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Front cover. Cattle and two goats\gazelle from Site GRD-14 in the Wadi Gorgod (photo Hamad Mohamed Hamdeen).

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Building E at Damboya, second season

Gabrielle Choimet



Figure 1. Aerial photo of Sector E from the southeast after the 2020 surface cleaning (© SFDAS).

Located on the northern slope of the main kom of Damboya (Sector G), Building E was discovered and completely exposed in 2020 in order to produce a comprehensive plan (Figure 1). On this occasion, a few ancillary structures were uncovered, including a probable second building (Walls F025 and F026) approximately 3m southwest of Building E, which appeared to be parallel to it (Choimet 2020, fig. 10).

The main objective of the 2021 campaign was to start excavating the interior. To date, six rooms – i.e. half of the building – have been excavated to the construction level, while five test trenches have been opened inside and outside the building to observe its foundations, covering a total of 190m².

Building E is rectangular and oriented along a northwest-southeast axis. It is 21.1m long and 16.2m wide. The building was organised around a probable square courtyard or light-well in the centre (Room E05), with rows of rooms on all sides, except to the northwest where two rows of rooms flanked the central space. Due to a slight difference in the alignment of Walls F008 and F009 and the absence of bonding with Wall F007 against which they leant, it remains to be determined whether the last row of rooms (E10, E11 and E12) was part of the original plan, or whether it was added later. This will be investigated during the 2022 campaign.

The main entrance (F003) was located at the southern corner of the building, with what was initially thought to be a staircase, but turned out to be a ramp almost 4m long (Figures 2 and 3). Finally, the presence of an upper storey is very likely in view of the thickness of the foundation walls, which varied between 0.7 and 0.9m (Choimet 2020, 192).

Only the foundation level of building E was preserved, while the walls and floor levels have completely disappeared. The foundations were better preserved in the southwest, where thirteen courses were still standing, and less well preserved in the northeast, where only eight courses were left. This is due to the



Figure 2. Aerial photo of Sector E after the 2021 excavation. Ramp F003 in the foreground (© SFDAS).



Figure 3. Plan of Sector E (© SFDAS).

slight slope of the kom, which has led to a greater deterioration on its edges, undoubtedly increased by human activities (Lenoble and Rondot 2003, 109).

As was observed in Sector A, the occupation of Sector E seems to be relatively short, as the ceramic material is dated exclusively to the second half of the 1st century AD and the beginning of the 2nd century AD. No settlement predating Building E was found in the six rooms excavated. A few occurrences of ceramic, lithic material or ash lenses in the sand dune on which the building was built, as well as the sporadic presence of sherds attributable to an earlier phase than that of the buildings in Sectors A and E,¹ prove that this area hosted human activities before the second half of the 1st century AD.

The only later, tenuous re-occupation, already identified in 2020, consisted of a large pot (F024) filled with a large quantity of sherds and burnt animal bones and placed in a sandy-ashy area – US002 – itself dug in the demolition layer of the building.

Characteristics of Building E

The construction level

The construction level identified in all the areas excavated this season is situated at an altitude between 359.66 and 359.89m above sea level. It is natural soil, made of grey sandy silt, 10-40mm thick, which, in all likelihood, resulted from the ingress of a massive amount of water probably due to a flood or an intense rainy episode. No similar layer was observed in the test pits dug down to the geological soil, which means that this layer would most probably correspond to a major climatic phenomenon, the date of which is unknown.

The floor surface of Building E was constructed shortly after this natural event: indeed, a thin layer of windblown sand – visible only in a few places in the building and generally 10-50mm thick – covered the thin layer of natural grey silt. Both were cut by the walls of Building E.

A mortar preparation pit (F034) measuring 0.6x0.7m was discovered on the construction level outside the building, next to the south corner, and is probably to be associated with the construction of Building E. The hardened mortar consisted of a grey indurated sediment containing a few micro-charcoals and some very small fragments of red brick. This pit sealed a hand-made black incised ceramic sherd. Finally, it should be noted that the natural layer of silt mentioned above showed a difference of just under 0.3m between its highest point, in Room E04, and its lowest point, in Room E06.

The geological level

Below this natural soil level was a layer of aeolian sand relatively poor in archaeological material, and 0.38-0.5m thick depending on the location. Consisting of a succession of laminated sandy deposits, this layer contained a few charcoals, ash lenses, sherds, burnt animal bones, fragmentary lithic material and a few water-deposited lenses presumably corresponding to rainwater stagnation. This level, which was not completely sterile but relatively undisturbed, proves that there was activity in the area before the construction of Building E.

This sand dune overlaid a level of grey, highly indurated Nile silt, sometimes mixed with small carbonated nodules (*kankar*), which corresponds to the geological level. This silty level is situated at an average altitude of 359.28m a.s.l. and – like the aforementioned construction level – slopes slightly from southwest to northeast. For comparison, the same geological level is located at 359.2m in Sector A, at 359.31m in Sector B (northwest of the main kom) and at 359.07m in Sector C (southwest of the main kom). It therefore also appears to slope slightly towards the south of the site, with the area comprising Sector E and the main kom (Sector G) forming a small natural hill (Maillot 2021, fig. 1).

¹ Perhaps 1st century BC (Romain David pers. comm.).

Description of the foundations

Four test pits were dug in the corners of rooms inside Building E and a fifth outside, along Wall F005, between Ramp F003 and the southern corner of the building (Figure 3). Room E03 was completely excavated to geological level, which allowed us to observe in detail the foundations of all its walls. From what we observed during this campaign, all the walls of Building E were constructed at about the same level: the foundation trenches were dug in the sand dune until the level of Nile silt was reached, or a few centimetres above. The slight undulation of the ground mentioned above also affected the foundation levels: the southern corner F005 - F 006 was about 0.2m higher than the eastern corner F005 - F 013.

The type of foundation seems to differ depending on whether it was an inner or an outer wall. The two outer walls observed this year (F005 and F013) rested on red brick and mudbrick fragments embedded in a thick grey mortar laid at the bottom of the foundation trench, before a first course of red bricks was laid flat. This lower course was set back about 100 or even 150mm so the foundations of these walls widened as they rose.

All inner walls were made entirely of mudbricks with bricks arranged in a herringbone pattern at the base of the foundations. This type of bricklaying may have been repeated on the course above, or even on two or three upper courses, widening the foundations and projecting outward over the lowest course.

In contrast, red bricks were systematically used at the corners of the building, in order to reinforce them while protecting them from rainwater runoff, especially in a region as rainy as the Butana. The south and east corners of Building E (respectively F005 - F 006 and F005 - F 013) were characterised by the use of red brick column drums (half-drums), which provided the first indication of reuse of building materials, probably recovered locally from a building constructed before Building E. These column drums seem to have been intended solely for the foundations: at the southern corner of the building, Wall F005 had 13 preserved courses, all of which were made of red bricks, but only the six lower courses – which correspond to the foundations² – were made of reused column drums, alternating with some broken bricks. The rest, corresponding to the elevation and entirely plastered, was made of standard-sized red bricks (350mm long, 180mm wide and 80mm thick) with alternating stretchers and headers.

The same pattern was observed at the eastern corner, where the use of half-drums inside Room E03 did not exceed six courses, with the occasional use of mudbricks and broken bricks. The upper courses were made of mudbrick in the interior of the room (Figure 4), and red brick in the outer corner.

Finally, a medieval burial pit (F031, see below) dug through Wall F005 – a few centimetres from the eastern corner of the building – allowed us to observe that the filling inside the wall was also made of pieces of red brick column drums (half-drums and quarter-circles).

The masonry

The mudbricks used in Building E were grey, with a matrix of Nile silt, and contained micro-charcoals that were added to the alluvial soil to serve as a temper. The mortar used in the masonry had a similar composition to that of the bricks, although slightly pinker in colour.

All the walls of Building E were bonded together except for one wall, F053 (see below), and Wall F011, which seemed to lean against the outer wall F005, but a section left in the east corner of Room E02 will be removed during the next campaign and may clarify this point. The alternation of headers and stretchers was relatively systematic, with a few exceptions. In some places, the clumsy superposition of vertical joints created cracks.

The test trench dug along Wall F005, at the south corner of Building E, uncovered a large piece of plaster

² The lower course of Wall F005 was set approximately 0.5m below the construction level (359.33m above sea level), the latter being indicated by the return of the external wall plaster on the ground (altitude 359.84m). Foundations were six courses high.



Figure 4. Room E03 after excavation: Corner of Walls F005 and F013 with red brick column drums reused in the foundation and upper courses made of mudbrick (© SFDAS).

still adhering to the base of the wall. The plaster was preserved to a height of nearly 0.35m, was a little more than one metre wide and averaged 9mm thick. It contained large grey gravel in a slightly greyish lime matrix. Although it did not show any trace of paint – except perhaps white – to the naked eye, small curves or bas-reliefs suggested some kind of a relief decoration, which has now largely disappeared. This decoration – which is reminiscent of the decoration of the Amun temple in nearby el-Hassa (Feneuille 2020, 175, figs 4-5) – may, however, have been preserved along the façade wall F006, which was preserved to a greater height. In view of the relatively wet climate conditions in the Butana region during the Meroitic period, it is reasonable to believe that the building was entirely plastered. The discovery, during

the 2020 campaign, of a large number of pieces of plaster bearing yellow paint on the outside of the building indicates that this colour must have been used on the façade, especially as these fragments were of the same type of plaster with large grey gravel.

Finally, it is worth noting the discovery of two later walls adjoining the southwest façade of Building E, in addition to the discovery of Wall F020 during the previous campaign. At the south corner of the structure, red brick wall F066 extended the façade wall F005 towards the main kom. It is later than F005 since the plaster of F005 continued over the corner of F005 - F

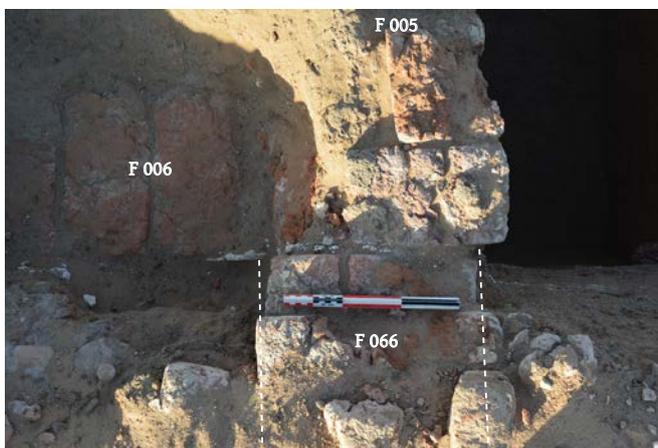


Figure 5. Wall F066 abutting southern corner F005 - F 006 with façade plaster in between (© SFDAS).

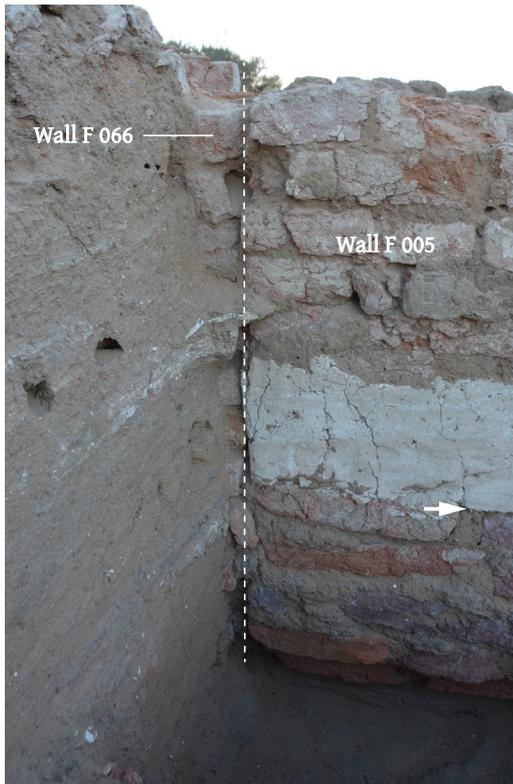


Figure 6. Wall F066 leaning against wall F005. The base of the plaster corresponds to the exterior floor level at the time of the construction of Building E (© SFDAS).

006 (Figure 5), but it was nevertheless installed at almost the same depth as the latter³ and is therefore undoubtedly of Meroitic date (Figure 6). As for the low wall F070, it seems, like F020 that reused a torus-shaped red brick (Choimet 2020, 196, fig. 9), to post-date the abandonment of Building E, but a test trench along Wall F006 during the next excavation season should confirm this.

The podium

No floor was found inside Building E, but the interior floor level was located at least at the height of the highest preserved level,⁴ or even higher as no specific fittings intended to support a threshold – such as bricks laid on their edges for instance – were observed in the walls. The external ground level at the time of the building's construction is known, with an average altitude of 359.79m (see above).

This significant difference in altitude between the interior and exterior floor levels and the absence of a floor surface inside the edifice mean that the material found within does not correspond to a destruction layer, but to a filling intended to serve as a platform to raise the floor level inside the structure. The excavated levels are therefore those of casemates that were later covered by the various occupation surfaces of the building, which have now vanished.

Description of the areas excavated in 2021

The access ramp F003

The main entrance F003 was only fully excavated during the 2021 season. Perpendicular to façade wall F005 and framed by two indented low walls, it consisted of a 3.8m long ramp and a 3.25x1.7m landing (Figure 7). Thanks to the slope of a few red bricks preserved *in situ* on the two low walls, the height of the highest part of the ramp could be calculated as 1.14m above the exterior ground level. To this, it is probably necessary to add a 100mm step to reach the landing.

The floor of the ramp has disappeared but it probably consisted of sandstone slabs or red bricks, or even perhaps of a pavement of column drums. It covered a filling of red bricks and mudbricks in equal proportions, architectural pieces, soil and overfired bricks, unsuitable for masonry and therefore reused in the fill. This fill was partially plundered, probably in order to retrieve construction materials, as evidenced by the presence of a pit. The landing consisted of four courses of mudbricks laid on edge, which had been overlaid with red bricks or sandstone slabs and two sandstone slabs were found in the destruction layer. Finally, the test trench on the south side of F003 allowed us to observe that the ramp was built 0.25m higher than Wall F005 against which it abuts, and had a single foundation course made of bricks laid on edge (Figure 8).

³ 359.33m and 359.40m above sea level.

⁴ The built-up casemates consisted of a number of unknown courses since the building has been largely destroyed, but which can be estimated at a minimum of eleven courses, i.e. the number of courses still preserved today above the construction level at the highest point of the building (Wall F006 in Room E04, altitude 361.02m).



Figure 7. Ramp F003 after excavation, view from the southeast (© SFDAS).

Room E01

Entrance Room E01 was square, with a side length of 3.7m. The entrance door to the building was most likely centred on the axis of the ramp, which means that it would not have been more than 0.9m wide. This opening was directly adjacent to partition Wall F015. This type of access in the corner of a room is not unusual in Meroitic monumental architecture, as witnessed by the various staircases of the Amun temple and the ceremonial palace at el-Hassa (Rondot and Nogara 2019, figs 4-5). However, it is also possible that Wall F015 could have supported not a wall, but a simple separating bay between spaces E01 and E02, resting on two buttresses or pilasters and supporting a wooden beam. Room E01 probably also had a connection with the neighbouring Room E04, but the current state of preservation did not allow us to determine the connections between the rooms.

The fill of Room E01 consisted of a sandy layer containing a few red bricks and mudbricks, some sherds and a few pieces of painted plaster, which covered a second sandy level, this one almost empty. The top layer yielded a Meroitic ostrakon dated by Claude Rilly⁵ either to the reign of Natakamani or Amanakhareqerema, which provides a *terminus post-quem* between AD 50 and AD 90 for the filling of the casemates of Building E (Figure 9).

A test trench in the north corner of the room showed that both Walls F015 and F016 were founded at the same level as the outer Wall F005 (359.38m a.s.l.).

Room E02

The fill of this room, whose dimensions were 3.7x5.8m, was very different from that of the entrance Room E01. From the surface to the construction level, it was filled with a single, very compact composite layer,

⁵ To whom I would like to express here all my gratitude. The second line mentions a type of container (*she*), perhaps a jar (pers. comm. Claude Rilly).



Figure 8. Ramp F003 against Wall F005 (© SFDAS).



Figure 9. Meroitic ostracon, Room E01, US 040 (© SFDAS).

of casemate E04 a sandy layer 0.37m thick on average, rich in large charcoal pieces but with little pottery, formed the bottom of the fill.

First discovered during the excavation of the central space E05 (see below), a mudbrick wall was uncovered at the base of Room E04, with its top course being at the same level as the construction level of Building E. This southwest-northeast wall (F053) was partly covered by Walls F016 and F017, but it was progressively offset in relation to them:⁶ in fact, in the south corner of Room E04 (Corner F006-F016), F053

consisting of broken mudbricks and red bricks mixed with numerous architectural fragments: sandstone and red brick column drums, large red bricks, torus-shaped bricks, etc. (Figure 10). This layer also yielded a remarkable number of plaster fragments, as well as pigment preparation pots and chunks of yellow and blue pigments (ochre and Egyptian blue).

In the centre of the room, and filled with the same remains of densely packed construction material, was a trench (F048) approximately 0.6m wide and 0.27m deep between Walls F005 and F017 (Figure 11). Located at the same level as the other foundation trenches, it probably corresponded to a foundation trench for a wall that was never built. This feature was therefore left untouched and subsequently filled with the same material as the rest of Room E02.

Room E03

This room measured 3.7m wide by 4.1m long. Its fill was extremely similar to that of Room E02: mudbricks and red bricks in a matrix of loose sand with a large number of pieces of sandstone, large quantities of ceramics, charcoal and animal bones.

Room E04

In the second row of rooms excavated during the 2021 campaign, a section was made across the entire width of Building E in order to observe in detail the fills in the different rooms (Figure 13). Room E04 was 3.7m wide and 5.9m long. It was filled with at least three distinct layers: the first consisting of grey compact building soil preserved to a maximum thickness of 0.2m, which overlapped a second layer, about 0.4m thick, which yielded a lot of mudbrick, pottery, a few pieces of painted plaster, animal bones and a few lithic pieces. Finally, at the bottom

⁶ This shift was less than 1°.

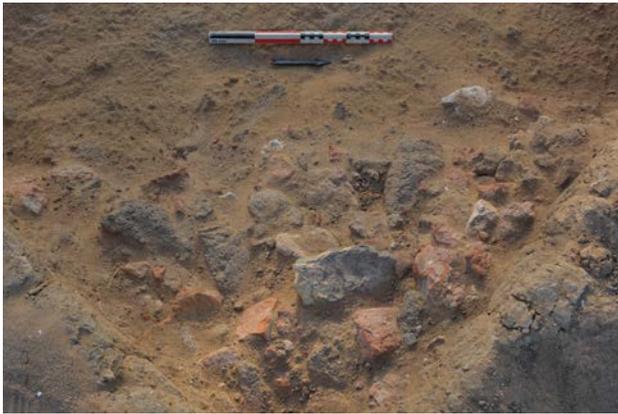


Figure 10. Fill of Room E02 in the eastern corner of the room (© SFDAS).



Figure 11. Room E02 after excavation with partially emptied Trench F048, view from the southwest. In the background, section left in the eastern corner of the room (© SFDAS).

protruded by more than 0.5m, while in the east corner of Room E05 (Corner F011-F017), it protruded by only about 0.27m. It was no longer visible in Room E06, either because it was interrupted or because it had been incorporated into the masonry of Wall F018, which was slightly shifted to the west in relation to Walls F016 and F017. The bricks of Wall F053 have the standard dimensions of Meroitic bricks (350mm long, 180mm wide and 80mm thick) and their composition seems, at first sight, to be identical to that of the bricks used in the other walls of Building E.

Room E05

Room E05 measured 5.6x5.8m, and in view of its dimensions, was probably a courtyard. It too had been filled with several layers of different materials, but these levels were less visible than in the neighbouring Room E04. The upper layer consisted of mudbricks and red bricks in a matrix of aeolian sand and disintegrated mudbricks. It yielded numerous pieces of sandstone, including two column drum fragments made of red sandstone whose diameter was restored to approximately 730mm. Underneath, a level of fragmented and melted mudbrick mixed with very small pieces of red brick was found, essentially in the southwest part of the room, and sloping from Wall F015 towards the centre of the casemate. This layer had little pottery, apart from two large vessels used for plaster preparation. Finally, a level of sterile aeolian sand corresponding to the thin layer of silt resulting from the above-mentioned flood event – and only visible in places in the central space – lay at the bottom of the casemate.

In the east corner of the room, F053 was bonded to the lower part of F011 (i.e. the five lower courses). Above, the five upper courses of F011 were laid on top of F053 with a 50mm thick mortar connection between the two parts of the wall, while a mudbrick was inserted next to F053 to compensate for the slight difference in height between F011 and F053. Finally, F017 partially covered F053 while abutting F011 (Figure 12).

In the test trench dug in Room E05, F053 showed a total of six courses – without the usual succession of headers and stretchers – incorporated in a thick layer of mortar that had been spread inside the foundation trench. Its western facing showed flat-laid headers while in Room E04 – where Wall F053 was most visible – these headers framed a core of broken bricks (including some red brick fragments), which appeared to be flanked on the other side by stretchers (Figure 3).

It seems likely that Wall F053, like foundation trench F048 (see above), belonged to the initial construction project that was abandoned in the foundation phase. This assumption is consistent with

the fact that the upper courses of F053 consisted of a neat and uniform level, and thus did not represent an earlier phase of construction that would have been levelled, but rather a change in the layout of the building after the foundations had been built. On this occasion, certain features such as F048 and F053 were abandoned and later covered by the platform fill.

Room E06

The fill in Room E06 (3.7x6.3m) was more uniform than in the two previous rooms. Consisting of aeolian sand and red bricks with occasional melted mudbricks, it was closer to that of Room E01 and, like the latter, yielded little material.

At this stage of the excavations, we could see marked differences in the fill of the various casemates: Rooms E02 and E03 are, for the moment, the only two to have received such a compact fill. Rooms E01 and E06 were filled with a relatively homogeneous sediment, essentially sandy and poor in material, whereas Rooms E04 and E05 were filled with very varied layers, alternating sand, construction materials and earth (Figure 13). These differences may have been dictated by the availability of material in the immediate vicinity of Sector E. It can also be assumed that the choice to fill the base of Rooms E02 and E03 with a hard, compacted material indicates that these rooms were intended to receive a heavy floor, for example of sandstone slabs or red bricks. This hypothesis seems likely in view of the position of these two rooms, immediately to the right of the entrance, in the context of rooms with ceremonial or reception functions.

The archaeological material

The casemates in Building E contained mainly construction materials, notably sandstone and red brick column drums, as well as many pottery sherds used for the preparation of plaster or paint. The architectural pieces were in all likelihood taken from a building close to Sector E which was abandoned at the time of its construction, whereas the sherds covered with plaster or pigment remains were most probably recovered from a nearby dump during the casemate filling phase.

Excavations also uncovered fragments of cut sandstone, but unfortunately these were too damaged to determine their original shape. Many lumps of ochre and Egyptian blue (cuprorivaite or calcium copper silicate), a bronze nail, a piece of petrified wood and a large number of fragments of painted plaster on sandstone or red brick – some of which have been collected to be further analysed in France⁷ – were also found in the casemates. Finally, a piece of flat animal bone completely covered with blue pigment had probably been used to mix or apply paint.

As observed during the 2020 campaign, and based on what is known about the Meroitic decorative palette, the colours found on plaster fragments and pigment preparation pots were first yellow, red and white, then blue and black. In general, white, yellow and blue were most often used for plain areas, whereas red and black were used for patterns or to delimit flat colours. Some sherds were covered with both pigment and mortar, or with two different colours, indicating that the vessels from which they came were used to prepare several types of pigments, or even both pigment and plaster. Among these containers, ledge-rimmed bowls seem to have been frequently used.

Unfortunately, the size of the plaster fragments did not allow for the recognition of any type of decoration. A more complete piece could be reconstructed using several fragments found in the debris of Room E05: the motifs represented (two friezes of globular and piriform elements) are similar to the adornments or textile ornaments known from royal iconography. However, we have not been able to put forward any hypothesis as to their original disposition (wall render, statuary or bas-relief).

⁷ The mission is much indebted to Serge Feneuille, Jean-Pierre Letourneux and the Centre de Recherche de Lafarge Holcim at Saint-Quentin-Fallavier (Isère, France) for these analyses.

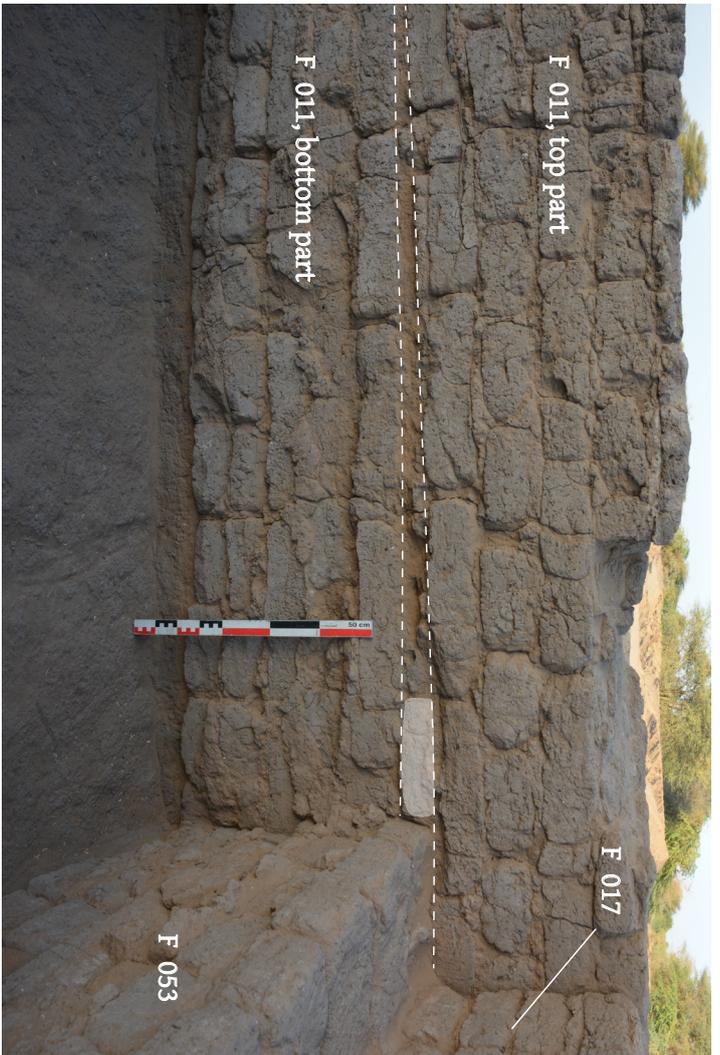


Figure 12. Room E05 after excavation, eastern corner: F011 and F017 built on top of Wall F053 with thick mortar connection (© SFDAS).

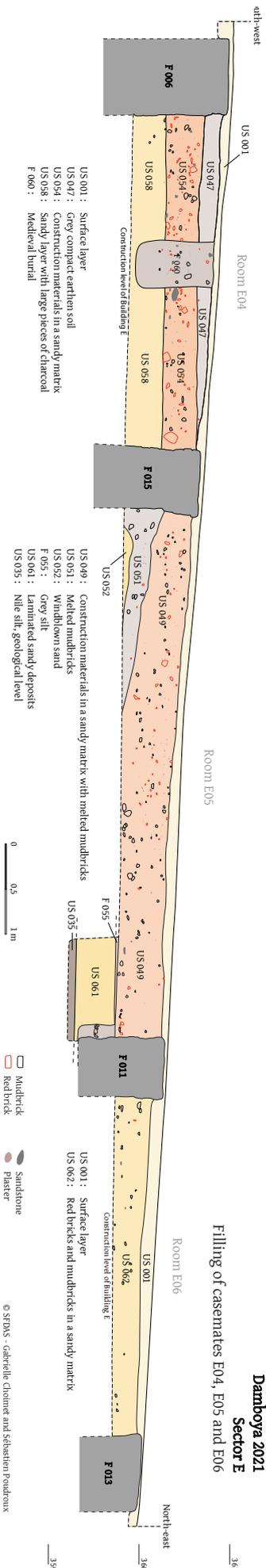


Figure 13. Southwest-northeast section through Casemates E04, E05 and E06 (© SFDAS).

The excavation of the medieval necropolis⁸

During the 2020 campaign, a secondary deposit containing the remains of two adults was discovered in Room E12 (Choimet 2020, 196), as well as a burial in Room E07 (F030) which, due to lack of time, had to be resealed. This was therefore the first to be studied during the 2021 campaign. The excavation of the eastern half of Building E revealed seven new burials, six of which were excavated (Figure 3).⁹

Of the six rooms excavated in 2020 (Rooms E01 to E06), four contained a single grave, while Room E01 contained two (F043 and F050) and Room E06 none. However, as the natural slope of the kom towards the northeast resulted in greater erosion on its edges, and as the burials were generally located in the superficial layers, it is possible that one or more graves have now disappeared.

The deceased were mostly located at a shallow depth, except for F050 and F060. The latter lay almost on the construction level of Building E (Figure 13) while in Room E01, although buried not far from each other, F043 and F050 (respectively immature and an adult) were buried at two different levels, F050 being buried much deeper than F043. This indicates that Building E was already largely ruined when these two pits were dug.

As in Sector A excavated during the previous season (Maillot 2020, 187), the graves were very narrow and their limits, when visible (F031, F050 and F060), were as close to the body as possible. All were dug in the ground, and no structure or grave marker was visible on the surface. The position of F031 deserves to be described in more detail as this individual had been inserted through wall F005 with the head in Room E03, while the feet lay outside the building.

Naturally, we noted a better state of preservation in the F050 and F060 skeletons. They were found in sandy strata located at greater depths, and were therefore less likely to have been affected by later disturbances. The articulations of F050 in particular were fully preserved, including the bones of the hands and feet (Figure 14).

In contrast, the bones of individual F031 – found quite close to the surface – were poorly preserved. Furthermore, a later brick recovery pit (F036) had disturbed the feet of this individual. Similarly, the disturbances observed near the south corner of the building may explain the poor state of preservation of individual F043, whose lower part of the body was missing; however, scattered bones were recovered nearby. Finally, some of the graves closest to the surface were affected by roots, such as F031 – in the middle – F039 and F069.

All the burials in Sector E were primary burials and individual graves, as were the majority of those discovered in 2020 in Sector A. Two juveniles were included: an infant (F043) and a young child (F039). Burial orientation seemed to follow two main axes: northwest-southeast and east-west, without any preferential orientation of the skull becoming apparent.

The vast majority of the deceased were in the supine position, sometimes slightly inclined to the right (F030 and F069) or to the left (F039). Only F031 was in a prone position (Figure 15). F030, F043, F050 and F060 had extended limbs while F039 and F069 had their arms and legs flexed. F031 and F069 had their lower limbs crossed. The hands of F030 and F060 were resting on the pubic area, while those of F039 and F069 were close to the face (Figure 16). In the latter two cases, the flexion was such that a strong constraint, such as a blanket or a shroud wrapping the body, must have been used to contain the upper limbs.

No material was found associated with the skeletons, apart from a glass bead found at the back of the

⁸ In the absence of the mission's anthropologist due to the Covid-19 pandemic, graves were excavated by the author and Coralie Prenat. The study of the anthropological remains will be carried out in 2022.

⁹ The seventh was found in Room E07, but will not be examined until 2022 when Rooms E07 to E12 will be excavated. The skeleton has been carefully covered in the meantime.



Figure 14. Room E01, Grave F050, detail of the lower part (© SFDAS).



Figure 15. Room E03 and Wall F005, Grave F031, view from the northeast (© SFDAS).

skull of individual F039, but it is uncertain whether it was worn on the neck or the wrist, since small hand bones were found behind the head. In this respect, it is interesting to note that F039 was a young individual; in Sector A as in other medieval necropolises in the region, the dead were not accompanied by any grave goods (if perishable material such as shrouds or mats to wrap the body are excluded), with the exception of the burials of children. For example, a glass bead was discovered in Sector A in the grave of a child of three or four years of age next to his neck. However, contrary to what was observed in Sector A during the 2020 season, no shroud remains were found.

The reuse of ancient sites or koms, often of Meroitic date, as cemeteries is well-known in central Sudan during the medieval period; it is to this period that the tombs in Sector E should probably be attributed. In view of this, it should be noted that the fact that pit F050 slightly cut into the external facing of Wall F016 against which the head of the individual rested indicates, in all likelihood, that this wall was no longer visible at the time of the burial. On the other hand, the position of F050 and F043, both parallel to Wall F006,



Figure 16. Room E05, Grave F069 (© SFDAS).

suggests that this wall was still partly standing when the pits were dug, and that they may even have been deliberately placed to be sheltered behind this. The position of F031, buried largely through Wall F005, was more surprising but reminiscent of the position of other individuals in Sector A or at sites like Muweis, Wad Ben Naga or Abu Erteila, where walls appear to have been deliberately chosen for the location of graves (Fantusati and Baldi 2017, 157; Ardagna and Maillot 2020, 200, 206; Maillot 2020, 187). Finally, the small number of burials and the lack of overlapping graves argue, in our view, for a relatively short period of use of Sector E as a cemetery, but this will be further explored during the excavation of the other half of the building (Rooms E07 to E12), as the next campaign will undoubtedly yield new graves.

Chronology of Sector E

Outside Building E, the ground level was gradually covered by windblown sand deposits (Figure 17). In section, these deposits were visible for about 0.2m, after which the façade plaster started to decay. The final level of destruction of Building E was situated 0.52m above the original construction level of the edifice.

After its abandonment, the site was used as a quarry. It was levelled so that there were no remains of the occupation levels. Red bricks from the ramp, thresholds, pavements and corners were probably recovered – notably to line the interior of wells – while the elevations, made of mudbrick, were used until relatively recently through *sebakh*-digging to fertilise fields. These post-abandonment quarrying activities hollowed out the floor levels within Building E, causing the walls, floors and occupation material to disappear.

An earthquake at Damboya?

A large number of cracks in all of the walls of the excavated half of Building E were observed during this campaign (Figures 8 and 18). Such vertical gaps in the walls – sometimes down to the silt level below the foundations – the number of broken bricks and the misalignment of some walls that seem to have

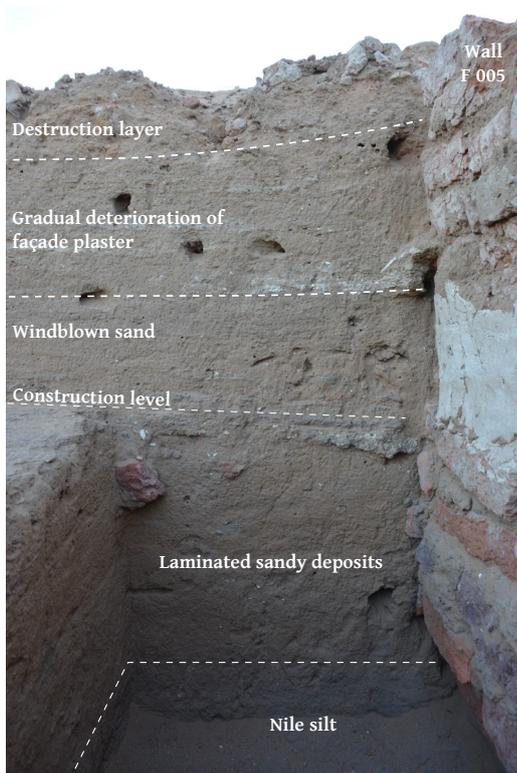


Figure 17. Section near the southern corner of Building E, view from the northeast (© SFDAS).



Figure 18. Room E01 after excavation, Wall F015 (© SFDAS).

moved out of their original axis¹⁰ were too systematic to be attributed to a construction defect. An earthquake seems, at this stage, the most plausible cause to explain this.

These cracks are reminiscent of those observed in the Amun temple and in the ceremonial palace at el-Hassa, both of which seem to have collapsed at the end of Phase 2 – beginning of the 2nd century AD – as a result of a similar phenomenon (Rondot and Nogara 2019, 86). The question of whether this earthquake caused the collapse and abandonment of Building E remains open, but in view of its impact in the foundations, it is certain that the building must have been devastated, if not destroyed, which would also coincide with a relatively short period of occupation in the area. According to the pottery, Sector E seems to have been abandoned relatively early in the 2nd century AD.

Conclusion

Although the excavations of Building E and its surroundings have not yet been completed, a number of remarks can be made. Firstly, the sector has not, for the moment, revealed any traces of earlier dwellings or structures predating Building E. However, the tenuous presence of human activity was attested to by the material found in the sandy levels preceding the erection of the building: scattered ceramics, ash lenses, lithic artefacts and charcoal.

Secondly, as had been anticipated during the 2020 campaign, the structure was set on a podium, the floor level inside the building having to be at least 1.2m above the external ground level. The various casemates constituting its substructure were filled with a large number of architectural pieces: column drum fragments, large bricks, torus-shaped bricks, as well as numerous fragments of painted plaster. These pieces, and the presence of half column drums reused in the foundation, indicate that Building E was partly built using the remains of an earlier building, already ruined at the time of construction. Waste from a nearby building site was also used to fill the casemates, since numerous remains of plaster and pigment preparation were found mixed with the building materials: fragments of pots used to prepare pigments or mortar, pigment chunks and ceramic floats.

Building E was built shortly after a major flood event, its foundation trenches cutting into the sand dune down to the

¹⁰ The outer facing of Wall F005 also seems to have deviated from its alignment, taking with it its plaster layer, which sloped outwards. However, as the plaster did not fall off, this means that if there was an earthquake, it took place after the windblown sand had covered the façade plaster.

level of Nile silt. The presence of an ostrakon dated to the reign of Natakamani or Amanakhareqerema in one of the casemates indicates that the building was probably erected in the second half of the 1st century AD. In view of the ceramic material found in Sector E, which was not very varied and not very mixed, it does not seem to have been in use beyond the beginning of the 2nd century AD. It should be remembered, however, that the ceramic material does not correspond to the occupation, but to the filling of the casemates of the building. It therefore predates, or may even be contemporary with the construction, but does not relate to the occupation levels.

Thirdly, several converging clues testify to the existence of an original plan abandoned during the construction – for a reason that is not yet known – and subsequently covered by the surviving walls of Building E. There were at least two abandoned features, with Wall F053, whose construction did not go beyond the foundation stage, and the abandonment of Trench F048 in Room E02.

Finally, at least three walls converged towards the main kom sector and confirm the association of Sector E with the building(s) of Sector G, with which Building E seems to share an orientation. Building E was certainly associated with the cult and economic complex identified in Sector A, with which it was, according to the pottery, contemporary. Finally, an earthquake seems to have destroyed, or at least greatly damaged, Building E, down to its foundations. The site was used as an open-cast quarry and then as a necropolis in the medieval period, even though it seems to have already been ruined.

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