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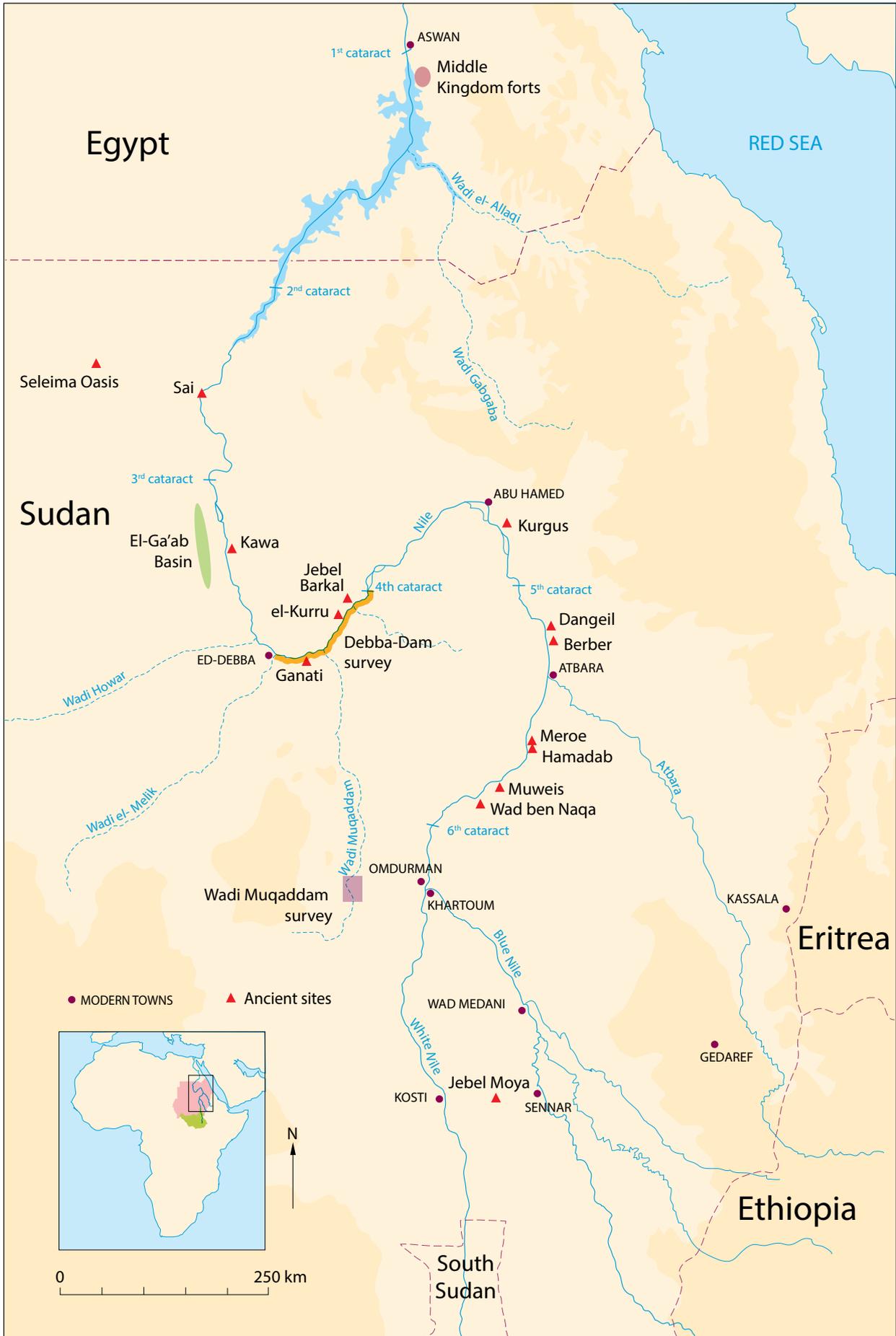
The Sudan Archaeological Research Society



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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 Bakhiet).

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The Qatar-Sudan Archaeological Project at Dangeil

Satyrs, Rulers, Archers and Pyramids: A Miscellany from Dangeil 2014-15

Julie R. Anderson, Mahmoud Suliman Bashir and Ribab Khidir elRasheed

Two seasons of work were undertaken at Dangeil recently, one in autumn 2014 and the other in March 2015, with some rather unanticipated finds.¹ Work was conducted in three areas: the Amun temple site, Cemeteries WTC and FRC, and Dangeil NE, the latter being situated approximately 300m to the north east of the standing Dangeil temple.

Dangeil NE

The site was discovered during a reconnaissance survey of the area in 1997 and designated Dangeil NE (6/97 [18° 08'13" N / 33° 57' 47" E]) (Anderson and Salah eldin Mohamed Ahmed 1998-2002, 30; Salah El-Din Mohamed Ahmed and Anderson 2000, 24). The site measures approximately 45m east-west and 30m north-south and consists of two low mounds, standing between 500mm and 1m above the surrounding plain. The mounds are orientated north-south parallel to the Nile, with the larger eastern mound measuring approximately 28 x 15m and the smaller western one about 20 x 13m. The surface is covered with sandstone, lime plaster, Nile oyster shells, fired brick and mud-brick fragments and some human bone (Plate 1). The site was not further investigated in 1997 as it was not endangered by village encroachment or road construction and while surrounded by seasonal cultivation on three sides, the land owner agreed to

¹ Dangeil is located in the Berber-Abidiya region on the right bank of the Nile, south of the Fifth Nile Cataract, approximately 350km north of Khartoum. Fieldwork was conducted from 31st October – 15th December 2014 and from 17th February – 17th March 2015. The mission was co-directed by Julie Anderson (British Museum, UK), Mahmoud Suliman Bashir (National Corporation for Antiquities and Museums, Sudan) and Ribab Khidir elRasheed (National Corporation for Antiquities and Museums, Sudan). The team consisted of Grzegorz Bogobowicz (structural engineer), Rebecca Bradshaw (anthropologist), Agnieszka Dobrowolska (architect), Jaroslaw Dobrowolski (architect), Fakhri Hassan Abdula Hassan (archaeologist), Jack Frowde (GPR survey), Adam Giambone (archaeologist), Francesca Guiducci (conservator), Roksana Hajduga (archaeologist, artist), Sophie Hay (GPR survey), Stephen Kay (GPR survey), Sébastien Maillot (archaeologist), Mohamed Saad Abdalab (bioarchaeologist), Osman elFadl (conservator), Anna Pieri (bioarchaeologist), Julian Reade (registrar), Rehab Ismail elFaki (archaeologist), Reham Mohamed Abbas (archaeologist), Sabrna Ali Eleedn (archaeologist), Shahd Hamdi (archaeologist), Katarzyna Solarska (archaeologist) and Tracey Sweek (chief conservator).



Plate 1. Surface of Dangeil NE, prior to excavation.

preserve the site. This changed in 2014 as the agricultural land was transferred to a new owner who wished to expand the fields and cultivate the site.

A rescue excavation was initiated and three 10 x 10m grids opened over the east mound. Surface cleaning revealed traces of the foundations of perhaps three square pyramid superstructures constructed of mud bricks, faced on the exterior with ferricrete sandstone. The source of the numerous Nile oyster shells littering the site surface was found to be natural bedding planes within the ferricrete sandstone blocks used in the structures. One pyramid was excavated down to the burial chamber. It measured 4.5 x 4.5m at the base and was preserved in part of its core to a maximum of five worn, mud-brick courses high. Due to the degraded nature of the superstructure, the original slope remains unclear; however, assuming an angle of between 68° and 73° (as with other Late Kushite pyramids), the superstructure would have stood between 5.6m and 7.4m high.

A ferricrete sandstone chapel was situated on the east side of the pyramid over the descandary which was filled with clean sand (Plate 2). No steps were visible in the descandary,



Plate 2. Pyramid structure with chapel in the foreground (facing west).

although it has yet to be completely excavated. The northern half of the chapel, including pylon and chapel foundations, was preserved but little remained of the southern half. It was constructed of irregular ferricrete sandstone blocks and mud mortar. The chapel measured 2.5m east to west and were it extant, would have measured approximately 3.5m north-south, with an internal chapel space of 0.6 x 1.5m. The north pylon measured 1.6 x 0.7m.

The pyramid had been robbed in antiquity and excavation of the shaft was conducted through the robbers' hole. There was no evidence remaining of any internal superstructure within the pyramid itself, nor paint or decoration, as has been for example noted at Sedeinga (Francigny 2014, 800). The robbers' hole was filled with sandstone fragments, earth, mud-brick and red-brick tumble and the rare pot sherd.

The burial chamber, 2.8m below the surface, had been sealed by a sandstone and red-brick wall; some of the red bricks being temple architectural elements or fragments of such in reuse (Plate 3). Beer jar sherds and a few human



Plate 3. Pyramid shaft and tomb chamber with remains of blockage (from above).

bones were visible in the disturbed fill of the burial chamber. A low mud-brick wall in the descendary, situated outside it and running east to west at roughly an 80° angle to the burial chamber blockage, possibly may be associated with a secondary inhumation. Should such a secondary inhumation exist, it and the burial chamber remain to be excavated.

Few objects were recovered from Dangeil NE aside from part of the head of a sandstone falcon sculpture (no. 10/14) found on the surface mixed with the sandstone rubble from the structure's casing (Plate 4). It may have been part of a pyramid capstone, finial or associated with the chapel. It is preserved *c.* 65mm high, was plastered and painted. The head is yellow, the eye blue, and the beak is red with details marked in black lines. Part of a rectangular slot, likely for a sundisc, was present on the top of the head.

The pyramid chapel was constructed beside an undisturbed oval grave orientated east to west. A skeleton, of a pregnant woman with fetus still *in situ*, had been placed beneath an



Plate 4. Sandstone falcon sculpture (10/14).

irregular ferricrete sandstone slab in a tightly crouched position on the left side with the head facing north (Plate 5). There were no associated grave goods although similarities in the grave shape and position of the deceased between this inhumation and the graves of possible Kerma date discovered in Cemetery FRC, discussed below, were noted. The site has been backfilled awaiting future work and has been enclosed by a protective fence.

Cemeteries WTC and FRC

Rescue excavations in the Late Kushite cemetery WTC north west of the Amun temple complex, continued and as previously the tombs excavated had an east-west sloping descendary leading to a north-south, oval shaped burial chamber at the western end. The tomb chambers were sealed by blocking walls of mud bricks or red bricks and no superstructures were visible on the surface. Only two graves were excavated in autumn 2014 as attention was swiftly drawn to the north end of this cemetery area beside the village of el-Fereikha.

In between the village of Dangeil and its northern neighbour el-Fereikha are a series of low gravel mounds, orientated north-south parallel to the Nile, and situated just to the west of the modern Islamic cemetery. They stand between 2m and 2.5m above the surrounding plain and cover an area of approximately 200 x 25m. These mounds were noted during



Plate 5. Crouched inhumation of a pregnant woman.



the reconnaissance of the area by the mission in 1997 and designated 4/97 [18° 08' 21" N / 33° 57' 21" E] (Anderson and Salah eldin Mohamed Ahmed 1998-2002, 28; Salah El-Din Mohamed Ahmed and Anderson 2000, 20, fig. 2). Meroitic pot sherds, plaster, bone and red-brick fragments were found on the surface of the mounds and a sandstone offering table bearing traces of a Meroitic inscription, was discovered by a local inhabitant and given to the National Corporation for Antiquities and Museums in 1997. Local inhabitants began to dig into these mounds in 2014 exposing archaeological material. A rescue excavation was initiated and a small sondage followed by a 10 x 10m grid was opened on one of the northern mounds near el-Fereikha where illicit digging had occurred. This area was designated Cemetery FRC. Twenty-three graves containing 42 individuals were excavated here and the results and range of chronological periods covered were somewhat surprising.

The tombs excavated included three oval graves orientated east-west, containing crouched inhumations laid on their right sides, with heads either to the east or west. No grave goods were found in the graves but a few Kerma and Pan-grave sherds² were found in the associated fill perhaps from an external offering (Plates 6 and 7). These graves may be of Kerma date.



Plate 6. Crouched inhumation in FRC, possibly of Kerma date.



Plate 7. Kerma sherds associated with the crouched inhumations in FRC.

²The mission is grateful to Charles Bonnet and Salah Mohamed Ahmed for their comments and identification of these sherds.

Eighteen late Kushite tombs were excavated which were similar in shape, content and disposition of the deceased, to those found in the WTC cemetery to the south described above. One was intact and unusually sealed with a door blockage not of red or mud brick, but of ferricrete sandstone slabs (300-350 x 200 x 50-100mm) (Plate 8).



Plate 8. Late Kushite tomb sealed with ferricrete sandstone blockage.

Of the two remaining graves uncovered, the first was an intact Post-Meroitic tomb (FRC T.14). It had a steep descendary leading to a large oval burial chamber orientated north-south. The entrance had been blocked with red bricks (340-360 x 180-200 x 90mm), some of which were reused Meroitic bricks possibly originating from the temple site. While intact, the tomb contents were jumbled. It contained the skeletons of five adult males. Thirty-eight ceramic vessels were also included in the burial including several black libation bottles, cups, bowls and numerous beer jars (Plate 9). Of the latter, a couple had a thick mud coating purposefully applied to the shoulders and bodies of the vessels. The deceased entombed appear to have been archers in life and were buried with archer's thumb rings of high quality hard stone not local



Plate 9. Intact Post-Meroitic tomb T.14 in FRC.

to the area (nos 169/14; 170/14; 171/14; 188/14). Fragments of possibly 13 iron arrowheads (nos 172/14; 193/14), traces of wooden bows, remnants of a wooden bed leg from an *angareeb* (no. 131/14), and numerous beads were also found. The skeletal remains are under study with one goal being to determine if there are morphological differences present that might be attributed to archery practice.

The last grave was a naturally mummified Christian inhumation wrapped in a wool shroud. The deceased was orientated east to west in an extended position on its back with head to the west facing north, and had no grave goods (Plate 10). Although the area excavated in FRC was not large, the finds therein serve to demonstrate the chronological depth of occupation in the Dangeil and el-Fereikha area. The region was occupied perhaps as early as the Kerma period, through the Kushite and Post-Meroitic phases into the medieval Christian period and the area adjacent to FRC and WTC remains in use today as a modern cemetery.

Amun temple site

At the Amun temple complex excavations were conducted within the sacred precinct in areas H, ET, F and K, the latter being reported on by S. Maillot elsewhere in this volume. The gradiometer survey³ was continued both within the sacred precinct, on the north and west side of the temple and in two areas outside it along the north-eastern and south-western



Plate 10. Naturally mummified Christian inhumation in FRC.

boundaries of the site in advance of construction of a site visitor centre. No archaeological features were visible in these latter two areas.

There was little visible on the surface in the area north of the temple, within the temenos enclosure. As with the survey conducted in this area in 2013, the temenos wall was used as a control because it is a known quantity where excavations have established its construction. The survey north of the temple revealed the presence of a two-room structure, possibly a small temple of red brick or sandstone with a pylon-like feature at its eastern end. The north wall and north-west corner of a second enclosure wall, constructed

of a mud-brick core and red-brick facings and situated to the south of the enclosure wall associated with the standing temple, was also evident (Plate 11).

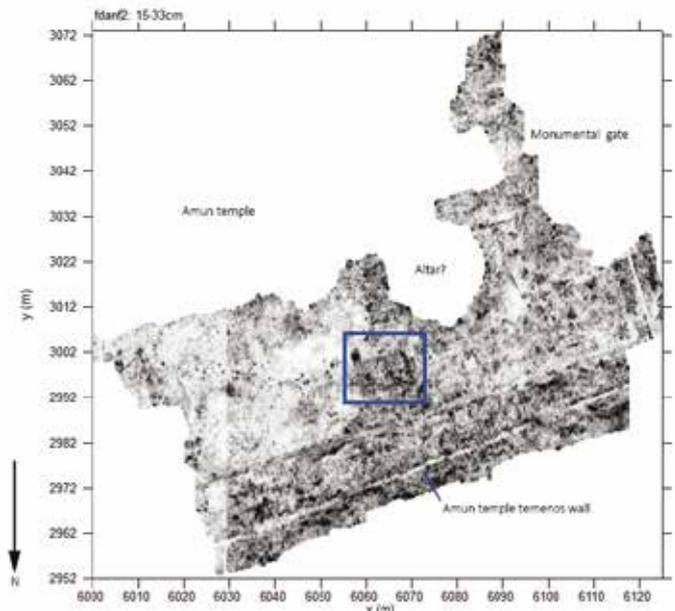


Plate 11. GPR survey results north of the Amun temple, within the temenos enclosure, with possible shrine noted inside the blue box and newly discovered enclosure wall below the box.

Two walls, also with a mud-brick core and red-brick facings, were visible running eastward from the main entrance pylon. They were parallel to and situated on either side of the temple's processional way between the main gate and the kiosk. These are of the same apparent materials and are in line with two walls that extend westward from the second pylon. Responses received by the GPR appeared within 1.5m of the extant ground surface and there seems to be little beneath this depth.⁴ This is consistent with GPR survey results from 2013 (Anderson *et al.* 2014, 73-74).

Within the temple itself, excavations were conducted along the north side of the processional way (area ET, Kom H). In front of the northern half of the second pylon abutting both its west face and the processional way on its north side, were substantial red-brick foundations running beneath column bases mirroring in layout, size, construction materials and method of construction, those walls and columns situated to the south unearthed in 2013 (Anderson *et al.* 2014, 72, pl. 9) (Plate 12). These walls functioned both as low screen walls in some instances and provided support for the columns constructed on top of them. The walls were overlaid by a thin layer of silt sealed

⁴ The GPR reads clear high amplitude and low amplitude anomalies on the Dangeil site. Low amplitude linear anomalies appear in white and are likely the remains of mud-brick structures. High amplitude anomalies appear in black and are probably red brick or sandstone. The determination of material is based upon comparisons with the control used.

³ The survey was conducted by the British School in Rome-Archaeological Prospection Service of the University of Southampton team using a 400MHz antenna with a 250mm traverse separation.



Plate 12. North-east end of the peristyle court with columns and foundations visible.

name in hieroglyphs, most likely Natakamani, were also found. This discovery further supports the idea that Amanitore and Natakamani either constructed the extant Dangeil temple or substantially modified it.

Work was also conducted on the south pylon (Kom F) of the monumental gate. It was constructed of red bricks, reused red bricks and architectural features such as torus mouldings and column drum segments that had been randomly laid

by a layer of charcoal and charred beam fragments from the temple's destruction indicating that this area had been roofed. The footprint of a pilgrim was inscribed on one of the walls closest to the second pylon and some of the red bricks displayed wear further suggesting that these features were visible and had been trodden upon during the primary occupation phase of the temple. The columns had a diameter of 1.22m and are of similar construction and size to those found in the first hall, with drums being constructed of red-brick quarters a cubit in radius; the differences in column diameter between the second hall (1.1m) and those in the first hall and court being determined and varied by the width of the mud mortar and rubble galetting.

Further to the west, a 7 x 13m trench (designated ETV) was excavated along the processional way between the kiosk and the temple's monumental gate. The purpose was to see if the processional way continued to be paved west of the kiosk and to see if, as on the east side, it had been flanked by ram statues. Over the processional way, the fill removed largely consisted of a clean and featureless wind-laid accumulation of brown sandy earth with few inclusions. Rectangular plinths constructed of red bricks and lime plaster were found set back a meter from the processional way on either side, two on the north and one in the south (Plate 13). Large isolated plastered and painted sandstone cornice and torus fragments, which had fallen from the kiosk, overlay parts of the rectangular bases and lay on the circulation area around them. The processional way itself, though quite friable, consisted of sandstone flagstones and was consistent with that excavated elsewhere.

As with the area around the statue bases to the west of the kiosk, here also were fragments of sandstone ram statues. Fragments of scale-shaped fleece bearing traces of blue paint were ubiquitous, but for the first time, it is possible to identify a ruler associated with the ram statues. The prenomen and nomen of Amanitore were inscribed in hieroglyphs in cartouches on the bases of these ram statues as several sandstone fragments attest (Plate 14). Portions of another



Plate 13. Trench ETV. The west end of the processional way, with three statue plinths visible.



Plate 14. Ram statue base with part of the prenomen and nomen of Amanitore.

in the structure's core and then plastered on the exterior with lime (Figure 1, Plate 15). A single semi-circular flag-pole recess is visible on the exterior face of the pylon's west side. On the east side three columns, comprised of drums of red-brick quarters, plastered with lime were uncovered; their orientation mirroring those found further to the east of the kiosk in front of the southern half of the second pylon (see further Anderson *et al.* 2014, 72, pl. 9). A secondary sloping surface of reused red-brick architectural fragments had been laid in the pylon stairway.

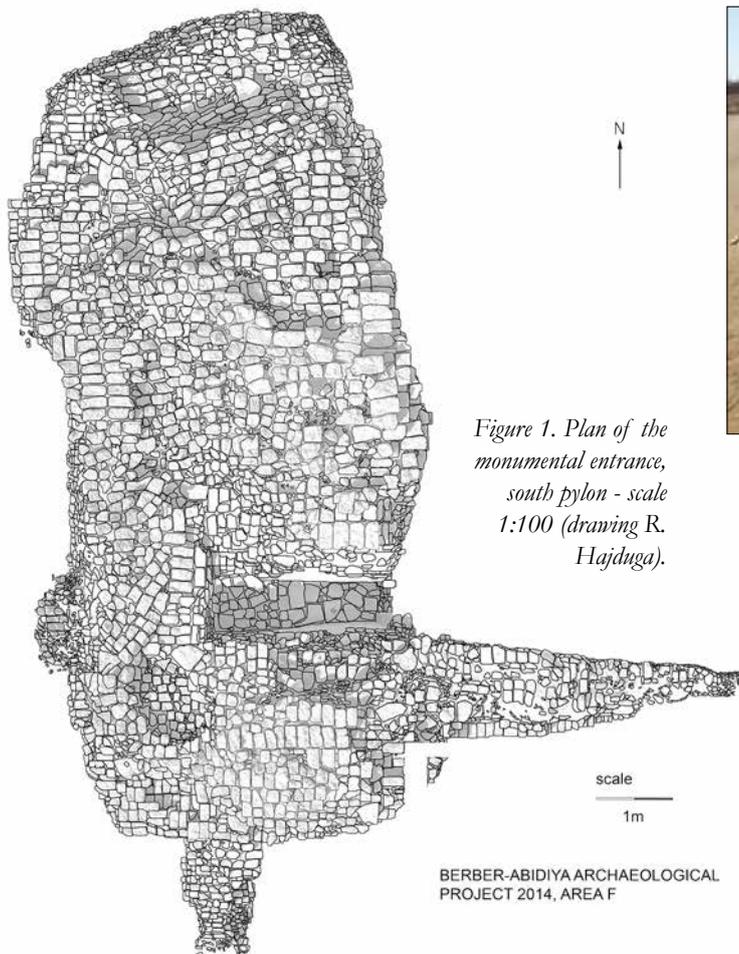


Figure 1. Plan of the monumental entrance, south pylon - scale 1:100 (drawing R. Hajduga).



Plate 15. Peristyle court, east side of entrance pylon, south side.

Based upon recent excavations and the GPR survey, the layout of the temple can now be reconstructed with more certainty (Figure 2). The temple appears to contain the following elements: the main monumental entrance pylon, a peristyle court containing six pairs of ram statues flanking a paved processional way with a kiosk in the center, a second

pylon, two columned halls, a dais room and an offering hall and sanctuary. The eastern colonnade of the peristyle court was certainly roofed, though it is as yet uncertain if the western end was similarly covered. It also remains uncertain as to whether there are doors on the north and south side of the peristyle court but it is not unlikely. With the discovery of the peristyle court, the 1st century AD Amun temple at Dangeil is larger than previously thought and is approximately the same size as the Amun temple at Meroe.

There were few finds from the temple that were not architectural elements or sandstone fragments of ram sculpture. One notable exception was a faience amulet depicting a ram's head surmounted by a sundisc (44 x 25 x 13mm; no. 216/14) (Plate 16). This emerged from a mud-brick wall during cleaning and perhaps had been lost by one of the individuals building the temple.

A body sherd with a moulded appliqué of a satyr (no. 1/14) was found in Dangeil village (55 x 51 x 9.5mm) and is certainly associated with the late Kushite occupation of the

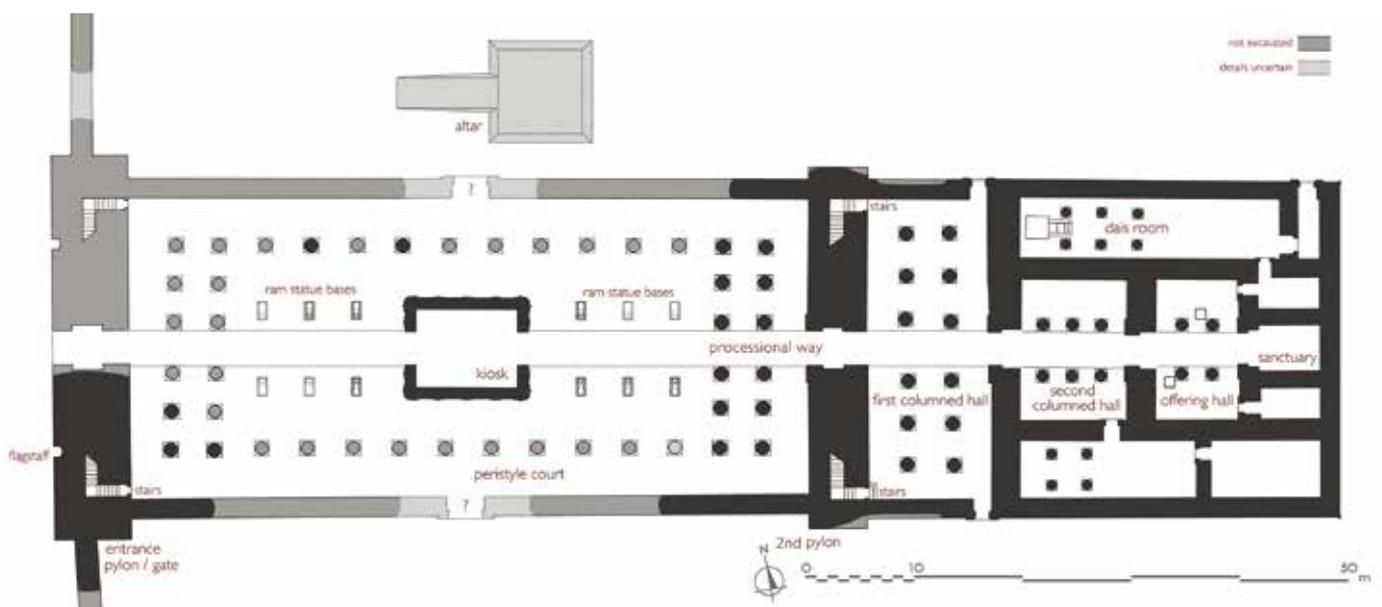


Figure 2. Plan of the Amun temple at Dangeil, with suggested reconstruction (drawing J. Dobrowolski).



Plate 16. *Faience ram amulet (216/14).*

area (Plate 17). The satyr wears armlets, bracelets and anklets, appears to hold a tambourine in his raised right arm and is dancing (or running). He is brick-red in colour with details of his hair, beard, ear, eye, navel, genitals and musculature highlighted with a purple-red paint. Along with maenads, satyrs were the companions of the god Dionysos and were normally depicted drinking, dancing and playing musical instruments. This fragment comes from a luxury vessel likely imported from the Hellenistic world and as such was part



Plate 17. *Body sherd with moulded appliqué of a satyr (1/14).*

of the prestige economy. Its presence in Dangeil may reflect the prosperity and status of some of its Kushite inhabitants. Dionysiac figures have been associated with the water sanctuary (the so-called Royal Baths) at Meroe and the palace of Natakamani at Jebel Barkal.⁵

⁵ For a discussion of Dionysiac iconographic elements present during the Kushite and Post-Meroitic periods, along the 'cult of the grape' in Kush, see Manzo 2006.

Conservation

Over the last several years the mission has been conducting extensive conservation work on the temple. Most recently, the focus was on consolidating the carved sandstone facings and walls in the southern half of the sanctuary. These walls are particularly difficult to deal with because they are constructed of a mixture of different materials. The facings are sandstone and red brick covered with lime plaster. The wall core consists of red bricks, mud bricks, and randomly reused bricks and architectural fragments. The sandstone facing blocks were cracked and displaced in some areas and the plaster in danger of flaking off.

The walls were cleaned, capped, sealed with red brick and lime mortar, and crevasses cleaned and filled, with blocks being repositioned as required. Apart from the sanctuary wall, a major achievement in 2014 was sourcing a reliable supply of rock lime and slaking it for conservation use with the assistance of a local practitioner. Columns were similarly capped and sealed against rain and erosion. Holes within flagstone floors were in-filled, and in two places, where no floor or occupation surface was extant, the room or area was backfilled with local gravel. This provides drainage, prevents walls from being undermined by local fauna, can be walked on by visitors and is removable, leaving the underlying and abutting archaeology intact. All treatments made are reversible and used locally available materials.

Acknowledgements

The Berber-Abidiya Archaeological Project is very grateful for the assistance and support received from many different people, projects and institutions this season including the National Corporation for Antiquities and Museums, Sudan; the Nubian Archaeological Development Organization (Qatar-Sudan); the British Museum, UK; the British School in Rome, Italy; the residents of Dangeil village, Sudan; the Institute for Bioarchaeology, UK; Section Française de la Direction des Antiquités du Soudan (SFDAS – Khartoum), the Sorbonne, France; and the University of Southampton, UK.

Dangeil: Excavations on Kom K, 2014-15

Sébastien Maillot

The low rubbish heap situated behind the Amun temple (Kom K), to the east, is made of ash layers mixed with conical ceramic offering mould and grinding stone fragments. Trench K1, opened last year on its north-western edge (Anderson *et al.* 2014, 70-71), confirmed that this dump signals a zone dedicated to the production of food offerings for the cult. This trench was extended (10m east-west x 5m north-south) during last season's excavations (2014-2105), which allowed us to discover new installations and to define at least two main phases of occupation before the abandonment of the sector (Plate 18).

the remains of a later floor. A lot of material – mainly tiny ceramic mould sherds, as well as some animal bone fragments – was embedded in these layers. To the west of these walls, a dump area composed of a large quantity of conical offering mould fragments mixed with patches of grey to white ash was uncovered.

The second, later phase of activity seems to be set in a less organized environment, or at least appears to be outside any visible architectural structure. It displays a great variety of features, mostly concentrated in the eastern half of the trench, including: mortar preparation pits (size varying between 300-600mm in diameter) – probably for a mix of lime and gypsum⁶ – filled with production waste (Plate 19); and ceramic storage jars (between 300-350mm in diameter), with their upper half removed, set into the ground and reused as hearths⁷ and also as storage installations. Pits filled with white ash were uncovered, as was a mud-lined pit delimited by a

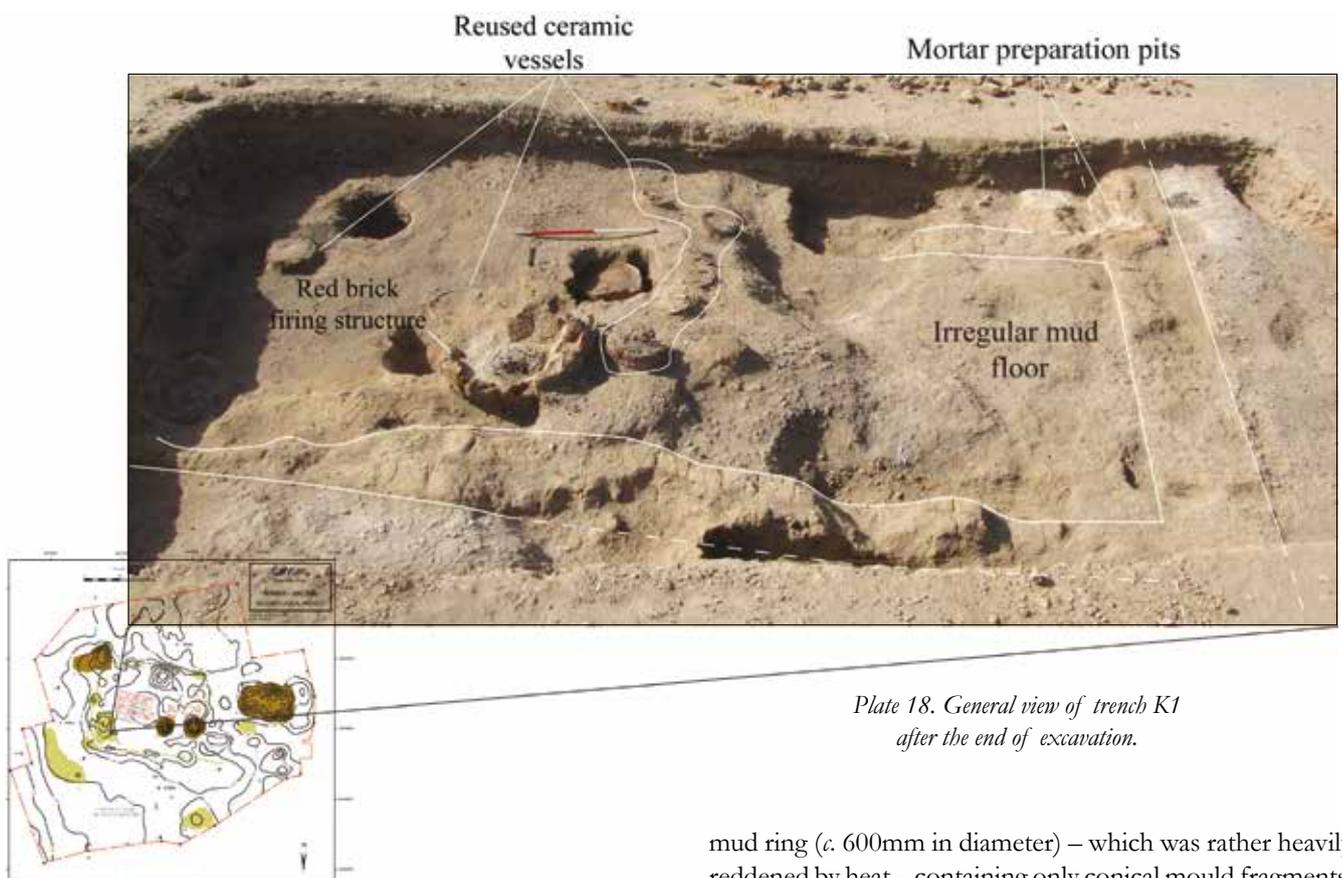


Plate 18. General view of trench K1 after the end of excavation.

The earlier layers contained levelled and damaged mud-brick walls, especially visible in the western half of the trench. The masonry is composed of two courses of bricks (size *c.* 340 x 180 x 90mm), either of stretchers and headers or only of headers, and it was possible to discern a longitudinal space (closed at least on the north, west and south), measuring 3m wide by at least 5m long. The western wall continues to the north and south beyond the trench edges, indicating that it possibly belongs to a larger architectural structure. A hardened irregular mud floor was associated with these walls, and was partly covered by another layer of mud, probably

mud ring (*c.* 600mm in diameter) – which was rather heavily reddened by heat – containing only conical mould fragments.

The most interesting installation uncovered during this campaign was a red-brick circular structure (external diameter of 0.95-1m, internal diameter at the base of *c.* 600mm) filled with whitish grey ash and many charcoal fragments; the

⁶ Recent studies have revealed such composition in several Meroitic mortar samples, including two coming from the Amun temple of Dangeil (Letourneau and Feneuille 2010). Further samples from these pits have been taken for analysis by the Department of Conservation and Scientific Research, the British Museum.

⁷ Like the vessel excavated in 2013 (Anderson *et al.* 2014, 71, pl. 7). For parallels, see e.g. Wolf *et al.* 2008, 7, fig. 9.



Plate 19. Mortar preparation pits in the south-western corner of K1.

bricks were put on their edge and angled outwards, and were incrustated with ash (Plate 20). Although the exact function of this feature remains unknown, it was very likely used for firing. Further, the discovery of an installation for lime-mortar production reveals an activity connected with construction or repair work in the temple. This was also illustrated by a ceramic plate rim that came from the trench, and which had probably been reused as a tool for the application or stirring of lime plaster or mortar (Plate 21).⁸



Plate 20. Red-brick firing structure in K1.

No occupation or floor layers were recognizable, except perhaps for fragments of crumbly mud. This phase was largely characterized by accumulations of earth mixed with ash and conical mould sherds, which continue after the abandonment of activity in this area, and likely originated from several nearby sectors still functioning and as yet unexcavated.



Plate 21. Plate rim sherd reused as a tool for lime plasterwork.

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⁸ Such reused pot sherds were recovered during excavations in the Amun temple (see Anderson *et al.* 2012, 3, pl. 8).

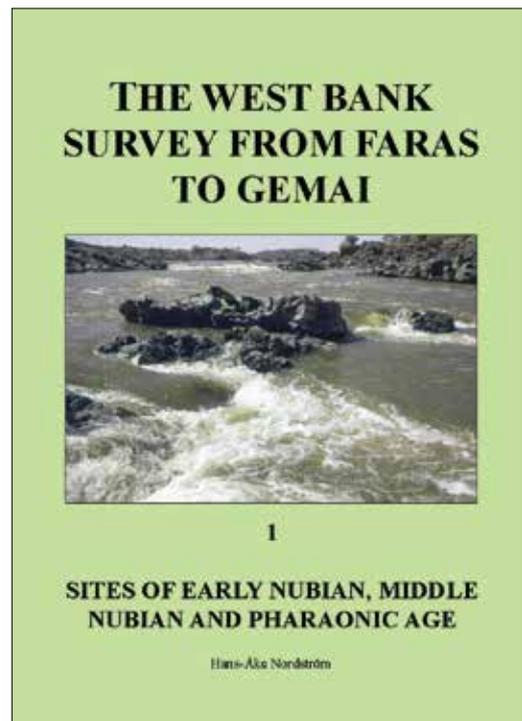
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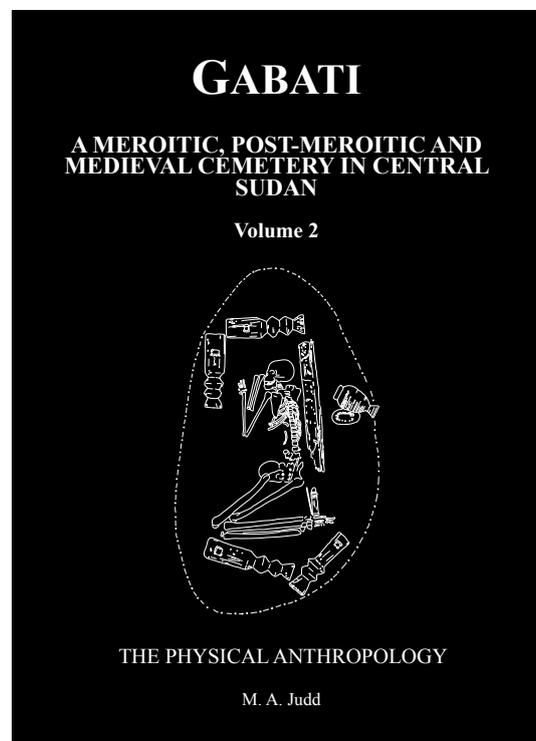
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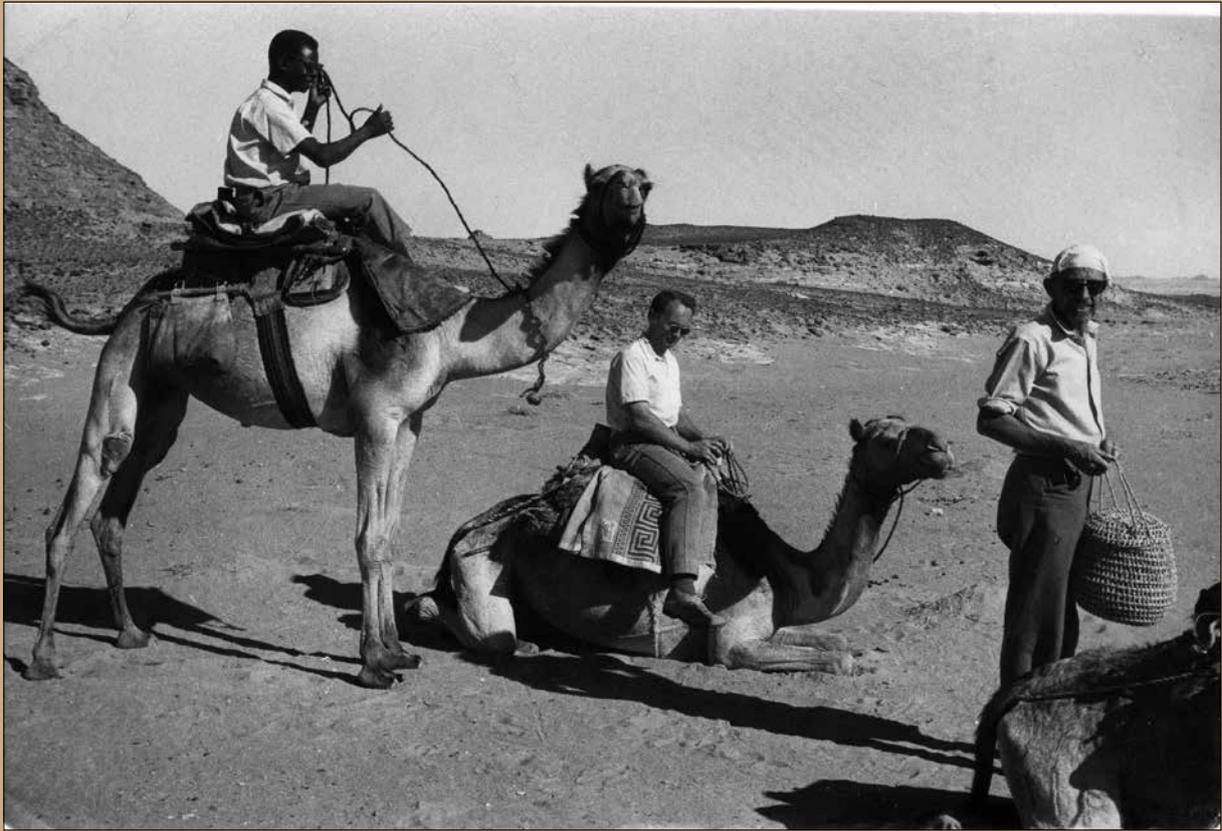
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Members of the University of Ghana Expedition to Sudan. John Alexander (centre), James Anquandah (left), Tony Bonner (right) (photo: SARS Alexander Archive, ALE P003.05).



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).