

The Meroitic settlement at Damboya: preliminary results

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Although the existence of two mounds at Damboya was reported in the 1970s (Geus 1977, 20) and the site has been protected by a fence for the past few years, no excavation was undertaken until the arrival of the Section Française de la Direction des Antiquités du Soudan (SFDAS) team in February 2020 (see Maillot, this issue). One of the objectives of the first campaign at Damboya was to explore the settlement area identified in the early 2000s by Patrice Lenoble, to the west of the two main koms located in the centre of the concession (Lenoble and Rondot 2003, 110-111).

Trials in Sectors B, C and D

First, a preliminary survey was carried out over the entire surface of the site in order to investigate potential domestic areas surrounding the two koms. In the absence of clearly structured features, a 10x10m trial was conducted in Sector B (square 210-590), in the western part of the concession – about 60m northwest of the northern kom, the larger of the two – where large quantities of lithic material and potsherds, most dating to the Classic Meroitic period, indicated intense domestic activities. A sandy layer of 50-100mm thick, rather poor in material – most of it having been collected on the surface – covered a silty, sometimes strongly hardened, sterile grey level with whitish inclusions locally known as '*kankar*'. This layer covers successive silt deposits accumulated during the Nile floods, one arm of which was situated, at the beginning of the 1st millennium AD, a few hundred metres northwest of the site. Apart from ceramic sherds and numerous fragments of grinding stones, all of which have been severely eroded, a few animal bones, an ostrich egg bead, two cores, two laminar products and three hammers were collected on the surface. The numerous fragments of debitage, rather microlithic, were mostly made out of quartz. Among them, a carefully retouched microlithic flake could have been used as a sickle element.

The absence of architectural features, which is surprising considering the abundance of surface material, is due both to erosion and to the nature of Meroitic domestic dwellings, mostly built of perishable material. The climatic conditions to which the archaeological sites in the region are subjected, particularly wind erosion, destroy the surface layers, with the 'heavy' material remaining in place after soil washout by water and wind. This phenomenon of deflation thus leads to the destruction of archaeological contexts, especially in areas with low sedimentation – as is the case for structures made of mud or wood – and to the mixing of archaeological remains on a single surface. In addition to climate-related erosion, human activities have also removed all traces of settlement, as the site has been considerably damaged by bulldozers, which scraped its entire surface, until the 1970s (Lenoble and Rondot 2003, 109). This explains why no structures have been uncovered in this area. The chances of finding a stratified Meroitic settlement made of perishable material therefore appear relatively low – not only in Damboya but also in the whole region, unless exceptional conservation conditions such as natural encasement or covering by later constructions occurred.

A second trial was opened in Sector C, approximately 50m to the southwest of Sector A (see Maillot, this issue), where large amounts of red brick and white plaster were visible on the surface, suggesting the existence of a small building. A square of 10x10m (square 240-450) was therefore opened but no structure was found in place, nor were any brick negatives found. This trial yielded large quantities of red bricks and painted plaster fragments as well as potsherds (including Meroitic fineware), some lithic elements and a few mudbricks. A few ash spots associated with pottery and animal bones in large numbers, sometimes burnt, were mixed with the bricks and plaster pieces. All the bricks whose dimensions could be restored correspond to the standard size of Meroitic bricks (350x180x80mm). A number of them were covered with a thick layer of plaster, sometimes with yellow paint. Some fired clay tubular elements have been unearthed that may have been water draining elements.

This destruction layer proved to be the result of the dismantling of a small rectangular building built of red bricks and carefully plastered, which later served as a quarry for building materials. The demolition of this structure, in order to retrieve bricks, partly cut a silt layer that was located underneath. This greyish-brown level, relatively indurated but easily crumbled, was mixed with a few animal bones, some pottery sherds, a fragment of a grinding stone and some charcoal – mainly located on its surface – indicating an earlier occupation phase prior to the erection of Building C,

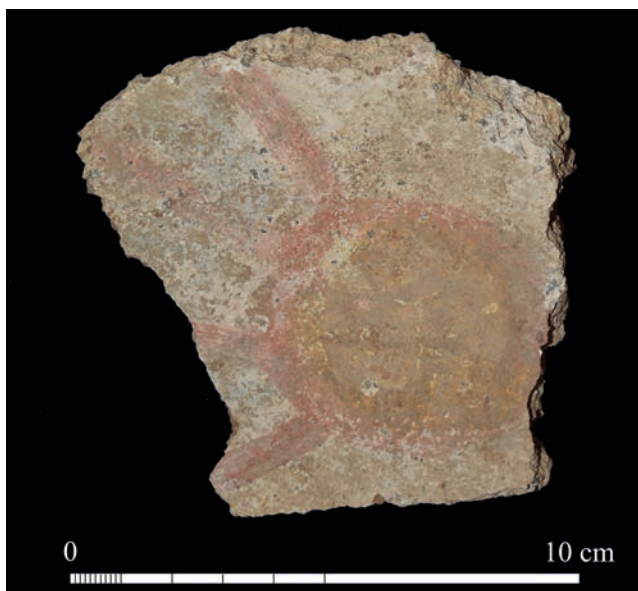


Figure 1. Sector C, fragment of painted plaster showing a trefoil motif (© SFDAS/musée du Louvre).

of which no trace remains. A test pit of approximately 1x1m was carried out in the northeast corner of square 240-450 and showed that this layer of silt continues for at least 0.70m. This corresponds to what was observed near the southeast fence of the site where a pit was drilled, and allowed us to observe that the successive layers of Nile silt are uninterrupted to at least 3.5m in depth, and are only disturbed by sporadic lenses of white limestone material ('kankar').

Although Sector C did not yield any structure, very large quantities of plaster were found in the demolition layer, amounting to nearly 3000 fragments. Of these, c. 350 fragments bore traces of paint, mostly yellow but also red, as well as some traces of blue and – more rarely – black. Examination of these pieces of painted plaster showed that the motifs used were extremely repetitive and probably consisted of floral designs (trefoils¹) arranged in a frieze (Figure 1), a type of decoration also found on ceramics (Figure 2). Finally, yellow

ochre chunks and several ceramic sherds used as floats for applying mortar argue in favour of *in situ* preparation of the materials during the construction.

A survey on Kom D, in the north-eastern corner of the concession, revealed more recent material. This sector corresponds to a small mound of approximately 25x40m located at the limit of the Damboya concession. The absence of ceramic material, the completely different nature of the structures, the presence of cement and metal and lastly the proximity of the village discouraged us from excavating there.

Sector E and its mudbrick building

We focused our efforts on an area adjacent to the main kom, on its northern slope. This area was covered with red bricks, potsherds and plaster fragments. As already noted by Lenoble (Lenoble and Rondot 2003, 109), alignments were visible on the surface since the *sebakhin* trenches that followed the ancient walls were filled with sand shortly

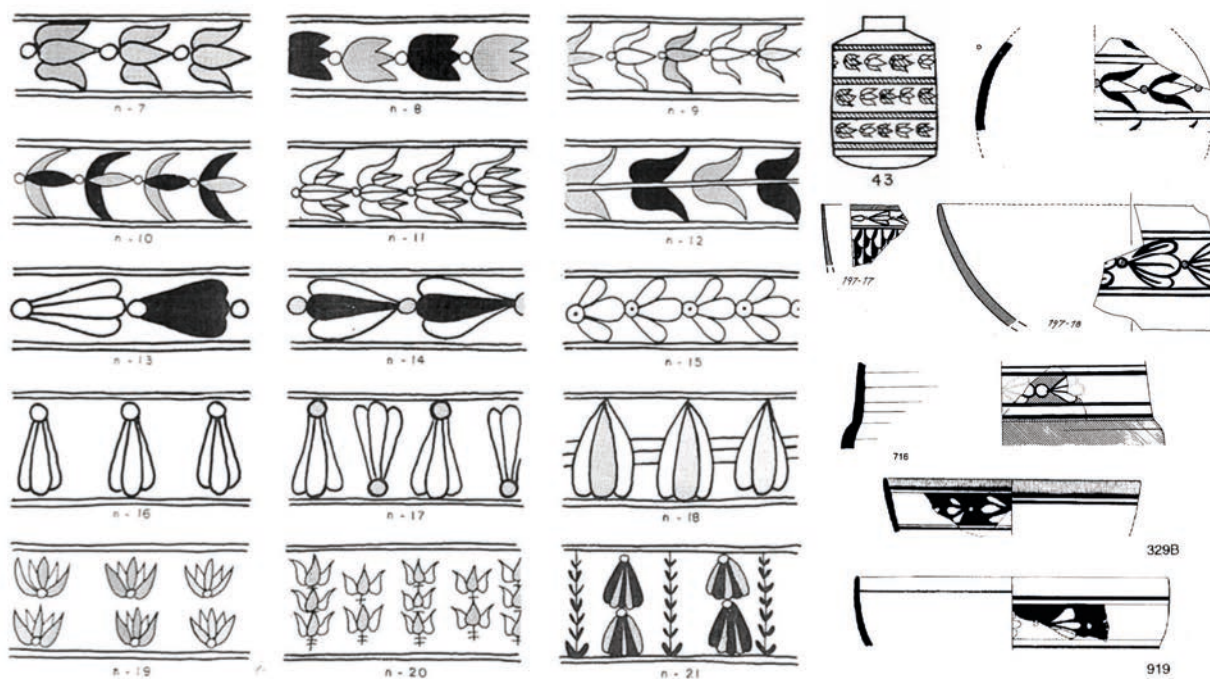


Figure 2. Type of three-lobed floral decoration on ceramics (after Adams 1986, fig. 131 and 261; Edwards 1995, fig. 6; Edwards 1999, pl. IX and XII).

¹ Thanks to Romain David for this identification.

afterwards, suggesting the presence of a structure beneath. Surface cleaning exposed a rectangular mudbrick building, immediately below the present ground surface. An area of 800m² – i.e. eight 10x10m squares – was cleared with the intention of obtaining the complete plan of the edifice to gain a preliminary understanding of its organisation (Figure 3).

Description of Building E

Building E measures 21.10m long x 16.20m wide, with its long axis roughly northwest-southeast (Figure 4). It shares the same orientation with the red brick temple in Sector A and also seems aligned with the construction beneath the main kom, as shown by the magnetometry performed in 2008. Due to intense brick removal – probably occurring up until recent times² – the edifice only survived to its foundation level, of which two to three courses have been unearthed so far. The structure was disturbed by several pits dug in order to reuse the building material, either to face wells, to erect new buildings or to fertilise the fields in the case of mudbrick. Exterior walls were systematically plundered at the corners, where the foundations have almost completely disappeared. These successive dismantling operations and the significant rain and wind erosion in the Butana region explain this poor level of preservation.

The foundations of Building E were made almost exclusively of mudbrick. The bricks used in the construction have the usual dimensions of Meroitic bricks (350x180x80mm). They are grey in colour, which could indicate that ash was added to the silt during the brick making process. Mudbrick walls are sometimes lined with red bricks, of which very few were left *in situ* after the repeated plundering of the site. Red bricks were preferably placed at the corners of the construction or used for its exterior facings in order to reinforce the areas exposed to the weather (Baldi 2014, 50-51). The bricklaying is relatively neat and uniform, with the occasional use of broken bricks (mudbrick and more rarely red brick) in several places of the construction. As in Sector C, the foundations are set, to the southwest of the structure in square 320-590, in a sandy and slightly indurated level containing slight amounts of micro-charcoals and a few potsherds, indicating that Building E was built on top of an earlier occupation.

The structure's layout consists of a group of three x four rooms; the ones at the corners being more or less of square shape: Rooms 1, 10 and 12 (3.70m per side), except Room 3, which measured 4.10x3.70m. Its exterior walls F005, F006, F010 and F013 are approximately 0.90m wide (two brick headers and a half), while the inner walls are substantially thinner with a width of about 0.70m (two brick headers). Given the thickness of the foundation walls – and given that they are usually wider than the elevations – it is reasonable to assume that Building E had no more than one storey, in addition to the ground floor. Both were probably partly built of red brick to withstand the particularly rainy weather conditions in the Butana.

Building E is clearly structured initially around a tripartite edifice with a square plan framed by exterior Walls F005, F006 and F013 and inner Wall F007, a type of organisation which is found in the Butana as well as in Nubia (Maillot 2016, 198; Wolf 2019, 752). Here, the edifice is divided into three northwest-southeast spans, separated by Walls F011 and F015, the central span being wider than the other two (5.80m wide instead of 3.70m). The southern and central spans were then divided by Walls F014 and F016, while the northern span was partitioned by Walls F012 and F018, the latter two walls being deliberately shifted a few tens of centimetres to the northwest. The last row of rooms (Rooms 10, 11, 12) was later added against Wall F007, to the northwest of this first structure, the same width as the spans framing the central space. This original pattern is particularly visible in the bricklaying and in the thickness of the walls: Wall F007 crosses the entire width of the structure, it is as wide as the exterior walls and fitted in the same way, with alternating courses of headers framing bricks on edge and courses of stretchers framing headers and bricks on edge. In addition to this, Walls F008 and F009 abut Wall F007, while all the other walls are bonded together and are therefore contemporary. Finally, F008 and F009 are slightly offset in relation to Walls F011 and F015, of which they form the continuity. However, the similarity of the bricklaying and the building materials indicates that all these walls belong almost certainly to the same construction phase. Lastly, from what is observed at the foundation level, no trace of rebuilding activities has been found and no later alteration such as extension or reduction of the rooms has been discerned inside the building.

The structure had at least two entrances, one to the southeast and the second to the southwest, towards the

²As evidenced by the discovery of pieces of nylon cloth as well as metal and plastic fragments.



Figure 3. View of Building E after excavation from the northeast (© SFDAS/musée du Louvre).

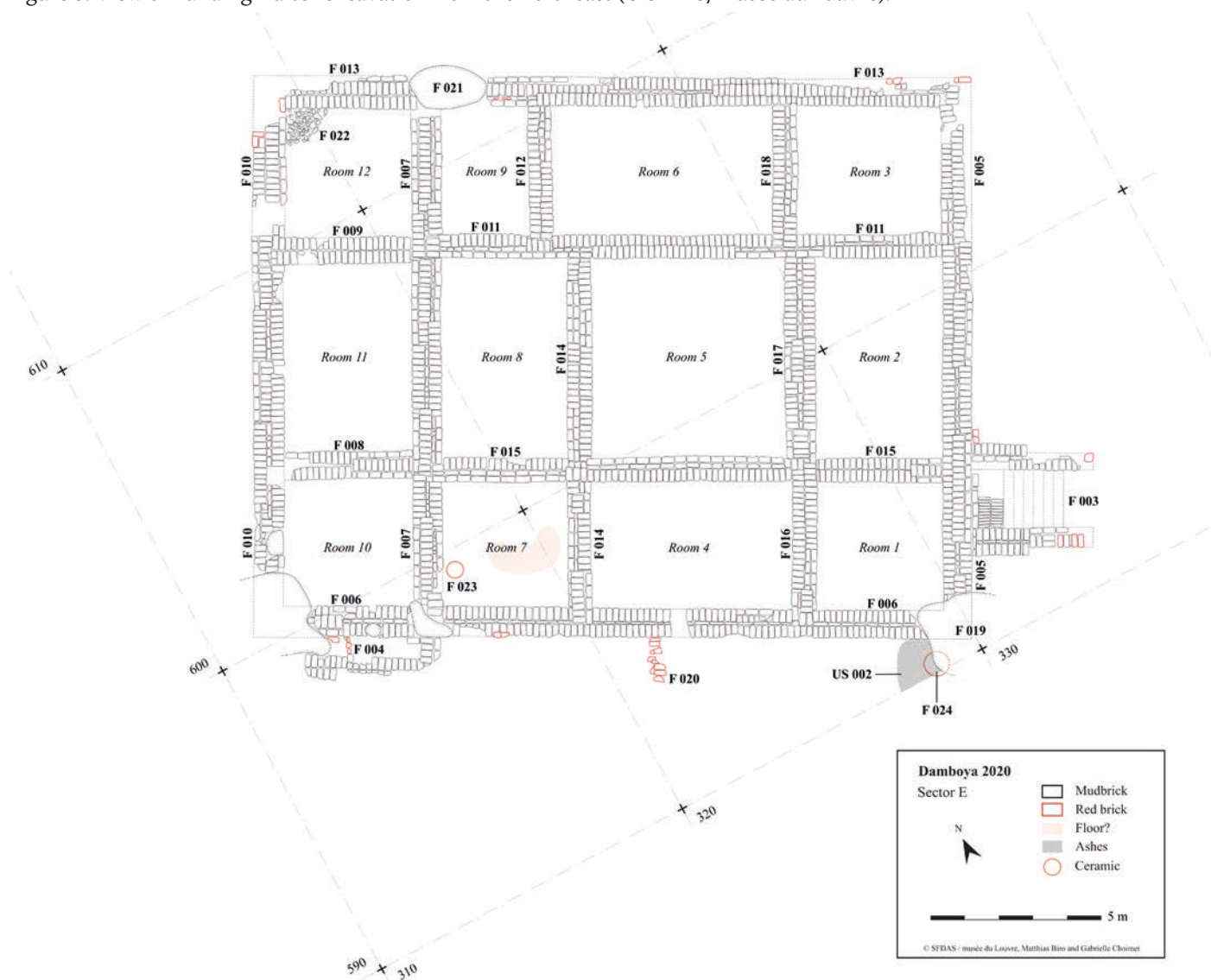


Figure 4. Plan of Building E (© SFDAS/musée du Louvre).

building lying underneath the main kom. Near the southern corner, Staircase F003 leans against Wall F005 (Figure 5). It is flanked on either side by two indented low walls framing a central staircase of which no steps have been preserved. The foundations of this entrance are made of mudbrick with some fired bricks found at the base of the two low walls. Two rows of bricks on edge abutting Wall F005 are quite certainly indicative of a threshold, c. 0.70m wide, either made of fired bricks, as in the ceremonial palace of el-Hassa, or of stone slabs. According to the remaining features, we can reconstruct a staircase of five or six steps – each 250mm wide and 120-150mm high. The floor surface inside the building must therefore have been about 0.70m above the exterior occupation surface, the edifice being built on a small podium.

The structure was also accessed from the west corner of the building where a second entrance (F004), less well preserved, is bonded to Wall F006. Disturbed by at least three pits, this feature – of which only two rows of mudbricks parallel to Wall F006 remain – may well have been a double-flight staircase or a ramp leading to Room 10 from the area of the main kom. Here too, some fired bricks that escaped the dismantling of the structure were found among the mudbricks. To the north, a pit into which rubble from the destruction of Building E has fallen cut Wall F013 and the edge of Wall F007. This demolition-filled pit (F021) could mark the location of a third, smaller entrance – perhaps a door – facing northeast, whose construction materials would have been carefully recovered. The *sebakhin* pit would have been later filled with bricks resulting from the degradation of the structure. Another hypothesis is that this rubble seals a later burial set within wall F013, a practice that is well known in medieval times on many sites in the region, including Sector A itself (see Ardagna and Maillot, this issue).

No remains of floor levels were identified within the rooms, except in Room 7 where a relatively poorly preserved strip of grey silt in the centre of the room could have been a floor, or a floor preparation level. This feature, which is cut by at least one later burial, is unfortunately not associated with any masonry and may therefore be related to a later occupation. In the same room, a ceramic vessel (F023) c. 400mm in diameter and filled with a sandy-ash sediment is installed along Wall F007, at the same altitude as the previously mentioned floor remain. The excavation of this room in the next campaign will help us determine whether these features are contemporary or subsequent to the occupation of the building.

Surface material of Sector E consisted of large quantities of red bricks, pieces of sandstone – sometimes of large size and found mainly in the centre of the structure (square 320-600) – plaster fragments, some of which show traces of paint, a door socket, scattered pottery sherds, one faience vessel fragment and animal bones. A significant amount of large Nile gastropod shells was collected on the surface of square 310-600. Building material also included specially-shaped red bricks, such as several torus mouldings (Figure 6), one trapezoidal brick, curved plastered bricks, as well as column drums (several quarter-circles and one third-circle of a column. In both cases, the diameter of the column was restored to c. 600mm). The number of torus bricks found suggests that part of the building may have been decorated with engaged columns. A dozen floats made from ceramic sherds were found, as well as sherds with traces of red and yellow pigment that are probably related to the construction phase of Building E. Finally, a fragment of a



Figure 5. Staircase F003 (© SFDAS / musée du Louvre).



Figure 6. Two torus-shaped bricks from Square 310-590 (© SFDAS/musée du Louvre).

large – but not very thick – brick with three deep fingerprints to allow good mortar adhesion, was found in square 320-600, and could correspond to a vault brick (Woolley 1911, 11-12; Baud 2011, 352).

Elevations were plastered with white lime mortar as numerous fragments of plaster were found, including *in situ* on the outer face of a red brick at the eastern corner of Building E (Figure 7). A distinction can be made between exterior coatings and those applied inside the building. Thick white facing mortar with large grey mineral inclusions used as a temper was probably employed on the exterior façades, as it was found mainly outside the structure. Some of these plasters were covered with yellow paint. However, the interior of the building – especially the central Rooms 2, 5 and 8 – yielded a significant number of plaster pieces with finer sand inclusions. Most of these fragments were covered with paint, or even painted patterns. As for Sector C, the colours represented are first of all yellow, then red (also used to outline the motifs which unfortunately could not be reconstructed), a very well preserved Egyptian blue and rare occurrences of black lines. Square 320-590 delivered some fragments of a third, harder type of mortar, whose temper consists of fine red sand. Finally, a few pieces of plastered and painted sandstone have been discovered, including a column drum with traces of painted coating in the debris of Room 2.

A study carried out on a set of plastering mortars from Meroitic contexts showed that the plaster sample from Damboya was composed of a sandy aggregate (c. 30%) embedded in a highly porous calcite matrix (Feneuille, Letourneux and Bouchar 2014, tab. 4). Therefore, this plaster was initially composed of hydrated lime produced from heated limestone, partially dehydrated gypsum, alluvial sand, water and possibly powdery limestone. Compact limestone is available along the Nile valley but there is no significant gypsum deposit in Sudan, except on the Red Sea coast. However, deposits made of gypsum and limestone belonging to the category of evaporites can be found along the Middle Nile valley, especially in Omdurman (Feneuille, Letourneux and Bouchar 2014, 831), and may have provided the necessary gypsum for Meroitic construction sites.

Chronology and discussion

As there were few internal features and finds were extremely limited, it is currently difficult to identify room functions, as well as to speculate on the communication and circulation between the different spaces, but several points stand out.

Based upon its dimensions (5.80x5.60m), Room 5 was probably a central open court or a square light shaft that provided light inside the building (Maillot 2016, 111-112). Indeed, its size prohibits, in the absence of intermediate support, any type of covering. This central space was surrounded by rooms on its northeast, southeast and southwest sides, and by two rows of rooms on its northwest side. Room 9 must also have been of some significance since it is much smaller than the other rooms (3.70x2.50m), which was achieved by shifting Wall F012 to the northwest. The presence of a staircase – perhaps supported by a vaulted ramp (see above, the description of a vaulting brick) – could explain these reduced dimensions, but nothing is certain.

The position of Wall F015, almost directly in front of the south-eastern entrance F003, is intriguing. If the door was in line with the stairs, it probably did not exceed 0.80-0.90m wide and led into the east corner of Room 1 that



Figure 7. Facing plaster at the eastern angle of Building E (© SFDAS / musée du Louvre).



Figure 8. Mudbrick structure in Room 12 (© SFDAS/musée du Louvre).



Figure 9. Redbrick wall F020 with torus moulding in the foreground (© SFDAS / musée du Louvre).

plaster pieces resulting from the dismantling of the structure, this waste deposit contained a ceramic vessel reused as a hearth (F024), a few burnt bricks, charcoal and large quantities of ceramic sherds and faunal elements – many of which were burnt – in a sandy-ash matrix. This unit was later cut by a *sebakhin* pit (F019) – including container F024, which was cut in half – that destroyed the connection between Walls F005 and F006. The fill of this pit made of fine yellow sand also contained some sherds and micro-charcoals, probably coming from US002. A small wall made of red bricks (F020) is attached to the southwest facade of Building E, to which it is bonded with mortar (Figure 9). This wall, of which only two courses have been exposed, was built after the building was abandoned since it reuses a torus-shaped brick. Additionally, as observed in Sector A, Sector E also served as a cemetery as several scattered human bones were recovered from the surface. A burial was found in Room 7, which was not excavated this season, along with the redeposit of a disturbed burial in Room 12 containing the remains of two adults.⁴

Building E is very similar in plan to other constructions in the Butana. These structures, which are often associated with cult complexes, are part of a network of religious and administrative centres on the east bank of the Nile, from Dangeil to Wad Ben Naga, and were probably intended for cult administration, or even cult performance. Building E shows striking similarities with Building K 800 at Abu Erteila for which a residential or, most likely, a representative function has been proposed. Both are built of mudbricks completed by red bricks, are of similar dimensions and are dated to the 1st and 2nd centuries AD (Baldi 2015, 224). Apart from palaces, the tripartite organisation observed in Building E is found in other Meroitic edifices such as M98B and M990 in Meroe, the ceremonial palace of el-Hassa and, to a lesser extent, in Meroe buildings M 98A, M 950 and in the priests' house M251–253 associated with the 'Sun Temple' M250. Building E also resembles some of the prestigious residences in Nubia such as at Karanog or Kedurma. At Kedurma, Building A shows the same initial square plan with the construction of an extra row of rooms on its

is, however, conceivable. Although no column bases have been found, the one-third and one-quarter red brick columns and the plastered sandstone column drum in Room 2 argue in favour of the existence of columns within the construction. One can also imagine that columns may have been erected on a hypothetical upper floor.

Lastly, a small unusual quarter circular feature (F022) paved with mudbrick debris was set in the northern corner of Room 12, along Walls F010 and F013 (Figure 8). The broken bricks are clearly the same as those used in the construction of Building E. Its function and dating are rather unclear but it may have been used to support an installation dedicated to heating, as burnt bricks and lime ('*kankar*') were found in its vicinity.

In the present state of research and according to the pottery finds, this structure belongs – like Sector C – to the 1st and 2nd centuries AD, with very few later disturbances, since many vessels could be reconstructed. With regard to the ceramic assemblage, Building E yielded a remarkable number of open vessels, including plates, many of which show traces of fire inside. These traces may indicate use as an oil lamp or incense burner³ (Fantusati, Kormysheva and Malykh 2014, 71). At least one later occupation phase has been identified that is represented, among others, by a refuse layer located outside the building (US002), near the southeast end of Wall F006. Dug into the level of bricks and

³ Romain David, pers. comm.

⁴ Excavation and anthropological study by Emma Maines.

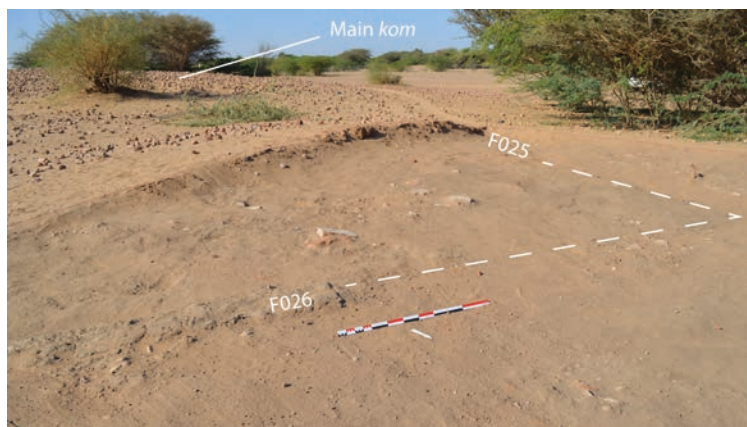


Figure 10. Negative of a mudbrick building in the southwest corner of Square 310-590 (© SFDAS / musée du Louvre).

have accommodated private apartments cannot be excluded.

The 2021 season will aim at excavating the different rooms of the edifice in search of occupation levels predating the construction of the building, as the site seems to have been previously populated as indicated by the ashy levels found in Sectors C and E. Surface cleanings will also continue southward since a second structure, similarly oriented but with thinner walls, was uncovered but not further investigated, at the end of the campaign (Figure 10).

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