

The medieval fortifications at Banganarti after the 2016 season

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Abstract: The state of preservation of Banganarti's unique medieval mud-brick fortifications and the deposits accumulated against them allows a study of the history of these defenses and their immediate surroundings. Trenches excavated in the northeastern corner of the fortifications in 2016 gave a full cross section, starting with the layers preceding the construction of the defenses, through two phases of the fortifications and ending with traces of secondary use of the ruins.

Keywords: fortifications, medieval settlement, Banganarti, Nubia, Sudan

The fieldwork activities in Banganarti in 2016 were focused in part on excavating the northeastern corner of the fortifications [*Fig. 1*]. The topmost layers in this area were explored in previous seasons, but culturally sterile sand was reached in only one of the earlier digs, outside the enclosure. The purpose now was to investigate the inner face of the fortification down to the foundation level and to compare the record of human activities on either side of the defense wall.

In the case of the Banganarti enclosure wall, the inner face is seldom open to investigation, being usually obscured by extensive remains of buildings hugging it. In turn, the wall top is often damaged quite severely by modern extraction of mud brick as a convenient and effective fertilizer. The northeastern corner, which was covered with yellow sand in the 1990s (Żurawski

2012: Fig. 21) was first explored in 2001 and then in 2006 when the topmost parts were cleared and documented (Drzewiecki 2008: 405–407). A test trench was dug in 2008 (No. II/1), reaching well below the foundation levels on the outside of the enclosure, this followed in 2013 by trench 10/13 (Żurawski 2015: 375; Wasik 2013).

The mud-brick wall turned out to have been reinforced with a tower, approximately 10 m in diameter, reused later as part of a rectangular courtyard outside the curtain [see *Fig. 1*]. The architecture was dated provisionally, based on pottery finds, to the 10th–14th century (Bagińska 2008: 421–425). The test dug in 2008 checked the brick bonding between the curtain wall and corner tower, finding it to be from one building phase. Regular thin layers next to the outer faces contained large quantities of potsherds and organic material, including

faunal remains (Osypińska 2015). This was most probably rubbish discarded regularly by the residents of the enclosure. Layers below the foundation of the fortifications, reaching a thickness of 0.80–0.90 m, yielded, among others, evidence of two events of intensive fires: charcoal, ashes and dark brown burnt soil. A trench in 2013 uncovered a red-brick staircase where a rectangular courtyard met with the outer face of the curtain wall [Fig. 2]. This

passage enabled traffic through the remains of fortifications. The excavation reached about 0.50 m below the foundation of the staircase without reaching culturally sterile sand. Surface cleaning was undertaken also on the opposite side of the curtain wall (next to the inner face). In late 2015, the area of buildings raised next to the inner face of the eastern curtain and the northeast corner was cleared (Żurawski, Cedro and Drzewiecki 2017, in this volume). The

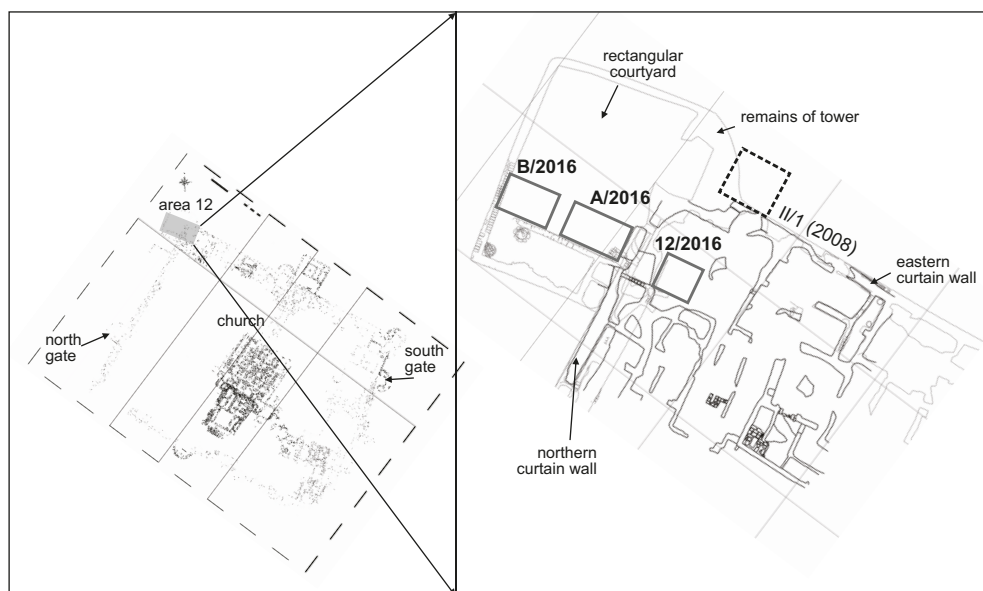


Fig. 1. Northeastern corner of the fortifications in Baganarti with the location of trenches dug in 2016; inset, general plan of the Baganarti site with the location of the excavation site (Baganarti Mission/drawing R. Łopaciuk, M. Drzewiecki)

Team

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whole area was divided into twelve sections and the area closest to the inner corner of the fortifications was labelled as No. 12 [see *Fig. 1*].



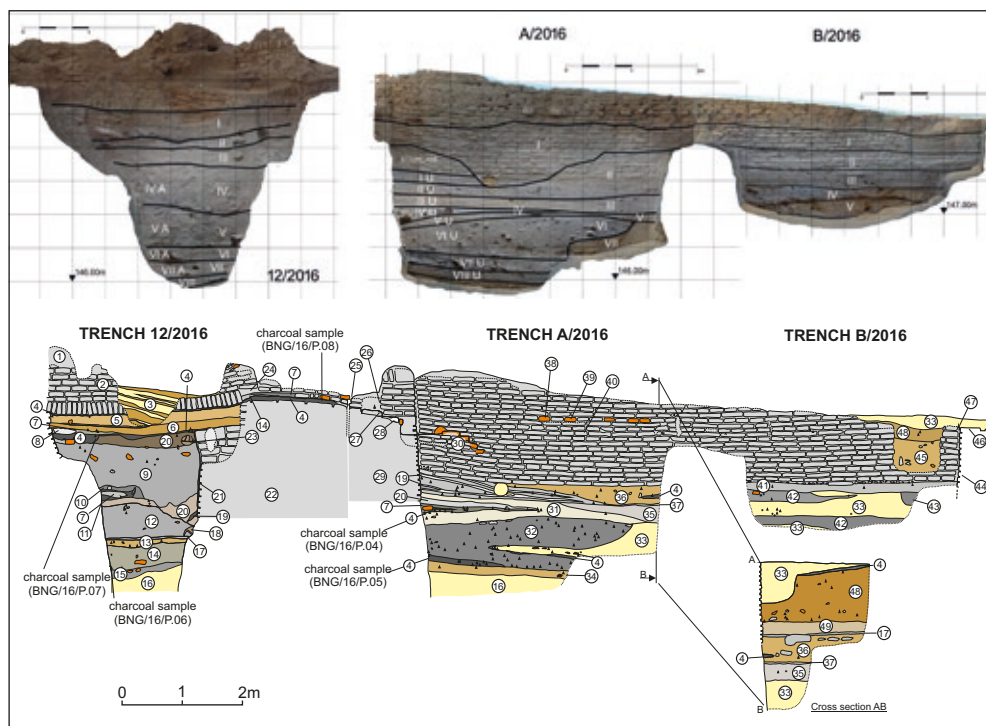
Fig. 2. Staircase and the passage on top of the fortifications (Banganarti Mission/photo M. Drzewiecki)

FIELDWORK AND FIRST OBSERVATIONS

Excavations proceeded in three trenches [see *Fig. 1*], two of which were set in the area of exploration in 2013. Square 12/2016 (2 m by 2 m) lay next to the inner face of the curtain wall. This was where the top-most parts of the fortifications were cleared in 2006, 2013 and 2015. Two trenches (A/2016 and B/2016) were placed outside the enclosure. Trench A (4 m by 2 m) was set in the corner where the outer face of the fortifications meets the wall of the rectangular courtyard. This was the spot of trench 10/13 where remains of a staircase were discovered in 2013. Trench B (3.50 m by 2 m) was located further from

the fortifications, along the south wall of the rectangular courtyard (this locus was investigated briefly in 2006). It was closed after reaching approximately 1.50 m below the surface. The dig went through large deposits of loose yellow sand mixed with archaeological material and occupation layers. Further excavations would have increased the risk of the profile collapsing. The work, however, unearthed the entire height of the south wall of the rectangular courtyard with a 0.70 m wide passage to another space or room [*Fig. 3*]. Trenches A/2016 and 12/2016 struck culturally sterile sand 2.50 m below the surface level [*Fig. 3* top], at a level 6.11 m and 6.08 m below the Upper Church threshold benchmark.

The first occupation layer above culturally sterile sand reflected a time before the construction of the fortifications. The curtain wall foundation level was different inside and outside, pointing to at least two construction phases. The 2-m-high inner face was made of large mud bricks (42–45 x 23–25 x 8–10 cm) and belonged to the first phase of the curtain [*Fig. 4* right]. This wall was about 2.50 m thick as indicated by an approximately 5 cm wide crack going all along the top of the wall and parallel to the faces [see *Fig. 3:25*]. This first phase was founded 5.11 m below the Upper Church threshold benchmark. The second-phase wall foundation registered on a level 27 cm higher than the one from the first phase. The outer face [*Fig. 5* bottom] was made of smaller mud bricks (37–32 x 20–16 x 8–7 cm) and the wall was thicker by 1.10 m, recording a slight inclination (3°) of the outer face. This observation suits the general idea of the Banganarti fortifications having two main construction phases (Drzewiecki 2014: 904–906).



- 1 – eroded bricks
- 2 – mud bricks 32–25 x 20–16 x 7 cm
- 3 – modern trench filled with yellow sand and organic material
- 4 – burning layer
- 5 – mud-brick rubble
- 6 – loose grey sand with lumps of mud
- 7 – ash
- 8 – hearth (ash and burned mud)
- 9 – mud-brick(?) and red-brick rubble
- 10 – dark grey sand
- 11 – dark brown sand
- 12 – mud-brick(?) rubble
- 13 – compact brown sand
- 14 – grey sand with small amounts of charcoal
- 15 – ash, grey sand, mud-brick and red-brick fragments
- 16 – yellow sand (culturally sterile sand)
- 17 – compacted mud (walking level?)
- 18 – large potsherd (basin?)
- 19 – ash and burning
- 20 – loose grey sand
- 21 – mud plaster(?)
- 22 – curtain wall phase 1 (mud bricks 42–45 x 23–25 x 8–10 cm)
- 23 – handmade pottery vessel
- 24 – mud mortar
- 25 – crack in the wall
- 26 – niche with traces of fire
- 27 – pivot socket (diameter 4 cm, depth 1.5 cm)

- 28 – threshold
- 29 – curtain wall phase 2 (mud bricks 37–32 x 20–16 x 8–7 cm)
- 30 – red-brick stairs
- 31 – dark to light grey blur sand (water deposits?)
- 32 – dark brown compacted sand
- 33 – yellow sand
- 34 – dark yellow blur sand
- 35 – blur sand from dark grey to light grey (water deposits?)
- 36 – grey sand, lumps of mud and mud-brick fragments
- 37 – dark grey blur sand
- 38 – red bricks projecting 3–9 cm from outer wall face made of mud brick, severely eroded
- 39 – red bricks (? x 18–14 x 9–7 cm)
- 40 – change in brick bonding
- 41 – grey sand and lumps of mud
- 42 – grey sand, ash and charcoal
- 43 – grey and yellow sand
- 44 – corner of rectangular courtyard, walls not bonded
- 45 – brown sand and lumps of mud
- 46 – high quality mud bricks with lesser temper (33–32 x 19–17 x 7–6 cm)
- 47 – potsherds in the crack between walls
- 48 – brown sand with organic material alternating with grey sand, all with large quantities of potsherds
- 49 – grey sand, brown sand, organic material
- ▲ – potsherd
- + – bone fragment

Secondary use of the ruins of the enclosure wall were noted, taking on the form of a passage going through the remains of the wall between trenches 12/2016 and A/2016. A shallow pivot socket was documented in one of the mud bricks on the top of the wall, 0.60 m from the outer face of the curtain [see *Fig. 3:27*]. Remains of a perpendicular wall, with the lowest row of mud bricks arranged vertically (32–25 x 20–16 x 7 cm), partly overlapped the inner face of the curtain. The red-brick staircase, built next to the outer face, was most probably made to facilitate access to the passage connecting the building/s erected on the remains of the fortifications and the settlement outside, including the rectangular courtyard built when the corner tower was already severely damaged. The courtyard, as indicated by thick deposits of organic materials [see *Fig. 3:48*], was used as an animal pen. A latrine was discovered in the courtyard during earlier work in 2006 (Drzewiecki 2008: 406–407).

Layers recorded in the two trenches on the outside and inside of the curtain wall yielded a variety of small finds, which were collected by layer context. Ceramic sherds were counted and divided into rim, neck, body, and base sherds. Diagnostic, decorated and inscribed sherds were inventoried. All the osteological material, stone, glass and other artifacts were collected and inventoried. (The finds are now in storage at Selib, about 7 km east of Banganarti.)

The overall impression is of there being no comparable layers in terms of composition, level and thickness on both sides of the wall. The curtain wall clearly divided and organized activities in the area. Interestingly, the division continues to be observed in layers underlying the foundations of the oldest fortifications. Thick deposits of dark brown compacted sand with large quantities of pottery sherds [see *Fig. 3:32*] were recorded in trench A/2016 under dark to light grey blur sand with a few potsherds [*Fig. 5 top*; see *Fig. 3:31*]; these are interpreted, the former as remains of a fire and the latter as the result of heavy rains or presence of standing water. In trench 12/2016, a compacted walking level about 5 cm thick [see *Fig. 3:17*] and a massive layer of compressed mud, possibly dissolved mud brick or mud-brick rubble [see *Fig. 3:12*] were documented on the same level. Trench A/2016 appears to have cut across an open area where fire and water had left direct marks, whereas trench 12/2016 hit a closed space of a building which had collapsed and the ruins had dissolved due to water action.

A similar layer of compressed mud, the brick outlines visible in the trench section, was recorded in the same trench (12/2016), above and next to the first phase of the fortifications [see *Fig. 3:9; 4 left*]. The layer was hard and unified, indicating that mud brick and mortar had dissolved into a homogenous mass up to

Opposite page

Fig. 3. The southern side of trenches 12/2016, A/2016 and B/2016: top, orthophoto with superimposed limits of excavation layers numbers and location of exploration layers, including the main levels; bottom, view of combined trenches; bottom right, section view of east side of trench A/2016 (Banganarti Mission/orthophoto R. Łopaciuk, M. Drzewiecki; drawing M. Drzewiecki)

a meter thick. This layer was bulkier than the previous one, indicating that it came from the dissolution of a much larger building. Should it be assumed that it represents mud-brick fortifications heavily damaged by rain or a flood, then we could have here a record of the cause that necessitated the construction of the second phase of the fortifications.

ASSESSMENT AND CONCLUSIONS

Let us consider the results of earlier excavations of the fortifications in Banganarti. The nearest trench (Trench II/1 in *Fig. 1*, see Drzewiecki 2011: 276–278) revealed the same two layers of burning and ashes below the outer face of the wall as in trench A/2016. The upper of

the layers was on a corresponding level and had a similar thickness. In trench A/2016, it started 5 m below the benchmark on the threshold of the Upper Church and was up to 0.22 m thick, in trench II/1(2008) it was respectively a level of 4.94 m and a thickness of 0.18 m. Both were located directly below the foundation of the second phase of the curtain wall.

The lower layer of burning and ashes in trench II/1 started 5.50 m below the benchmark and was up to 0.25 m thick. The corresponding layer in trench A/2016 started 5.80 m below the benchmark, but was also correspondingly thicker (up to 0.60 m), so the upper boundaries of matching layers were on a similar level.



Fig. 4. Trench 12/2016: left, view from the northeast; right, inner face of the curtain wall (phase 1) (Banganarti Mission/photos M. Drzewiecki)



Fig. 5. Trench A/2016: top, view from northeast; bottom, view from the north (Banganarti Mission/photos M. Drzewiecki)

This observation indicates that there were at least two large fires that razed the entire corner of the fortifications. A layer indicating fire was recorded just below the second phase of the fortifications in two out of three trenches along the northern line of the defenses. In a third trench, remains of mud-brick debris were recorded on this level. Fire-related layers were recorded also along the east wall, but not directly below the second curtain. As regards the west and south walls, their stratigraphy is different with the foundation of the curtains being on various levels and with no direct correspondence between the layers; for example, the trenches in the northeastern corner reached 6.11 m below the Upper Church threshold benchmark, while the foundation level of the southern gate is approximately 1 m below it.

As for water traces, a layer of compacted mud about 0.10 m thick was observed in trench II/1 (Drzewiecki 2011: 278). It was interpreted as a walking level during the construction of the second phase of the fortifications and directly afterwards. However, in light of the new observations, this layer might be interpreted as dissolved remains of a mud/mud-brick structure. A heavily damaged structure was also recorded below the second phase of fortifications in trench 3/E/2010 (Drzewiecki 2013: Fig. 3). Traces of water dissolution were also recorded in the southwestern corner of the fortifications. The outer face of the curtain wall was difficult to follow there due to the presence of a layer of compacted mud (Drzewiecki 2010: 348–350). However, the stratigraphy in those places was much

different and all direct associations will be difficult to sustain.

Concluding, it seems that the corner was at least twice on fire. The second fire might have reached as far as the north gate. In other parts of the fortifications, no directly corresponding layers of burning were recorded. Pottery samples, as well as charcoal samples for radiocarbon dating, were collected from both layers in trench A/2016 [see Fig. 3]. Water presence is an interesting issue, which still needs to be confirmed by in-depth studies; it seems, however, that a corresponding layer might have been recorded in trench II/1 in 2008.

ADDENDUM

Samples and materials collected during the excavations are to be analyzed in the near future as part of a project entitled “Angels and Locusts. Everyday life in Banganarti, the pilgrimage center on the Middle Nile between the 6th and 16th century”, directed by Bogdan Żurawski and funded by the National Science Centre (UMO–2016/21/B/HS3/03724). The charcoal samples can set the timeframe for the fires and *terminus ante quem* as well as *terminus post quem* for the main phases of fortification construction, while the pottery and faunal remains are hoped to shed some light on everyday activities in the area. With those analyses in hand, comparisons with other sites will be made possible since, as said at the beginning of this article, the Banganarti fortifications are unique and medieval parallels based solely on the architecture of the defenses are nowhere to be found in Nubia.

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