

SUDAN & NUBIA

The Sudan Archaeological Research Society



Bulletin No. 15 2011





The map reflects the new territorial situation following the independence of South Sudan in July 2011.

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Front cover: Naga - Amun Temple, the Hypostyle Hall after reconstruction, 2008 (photo: © Naga Project).

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Excavations in the Kushite town and cemetery at Kawa, 2010-11

Derek A. Welsby

The Sudan Archaeological Research Society's team¹ arrived at Kawa on 11th December 2010 and returned to Khartoum on 14th February 2011. Following on from the work of previous seasons a number of areas within the Kushite town and in its associated cemetery were investigated.

Area F

Excavations of the large store building F1 were continued and approximately half of it was excavated to the primary floor surface and in two rooms into pre-building deposits (Figure 1). The substantial mud-brick walls, up to 1m thick, were constructed of bricks 320 x 150 x 100mm in size arranged as headers and stretchers in a variety of bonds. Most walls had wider footings of up to two courses laid flat or with a single course of brick set on edge or at an angle in order to level up the undulating ground surface before the construction of the superstructure. In a few places the footings had markedly subsided presumably into pre-building pits. Where excavation was carried below the primary floor surfaces in Room VIII, an area of mud brick was noted, but was not investigated further this season. In most of the doorways remains of the timber jambs survived, that between Rooms VII and IX of 190 x 100mm scantling. Thresholds were formed of a timber beam set to one side of the lowest courses of the associated mud-brick wall which continued across the opening. Rooms VIII and IX, with internal dimensions of 5.2 x 4.94m and 5.2 x 4.5m, were each provided with two timber posts to support the roof resting on circular stone post-pads (Plate 1). Room VI also had two posts one of which, 300mm in diameter, still survived to a height of 530mm (Plate 2). In rooms IX and VIII was a floor of large stone slabs resting over the projecting footings, but it was very irregular and uneven although it was not clear why this was the case. In the south-east corner of Room IX, in an area where the stone flooring was not preserved, was a large amphora 540mm high (the rounded base is missing) and with a maximum diameter of 440mm which had been set in a pit, its rim probably flush with the flagged surface. The building certainly had a long life in use

¹ Team members – Tanya Bowie (archaeologist), Natasha Kalogirou (physical anthropologist), Susanne Hakenbeck (archaeologist), Jane Joyce (illustrator), Mohammed Ibrahim (cook), Abdelhai Abdelsawi (NCAM inspector), Stephen Porter (archaeologist), Ross Thomas (archaeologist, pottery assistant), Pernille Bangsgaard Jensen (archaeozoologist), Isabella Welsby Sjöström (assistant director, pottery specialist), Derek Welsby (director). We were joined by three volunteers, Peter Lovell and Chris Lovell for one month and Paul Major for two weeks.

well after the stone floors were buried under deposits of a brownish organic material which contained many layers of basketry. Similar material was also found in room VI (Plates 3 and 4). Here the basketry was particularly well preserved with a wide range of material from large coarse mats to fine circular objects identical to the modern-day *tabaq* (pl. *tobaqa*), a



Plate 1. Timber posts and stone post-pads in Room IX.

circular, often slightly conical, mat used as a food cover. This material was strewn across the floors with the *tobaqa* occasionally resting vertically against the walls. Amongst these layers were some rich rubbish deposits with much pottery and large pieces of animal bones as well as one human skeleton. Also common were seal impressions (Plate 5) which were recovered particularly from in the street immediately adjacent to the doorway from Room VII, in Room VIII in sandy deposits above the stone floor, by the doorway from Room VI to Room I and in Room IX by the doorway into VII. Stamps also came from this latter location. In the previous season within the mud-brick rubble in Room VIII were many pieces of mud incorporating small pebbles, and small fragments of stone and red brick. On their flat and smoothed surface



Plate 2. The well-preserved post in Room VI.

they bore many impressions from a very large oval seal. It is possible that these were impressed onto a mud-blocking wall sealing the entrance to the room. The other seal impressions were on a fine mud and bore impressions on the back from a wide variety of materials: none were from door blockings.



Plate 3. Matting in Room VI.

In Room IX a large section of the fallen ceiling was preserved consisting of three timbers of 200 x 40mm and 130 x 100mm scantling; the third was too degraded to measure, running east-west and set 780mm and 250mm apart overlain by palm fronds.

As with many large official buildings of different periods in Sudan (e.g. the Kushite palace of Amanishakheto at Wad



Plate 4. Multiple layers of circular basketry in Room VI.



Plate 5. A selection of seal impressions from Building F1.

ben Naqa - Vercoutter 1962; the medieval Christian Building D at Soba East - Welsby & Daniels 1991) the ground floor rooms of Building F1 were used for storage but their primary function was to elevate the more palatial rooms which were to be found on the upper floor or floors. Two stairways gave access to the upper floors. Rooms X and XI were associated with that in the south-west corner of the building. The doorway from the corridor, Room VII, led into a mud-brick paved space from which a flight of steps supported on a solid mass of mud brick ascended to the west (Plate 6). At the front of each riser was a timber beam buried into the walls at each end. Three steps survived. Presumably from the first landing the steps returned to the east over Room X where they must have been supported by timber beams or possibly by a mud-brick vault. The ground floor of Room X communicated through a doorway with Room IX to the north. Although no remains of the first floor remain *in situ* the discovery of mud bricks bearing painted plaster, many fragments reused in a late threshold between rooms V and VI, and another piece of brick and plaster bearing coloured hieroglyphs hint at their opulence (Plate 7).

The later deposits in the ground-floor rooms were composed of mud-brick rubble pierced by pits some filled with wind-blown sand. All the pottery was of early Kushite date, a very similar assemblage to that from the buildings approximately 30m to the east and to Building A3 250m to the south.

Area T

When Griffith excavated the temples at Kawa in 1929-31, work followed by that of Macadam and Kirwan in the winter of 1935-6, the temenos wall was briefly investigated and assumed to be of early Kushite date (Kirwan 1955, 208). Only



Figure 1. Building F1 excavated in the 2009-10 and 2010-11 seasons (scale 1:200).

the north-east angle and a small part of the east wall were found. The excavation of a gateway through this eastern wall commenced last season was continued. The area of the gate had a complex history.

Period 1

The earliest structural remains excavated were many post-holes, up to 125mm in diameter and 200mm deep, cutting a

hard earth surface (Plate 8). This surface was found in two areas to the east and west of the later gate at a maximum depth of 4.64m below the present ground surface. As the area available for excavation was small it was deemed inappropriate to cut through the surface and post-holes so excavation was terminated at this point. To adequately understand what is happening at this level it would be necessary to excavate an extensive area requiring a considerable investment in the



Plate 6. The stairway, Room XI.

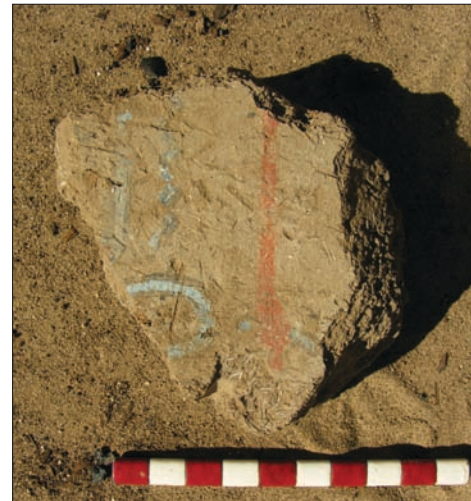


Plate 7. Painted wall plaster with part of a hieroglyphic inscription, presumably decoration of the first floor apartments.



Plate 8. The earliest surface reached during excavations in the gate area, designated Period 1.

hiring of a large workforce to remove the several metres of overlying deposits many of which, away from the later gate, are layers of wind-blown sand.

Period 2

After a build-up of 1.47m of sand deposits, a few of which were cut by isolated post-holes and pits, evidence probably for a timber gateway was found. On the eastern side of the later gate were three very substantial post-holes, the largest 440mm in diameter and 470mm deep. Other post-holes may lie to the north and south beyond the areas available for excavation. Another post-hole, of the same diameter but 670mm deep, was found 6.3m to the west. These post-holes were infilled with material associated with the construction of the first masonry gateway.

Period 3

After the filling of the post-holes a single course of mud bricks set on edge was laid as a foundation for a substantial stone paving utilising blocks up to 400mm thick. The mud bricks were only noted in the centre of the stone paving; to either side the paving rested on a layer containing many small stone fragments. Resting on the paving was the stone facing of the gateway built from large dressed white sandstone blocks and surviving to a maximum height of 3.06m. At the eastern end of the gate passage the jambs projected 270mm but behind them there was no trace of a pivot for the gates nor any sockets to receive a beam to lock the gates in the side walls or to receive a bolt in the centre of the roadway. The stone paving only existed within the confines of the gate passage (Plates 9 and 10); at the jambs it was 5.04m wide and had a total length of approximately 4.86m. No trace of wear was visible on the paving stones. It might be suggested



Plate 9. The first stone gateway, paving and north jamb.

that this gateway was contemporary with the temple built by Taharqo although no certainty exists. The temenos wall in the vicinity of the gate was of mud brick 2.2m thick widening to 4.65m to the north and south of the gate passage.

Following the construction of the gate deposits of sand and coarse material containing many small potsherds were frequently laid in the gateway as the sand built up to the east and west. On a surface 2.3m above the stone paving was a line of six post-holes and two stake-holes running obliquely across the gate passage.



Plate 10. Detail of the stone paving in the gateway.



Period 4

After a build-up of 3m above the paving the whole area was extensively remodelled. The upper part of the gate passage on its north side was reconstructed with reused large stone blocks of red and yellow as well as white sandstone, including part of a cornice. These walls, surviving to a height of about 400mm, were laid in a careless fashion in some cases with the bedding planes of the stones set vertically. On the south side the gate was narrowed by approximately 600mm and a new wall similar in construction to that to the north was constructed. It extended about 550mm to the east of the primary wall line. In this period the gate passage was 4.48m wide at its east end increasing in width to 5.32m to the west and was approximately 4.4m long. This was contemporary with a rebuilding of the mud-brick temenos wall on a layer of sand covering the primary wall and set 100mm further to the east.

Period 5

The substantial, albeit crudely constructed, Period 4 gateway must have been in poor condition when it was rebuilt in timber. Massive timbers formed the two sides of the gate passage while a central triple post-hole presumably supported the timbers against which the two-leaf gate at the inner end of the gate passage closed. Most of the timbers were set in substantial post-holes up to 1.6m deep, the three on the south side of the gate being partly recessed into the lowermost course of the period 4 stone facing. The alignment of the gate is a little different from that of its stone predecessor with a curious gap of about a metre between its north side and the earlier north side of the gate passage.

Period 6

Replacing the timber gateway and built against the south face of the period 4 wall on the north side of the gate passage and partly on rubble, mud-brick walling narrowed the gate passage by 600mm while the walls to north and south were extended approximately 1.75m to the west in crudely laid stonework and bricks.

The walls of periods 4 and 6 survived up to the ground surface at the time excavation began. Pottery associated with the use of the gateway suggests that it spans virtually the whole of the Kushite period. The small amount of pottery from Period 1 is rather different but is not recognisably of Pharaonic date.

The cemetery

In the 2008-9 and 2009-10 seasons two dressed-stone pyramids (P1 and P2) were investigated at the north-eastern extremity of the Kushite cemetery lying to the east of the town. The core of a further pyramid (P3) was also noted and the outline of its very large descandary, 2.4m wide and 13m in length, was planned (Figure 2). This season the descandary and its associated tomb were excavated.

The tomb had been constructed within a large sub-

rectangular pit dug down from the Kushite ground surface. The east and west walls of the tomb were built first, from well-dressed and shaped stone blocks (Plate 9). The side walls, of similar construction in the lower parts, abutted those walls and supported a stone barrel vault rising to a height internally of 1.8m. The stones used in the vault varied considerably in size with the springers of the vault being very large, up to 1.07 x 0.33m. The vault was roughly finished with keystones of small square blocks along the western half of the chamber and rectangular blocks set transversely to the east. At present this appears to be the only Kushite tomb known with a stone barrel vault although many mud-brick vaulted tombs are known. The closest parallels come from el-Kurru where the tombs of kings Piye (Ku.17) and Shebitqo (Ku.18) were corbel vaulted (Dunham 1950, pls XXI and XXIII). Later royal tombs often have vault-shaped roofs but these are not true vaults being carved out of the bedrock.

The chamber was entered from the descandary via a fine doorway (Plate 10) with a massive stone threshold and monolithic door jambs crowned by a lintel with torus mouldings on its east face surmounted by another lintel with cavetto cornice and with a rectangular raised area in the centre. This was presumably left so that it could be carved into a relief decoration but this did not occur. Similar bosses were found by Reisner on a number of the lintels above the stone-cut doorways at Jebel Barkal, for example in Bar.14 and Bar.18 (Dunham 1957, pls IVc and VIe). At Nuri in Nu.50 the boss had been worked into a sun-disc flanked by uraei in raised relief (Dunham 1955, fig. 132).

Flanking the doorway the facing stones had been roughly flush pointed in a purplish mortar of the same type as that used in the construction of Pyramid P2. On the face of the lower lintel were deep score marks forming no obvious pattern and on the north wall of the tomb were two scored graffiti of uncertain significance. Above the lintel up to the ground surface a wall of mud brick revetted the fill of the construction pit which had been placed over the *extrados* of the vault.

The tomb appears to have been used on a single occasion when seven bodies were interred all laid south-north apart from one laid north-south (Plate 11). The bodies were supine and extended although two had their arms stretched out at right angles to the body and the legs tightly flexed to left and right but with the feet close together. One body had six substantial copper-alloy rings on the wrists and ankles, another has two massive anklets which are now reduced to a white chalky material with some grey staining, perhaps silver formed around a plaster core. Adjacent to the upper femur of one individual was a small chalcedony arrowhead and a chalcedony pendant came from the neck area of a juvenile. The lower part of a mud-brick blocking wall remained set directly on the threshold, of headers set on edge and laid flat.

The lower fill of the descandary was extremely difficult to differentiate from the natural through which it was dug. No steps could be found. It is assumed that the descandary was a



Plate 9. The west wall of the vaulted tomb beneath Pyramid P3.

gentle slope from the ground surface down to the level of the tomb's threshold but a convincing surface was only noted immediately in front of the door into the tomb. The upper



Plate 10. The eastern end of the descender associated with Pyramid P3.



Plate 11. Skeletons in the tomb beneath Pyramid P3.

part of the descender along its entire length was filled with wind-blown sand, not the sort of material one would expect to have been used by those who interred the bodies. This has the character of a fill naturally formed after the robber pit was dug but why such a massive robber pit would be excavated is a mystery. Immediately adjacent to the wall at the west end of the descender were two robber pits which had on two separate occasions allowed access into the tomb. During the excavation presumably of the earliest of these when the blocking wall was first pierced the lower lintel was broken and the large central section lay within the tomb a little above the level of the bodies. The only evidence for robber activity within the tomb was the displacement of one skull which lay on silt a little above the level of the other skeletons. In the absence of extensive robbing the paucity of finds is noteworthy.

Many of the tombs excavated to date at Kawa are hollowed out of the alluvium. However the alluvium is very friable severely limiting the width of the chambers. When the Kushites wished to construct tombs of a greater width they were forced to provide an alternative roofing system. Generally this was a mud-brick barrel vault which was constructed within a rectangular vertical-sided pit dug from the surface. The tomb was a freestanding structure within the pit which was subsequently infilled. The tomb under Pyramid P3 is of this form but stone was substituted for the mud brick. It seems clear that the tomb under Pyramid P2 was of very similar form. On account of its very extensive robbing the whole tomb structure was destroyed and most of the material was removed from the site. However a number of mud bricks were found in the robber pit, derived from the revetting wall at the front of the tomb's construction pit and/or from the blocking wall in the doorway. Also in the robber pit were a few large dressed stone blocks from the tomb structure. In the rubble close by were two large dressed blocks which were voussoirs from this tomb.

To the north of the stone pyramids, an area of 1283m² was

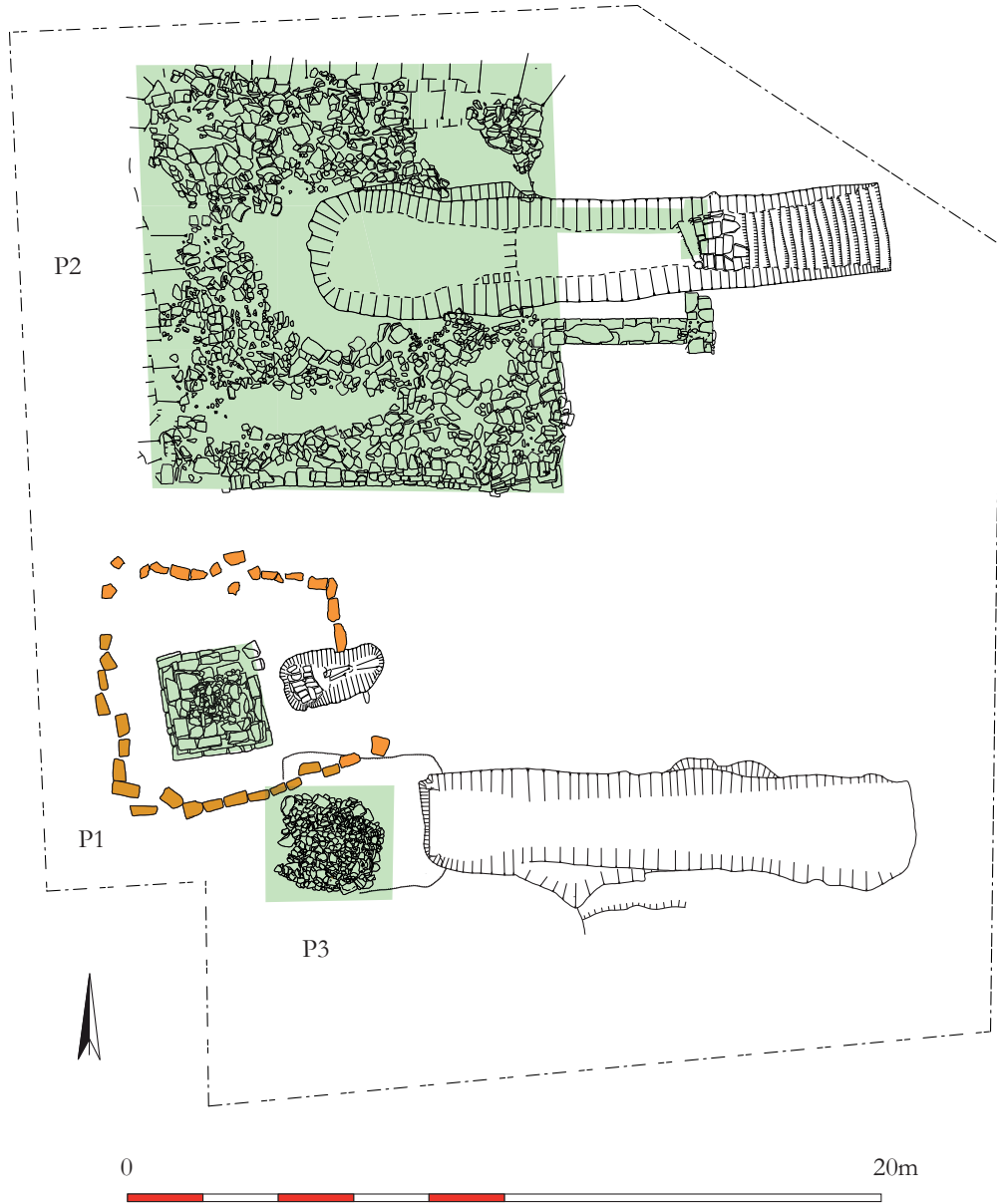


Figure 2. The dressed stone pyramids (scale 1:200).

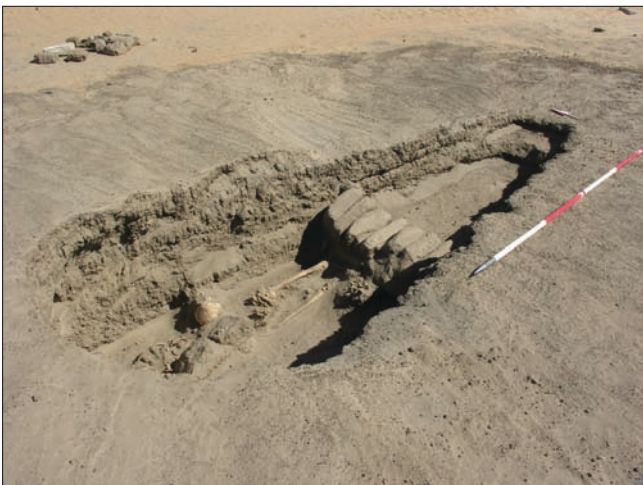


Plate 12. Grave (JH4)8, a typical grave where the erosion has removed the alluvium which formed the roof of the chamber.



Plate 13. The mud-brick monument and descender with rubble masking the white-washed transverse wall.

cleaned down to the subsoil revealing 23 graves of which one had been excavated in the 2009-10 season. There has been substantial erosion in this area of the cemetery with tomb monuments surviving on the western side of the excavation while at the eastern side some bodies were visible on the surface. Most of the graves were of similar form, a grave type known from earlier excavations at Kawa particularly in Area (HA2) (Welsby 2002, 36-7; 2008, 37-38). They consisted of a long descendary with either vestigial steps or a slope leading down to a chamber hollowed out of the alluvium (Plate 12). Apart from one exception each grave contained a single inhumation laid in an extended supine position usually with the head to the west but occasionally with the orientation reversed. All the graves may have had tomb monuments but only the remains of one survived. Two graves had been inserted at an angle presumably under pre-existing tomb monuments without disturbing the primary burials. Several bodies retained the impressions of their cartonnage coffins. Blocking walls were invariably of mud brick. Some were carefully constructed with coursed headers and stretchers, others less so with bricks laid at an angle. One grave had been used twice, the secondary burial with its blocking wall sat on the remains of the primary burial 940mm above the floor of the original chamber which does not appear to have been robbed yet contained no trace of a burial. Longevity of use of the area for burials is suggested by the intercutting of graves, one into another.

Two graves were exceptional.

Grave (JH3)6 had a typical descendary with blocking wall but the chamber was transverse, i.e. was aligned north-south with the inhumation placed in a cartonnage coffin with its head to the south.

Along the western edge of the excavation two monuments were visible on the surface, the northern one of which was excavated (Plate 13). It measured 6.6 x 6.5m and was constructed of mud bricks set in a carefully cut foundation trench surviving to a depth of 250mm. It is possible that the upper part of the foundation had been removed by erosion. Extending into the centre of the monument from the east was a trapezoidal descendary 7m in length, the end of which was formed by a well built mud-brick wall without any opening through it. Occupying the western end of the descendary was a mud-brick chamber roofed by a Nubian vault. The vault had been seriously damaged, having totally collapsed to the west while to the east the vaulting bricks had fallen against the south wall of the chamber. Total excavation was not possible without totally destroying the chamber (Plate 14). Originally it will have measured in excess of 1.7m in length, was about 1.2m wide and had an internal height of about 1.8m. Running along its long axis offset a little to the north was a mud-brick plastered mastaba 570mm wide and 220mm high. The badly disturbed skeleton lay in the silt above and adjacent to the mastaba while to its south against the wall of the chamber was a fine Roman amphora (Plate 15) provision-



Plate 14. Grave (JG2)2. The mud-brick vault and mastaba.

ally identified as a Dressel 2/4 form (Dressel 1899) but very unusual on account of its small size. The highly distinctive fabric indicates that it is of Campanian manufacture which can be dated to the period mid 1st century BC to AD 79.² A copper-alloy beaker with a flat base bearing decoration and inscriptions in hieroglyphs came from the fill. Running across the vault was a thin mud-brick wall plastered and whitewashed on its eastern face. This served to divide off the western end of the descendary and may be associated with a secondary burial – a scatter of bones and a skull were found in the fill. Subsequently another burial may have been inserted through



Plate 15. Disturbed bones and Campanian amphora in situ in grave (JG2)2.

² Information from Dr R. Thomas.



Plate 16. Grave (JH3)116. Pottery vessels, a copper-alloy bowl and a scarab by the pelvis.



Plate 17. Grave (JH3)116. Beads at the neck of the deceased.

this wall, the break being infilled with rubble from the original blocking wall and capped with a wall of a single course of stretchers. The relationship of the descendary and the tomb monument has been disturbed by the robbers but presumably the monument must have been constructed after the primary burial had been interred. The secondary and possibly tertiary burials will have resulted in some damage to the monument. No trace of an offering chapel was noted and the fact that the eastern wall of the monument is substantially thinner than the other three walls suggests that in fact the monument was not a pyramid at all.

Unlike elsewhere in the cemetery where even unrobbed graves contained virtually no grave goods, they were abundant in this area. Two graves contained four pots each. Grave (JH3)116 had four globular painted vessels, one of which had a copper-alloy bowl upturned over the neck (Plate 16). Two of these pots have a single line inscription in Meroitic on the shoulder. Also in this grave were a scarab and at least two strings of beads, one of red stones, the other of alternating clusters of gold and deep blue beads (Plate 17).



Plate 18. Selection of the finds recovered.

Grave (JH3)39 contained a large jar, a small pottery cup, again probably set into its neck, a small bulbous jar decorated with vine-tendril motif and a flat-rimmed bowl with painted

decoration. A third grave had a large globular black jar with incised decoration and a copper-allow bowl set into its neck. Adjacent to this was a copper-alloy *klepsydra*.

The finds

Amongst the finds were over 250 seal impressions in mud recovered from Building F1 (Plate 5). These bore over 90 different impressions and several seals of mud were also found, none matching the seal impressions found. Large quantities of animal bone were recovered from the same building as were very considerable amounts of pottery all of early Kushite type. A significant assemblage of pottery also came from a midden deposit dumped adjacent to the *temenos* wall by the gateway. Other objects include a figurine of Isis, a stelopherous figurine, a small *alabastron*, and a pair of copper-alloy earrings (Plate 18).

Acknowledgements

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