

SUDAN & NUBIA

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- Front cover:* Examining the pharaonic inscriptions at Khashm el-Bab on the Korosko Road, November 2013 (photo: D. A. Welsby).
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The 2014 season of excavations at Kurgus

Introduction

The archaeological remains at Kurgus considered in this report lie on the east bank of the Nile, 40km south of Abu Hamed in River Nile State.

In January 2014 the second phase of archaeological investigations at Kurgus by the Sudan Archaeological Research Society began. The first phase (also funded and managed by SARS in collaboration with the British Museum) ran from 1998-2012 and focussed on the epigraphy of the Hagr el-Merwa inscriptions (KRG1) and the survey and characterization of archaeological remains in the area (Davies 1998; 2001; 2003; Welsby Sjöström 1998; 2001; 2003; this volume).

Phase two of the project is focussing on the cemetery (KRG3) and nearby fort (KRG2). The season ran from the 15th January to the 10th March, 2014. The cemetery excavations were directed by Dr Scott D. Haddow assisted by Dave McNicol, Heidi Shaw and Petra Weschenfelder and a team of 12 local workers. Examination of the skeletal remains was conducted by Scott D. Haddow with the assistance of Heidi Shaw. The fort excavation was directed by Matthew Nicholas assisted by the archaeologists Guy Cockin, Adam Fraser and Sam Pointer. The ceramic specialist for both sites was Dr Petra Weschenfelder and the NCAM inspector was Fathal Rahman. A team of 25 local workers was employed to assist with the excavation on both sites and the project is deeply grateful to them for their welcome and assistance.

Acknowledgements

The project is indebted to the staff of the National Corporation for Antiquities and Museums particularly the Director General Dr Abdelrahman Ali and the inspector Fathal Rahman for advice and assistance they provided and which made the 2014 season possible. Financial support for the project came from the Institute for Bioarchaeology, the British Museum and the patrons of SARS to whom the Society is most grateful.

Excavations in the cemetery, site KRG3

Scott D. Haddow

Introduction

KRG3 covers an area of approximately 2,000m² and is located roughly 200m north of the Hagr el-Merwa. The cemetery is situated on a ridge overlooking the river valley and is bounded by a number of *wadis*. Survey and test excavations directed in 1998 and 2000 by Welsby Sjöström (1998; 2001) recorded over 300 grave structures constructed primarily of local black stone, as well as white quartzite and gravel. The majority of grave structures at KRG3 are either flat-topped or domed cairn tumuli, followed by rectangular box graves. This mix of tomb monument types at KRG3, likely representing diachronic and perhaps synchronic cultural variation, has also been observed, for example, in the cemeteries of Lower Nubia during the Scandinavian Joint Expedition (Säve-Söderbergh 1982, 6-7), as well as in the Fifth Cataract region (El-Amin and Edwards 2000).

The objectives of the 2014 excavations at KRG3 were to investigate the variety of grave types and any material culture associated from them in order to gain a better understanding of the dating of the cemetery and its relationship to the occupation of the fort (KRG2) located near the east bank of the Nile, just over 1km to the south west of the cemetery.

Results

During the 2014 season the excavations focused primarily on the densely packed area of grave structures in the north-east area of the cemetery (Figures 1 and 2). A total of 48 graves were recorded, including six medieval Christian box graves, seven intrusive pit graves (likely Post-Meroitic in date, some containing highly disturbed skeletal remains which might represent ancient tomb robbing/clearing activity), 25 circular stone tumuli, one square grave structure with two compartments and nine earlier ovoid pit graves which may or may not have had superstructures originally (two still contained skeletons but were truncated by later Christian burials and seven were empty grave cuts). Of these, 16 (three box graves and 13 tumuli) were not fully excavated due to time constraints. Apart from the box graves, which are typical of the medieval Christian period, assigning graves to particular periods is difficult, as the majority of burials did not contain artifacts. Ceramic vessels were found *in situ* in three graves, however, and likely date to the Post-Meroitic period, while beads of various types were recovered from four additional burials.

Within the northern area of KRG3, the grave superstructures are built on two different horizons: the earliest grave superstructures are built directly on top of what appears to be the natural surface, while later superstructures are constructed

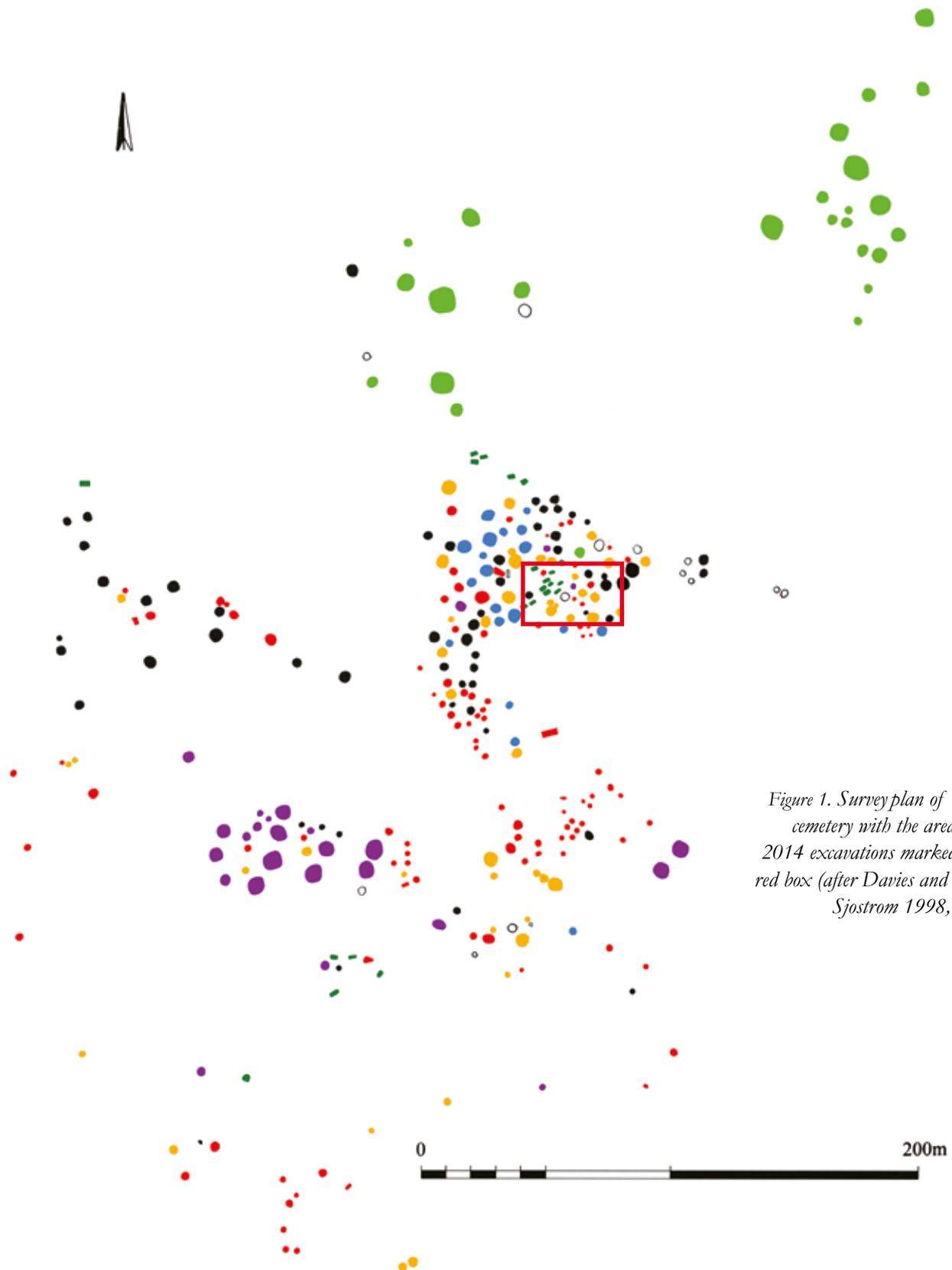


Figure 1. Survey plan of KRG3 cemetery with the area of the 2014 excavations marked by the red box (after Davies and Welsby Sjoström 1998, fig. 5).

upon a built-up surface – in some areas nearly 500mm above the natural horizon – consisting of re-deposited natural calcareous bedrock, stones from earlier grave monuments and windblown sand and silt. Many earlier superstructures have been robbed out and more recent graves have been built over

them (Plate 1). In some cases the underlying earlier burial itself has been left undisturbed, while in other cases only an empty grave cut remains. Some of these may never have been robbed, however, as grave cuts without burials have been observed in the Middle Nile region on sites of many

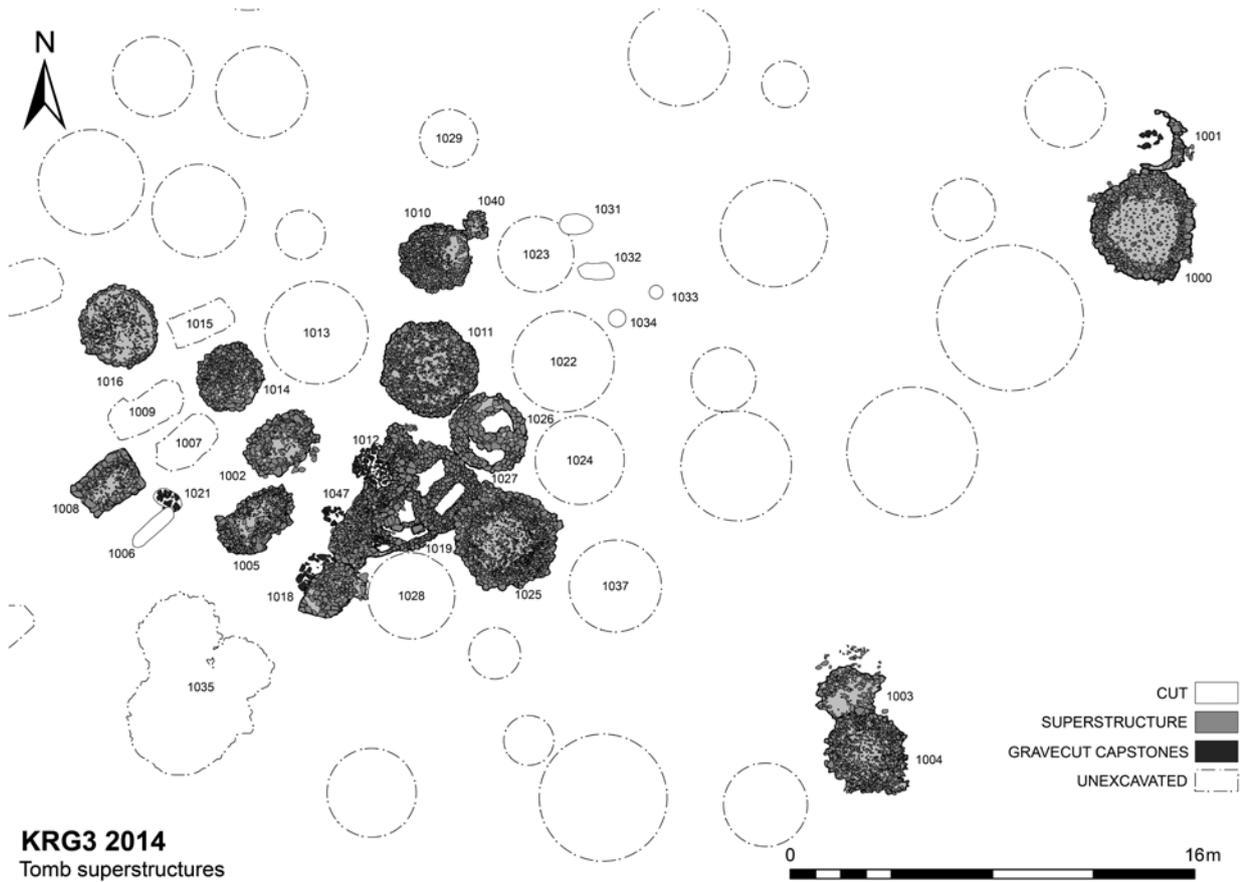


Figure 2. (top) Plan of excavated graves in 2014; (bottom) plan showing skeleton orientations (scale 1:300).

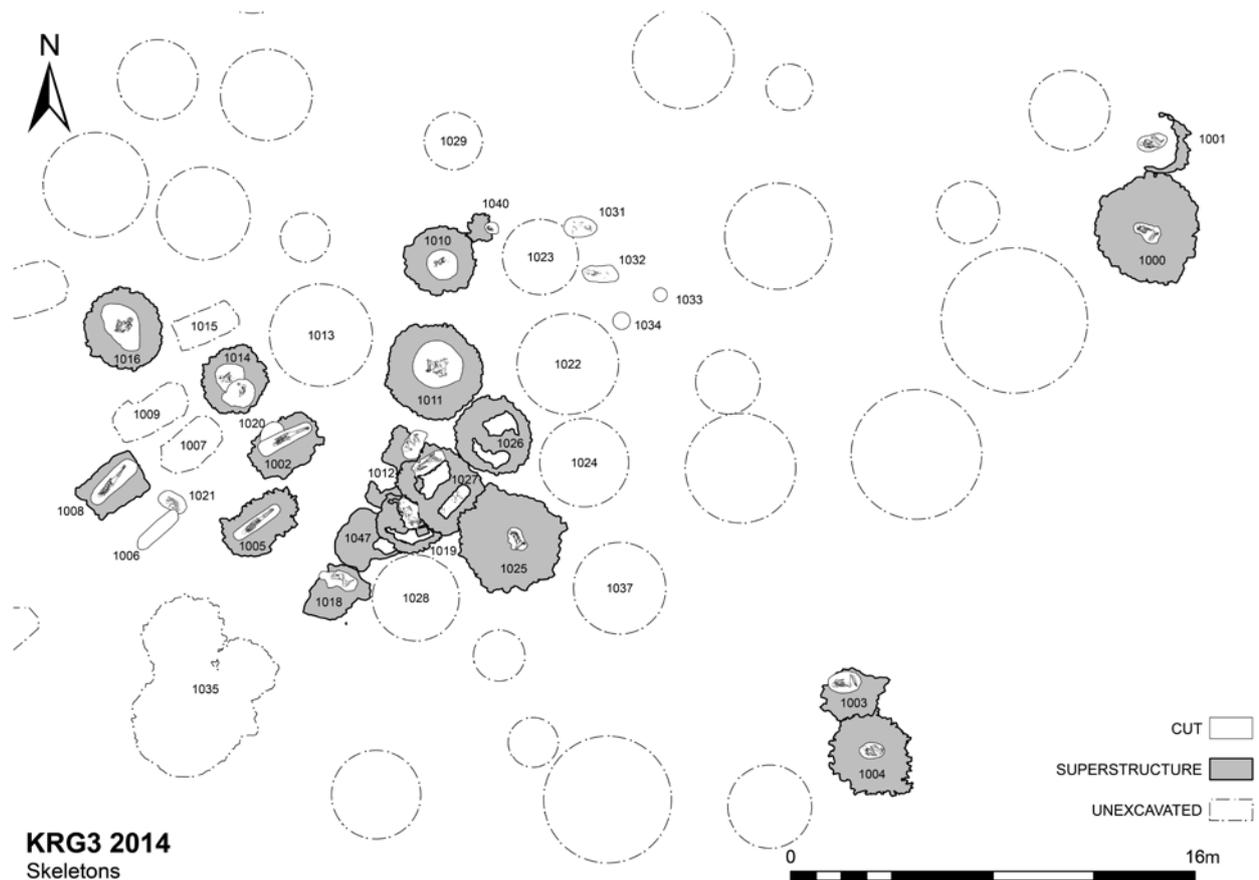




Plate 1. Complete (left) and robbed (right) Type 1 tumuli built on the lower natural surface (foreground), with later tumuli (background) built on the upper accumulated surface which has partially buried the earlier tumuli.

periods (e.g. Lohwasser 2010, 57; Włodarska 2014, 323).¹ In two cases (graves 1011 and 1014), earlier grave cuts appear to have been reused for new burials, leaving the partially disturbed skeletal remains of the previous occupant *in situ*. The re-use of earlier graves, presumably by the same kin group, is a common feature during the Kushite period. The stripping of stone from older graves and the building of new ones on top of them is interesting, as there is ample space within the cemetery to build new graves without disturbing older ones, and it is only in the northern region of the cemetery that this phenomenon can be observed. It would appear that some groups made a conscious decision to associate their dead with earlier burials, perhaps as a way of claiming descent or, more pragmatically, to use the older tombs as a ready-made source of building material. The stripping of stones from older tomb structures to build new ones has been documented elsewhere in ancient Nubia (e.g. Williams 1983, 21; 1993, 27).

Chronology

While the earliest *in-situ* ceramic evidence found at KRG3 in 2014 likely dates from between the Napatan to the Post-Meroitic period, there is ample evidence for a much earlier use of the site in the form of Neolithic and early Kerma pot sherds found in the grave fills and sometimes embedded on buried surfaces within the area of the cemetery which has

¹ However, some of these were quite small and perfectly circular – unlike most of the other grave pits in the cemetery and may never have been graves at all. If they relate to Neolithic occupation on the site perhaps they were for storage?

seen the most activity. It is possible that this earlier material derives from the empty cuts (Plate 2) which have been cleared out and built over by later tomb structures. We hope to find such earlier cultural material *in situ* in future excavation seasons. While it is assumed that the Christian box graves post-date the earlier tumuli graves, the use of tumuli superstructures may have persisted into the Christian period at KRG3, as has been observed in the Fourth Cataract region (e.g. at site 3-J-23, Welsby 2003, 27) and also at Gabati (Edwards 1998). This interpretation is supported by the occurrence of several tumulus graves constructed on the same later horizon as the box graves.

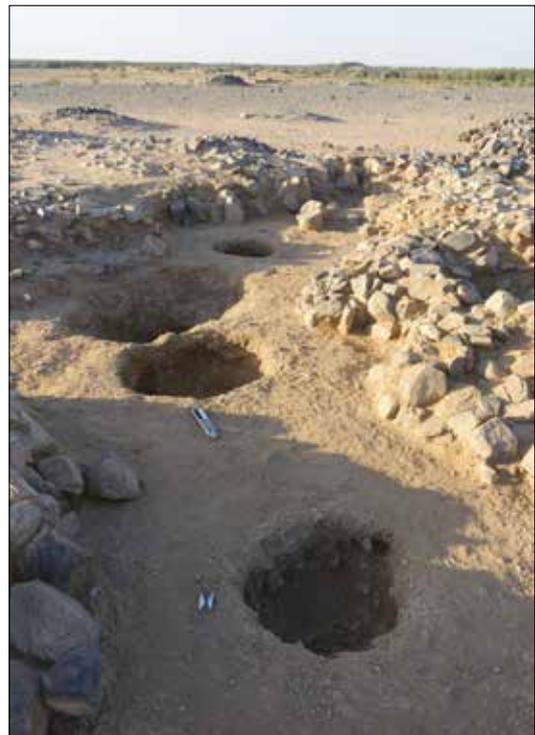


Plate 2. Empty grave cuts dug into the lower natural surface. These graves were cleaned out and new grave structures were built over them.

Phasing

Phase 1 – empty circular pits dug into the natural surface. These may be the original source of the Neolithic and Kerma pot sherds found in later grave fills and horizons, although they might also have come from occupation scatters.

Phase 2 – dome-shaped Type 1 (Welsby Sjöström 2001) tumuli built directly on the natural surface.

Phase 3 – formation of built-up horizon above Phase 2 tumuli and the construction of newer tumuli, mainly flat-topped Type 2, in many cases using stones from earlier Type 1 superstructures. This phase also includes the simple pit graves cut into the tops of Phase 2 tumuli and the appearance of the medieval Christian box graves, although the exact chronological relationship between these grave types remains unclear. This phase will likely be sub-divided as more work in the cemetery occurs.



Grave architecture and burial practices

Box graves

The box grave burials follow normative medieval Christian mortuary practices: superstructures consist of flat-topped rectangular stone cairns, roughly corresponding to Borcowksi and Welsby's grave monument type FF03d (2012, 23). Large base stones are placed around the grave cut to form the rectangular footprint of the superstructure and filled in with stones built up to a height of 600-700mm. Grave cuts are rectangular and narrow in width, typically up to 1m deep. A layer of flat stones sat on ledges cut into the sides of the grave cut protects the body from the weight of the grave fill. The body itself is placed in an extended supine position, oriented roughly east-west with the head to the west. The arms are extended alongside the body, often with one or both hands over the pelvic area. No grave goods were recovered from any of the box graves excavated in 2014.

Tumulus graves

Two main types of tumulus graves were investigated in 2014. Type 1 tumuli (following the classification created by Welsby Sjöström (2001)) are dome-shaped circular stone cairns, while Type 2 tumuli are flat-topped circular stone cairns. In the densely packed central area of the KRG3 cemetery, the flat-topped Type 2 tumuli only occur on the later, built-up horizons overlying the natural surface where only dome-shaped Type 1 tumuli are constructed. Thus, Type 2 tumuli appear to be later in date than most Type 1 tumuli, although a smaller proportion of Type 1 tumuli are built on the later horizon. For Type 1 tumuli, the top of the grave cut is sealed by medium to small-sized stones. Type 2 tumuli have large stones placed around the edge of the grave cut. In both types, the grave cuts are shallow and ovoid in shape without descendaries. The bodies are placed on their sides in a flexed position. The hands are typically placed near the face. Among burials where sex could be determined, female and probable female individuals are consistently placed on their right side, while male and probable male individuals are consistently placed on their left side. There does not appear to be any consistency in the orientation of the body with respect to cardinal points, although Phase 2 tumuli burials tend to be oriented more often with the head to the east, while Phase 3 tumuli burials are more often oriented with the head to the west. The majority of the tumuli did not contain any grave goods, although one grave (1014) contained a ceramic bowl and cup, while graves 190 and 122 contained a large number of beads.

Pit graves

A small number of intrusive pit graves were found dug into the built-up horizon which covers the Type 1 tumuli constructed on the natural surface of the KRG3 cemetery. The cuts for these burials are extremely shallow as they were dug into the top of earlier grave superstructures. They do not appear to have had any superstructure and, unlike the

skeletons found in Type 1 and 2 tumulus graves, the bodies were placed in a more loosely flexed position, often on their backs. As these graves were close to the modern surface and unprotected by superstructures, the skeletal remains were poorly preserved. Two of these pit graves (1019 and 1030) contained ceramic vessels.

Cemetery demographics

The skeletal remains of 25 primary interred individuals were recovered in 2014: 18 adults – nine middle adults (35-50 years), three young adults (20-35 years) and six adults (over the age of 20 who could not be assigned to a more precise age category due to poor preservation); one adolescent, four children and two infants (Figure 3). Of the 18 adults recovered in 2014, 10 are female or probably female, six are male or probably male, and two could not be assigned to a sex category due to poor preservation (Figure 4).

Grave catalogue

120 - Rectangular stone 'box grave' (type 4) with the body sealed by a layer of flat stones set onto a ledge cut into the sides of the grave cut. The burial contained the extended supine skeleton of a middle adult female oriented in an east-west direction, with the head to the west.

122 - Low cairn stone tumulus (type 1B) containing an adolescent flexed burial placed on its right side facing east (Plate 6). Over 500 small faience beads and over 30 striped stone beads were found near the right knee of this individual (Plate 7), along with a small number of faience and carnelian beads near the neck. Red-dyed(?) hide was found covering the feet and lower legs (Plate 8), and was also recovered from beneath the skeleton. A small amount of woven textile and soft tissue was also recovered from this burial. A large re-deposited *Kerma Moyen* period pot sherd was found within the matrix of the superstructure of grave 122 (Plate 9).

125 - Rectangular stone 'box grave' (type 4) with the body sealed by a layer of flat stones set onto a ledge cut into the sides of the grave cut. The burial contained the extended supine skeleton of a middle adult female oriented in an east-west direction, with the head to the west.

190 - Large cairn tumulus (type 1A) containing two individuals, both juveniles (8-16 years). The grave cut appears to have been reused, as the partially disturbed skeleton of the first juvenile was found at the bottom of the grave cut placed on its right side facing west. The second juvenile, slightly younger than the first, was found at the top of the grave cut directly underneath the stones capping the grave cut. The body was placed on its right side facing south. Beads of several types were recovered in the grave fill with the disturbed lower skeleton (Plate 3).

191 - Flat-topped stone tumulus (type 2) built on top of earlier tumuli and containing the flexed skeleton of a middle adult female placed on her right side facing south west.

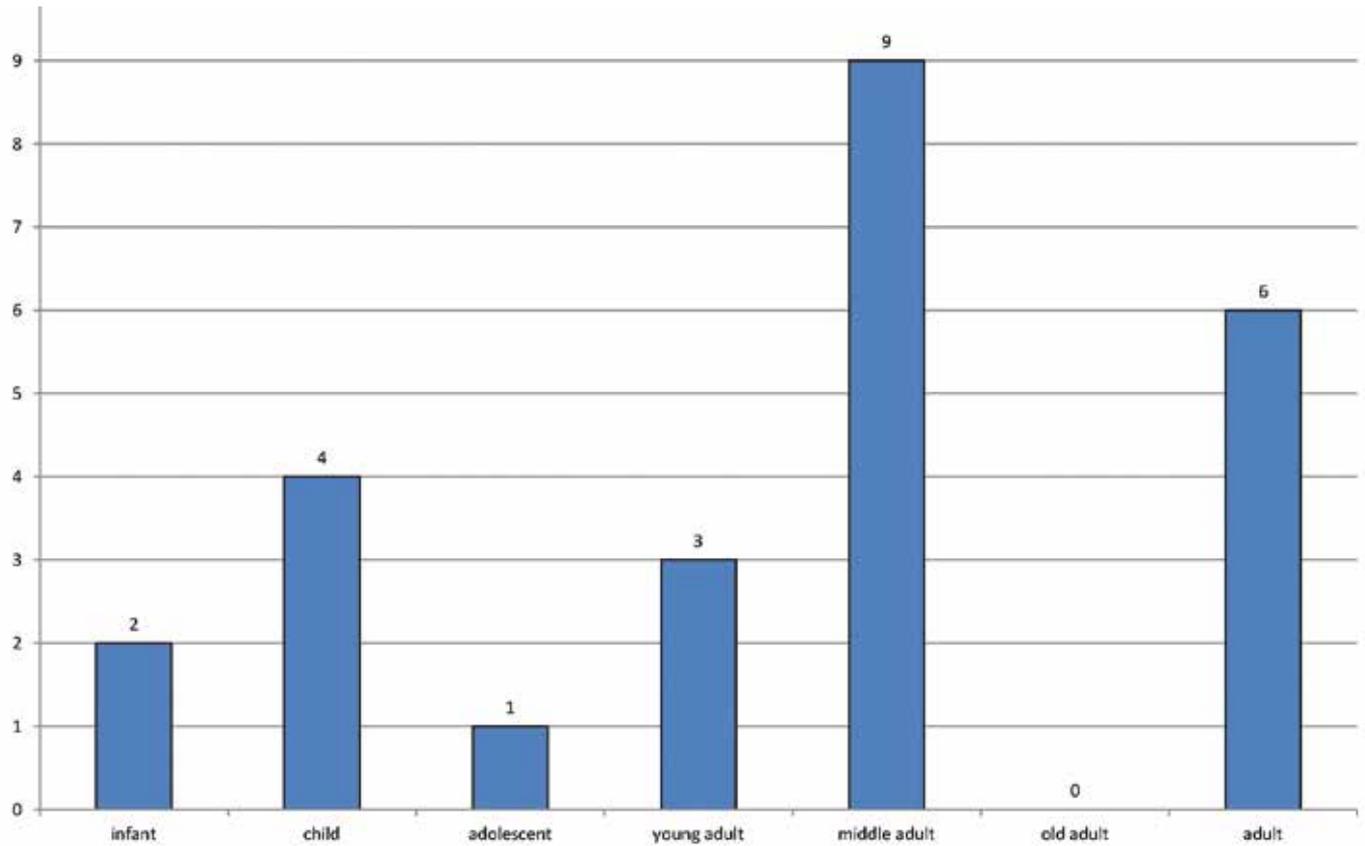


Figure 3. Age distribution of KRG3 primary skeletons excavated in 2014.

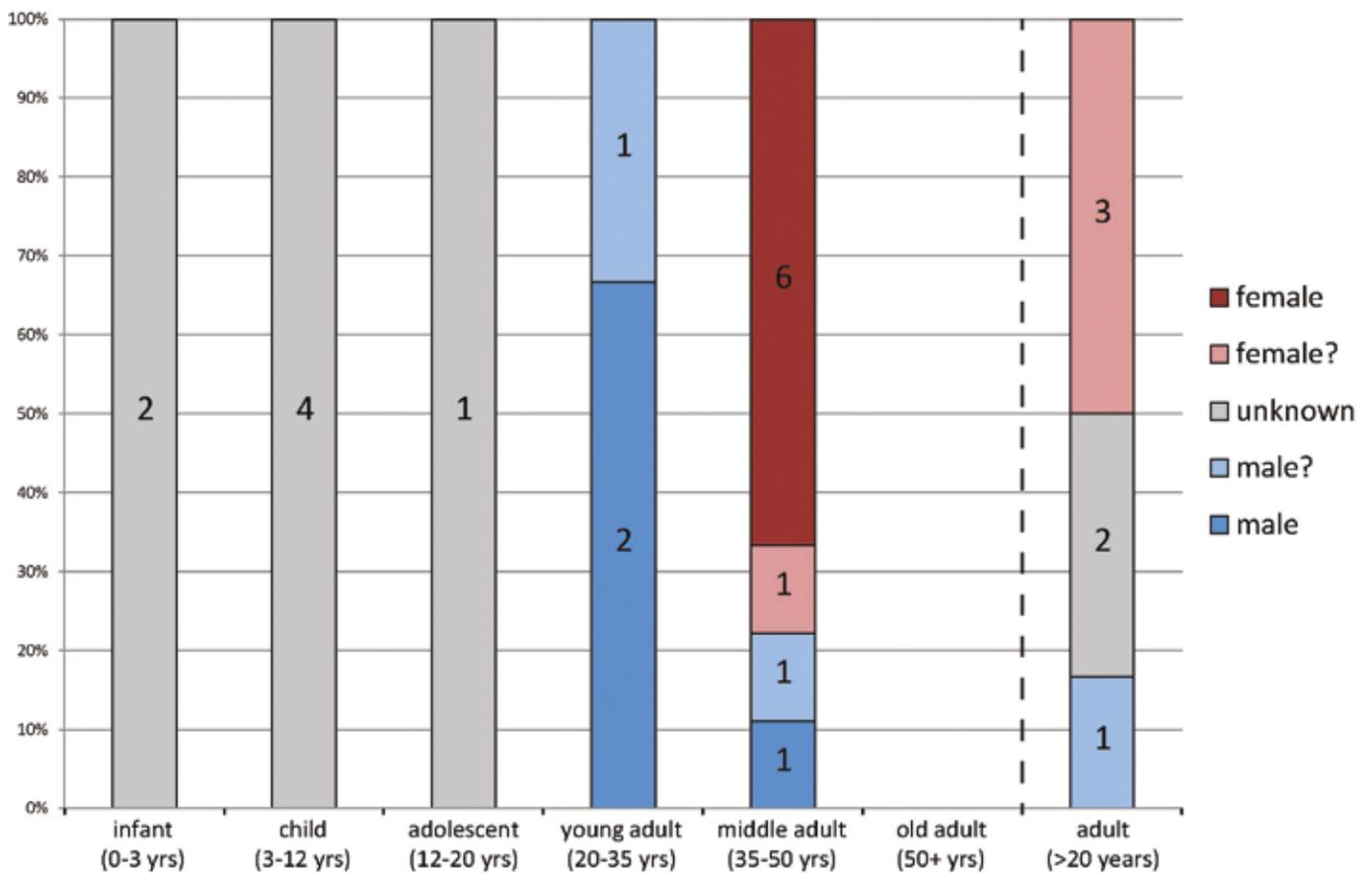


Figure 4. Combined age and sex distribution of KRG3 primary skeletons excavated in 2014.



199 - Rectangular stone 'box grave' (type 4) with the body sealed by a layer of flat stones set onto a ledge cut into the sides of the grave cut. The burial contained the extended supine skeleton of a middle adult female oriented in an east-west direction, with the head to the west.

278 - Flat-topped stone tumulus (type 2) containing the flexed skeleton of a middle adult (35-50 years) female placed on its right side facing south. The superstructure of this grave overlapped slightly the robbed-out earlier superstructure of grave 1001.

284 - Stone cairn tumulus (type 1A) containing the flexed burial of a middle adult male placed on his left side facing north.



Plate 3. Shell, bone, faience and stone beads recovered from grave 190.

297 - Low cairn stone tumulus (type 1B) containing the poorly preserved semi-flexed skeleton of a child placed on its right side facing north. The skull of this individual was missing.

1001 - Robbed-out tumulus (uncertain type) to the north of grave 278. The grave contained the undisturbed skeleton of a young adult (20-35 years) male placed on his left side facing north east. The superstructure of grave 1001 was likely stripped of stone in order to build grave 278.

1003 - Robbed-out stone tumulus to the north of grave 284 containing the flexed skeleton of a young adult male placed on his left side facing north. As with grave 1001, the stone superstructure of this grave was likely stripped off to build grave 284.

1014 - Low cairn tumulus (type 1B) containing the flexed partially disturbed skeleton of an adult probable female placed on her right side. The flexed skeleton of an infant also placed on its right side facing east was found beside her. The grave cut for the infant burial appears to have partially truncated the earlier cut for the adult, as fragments of the adult cranium was found in the fill of the infant grave cut. The



Plate 4. Ceramic cup (SF:9) and bowl (SF:8) buried with the subadult in grave 1014.



Plate 5. Neolithic (?) pot sherds recovered from the construction layer/ upper grave fill of grave 1014.



Plate 6. Grave F.1016 containing a subadult burial with numerous beads, textile and leather.



Plate 7. Beads (SF:20) found near the right knee of the subadult skeleton in grave 122.



Plate 8. Detail of red-dyed(?) leather found above the feet and lower legs of the skeleton in grave 122.

stone superstructure appears to have been completely rebuilt at the time of the later interment. A small ceramic bowl and cup (both undecorated) were found with the infant (Plate 4). The shape and decoration of these vessels are reminiscent of Napatan period vessels. Several possible Neolithic pot sherds were found within the matrix of the superstructure/upper grave fill of 1014 (Plate 5).

1019 - Semi-flexed burial containing a middle adult probable male placed on his left side within a ring of large stones. These stones are likely the remnants of a tumulus which has been truncated by the later construction of grave 1027. The skull of this individual was missing, likely as a result of later disturbances to the grave. An undecorated ceramic beaker and cup (Plate 10) were placed above the knees of the skeleton.

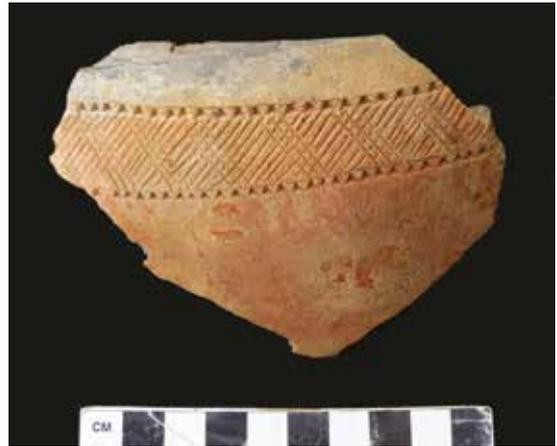


Plate 9. Kerma Moyen period pot sherd found within the superstructure construction layer of grave 122.



Plate 10. Napatan to Post-Meroitic beaker (left – SF:5) and cup (right – SF:6) found in grave 1019.

The form of these rather generic vessels occurs throughout the Kushite and early Post-Meroitic periods, thus making it difficult to provide a more precise dating.

1020 - Truncated flexed burial of a young adult probable male cut by later Christian box grave 119. Only the skull and upper body remained *in situ*. The body was placed on its left side facing south east. No trace of the superstructure for this grave survived, if it ever existed.

1021 - Partially truncated burial of a middle adult probable female cut by later Christian box grave 126. The body was placed on its right side facing north east. No trace of the superstructure for this grave survived, although the stones sealing the top of the grave cut were still in place.

1027 - Stone-built rectangular superstructure (roughly 3.5 x 2.8m, 3m²) with two compartments (Plate 11) built above several earlier grave superstructures and empty pits (1012, 1019, 1039, 1041, 1045). The heavily disturbed semi-flexed skeleton of an adult probable male was found within the smaller (south east) compartment. The body was placed on its left side facing north west. The undisturbed semi-flexed skeleton of a middle adult female was found underneath the north-west wall of the superstructure. The body was placed



Plate 11. Square tomb superstructure 1027 with double compartments.

on its right side facing south east. Numerous Neolithic and possibly Napatan pot sherds (Plates 12 and 13) were found in the re-deposited grave fill surrounding the superstructure and may have originated from one of the earlier (now empty) graves which lay underneath grave 1027. This structure is the only one of its kind so far discovered at KRG3.

1030 - Pit grave without superstructure cut into the tumulus of grave 117. This grave contained the flexed skeleton of an adult probable female placed on her right side facing east. An undecorated ceramic beaker (Plate 14) similar to the one found in grave 1019 was placed in the grave fill above the head of the skeleton. As with the vessels from grave 1019, the rather generic style of this vessel occurs throughout the Kushite and early Post-Meroitic periods.

1031 - Disturbed pit grave without superstructure cut into



Plate 12. Neolithic pot sherds recovered from the redeposited fill surrounding grave 1027.

the east side of tumulus 1023. This grave contained the poorly preserved semi-flexed skeleton of a subadult (possibly adolescent) placed on its right side facing south.

1032 - Disturbed pit grave without superstructure cut into the east side of tumulus 1023. This grave contained the poorly preserved semi-flexed skeleton of an adult probable female placed on her right side facing south.

1033 - Heavily disturbed pit grave without superstructure cut into the east side of tumulus 1023. This grave contained the poorly preserved disarticulated skeleton of an adult of indeterminate sex. The original orientation of the skeleton could not be discerned.

1034 - Heavily disturbed pit grave without superstructure cut into the east side of tumulus 292. This grave contained the poorly preserved and partially articulated skeletal remains of at least three individuals.

1038 - Empty circular grave found under stone superstructure of later grave 117. This grave was likely cleaned out and its superstructure completely removed during the construction of graves 117, 190 and 1026.

1039 - Empty circular grave found under stone superstructure of later grave 1027. Grave 1039 was likely cleaned out and its superstructure completely removed during the construction of grave 1027.

1040 - Partially disturbed stone tumulus (disturbed by later grave 297). This grave contained the semi-flexed skeleton of an infant placed on its right side facing north.

1041 - Empty circular grave found under stone superstructure of later grave 1027. Grave 1041 was likely cleaned out and its superstructure completely removed during the construction of grave 1027.

1042 - Empty circular grave found under stone superstructure



Plate 13. Napatan(?) sherds (from a possible pot stand) recovered from re-deposited fill surrounding grave 1027.



Plate 14. Napatan to Post-Meroitic beaker (SF:7) from grave 1030.

of later graves 1019 and 1027. Grave 1042 was likely cleaned out and its superstructure completely removed during the construction of grave 1019 or other later graves.

1045 - Empty ovoid grave cut found under stone superstructure of later grave 1027. Grave 1045 was likely cleaned out and its superstructure completely removed during the construction of grave 1027.

1046 - Pit grave without superstructure cut into the tumulus of grave 192. This grave contained the poorly preserved semi-flexed headless skeleton of an adult of indeterminate sex placed on its right side.

Conclusions

The first season of the current campaign at KRG3 has already provided a wealth of new information. While the earliest *in situ* material found thus far likely dates to the Post-Meroitic period, Neolithic and early Kerma pot sherds found in grave fills and embedded on ancient buried surfaces indicate earlier activity at the KRG3 site. We hope to find such earlier cultural material *in situ* in future excavation seasons as confirmation of a Neolithic occupation at Kurgus would certainly enrich our understanding of the prehistory of this region of the Nile, a period which has not previously been documented here.

In addition, further excavation in the KRG3 cemetery will increase our sample size to a point where useful comparisons can be made with skeletal material from other sites in Sudan aimed at addressing such issues as growth and development, disease, diet, migration and biological affinities. A minimum of 100 individuals found *in situ* and in a good state of preservation would be ideal for conducting such analyses.

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Excavations in the fort, site KRG2

Matthew Nicholas

Site Location and Geology

The fort (19° 13' 50.6" N 33° 28' 37.5" E) is located approximately 50m to the east of the current Nile bank and 1.2km from the Hagr el-Merwa and cemetery (KRG3). To the north and east the land slopes down 5-6m to agricultural fields. To the immediate south of the curtain wall (at approximately the same ground height) is a small modern settlement known locally as el-Kanisa (the fort itself has been known as Kanisa Kurgus since at least the 1940s, as documented by Arkell 1950, 39).

Archaeological Background

The proximity of the fort to the Hagr el-Merwa, famous for its Pharaonic boundary inscriptions, led to a long held belief that the fort was an Egyptian New Kingdom frontier installation (Arkell 1950, 39). This belief remained unchallenged until the investigation of the site by SARS. An initial surface survey of the pottery revealed an extensive spread of medieval sherds with no trace of earlier material (Davies and Welsby Sjöström 1998-2002, 32). A subsequent 8 x 3m trial trench against the interior of the eastern perimeter wall (Welsby Sjöström 2001, 59) revealed exclusively medieval material within the fort and Post-Meroitic beneath the wall.

The survey and evaluation of the fort also identified the presence of structures within the interior. This is in contrast to other Middle Nile medieval fortifications, many of which are thought to be devoid of internal features. It is uncertain, however, if this is a genuine feature of these structures or the result of a lack of excavation.

The site has considerable potential to add to our understanding on the form and role of medieval fortification in the Middle Nile area. The aim of this first season of excavation was to begin large open area excavations in order to:

- accurately date and phase occupation within the site
- locate and/or identify specific activities taking place on or near the site
- establish the form and function of medieval activity on the site

Methodology

Two trenches were opened at KRG2 (see Figure 1). The first focussed on the north-west tower, the second on the north-western interior.

The north west tower forms the highest area of the site, presenting the best preservation of archaeological deposits requiring several years of excavation. Consequently it was decided to focus the first season's efforts here. A trench was also opened in the interior with the purpose of informing

strategy for future seasons. Here only surface clearing occurred, with walls, robber cuts and deposits planned using a Total Station (see Figure 1 for trench locations).¹

Results

North-west tower

The trench over the north-west tower covered the entirety of the mud-brick and stone annexe along with the large circular mud-brick tower and the curtain wall.

Removal of the windblown top sand exposed a series of stone and mud-brick walls along with layers of organic rich deposits (predominantly goat faeces) and mud-brick rubble. Excavation of these revealed a complex series of remodeling phases. These are briefly described in a preliminary chronological phasing.

Possibly the earliest features exposed in the 2014 season were a probable mud-brick wall at the most northerly extent of the trench and a stone wall towards the centre of the trench (Figure 2). Both of these structures are on slightly different alignments to later phases. In the 2014 season they were not fully excavated and consequently dating is uncertain. It should be noted, however, that later structures were constructed directly atop; that is there were no abandonment layers or windblown sands that may indicate any considerable time lapse between phases.

Atop the stone wall mentioned above was constructed a south west-north east running mud-brick wall (see Plate 1). This wall formed the southern extent of a mud-brick building consisting of three narrow rectangular rooms with mud-plastered interior walls and red-brick arched doorways (Figure 2). In the 2014 season only one of these (the central room) was excavated down to a floor surface (a depth of 1.8m from the current ground surface). This was recorded in plan but not excavated.



*Plate 1. Stone wall with red-brick arch and blocked doorway
(view facing north north west).*

¹ All work followed the terms of the licence for excavation provided by the National Corporation for Antiquities and Museums of Sudan (NCAM) and, where applicable, the Institute for Archaeologists (IfA) code of conduct (IfA 2013) and Standard and Guidance for Archaeological Excavation (IfA 2008).

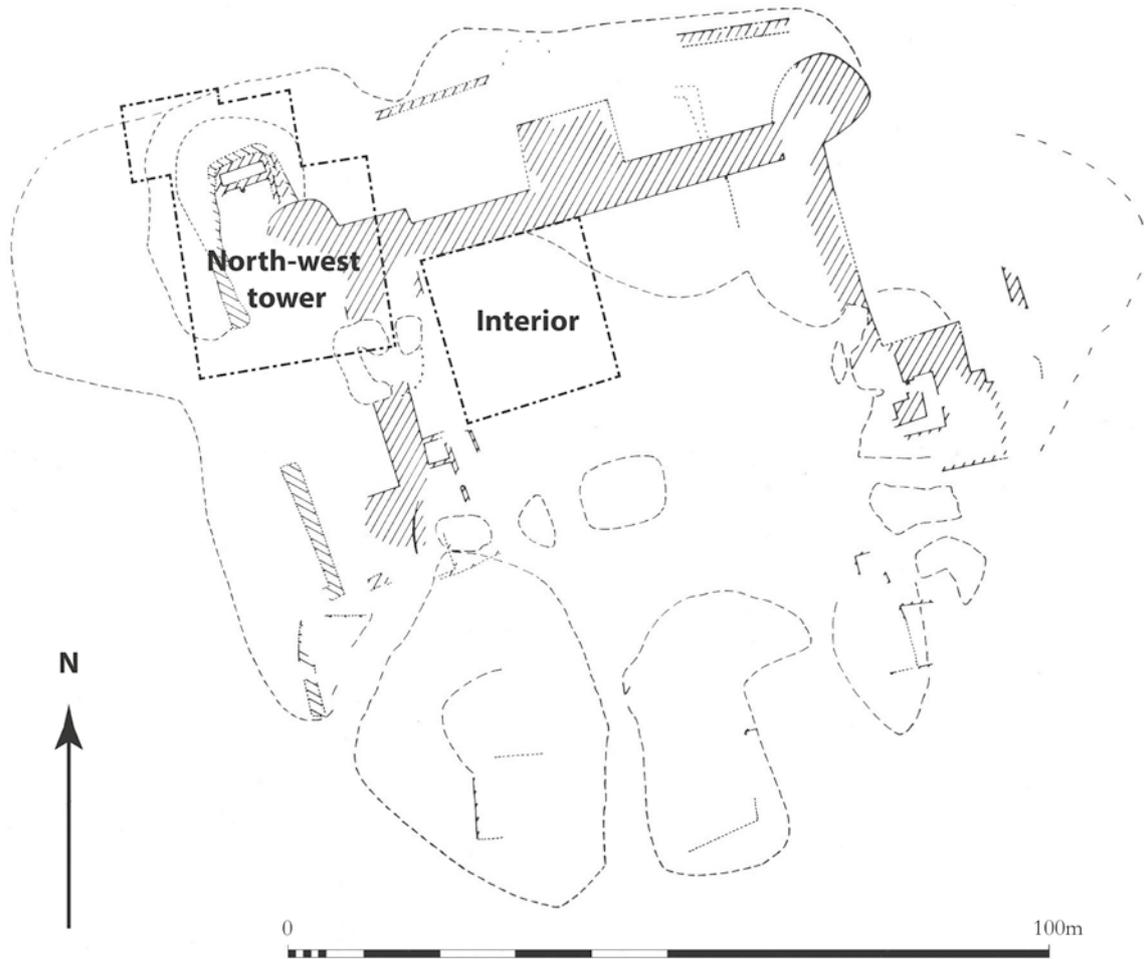


Figure 1. Plan of KRG 2 showing 2014 trench locations (base plan Welsby Sjöström 1998, fig. 6).

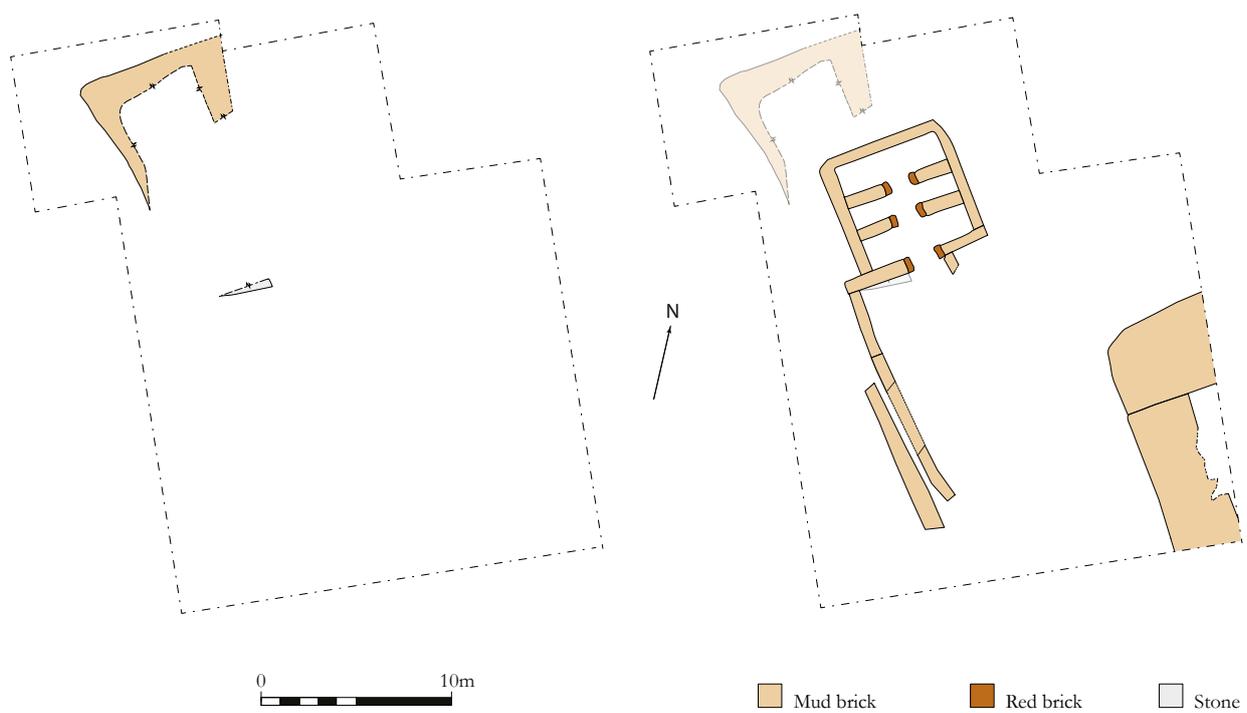


Figure 2. Plans of the north-west tower trench showing a stone wall and possible mud-brick wall (left) and the three roomed mud-brick building with red-brick arches (right) (scale 1:400).



Extending south from this structure was a series of further mud-brick walls running south east-north west creating a courtyard space. The walls appear to terminate and there is no return towards the curtain wall, possibly suggesting a Nile side entrance in this area.

The exact relationship between this building and the thick mud-brick curtain wall is currently uncertain due to the later construction of a large circular mud-brick structure between the two. The construction of this 'tower' structure clearly truncates a south east-north west wall associated with the north-west tower building (see Plate 2).



Plate 2. South west-north east mud-brick wall truncated by the construction of the circular mud-brick tower (view facing east north east).

The circular tower was cleaned and planned in detail, revealing that construction occurred in one phase (Figure 3, Plate 3). The structure abuts the curtain wall and is not keyed in. The tower is solid. Erosion and truncation have removed



Plate 3. Mud-brick circular tower (view facing north west).

any structures that may have remained above it. No obvious remains of a staircase were visible either in the north-west tower or interior trenches, perhaps suggesting that access to the top was gained by wooden ladders (or similar) (Welsby 2002, 159). Subsequently a sub-rectangular buttress was added to the eastern edge of the circular tower. This appears to have been constructed to reinforce the south west-north east curtain wall which seems to have begun to slump following erosion by the northerly wind (Figure 3).

The construction of the circular tower was followed by significant remodelling of the north-west tower building (see Figure 3 and Plate 4) involving the deliberate filling of the structure.

In the most northerly room the doorway was blocked with mud bricks. The room was then filled with alternating layers of mud-brick rubble and humic rich deposits

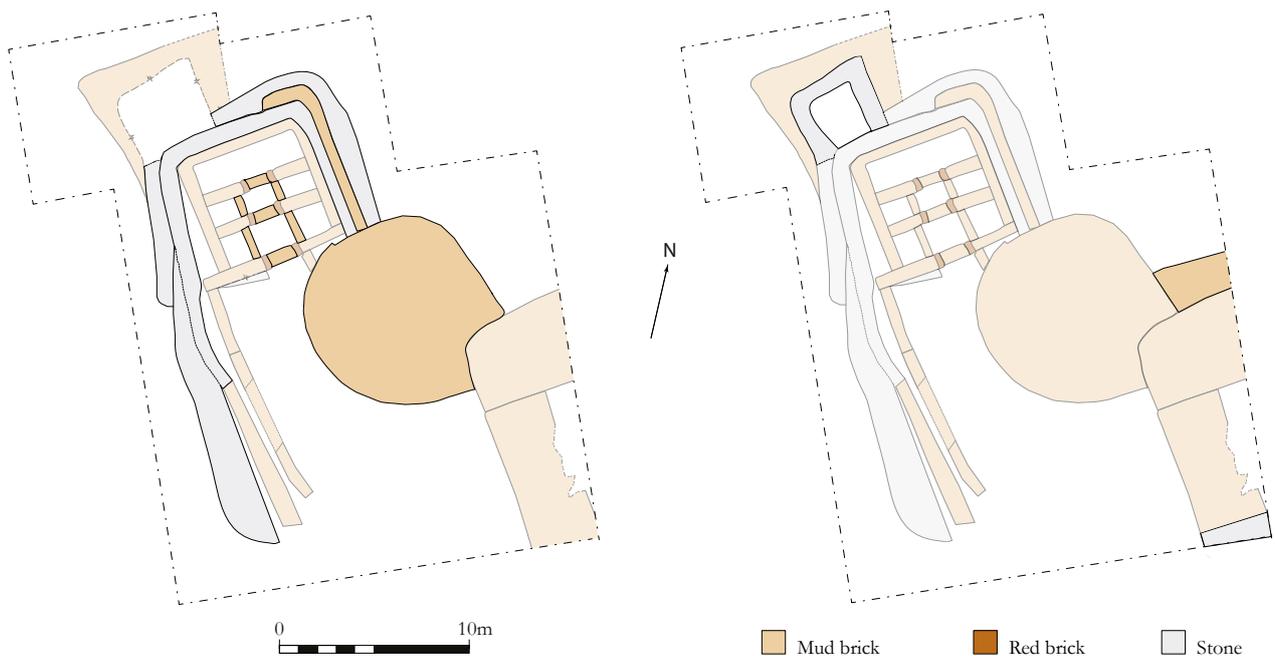


Figure 3. Plan of the north-west tower showing the circular mud-brick tower and remodelling of the north-west tower building (left), the addition of a buttress against the curtain wall and a square stone structure (right) (scale 1:400).



Plate 4. North-west tower remodelling. From left: alternating layers of mud-brick rubble and goat faeces in a room (view facing south west), wall running south east-north west built atop a layer of rubble in a room (view east north east) and a blocked doorway (view facing north west).

(predominantly composed of goat faeces) and a final layer of stone rubble. In the two southerly rooms the doorways were not immediately blocked up. Instead the space was filled with alternating layers of mud-brick rubble and humic rich deposits to approximately a height of 1m. At this point the two southern doorways were bricked up and a further layer of rubble was then deposited before four short south east-north west walls were constructed, dividing the rooms into three compartments. A final humic rich layer was then deposited.

The southern courtyard space was also levelled with similar alternating layers.

Substantial modifications were also made to the exterior

of the structure after the circular tower was constructed. A series of stone walls were added, with the north-east corner of the structure wrapped in a sandwich of stone and mud-brick walls (similar to the fortress at Redab, Paner 2005, 188-9). A further modification was made with the addition of a square 'tower' (Figure 3). This structure had a stone wall with a mud-brick rubble core.

The latest phase excavated related to the abandonment and collapse of the fort. On all exterior sides layers of wall tumble were visible. These were particularly evident on the north-east corner (Plate 5), where the structure is most exposed to the northerly winds. There were no indications

Plate 5. Final phases, from the left, wall tumble on the north-east corner (view facing west south west) and a robber pit cut into a mud-brick wall (view facing north west).





of any deliberate destruction; instead alternating phases of collapse and windblown sand suggest abandonment.

The final phases consisted of robber cuts of indeterminate age. Filled with windblown sand, these cuts focussed on the mud-brick walls (Plate 5). They were likely excavated for top dressing soil (an activity noted by Arkell 1950, 39).

Interior

A 25 x 25m square trench was laid out in the interior of the fort (Figure 4). Within this area the windblown top sand was removed by hand and the area mapped using a Total Station.

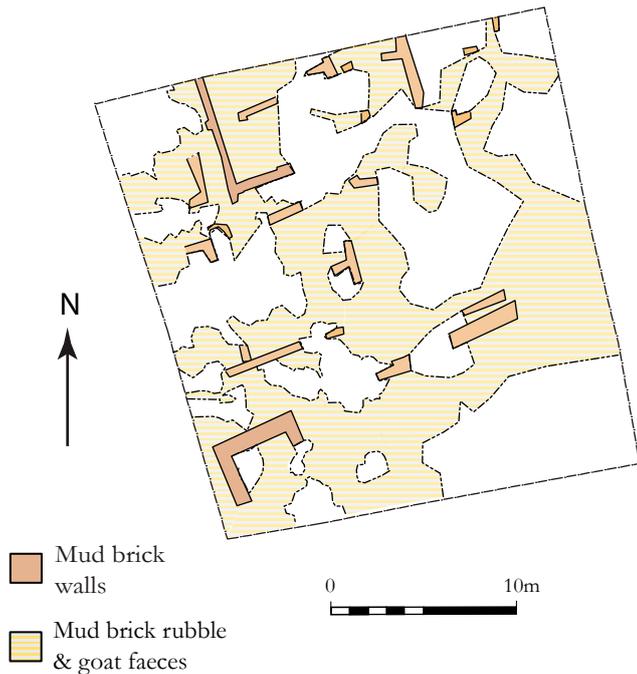


Figure 4. Plan of the trench within the fort showing walls, layers of organic-rich and mud-brick rubble makeup and robber cuts (scale 1:400).

No further excavation occurred in this area during the 2014 season. Analysis of the ceramics from the interior trench was not started in the 2014 season.

The stripping revealed a series of walls, supporting earlier observations that the interior of the fort at Kurgus is not devoid of structures. Between the walls were extensive layers of goat faeces and mud-brick rubble, both heavily truncated by robber cuts. These layers appeared not dissimilar in plan to those seen in the north-west tower trench, suggesting that a similar process of backfilling rooms to create construction platforms occurred in the interior.

The Finds

With no *in-situ* occupation deposits excavated in the 2014 season the majority of the finds came from makeup and collapse layers. This included large quantities of pottery, animal bone (the majority appear to be from the subfamily Caprinae, but will be examined fully in due course), beads (ostrich shell, stone, faience and copper alloy) and grindstones.

Two grinding stones were used as building material in the

north-west tower walls and numerous others are to be found scattered across the site. This raises the interesting prospect of parallels with the forts of Mograt Island (located approximately 25km to the north west of Kurgus) where Klemm and Klemm noted that indicators of New Kingdom gold mining sites '...are somehow connected to medieval forts. At all sites New Kingdom ore mills either scatter on the ground or are included to wall masonries' (2012, 584). Currently there are no recorded gold mines in the vicinity of the fort at Kurgus,² but it may be that currently undocumented (but historically exploited) auriferous quartz vein mineralisation lies within its hinterland. Currently conjecture, this will need to be examined with a programme of use-wear analysis on the grindstones.

Ceramics

Petra Weschenfelder

This pottery was heavily fragmented and thoroughly mixed. No vessels or sherds were found in occupation deposits (such as hearths and cooking facilities). The range of vessel types – both wheel-made and handmade fine and domestic wares – and the traces of usage they exhibit reflect the ceramic assemblage one would expect of a Christian settlement site with an agricultural component.

Among the domestic wares were wheel-made amphorae, *qawadis* and handmade jars, the latter represented solely by their rims and necks. Cooking pots were both hand and wheel-made and showed traces of usage (blacked areas and residues). Incision of Christian symbols and inscriptions hint towards the piety of the inhabitants of the fortress.

The incised cryptogram, three Greek letters with the numerical value of 689, cryptography of MIXAHA,³ in Figure 5a finds parallels in Lower and Middle Nubia during the Classic Christian Period (Adams 1986, 177 36–1, 209 36–10; Bagińska 2003, 18–5; Jakobielski 1991, 293 nos 190–193) and suggests that the people in the fortress shared ideas that were part of the cultural milieu of the Christian kingdoms during that period. The Classic Christian period is also the period that is best represented in the ceramic assemblage of the tower area excavated in the 2014 season.

A few vessel fragments can be attributed to the early Christian Period. These include the bowl with carinated rim and painted design on the upper rim (Figure 5b). These bowls find parallels in the pottery kiln site of Old Dongola (Pluskota 2001, 6). A similar bowl with a comparable design was also found on Mograt Island in the church MOG048 (Weschenfelder 2009, 3a). The majority of the ceramic assemblage provides evidence for the Classic Christian Period (Figure 5c and d). This includes the single complete bowl

² The nearest documented ancient and modern gold mining and processing sites are on Mograt Island to the north (Klemm *et al.* 2001, 651) and at Abu Hashim (Dunn 1911, 45) and el-Abeidiya (Lissan and Bakheit 2010) near Berber towards the south. Currently there are many gold mining sites being worked a little to the south of Kurgus.

³ The numerical equivalents of the Greek letters in the name add up to 689. This number is then itself written out in Greek letters.

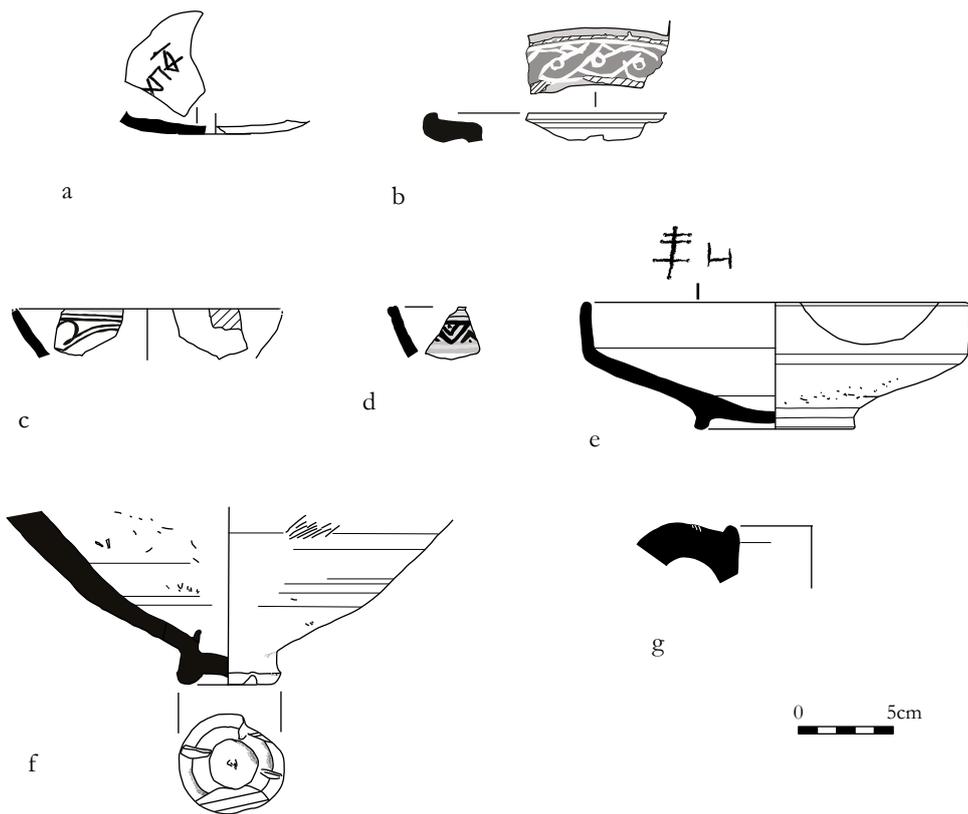


Figure 5. Pottery from the north-west tower trench: a) vessel with white slip. The interior was incised post firing (KRG2-1000.1); b) Red slip bowl with carinated rim. The painted interior is white on a plum-coloured strip (KRG2-1071.1); c) Classical Christian period bowl with a white slip and a brown/black painted interior with red rim (KRG2-1001.1); d) Classical Christian period sberd with a white slip and painted exterior (black on an orange background strip with brown stripes below, KRG2-1022.1); e) complete bowl with a yellowish orange slip and a post-firing incised interior (KRG2-1077.1); f) a qadus (KRG2-1086.1); g) Possible post-Classical Period amphora rim (KRG2-1019.1) (scale 1:4).

found in 2014 (Figure 5e). The chronological significance of decoration and form of the wheel-made wares was analysed for northern Lower Nubia by W. Y. Adams (1986). Comparable decorations found in the Dongola Reach and the Fourth Cataract were dated to the same period (Phillips 2003, 411).

Nevertheless the evidence is not entirely conclusive, especially when it comes to parallels originally analysed in Lower Nubia and subsequently re-interpreted for the Middle Nubian evidence. For instance while Adams took the shape of the *qadus* knobs in Lower Nubia as indicative for their chronological interpretation Phillips (working on material from Hambukol) pointed out that this seems not to be the case in the Dongola Reach, where diameter appears to be chronologically relevant (1991). Here a diameter between 40 and 65mm was dated to the Post-Classic and Late Dongola (with some material from the Classic Christian period) and the *qavadis* from Kurgus mainly fall into this range (Figure 5f).

A further hint towards a possible use after the Classic Christian period could be the relationship of handle and neck of amphorae – at Kurgus the handle only reaches slightly above the rim (Figure 5g), which might point towards the Post-Classical Christian period – even though it does not show the thickness and heavy build of the vessels of the Later Christian periods. The final layer of the collapse contained the base illustrated in Plate 6 also suggesting a later use of the site. However it is not possible to say with any certainty if this is linked to occupation or post-abandonment usage at the present time.

Some caution should be exercised as further indicators of later periods are not present in the assemblage. This includes



Plate 6. Possible post-Classical base from a collapse layer (KRG-1001.2).

the distinct complicated and ornate design of decorated wheel-made vessels, the underfoot of their ring bases extending below the footing so that the vessels could not stand on a flat surface, and *qulat*. However, this may be related to the nature of the area excavated. As stated earlier the pottery was not found within occupation deposits. Further excavation inside the fort might still provide further evidence of a use after the Classic Christian Period. The evidence for the Early Christian Period excavated this season also suggests that the upcoming excavations might link the fort to the Post-Meroitic use of the site that was indicated by the phase one excavation.



Discussion

The 2014 excavation has substantially added to our knowledge of the fort structure. The survey during phase one of the project suggested that ‘in a later period a stone wall and mud-brick annex were added to the north-west corner tower... with a gap between the two, i.e. they were clearly not of the same build.’ (Welsby Sjöström 1998, 32). Excavation reveals that this is indeed correct for the final modifications made to the north-west tower (Plate 7); however, as described above, it now appears that the annexe predates the construction of the circular mud-brick tower.

With the structure remaining partially excavated an understanding of its function remains elusive and, with few medieval forts excavated in the Middle Nile region (Drzewiecki and Raczkowski 2008, 3), exact parallels are difficult to find (although Jebel Nakharu and Jebel Umm Marrahi⁴ have been identified as possible examples, Welsby Sjöström 1998, 33). The presence of red brick, often used by archaeologists in Sudan to identify the location of ecclesiastical buildings (Edwards 2004, 224), does not currently appear to be linked to any religious building. This supports the observation made in phase one that red brick was not used solely in ecclesiastical architecture at Kurgus (Welsby Sjöström 1998, 33).



Plate 7. Mud-brick curtain wall with abutting north-west stone wall of the north-west tower structure (view facing west south west).

The remodelling of the interior of the north-west tower and the courtyard space to the south occurred in one phase. It is suspected that this exercise was designed to create a

flat and stable surface (presumably at the same level as the circular tower) either for further construction (there is no surviving evidence for structures above this) or to create an elevated flat platform. It is interesting to note the difference in the treatment of the most northerly room with its doorway bricked up fully from the floor (the other two being only partially bricked up). It may be tempting to speculate that a function of the space ensured that it had to be fully sealed to mark the end of its use. More prosaically it may be linked to structural stability. The outer northern walls are exposed to the scouring prevailing northerly wind which eroded and undermined walls at Kurgus (as can be seen in the addition of the mud-brick buttress against the curtain wall). The northerly room contains a thick layer of stone rubble, perhaps designed to aid structural integrity and reinforce the north-facing wall.

Outside the walls of the north-west tower was a relatively steep slope of stone and red-brick rubble, described as ‘glacis protection’ by Arkell (1950, 39). The phase one survey considered this to be more likely the result of wall collapse rather than a deliberate construction (Welsby Sjöström 1998, 33). The 2014 excavations have confirmed the latter interpretation.

The surface cleaning of the interior trench revealed a series of mud-brick walls along with layers of organic rich layers (predominantly goat faeces) and mud-brick rubble. Reminiscent of the makeup operation in the north-west tower, this may be indicative of a similarly complex series of occupation and remodelling phases.

Conclusion

The first season of phase two fieldwork at the fort has started to build upon the knowledge of this complex structure gained during phase one. Preliminary ceramic analysis suggests the possibility of activity at the fort extending beyond the Classical Christian period and the presence of grinding stones may be linked to pre-Christian gold mining activities in the area (as with the medieval fortifications of Mograt). There may also be structural similarities with fortifications in the Fourth Cataract (such as Redab). However, much remains to be done if we are to understand the form and func-

tion of this monument and its hinterland in the medieval middle Nile.

⁴ Excavated by the University of Khartoum in the 1970s (Al-Hakim 1979).

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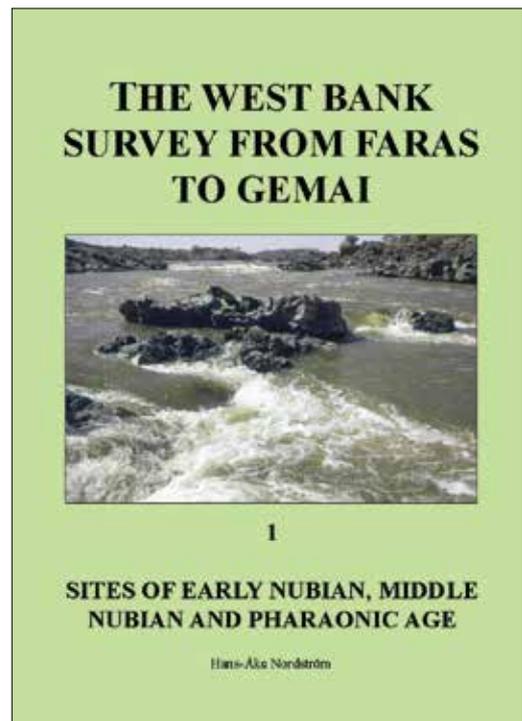
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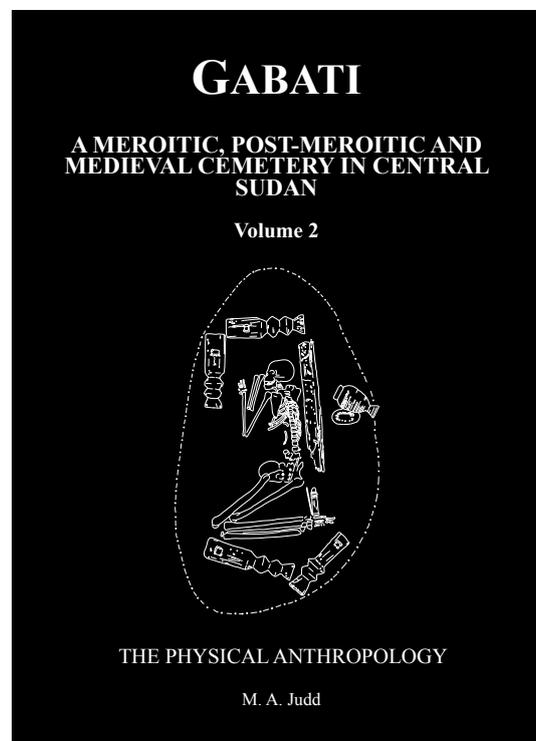
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*View upstream along the Wadi Murrat from the late 19th century Anglo-Egyptian fort.
The pharaonic inscriptions are amongst the trees at the wadi edge in the far centre (photo D. A. Welsby).*



Horus, Lord of the Desert. A natural rock outcrop along the route from Buben towards Wadi Murrat (photo D. A. Welsby).