered the possibility of allowing its total excavation within a single season. The main mound, covered in white quartzite pebbles and small black stones, is sub-square and 32.5 x 28.5m in size attaining a height of 1.6m above the surrounding plain. About 40m to the south west is an oval mound covered in brown quartzite pebbles 10 x 9m in size.

The threat to this site is clear; a deep pit for the installation of a diesel water pump has been excavated about 50m from the cemetery indicating the development of the area for farming in the near future. A small farm is already in existence a little to the north. During the survey we discovered the remains of another cemetery of this date, site R3, where the top of the cemetery mound had been flattened to form irrigation plots, the water then running off the mound to irrigate fields around it (Plate 1). Destruction of the site was total, only the large amounts of very fine and highly distinctive pottery indicated its one-time presence.



Plate 1. General view over the Kerma Ancien cemetery mound at site R3 after its conversion into farmland.

The excavation of a complete cemetery of this period has never been undertaken in the hinterland of Kerma and could be expected to provide invaluable data to set against the ongoing work on the contemporary graves in the eastern cemetery at Kerma being undertaken by Prof. M. Honegger of the University of Neuchâtel, Switzerland (Honegger 2010). The excavation was expected to provide data on the following issues:

To recover quantities of the fine *Kerma Ancien* ceramics as well as those which are in the C-Group tradition; sherds of both types have been noted on the surface. The interaction of these two cultures, as highlighted by the presence of their distinctive pottery in the Kerma region, is a subject of ongoing research and the H29 data, coming from a rural cemetery at some distance removed from the metropolis at Kerma would provide much useful information.

The skeletal remains would allow useful comparison with

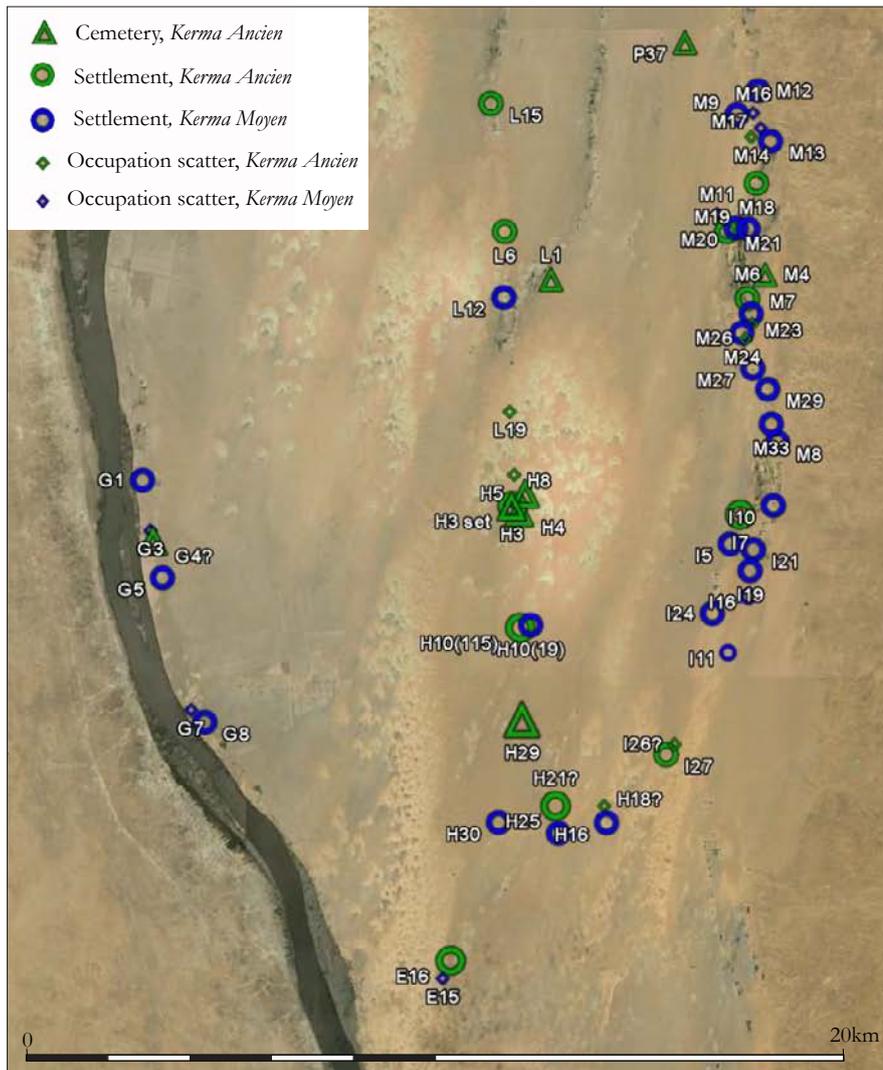


Plate 2. Location of site H29 in the Northern Dongola Reach. The dating of sites is mainly based on the pottery sample collected during the 1993-7 survey. Many of the sites continued in use into the Kerma Classique period. It is possible that at least some of those sites where the earliest material found was of the Kerma Moyen may actually have been occupied in the preceding period.

the material currently under study from the work at the Fourth Cataract as well as again being available for comparison with the contemporary material from Kerma. The relationship of the rural population with that of the metropolis during the Kerma period has been little explored although the survey did indicate the importance of Kerma's southern hinterland where there is the greatest density of Kerma period settlements known anywhere.

The results from H29 were expected to advance this discussion at this pivotal point in Nile Valley history when we see the rise of sub-Saharan Africa's first urban civilisation which came to rival, and for a time dominate, its northern neighbour, Pharaonic Egypt.

The excavations

The 2011-12 fieldwork season focussed on the total excavation of the cemetery at H29. Work commenced on site on

16th December 2011 and was completed on 23rd February 2012.² During the season the whole site was excavated down to the natural alluvium and all the graves were fully excavated. As elsewhere in the Northern Dongola Reach there is abundant evidence for considerable deflation through aeolian erosion. The presence of the tomb monuments which were presumably provided for most if not all the graves has served to protect to some extent the Kerma ground surface while the adjacent areas not so protected have been eroded to a much greater extent. The mounds occupied by the cemetery may, therefore, be partly natural features and if there were mounds there in the *Kerma Ancien* period, they may have been much less prominent.

Area A

In the central part of the main mound, designated area A, the surface at the time of the cemetery's use was covered by layers of sand up to approximately 400mm thick. Many of the graves, or at least their robber pits, were cut through these layers while some of the tomb monuments were constructed upon them. Towards the edges of the mound the sand layers had been eroded away and in those areas the grave and robber pit cuts were visible in the underlying alluvium.

A total of 97 graves were excavated (Figure 1, Plate 4). Many of these were tightly clustered in the centre of the mound, frequently one cutting into another. All contained a single inhumation with the body laid on a hide covered in red ochre.

Where the grave was of sufficient size the hide was laid flat and appears to have trimmed to form a rounded semi-circular end placed under the head (Plate 5). Traces remained in many graves of hide also on top of the bones suggesting that the bodies were covered with a further sheet of hide. One hide in grave (A)429 was decorated with faience beads set into it (Plate 6). In the smaller graves the hide filled the whole of the bottom and lapped up the sides. In the unrobbed graves, or those where at least a portion of the skeleton remained *in situ*, in all but one case they were

² Team members – Abdelhai Abdelsawi (NCAM inspector), Sarah Bosman (archaeologist), Anna Pieri (physical anthropologist), Stacy Hackner (physical anthropologist), Ruth Humphreys (archaeologist), Isabella Welsby Sjöström (assistant director, pottery specialist), Derek Welsby (director, photographer, surveyor) The project was joined for one month by Daniel Antoine (physical anthropologist), for several days by Rebecca Bradshaw (archaeologist) and for two weeks by Paul Major (archaeologist).



Plate 3. Site H29, the main mound, Area A before excavation.



Plate 4. Site H29, the main mound, Area A towards the end of excavation.

tightly flexed and invariably (with one exception) laid on their right sides. Almost all were orientated east-west with the head to the east facing north and generally with the hands in front of the face (Plate 7). There were however, a number of bodies which were orientated very differently, a few with the head to the south and a few with the head to the north. Of the two exceptional graves one contained a semi-flexed individual, the other was rather more unusual. In grave (A)293 the burial was undisturbed (Plate 8) but the body lacked legs, the pelvis, sacrum and the left fifth finger. Furthermore the torso and head were placed in a prone position right against the grave edge in a partly upright attitude.

Many if not originally all the graves were cut through soft sand and the uppermost edge of the cuts was frequently ill-defined. In many cases later robbing activities had removed the top of the grave cut. The exact dimensions of the graves at their tops is, therefore, uncertain. Lower down where they penetrated the hard grey alluvium the sides were often vertical and sometimes they undercut so that the base of the grave was of larger size than the surface cut. Graves varied dramatically in depth. Towards the edges of the mound erosion of the sand layers and the upper part of the alluvium will have truncated the graves making it impossible to precisely ascertain their original depths. The observed dimensions however,

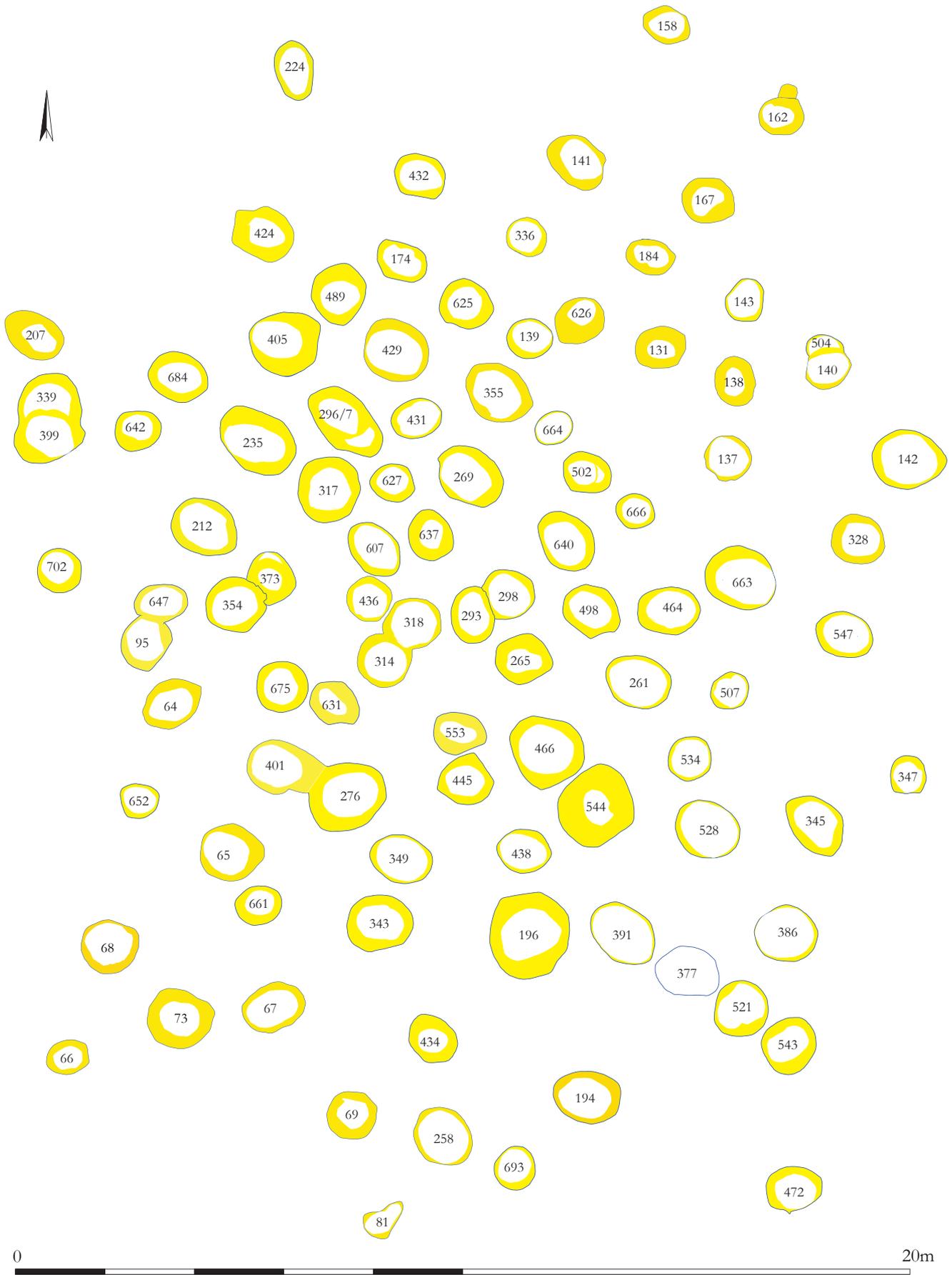


Figure 1. Plan of Area A with grave numbers.

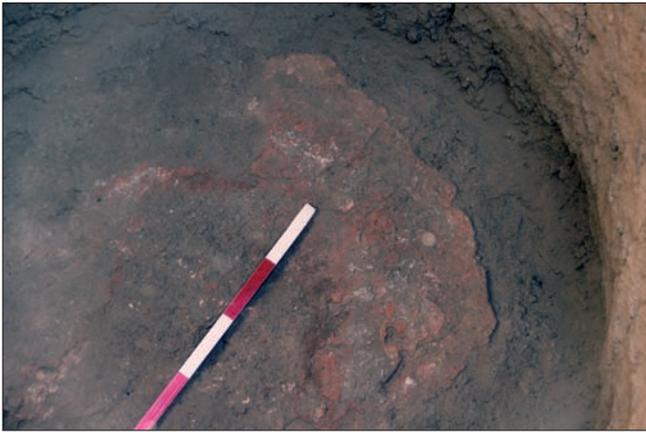
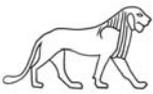


Plate 5. Grave (A)212 - hide with rounded end by the east side of the grave (scale divisions 100mm).



Plate 6. Grave (A)429 - hide decorated with faience beads (100mm scale).

indicate that there was no adherence to a particular depth for a grave. The deepest, grave (A)377 was 2.54m, while the shallowest (A)336 was 140mm deep. Many were between 1m and 2m deep. Graves also varied widely in shape on the surface from markedly oval to circular in plan and this was reflected at the base (Figure 2). As mentioned some had overhanging sides, others were almost vertical while many had sloping sides making their bottoms much smaller than the surface cut. In a



Plate 7. Grave (A)328 with the body placed in the typical way.

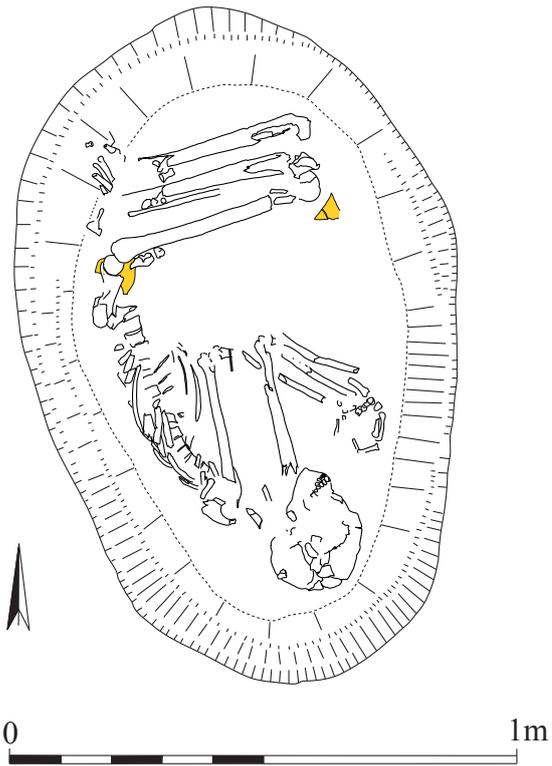


Figure 2. Grave (A)224 - oval grave with the body oriented south-north. The objects depicted in yellow are pottery sherds placed deliberately on the floor of the grave before the deceased was laid to rest (scale 1:15).



Plate 8. Grave (A)293.

few graves the bottom was so small as to necessitate the body being extremely tightly contracted, the most extreme case being grave (A)373 (Plate 9). Among the largest graves were grave (A)663 which measured 1.63 x 1.34m on the surface and had almost vertical sides (1.7m deep) and grave (A)544, 1.74 x 1.58m on the surface but with sides sloping down to a markedly oval base 810 x 600mm (1.54m deep). One of the smallest graves was grave (A)66, 960 x 770mm on the surface, 655 x 514mm at the base and 1.31m deep.

Grave goods were rare. Five graves contained pottery vessels placed with the body, in each case a single pot. Graves (A)81 and (A)693 had a very similar coarse bowl placed upside



Plate 9. Grave (A)373 - very tightly contracted burial.

down on the bottom of the grave. Grave (A)436 had a large bowl placed upturned over the skull with about a third of its wall and rim being removed presumably so that it would fit over the neck. The bowl in grave (A)65 was also similarly incomplete when placed in the burial. Several examples of siltstone tools considered to be associated with pottery manufacture, used perhaps as rocker stamps or for smoothing the clay (Plate 10) came from within the graves.³ More common



Plate 10. Stone tools perhaps associated with pottery production (100mm scale).



Plate 11. Shell pendant from grave (A)68 (scale divisions 10mm).

³ For the latter suggestion see Caneva in Bonnet 1990, 155.

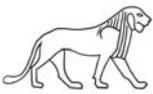


Plate 12. Grave (A)339 - ostrich eggshell bead necklace (100mm scale).

was the presence of beads and these were often found *in situ* as necklaces (Plate 12), bracelets and anklets. They consisted of ring, disc, spherical, barrel and bi-conical beads of faience, ostrich eggshell, rose quartz, chalcedony and trachyte. In grave (A)472 was a string of faience melon beads. Tear-drop beads in quartzite were also noted. Grave (A)373 contained two bone labrets or ear studs. The individual within grave (A)68 wore a bivalve shell as a pendant at the neck (Plate 11). In grave (A)405 were two bone spatulae and a small stone dish set against the wall of the pit.

The fills of those graves that were unrobbed was usually alluvium but on occasion intermixed with sand, white quartzite pebbles and pottery sherds, material associated with earlier graves which had inadvertently been dumped into the later graves. One grave (A)534 contained a bucranium, without its horn cores, placed against the side of the pit close to the surface. Several upper parts of caprine skulls with horn cores were found in close association with other graves.

At the start of the excavation the whole surface of the mound was covered in small black pieces of ferruginous sandstone and white quartzite pebbles apart from in one area towards the northern edge of the mound where there was a concentration of brown quartzite pebbles. This material was derived from the tomb monuments. Several of these were well preserved. Most consisted of concentric rings of the black stones set on edge and arranged concentrically on rising tiers infilled with the white quartzite pebbles. The largest monument, c. 2.1m in diameter, however did not preserve the multiple concentric rings although the higher tiers may have been destroyed. The monument over grave (A)534 is



the best example and consisted of four concentric circles from 760 to 489mm in diameter forming three tiers with a maximum height of 170mm (Plates 13 and 14). Between the concentric circles were white quartzite pebbles while the core of the monument was of sand. Set in the top slightly off centre was a single orthostat 60mm high.



Plate 13. The grave monument over grave (A)534 (500mm scale).



Plate 14. Detail of the monument over grave (A)534 (500mm scale).

Several other graves had a very different type of tomb monument. These were constructed from large stone 'stelae' set vertically into the ground forming a polygonal box which was infilled with earth.⁴ Of the monuments *in situ* little survived as the upper parts of the stelae had been eroded away although many complete and fragmentary stelae were found in the robber pit fills. The monuments consisted of a single 'circle' of stelae apart from that over grave (A)498 which has two concentric rows with some additional black stones against them (Plate 15). Many of the stelae were an elongated D-shape, well rounded and smoothed, while others were rough pieces of ferruginous sandstone or occasionally basalt. The largest stela recovered was 794mm tall. The sandstone used was on occasion banded with vivid red and



Plate 15. Monument made from sandstone 'stelae' over grave (A)498 (500mm scale).

yellow strata which could be mistaken for painted decoration. In a few cases however painting did survive most notably on a stela from grave (A)212. What was probably the upper part of this stela was covered in horizontal rows of circular red dots (Plate 16, left).

A large proportion of the graves had been robbed, the robber pits most frequently removing the whole of the upper grave fills and removing the stratigraphic relationship between the grave pits and the surfaces from which they were cut. The robbers certainly showed a preference for reaching the upper parts of the body and where part of the skeleton remains articulated it is invariably the lower limbs. Quite what the robbers were after is unclear. In the unrobbed graves there was precious little of value although it is possible that if the

⁴ For an image of a complete example recently excavated at Kerma see Honegger 2010, fig. 7.



Plate 16. Sandstone 'stelae' over grave (500mm scale).

robbing took place soon after the interments then perhaps the robbers knew which graves contained precious objects and conducted their activities accordingly. Apart from the graves where the upper body was specifically targeted, in other graves the whole skeleton had been disturbed and mixed with up to a 400mm thickness of grave fill. Clearly when these graves were robbed little or no tissue remained on the bones.

The pottery from Area A

Pottery sherds were abundant across the site and in the robber pit fills in particular but also in some grave fills. These were presumably largely derived from the pottery vessels which were placed on the surface after the funerary ceremonies, several of which were found *in situ*. Being on the surface they were very prone to breakage and the resulting sherds were then inadvertently redeposited into the fills of later graves and distributed widely during the robbing. Although all sherds were diligently collected very large proportions of most vessels were not found during excavation and had presumably been removed from the site during the last 4000 years. All the pottery found was contemporary with the use of the cemetery apart from one sherd which may be Neolithic and a few which may be



Plate 17. Incised grey ceramic bowl in the C-Group tradition (100mm scale).



Plate 18. Incised red ceramic dish in the C-Group tradition (100mm scale).

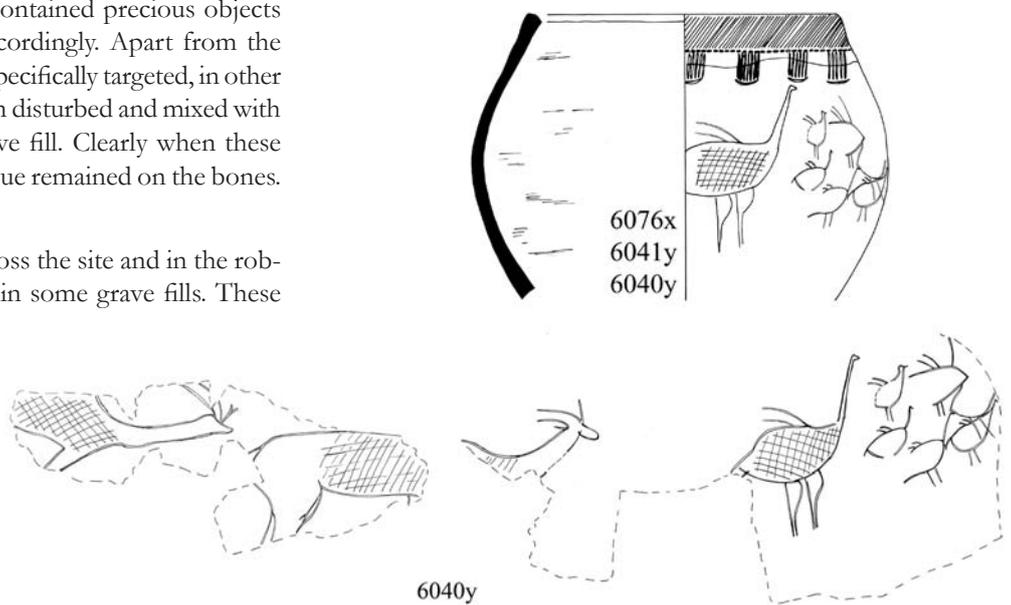


Figure 3. Pottery bowl; with incised decoration (scale 1:4) (drawing I. Welsby Sjöström).

late Kushite or Medieval. The pottery associated with the use of the cemetery consisted mainly of bowls and a smaller number of jars. One large jar, set on the surface and perhaps associated with grave (A)507 or (A)534 and one very small globular jar placed with the body in grave (A)386 were recovered. Of the bowls many examples are what are generally referred to as belonging to the *Kerma Ancien* and C-Group traditions. These exhibit the wide range of extremely fine decorative motifs as observed at Kerma and elsewhere (Plates 17 and 18). The most unusual vessel was a large jar incised on the exterior with a complex decoration of animal figures, a concentration of ostrich in one area and of antelope-like animals in another (Figure 3). Such finds in a Kerma context are extremely rare, one was recently collected from the surface at site P37 20km to the north and another was noted from recent seasons work at Kerma (pers. comm. M. Honegger). There was also a very small number of enclosed forms which are Egyptian wheel-made imports.



The human skeletal material from Area A

A preliminary study of the 97 bodies recovered indicates that this cemetery was probably used for the burial of all individuals from one or more settlements. All age ranges are represented apart from infants of less than 6 months and of foetuses. The demographic profile is as follows:⁵

No. of individuals	Sex	Age category	Age range
18	Female	Adult	21+
14	Female?	Adult	21+
13	Male	Adult	21+
11	Male?	Adult	21+
9	?	Adult	21+
8		Infants	0-3
16		Children	4-7
5		Juveniles	8-16
4		Adolescents	17-20

The oldest individual was a female of 50+ years but most adults died between the ages of 20 and 35 years.

Area B

Little remained in this area. Covered in brown quartzite pebbles the mound had been very heavily deflated. Human bone from at least two individuals was collected from the surface and from the fill of a shallow robber pit suggesting the presence of at least two graves. No pottery was associated with this area. A number of shallow pits were of uncertain function.

Across the whole site and in its environs were many areas of burnt earth, presumably the result of the burning of trees. Substantial root holes were noted in many graves.

The funerary culture observed at H29 is directly comparable to that documented in the metropolitan cemetery at Kerma. The nature of the grave pits, the orientation and position of the bodies and the type of material placed in the graves and on the surface are all of a comparable type and quality although the provision of a red ochre colouring of the hides is not observed at Kerma (pers. comm. M. Honegger) but was noted in the Fourth Cataract at site 4-L-88 for example (Welsby 2006, 11). The tomb monuments are also directly comparable to those at Kerma. Within the cemetery there is no evidence for a social hierarchy; there is no evidence for important graves with satellite burials around them. There is some patterning discernable with a few rows of graves visible (Plate 19) but the significance of these is uncertain. Owing to the intensive redistribution of the pottery sherds by later burials and by the robbers it is extremely difficult to suggest how the cemetery developed over time. This is exacerbated by the robber pits which have often removed the crucial relationships between intercutting graves and also the exact stratigraphic levels from which the graves were cut. The pot-



Plate 19. A row of four grave pits in the south-east quadrant of Area A.

tery can all be fitted within the *Kerma Ancien* period with a hint in a few cases of material possibly extending to the end of the period or perhaps into the early *Kerma Moyen*. Further study of the material is required to carry this discussion further. A more detailed study of the human remains will hopefully make it possible to assess the general level of well-being of the rural population buried at H29 in comparison with their metropolitan neighbours.

Acknowledgements

The project would like to thank for their financial support the Institute for Bioarchaeology, the British Museum and the patrons of SARS. The National Corporation for Antiquities and Museums greatly facilitated our work while the British Council offered logistic support as did the management of the Acropole Hotel. Dr Claude Rilly very generously accommodated the team whilst in Khartoum.

Bibliography

- Bonnet, C. (ed.) 1990. *Kerma, Royaume de Nubie*. Geneva.
- Honegger, M. 2010. 'Kerma 2009-2010. The Ancient Kerma Area of the Eastern Cemetery', *Documents de la mission archéologique suisse au Soudan* 2, 6-11.
- Welsby, D. A. 2001. *Life on the Desert Edge. 7000 years of Settlement in the Northern Dongola Reach, Sudan*. Sudan Archaeological Research Society Publication No. 7. London.
- Welsby, D. A. 2006. 'Excavations in the vicinity of ed-Doma (AKSE), 2005-2006', *Sudan & Nubia* 10, 8-12.

⁵ Information from Anna Pieri and Stacy Hackner.