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Front cover: QSAP Dam-Debba Archaeological Survey Project. Site DS7, Ganati: the re-erected columns in the church (photo: Fawzi Hassan Bakheit).

Sudan & Nubia is a peer-reviewed journal
The Qatar-Sudan Archaeological Project – Excavations and other activities at Kawa in the 2014-15 season

Derek A. Welsby

The two components of the project Kawa and its hinterland. Urban and rural settlements of the Kerma, New Kingdom and Kushite periods continued to work at Kawa and at site H25 in the Northern Dongola Reach.

Excavations at Kawa

The team1 arrived at Kawa on 8th December and worked on site for nine weeks with up to 50 workmen.

Excavations in the town

Within the town excavations of Building F1, begun a few years ago (Welsby 2011, 54-55), were continued. All the previously excavated rooms were cleared of sand and investigations were continued across the whole building, in the room abutting it to the north and in a small area to the east. On the completion of the work pre-building deposits had been reached across the building. In the area of Room IX a sondage was excavated to a depth of 2m below the primary floor level through sterile sand. In Room VII some domestic activities had pre-dated the building with a number of hearths being located, some partly sealed by the walls of the later structure. In Room VI several post-holes were noted at a corresponding level. In other rooms no pre-building deposits were revealed. Outside the building in most places only layers of sand were observed extending down below foundation level.

The plan of this building (Figure 1), 26.9 x 15.88-15.06m in size, had been known for many years, its wall tops having been cleaned and planned long ago (Welsby 2002). The excavations did not change our understanding of its layout in any fundamental way. The main entrance from the east, 4.13m in width, led into a central courtyard flanked by two long narrow rooms entered from the west end of the courtyard (Plate 1). Both of these in turn communicated with the adjacent rooms to the west. Another entrance led into

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1 Team members – Monica Fombellida (archaeologist), Michael Joyce (archaeologist), Haytham Mohammed Abdurahman Elimam (NCAM inspector), Elisa Vecchi (site planner, illustrator), Lauren Neal (archaeologist, small finds registrar), Iain Bennett (archaeologist), Derek Welsby (director, photographer, surveyor), Isabella Welsby Sjöström (assistant director, pottery specialist), Bonnie Knapp (archaeologist, physical anthropologist), Alice Jones (archaeologist).
the building from the south, much narrower at 1.76m wide. This entered a corridor off which opened several rooms. In the north-east and south-west corners of the building were substantial staircases, the treads made of mud brick fronted by timber risers. Extensive amounts of structural timbers survived in the building including thresholds, door jambs, doors and posts supporting the first floor. These latter were of stout circular palm trunks (Plate 2). In the doorways between Rooms II and III and Rooms III and IV the lower parts of doors survived constructed of several wide planks arranged vertically (Plate 3). These had been closed as floor deposits built up either side of them and cannot have been opened at that time.

In several rooms there was clear evidence for a gradual build-up of floor surfaces with innumerable layers of sand and silt while in Rooms VIII, IX and possibly in Room IV one later floor was of rough stone slabs (Plate 4). Thresholds were also raised with the laying of mud-brick and timber thresholds at a higher level. In Room II the mud-brick threshold in the entrance from outside the building was raised and covered in a layer of stones which included two cylindrical post-pads and two large blocks projected to the east (Plate 5). Although the floor level had risen to some extent within the room a ramp made the transition up from it onto the raised threshold. The ramp had a foundation of stone rubble including elements from a large stone basin, capped in mud. At the same time four post-pads were inserted close to the sides of the courtyard perhaps to support verandahs.

Particularly in Rooms III and IV (Plate 6) almost all the pottery recovered were ribbed amphorae of Egyptian...
manufacture (Plate 7). Most of these were largely complete although broken \emph{in situ} or with conjoining sherds recovered from several deposits within each room. Many bore graffiti, palm frond motifs, lattices, lines and a bird (Plate 7), all incised after firing. Also from Room IV came a section of elephant tusk $c.117 \times 141\text{mm}$ and approximately $60\text{mm}$ in length. Its detailed study must await conservation. In Room II many circular counters made from pottery sherds and often well rounded were recovered.

At the western end of Room I was a substantial pit into which rubble from adjacent walls had fallen. The pit fills contained many layers rich in organic material, some of it certainly matting and circular basketry lids. Resting along the north side of the pit was a very large piece of matting (Plate 8) surviving over a length of about $2\text{m}$. Small samples of this were conserved with PVA diluted in acetone and lifted.

Abutting the building on its north side was a single room, Room XII, entered by a doorway through its north wall. Within this room was extensive evidence for hearths while along its eastern wall was a row of many small rectangular ovens set on a mud-brick platform, those to the south later enclosed within a low mud-brick wall. There were also a few hearths pre-dating the walls of the room including one with a large ceramic brazier \emph{in situ} (Plate 9).

To the south of the building was a single-roomed structure with massive mud-brick walls $1.2\text{m}$ thick entered through a doorway in its south wall. This only survives to a maximum height of one course of bricks immediately below the present ground surface and indicates the massive amount of erosion in this part of the site since the Kushite period. The loss of such massive walls to erosion may go some way to explaining the apparent open

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Plate 5. Building F1, Room II; stone elements in the raised threshold and stone post-pads.

Plate 6. Building F1, Room IV; ribbed amphorae.

Plate 7. Building F1, ribbed amphora and graffito of a bird scratched on after firing.

Plate 8. Building F1, Room I; matting on the edge of the pit at the western end of the room.
areas in the town in this part of the site revealed by the magnetometer survey (see Welsby 2008, 39, fig. 3). Elsewhere buildings are set close together separated by narrow streets or alleyways. The open areas may be a reflection of later destruction by aeolian activity which has removed all traces of many buildings.

Excavations in the Kushite cemetery
Excavations have been conducted in the eastern cemetery off and on since 1993. In the last few seasons work has been focussed in the north-eastern part of the site where a considerable area has been cleaned down to the alluvium. Towards the north east the Kushite ground surface has been removed by aeolian erosion. In that area no tomb monuments survive and in the most extreme cases the whole of the grave pit has been removed leaving a jumble of human bones on the surface. Further to the south west some tomb monuments survive. It is uncertain whether the provision of a tomb monument was ubiquitous. Particularly with those graves preserved in the area where adjacent monuments survive, it may be suggested that they were never marked by a prominent monument on the surface.

The excavation of five graves begun in January and February 2014 were completed this season and a three further graves were investigated.

Grave (JC3)12 – This grave was marked on the surface by a substantial pyramid. The descendency is well preserved at its eastern end but has been badly damaged by a massive robber pit to the west. The last pit fill was of wind-blown sand containing rubble from the pyramid. Deep within this fill some plastic bags were found suggesting that it had been robbed for the last time in the latter part of last century – it certainly has not been robbed since 1993.

The robber pit penetrated down to the tomb chamber and a little through its floor. The chamber was constructed of mud bricks and the lower parts of its north, south and east walls survived (Plate 10). It was entered through a doorway c. 540mm in width. Amongst the rubble excavated last year was one sandstone lintel 1m in length which might be from the tomb although it seems too small to have spanned its doorway and too heavy to be supported on the mud-brick walls. The other, much larger, lintel is of very similar design to that found in situ in the grave to the north (Welsby 2011, pl. 10; 2014, pl. 8) but is too big to have spanned the chamber’s doorway and was too heavy. Bones from in the robber pit fill appear to come from a minimum of two individuals, a young female 20-35 years old and an adult, probably male. No objects were found in situ in the grave but three gold beads were recovered in the lower robber pit fills. Pottery sherds were extremely sparse.

During the construction of the chapel and pyramid a thick deposit of stone chippings formed on the ground surface burying the pyramid’s lowest foundation course and much of the course above. Removal of this layer revealed the edge of the construction pit which was only slightly larger than the foundation, and three post-holes. On the south side of the pyramid immediately to each side of its centre line were two large and deep pits (Plate 11), one preserving the post-pipe...
for a timber 210mm in diameter with a pointed base and set 1.08m into the pit. Posts set in these pits presumably were the uprights for a *shaduf*-like crane used to lift the blocks of the superstructure into place. One of what was probably a pair of similar post-holes was found on the west side of the pyramid.

A highly unusual feature of this pyramid is the presence of a western descendary. This is carefully dug right up to the west face of the monument and, although emptied out by the robbers – it was infilled with windblown sand – it appears to be a Kushite feature. This was excavated to the mouth of the chamber hollowed out of the alluvium but it was too dangerous to follow the robbers into the tomb itself. No finds directly associated with it were recovered.

**Grave (JE2)14** – the excavation of this grave was facilitated by the large robbed pit which was dug directly down to the grave through the mud-brick pyramid (Welsby 2014, pl. 17). The blocking wall remained in place but the exact limits of the chamber were uncertain. Contrary to what had been thought last season no evidence for a mud-brick barrel-vaulted chamber was found. The grave contained a single extended supine inhumation aligned west-east. No objects accompanying the deceased were recovered.

**Grave (JF2)2** – The grave had a sloping descendary (excavated in 2013) and a chamber cut into the alluvium containing the body in an extended position with the head to the west – the typical arrangement at Kawa. A single pottery jar had been placed on the right side of the body (Plate 12).

**Grave (JG2)244** – This highly unusual grave had a circular descendary and was marked on the surface by a tumulus. However, at a lower level it becomes more standard with a trapezoidal descendary cut in the base of the circular pit blocked by a wall of mud brick. The chamber, hollowed from the alluvium, was roughly rectangular in plan and contained three extended supine inhumations which appear to have been buried as part of one event. No associated objects were found.

**Grave (JG1)30** – Towards the western edge of the excavation area a very small mud-brick pyramid was discovered a few years ago. This monument marked the only grave known at Kawa so far which has a single descendary entering from the west. Steeply sloping with many vestigial steps, it cut the eastern end of the descendary of grave (JG0)7. The chamber was not investigated this season.

**Grave (JG0)7** – The grave was entered down a sloping descendary; the chamber dug into the alluvium was not excavated this season.

**Grave (JD2)40** – Partly preserved under the rubble from the large stone pyramid over grave (JC3)12 was a mud-brick pyramid 4.06 x 4.05m in size (Plate 13) with a chapel against
Vincentelli who is also examining all the seal impressions from the excavations at Kawa undertaken since 1993. Also from this building were a large number of discs made from re-used pottery sherds (Plate 17). Their function is uncertain.

The Pottery

Work on the pottery began with the processing of the backlog from areas C and T. Work thereafter concentrated on the material from Building F1. Ceramics from the cemetery (R18) were sparse and because the sherds often join between widely dispersed contexts it was deemed better to process these when the area currently under excavation has been completed.

In the topsoil layers covering Building F1 some sherds of probably early Meroitic date were noted, but apart from these limited exceptions the corpus of material appears to be Napatan. The forms represented were fairly limited, ranging from red-rimmed handmade beakers/bowls (Plate 18) and (much more rarely) dishes, as well as some larger serving dishes, also handmade. These were found throughout the rooms under excavation this year, and also closely paralleled the ceramic corpus of the deposits in rooms excavated during earlier seasons within this building.

More noteworthy was a concentration of Egyptian amphorae with rilled rims, particularly in Rooms III and IV.

Plate 15. Grave (JC3)12; gold beads from the lower fills of the robber pit.

Plate 16. Seal impressions on two fragments of a mud bung from Building F1.

The finds

Finds from the cemetery were extremely limited this season, the gold beads (one of which was found last year) being the most interesting (Plate 15). From Building F1 more mud sealings were recovered bearing in some cases stamped impressions (Plate 16). This material is being studied by Prof. Irene Vincentelli who is also examining all the seal impressions from the excavations at Kawa undertaken since 1993. Also from this building were a large number of discs made from re-used pottery sherds (Plate 17). Their function is uncertain.

Data on the pottery was provided by Isabella Welshy Sjöström.
(Plates 6 and 7), but not exclusively found in these. It was possible to reconstruct in part some 25 such vessels. These were made of four different fabrics, but although this would suggest that they came from at least four different sources, their forms are virtually identical; the rims usually have a diameter of 80mm; the height is c. 490mm and the maximum diameter, at roughly two-thirds of the way down the body, is 290mm. Each would originally have had two handles near the shoulder. Five amphorae were made in the same general style but with considerably wider rims, up to 180mm in diameter, and were consequently somewhat taller. Most, but not all, of the surviving bases had a hole drilled (post firing) a few centimetres above the centre of the base. These holes have an average diameter of 10mm, in two instances nearly twice as large. In one instance only was the hole made before firing. Presumably the holes were made to remove the contents without having to break the mud seal that covered the rim, an action that frequently broke the rim from the shoulder of the vessel. In some cases grooves had been cut on opposing sides on the top of the rim, presumably for strings to be placed under the mud seal, to facilitate its removal.

Post-firing graffiti were frequently found on the upper bodies of the amphorae, the most common involving a simple grid of 9+ squares: possibly part of a system to keep a record of the removal of the contents, marked in an ephemeral way? Other motifs included palm branches, oblique lines of unclear intent, and in one case a bird (Plate 7).

Pottery sherds from certain contexts appeared to have been stained by an oil-like substance. What is interesting about this is that since not all the sherds making up a complete vessel were stained this must have occurred after breaking, but no vessels were found that could have contained the oil in the first place (as their interior should then be consistently stained).

Conservation

A major aim of the QSAP projects is the protection of Sudan’s archaeological heritage. To this end significant funds have been spent this year on the conservation and protection of the most important monument on the site, the temple built by Taharqo between 684 and 680 BC. Work began on the northern half of the first and ‘second’ pylons and the walls linking them along the forecourt. Where stonework was visible on the surface it was capped by 400mm of modern brickwork, the lowest course set in mud mortar, those above bonded in lime mortar. The face of the brickwork was then rendered in lime mortar. Particularly at the corners of the building and at the doorways the walls were in very poor condition. Where no original wall face could be located at a depth of 1m the reconstructed walling followed the face of what was actually visible and these ‘broken’ sections of wall were not lime mortar rendered (Plate 19). Three columns in the forecourt which survived flush with the present-day ground surface were also treated in a similar way. Within

Plate 17. Pot counters from one context in Building F1.

Plate 18. Red-rimmed handmade beakers from Building F1.
the modern wall faces the space was infilled with material quarried from the spoil heaps and stone pile of the 1929-36 excavations (Plate 20).

It is the expectation that this modern walling will serve to trap the windblown sand, thereby causing a rise in the modern ground surface around and within the temple burying the ancient, very poor quality, stone work and its often extremely fine reliefs, ensuring their preservation.

Site protection

Following the construction of a tourist police post at QSAP expense in January-February 2014, as agreed last year the tourist police have been in residence from 12th February 2014. The police are responsible for inspecting the barbed wire fence boundaries of the core zones and the concrete posts marking the limits of the buffer zone as well as ensuring that the extant monuments are not harmed.

The Visitors’ Centre

Construction has proceeded on the Visitors’ Centre but was halted due to lack of funds. The three-roomed structure with its Libyan (jack-arched) roof, doors and windows has been built (Plate 21) but the veranda with its four supporting columns, the floors and plastering of the walls and ceiling will be done in December 2015. The main part of the building is of two rooms linked by a wide archway. Opening off from the inner room at right angles is a third room, a replica of the central room in the shrine of Taharqo, Building A1, excavated in the late 1990s. This will be provided with a false ceiling of traditional construction – palm beams, palm fronds, matting – protected by the Libyan roof above. Lifesize facsimiles of the wall paintings found in the shrine will be put on the walls, the upper parts reconstructed in outline particularly with reference to the contemporary painting of Taharqo and Amun at Qasr Ibrim and to the large number of reliefs within the temple built by Taharqo at Kawa which lies 800m to the north of the shrine.

The site guide

Kawa site guides in both English and Arabic have been widely circulated. They were particularly popular with the workmen on site. A number were provide to the local school.

Site H25

The team excavated pharaonic New Kingdom structures and deposits across the southern half of the site at H25 for seven weeks, the work being terminated following a serious accident. As a result of this a report on the season’s activities is currently unavailable.

The 2015-16 season

Priorities for the next season in the winter of 2015-16 at Kawa will be the completion of the Visitors’ Centre and progressing with the measures needed to protect the major monuments on the site. Excavations will be continued in the domestic buildings within area C and in


Plate 20. Temple T, modern walling on the line of the north wall of the forecourt and pylon.

3 A Libyan roof has been chosen as, although more expensive than one of zinc sheeting, it should be maintenance free for many years to come.
5 These may be downloaded from http://www.sudarchrs.org.uk/field-work/fieldwork-kawa-excavation-project/.
6 Team members – Benjamin Bazely (archaeologist), Grant Bettinson (archaeologist), Sam Herbertson (archaeologist), Musa el-Fadl (NCAM inspector), Loretta Kilroe (pottery specialist), Malgorzata Kravczyk (archaeologist), Ashley Pooley (field director), Natalie Sweda (archaeologist), Kimberley Watt (archaeologist).
the cemetery, both in the north-eastern and north-western sectors.

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The West Bank Survey from Faras to Gemai 1. Sites of Early Nubian, Middle Nubian and Pharaonic Age

by H.-Å. Nordström
London, 2014

xxxiii + 178 pages, 29 tables, 33 plates, 74 figures
ISBN 978 1 901169 195

This volume completes the three-volume series devoted to the results of the survey and excavations conducted by the Sudan Antiquities Service between 1960 and 1963 during the UNESCO-sponsored Campaign to Save the Monuments of Nubia. The author reports in detail on the Pharaonic and earlier sites, the excavation of many of which he personally directed. Also heavily involved in the publication of the Scandinavian Joint Expedition’s work on the opposite bank, he is ideally placed to provide a synthesis of the evidence for human activity in this part of the Nile Valley, now largely inundated.

Retail price £35. Available to members at the discounted price of £30 (p&p UK £4.90, overseas, Europe £9, Worldwide £15)

Gabati

A Meroitic, Post-Meroitic and Medieval Cemetery in Central Sudan.
Vol. 2: The Physical Anthropology

by Margaret A. Judd,
with a contribution by David N. Edwards
London 2012

xii + 208 pages, 110 tables, 15 figures, 66 maps, 73 colour plates
ISBN 978 1 901169 197

The cemetery at Gabati, dating from the Meroitic, post-Meroitic and Christian periods was excavated in advance of road construction in 1994-5, the detailed report being published by SARS in 1998. This complementary volume provides an in-depth analysis of the human remains. A final chapter, a contribution from David Edwards, the field director of the project, in conjunction with Judd, assesses the archaeological results in light of continuing research in the region over the last decade and more.

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The Debeira West excavation team 1964 with amongst others, Peter and Margaret Shinnie, John Alexander, John Anquandah and Tony Bonner (photo: SARS Alexander Archive, ALE P003.04).

The Debeira West excavation team 1964 with amongst others, Peter and Margaret Shinnie, John Alexander, John Anquandah and Tony Bonner (photo: SARS Alexander Archive, ALE P003.04).