

# BANGANARTI AND SELIB IN 2011/2012 AND 2013

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**Abstract:** In the course of two seasons in 2012 and 2013 the team carried out excavations and research on the living quarters alongside the fortifications of Banganarti, including a large building (E.1) and eastern tower. Work on the restoration/conservation of the Upper Church progressed according to plan, combined with limited iconographic studies. The team also worked at the sites of Selib and Soniyat. At Selib explorations continued at three locations. The phasing of the church at Selib 1 was established (separate report by A. Cedro), leading to a reconstruction of the plan of the earliest two buildings. A Meroitic(?) structure was investigated at Selib 3 and the Meroitic settlement at Selib 2 continued to be investigated (separate report by R. Hajduga and K. Solarska). A tachymetric plan and magnetic map of the environs of the Kushite temple at Soniyat was accomplished, recording a huge building (palace?) of apparently Kushite date (Napatan ceramic forms and Egyptian imports dating from the Third Intermediate Period) to the north of the temple. A separate team undertook a reconnaissance in regions scheduled to be flooded due to new dam construction projects in Kajbar and Shereik (Third and Fifth cataracts), staying on to record in detail a number of Makurian fortresses.

**Keywords:** Banganarti, Selib, Soniyat, church/temple/palace, Meroitic settlement, Kushite, Makurian strongholds, Third/Fifth cataract, restoration and reconstruction

Two seasons of work at Banganarti, in 2011/2012 and in 2013, were dedicated to the continuation of the conservation and restoration of the Upper Church and its murals. This involved both building conservation and specialist plaster transfers, as well as continued iconographic studies of the wall paintings (see below). Concurrently, however, the team progressed with excavation of the domestic architecture hugging the enclosure wall around the pilgrimage church, contributing likewise to a study of the Banganarti fortifications. The latter fell within the frame of a program of research aimed at studying early medieval Nubian mili-

tary architecture in the region of two scheduled dam construction projects, in the Third and Fifth cataracts in particular. A number of early Makurian strongholds was recorded from the air and on the ground. The geophysical team working for a third season with the project mapped the surroundings of the Kushite temple at Soniyat, discovering palatial(?) architecture in the process. The focus outside of Banganarti, however, was on the site of Selib, where two locations with architecture of Meroitic date were explored in addition to continued work on the medieval Church of St Menas at the site of Selib 1.

## BANGANARTI

The large-scale restoration, reconstruction and conservation program in the Upper Church at Banganarti was coupled with refilling with sand of the northern sacristy (prothesis) of the Lower Church that had stood open after the excavations of the earlier seasons. In 2013, archaeological testing supplemented the restoration work on the Upper Church. Much of the focus over the two seasons in Banganarti was on excavating the domestic architecture in the so-called southwestern living quarter (see below), where the earliest fragments of

the girdle wall were still to be explored, and in the eastern part of the enclosure.

The progress of excavation and the pace of environmental degradation at Banganarti and in the surroundings of the enclosure were documented by means of a remote-controlled camera suspended from a kite. Six sessions carried out at weekly intervals produced 2500 aerial photographs focused on the parts of the kom which were excavated in 2011/2012. Vertical shots prevailed, but oblique and slantwise photographs were also taken

## Team

*Dates of work:* 10 December 2011–24 February 2012; 27 December 2012–10 March 2013

*Subproject:* Archaeological rescue mission on the Third and Fifth Nile cataract and the Upper Atbara, 1–15 January 2013 with recurrent documentation visits to individual sites through the middle of February 2013; Shofein and Marakul, Bahit and Deiga: 10 January–3 February 2013

*Director:* Bogdan Żurawski, archaeologist (Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences; 2012, 2013)

*NCAM representative:* Fathiya Abd er-Rahman (2012, 2013)

*Archaeological trench supervisors:* Selib 1 – Aneta Cedro (PhD candidate, Nicolaus Copernicus University, Toruń; 2012, 2013), Selib 2 – Roksana Hajduga (PhD candidate, Institute of Archaeology and Ethnology, Polish Academy of Sciences; 2012); team – Roksana Burek (PhD candidate, Institute of Archaeology, University of Warsaw; 2012, 2013), Agata Deptuła (PhD candidate, Institute of Archaeology, Nicolaus Copernicus University, Toruń; 2013), Agata Momot (PhD candidate, Institute of Archaeology, Nicolaus Copernicus University, Toruń; 2013), Ewa Skowrońska (student, Institute of Archaeology, University of Szczecin; 2012), Katarzyna Solarska (PhD candidate, Institute of Archaeology, University of Rzeszów; 2012), Paulina Terendy (independent; 2013), Łukasz Zieliński (independent; 2013)

*Rescue archaeology team:* Dr. Marcin Wiewióra, archaeologist (Institute of Archaeology, Nicolaus Copernicus University in Toruń), Aneta Cedro, Bogusz Wasik (both PhD candidates, Institute of Archaeology, Nicolaus Copernicus University, Toruń; 2013), and Roman Łopaciuk (GeoMatic)

*Archaeologist-iconologist:* Dr. Magdalena Łaptaś (Cardinal Stefan Wyszyński University, Warsaw; 2012, 2013)

*Conservator:* Tadeusz Badowski (freelance; 2012, 2013)

*Topographers/surveyors:* Roman Łopaciuk (Geomatic; 2013), Bartosz Wojciechowski (PhD candidate, University of Warsaw; 2012)

*Geophysical team:* Robert Ryndziejewicz, Dawid Święch (both freelance; 2013)

*Volunteers:* Wojciech Kotlarek, Wawrzyniec Kolbusz, Marta Kolbusz (all Poland, 2012), Sebastien Maillot and Magdalena Woźniak (both PhD candidates, Université Paris Sorbonne; 2012)

(especially where the horizon line was important). The aerial (kite) photographs showed the excavated structures in their natural context, revealing many features that otherwise go unrecorded [Fig. 1].

A tachymetric survey of brushed and trowel-enhanced wall tops was juxtaposed with aerial kite photographs to produce an improved site plan [Fig. 2]. This procedure was limited in 2011/2012 to the southern and southwestern section of the enclosure and applicable only to the parts of walls where the overlay was thin (less than 0.50 m). By the end of the season, part of the living quarter extending from the

Upper Church to the eastern stretch of the girdle wall had been exposed.

#### SOUTHWESTERN LIVING QUARTER (SECTOR SW)

Trench SW/2011 was extended toward the southwestern corner of the enclosure, its eastern limit being set on the western face of a row of houses (partly uncovered during earlier seasons) which formed a kind of street connecting the Western Building with the southern rampart [Fig. 4]. Initially, it was this street that was to be investigated, but the idea was abandoned when it turned out that later



Fig. 1. Enclosure at Banganarti as seen on an oblique kite photograph taken in March 2013  
(Photo B. Żurawski)

architecture built over the northern part of the street made exploration of the original street level practically impossible.

However, masses of early Christian ceramics in a zone of drifted sand situated to the west were evidence of the earliest (7th century?) habitation of the site. There was a sophisticated drainage system in place, disposing of rainwater beyond the limits of mud-brick architectural features,

as well as a communal latrine by the south wall of the earliest fortifications and in it, a ceramic urinal set partly in the enclosure wall that was reduced in thickness in that section [Fig. 3].

The trench was extended further to the north in order to explore the habitation area along the street running N–S from the girdle wall towards the Western Building. The exploration was carried out down to

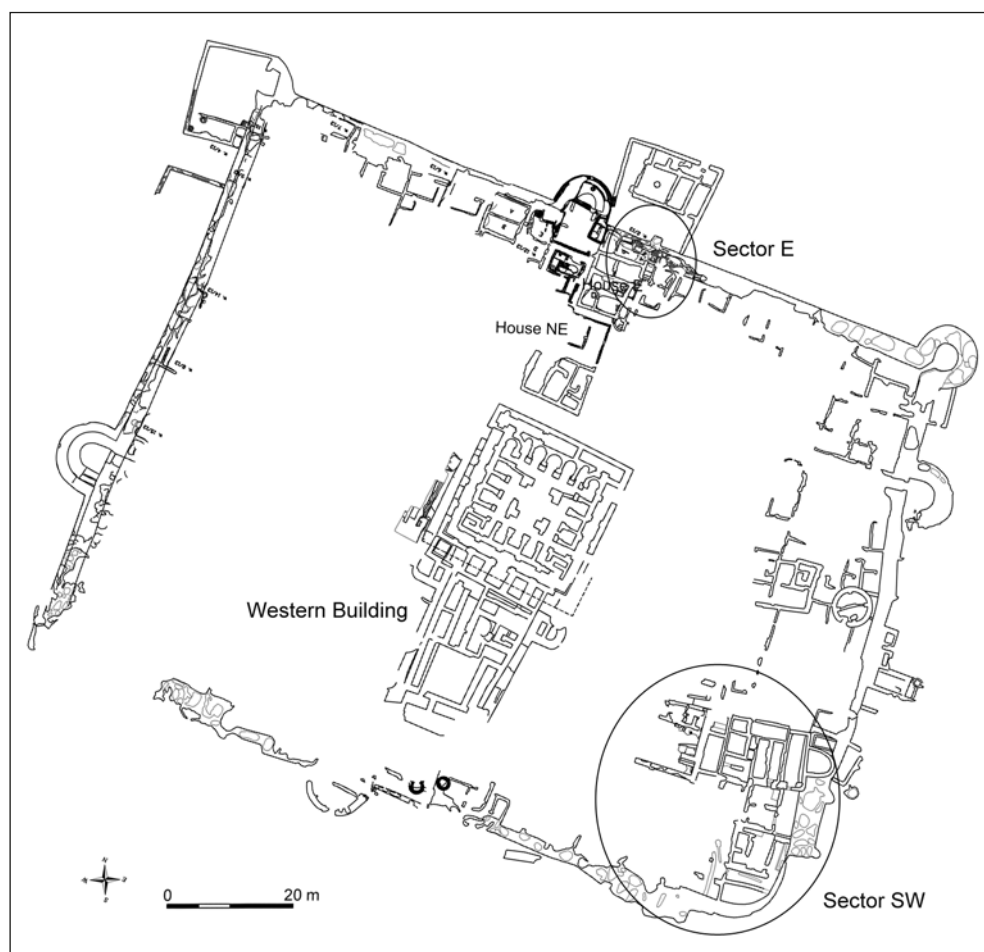


Fig. 2. Baganarti enclosure after the 2013 season  
(Drawing R. Łopaciuk et al.)

the level of a mud floor (about 3 m below the local reference point, on the upper surface of the stone threshold of the



Fig.3. Ceramic urinal (BNG 57/11-12)  
(Photo A. Deptula)

southern entrance to the Upper Church). A large space, measuring 11 m by 4 m, limited on the west by a mud-brick wall and from the east by the above-mentioned street, was unearthened. At least three levels of habitation were distinguished within the trench.

#### EASTERN LIVING QUARTER (SECTORE)

The accidental exposure of a well-preserved kitchen space in the area east of the Upper Church led to the opening of a new trench and the discovery of an extensive

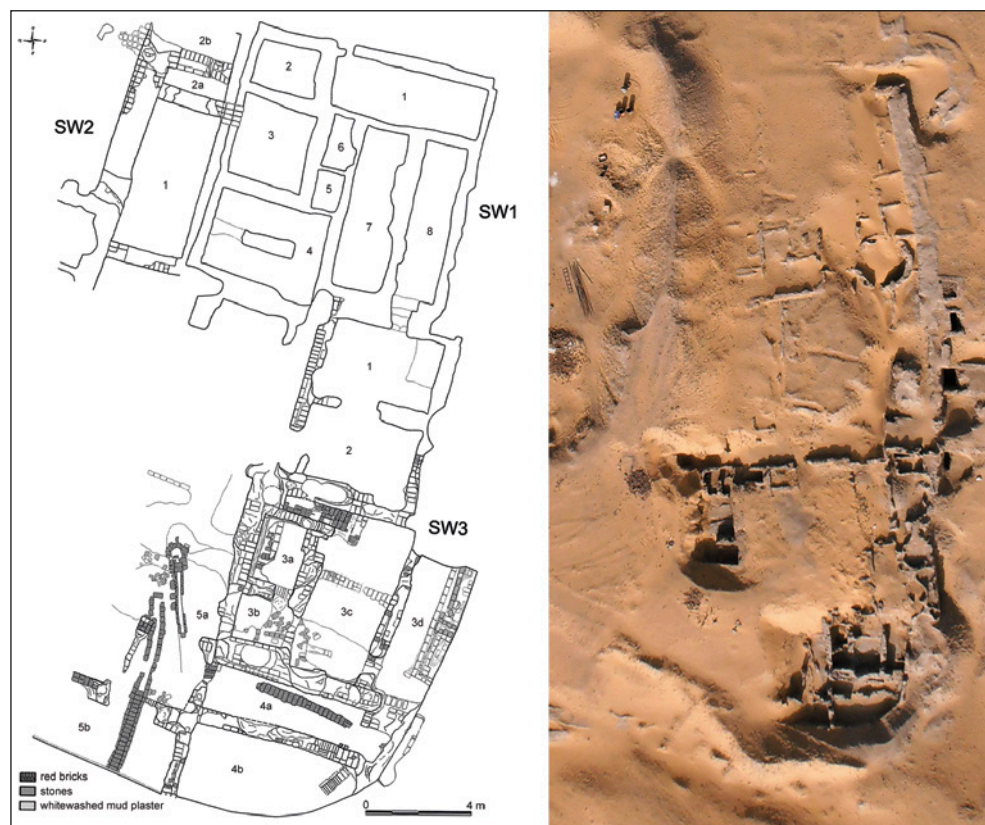


Fig. 4. Southwestern living quarter after the 2011/2012 season; right, vertical aerophotograph of the southwestern sector in February 2012 (Drawing B. Wojciechowski; photo B. Żurawski)

building (E-1), which was partly explored together with the so-called eastern tower (located further to the east of it) [Fig. 5]. Excavations in 2011/2012 focused on the space between the eastern tower excavated in 2009–2010 and the building E–A explored in 2008 and 2009 (Żurawski

2011: 256; Żurawski et al. 2013: 300–301). The unit was contemporary with the later phase of building E-1 and the latest phase of the eastern tower (which was remodeled completely at that time). Surface cleaning sufficed to clear a well preserved kitchen space with partly preserved vaulting;

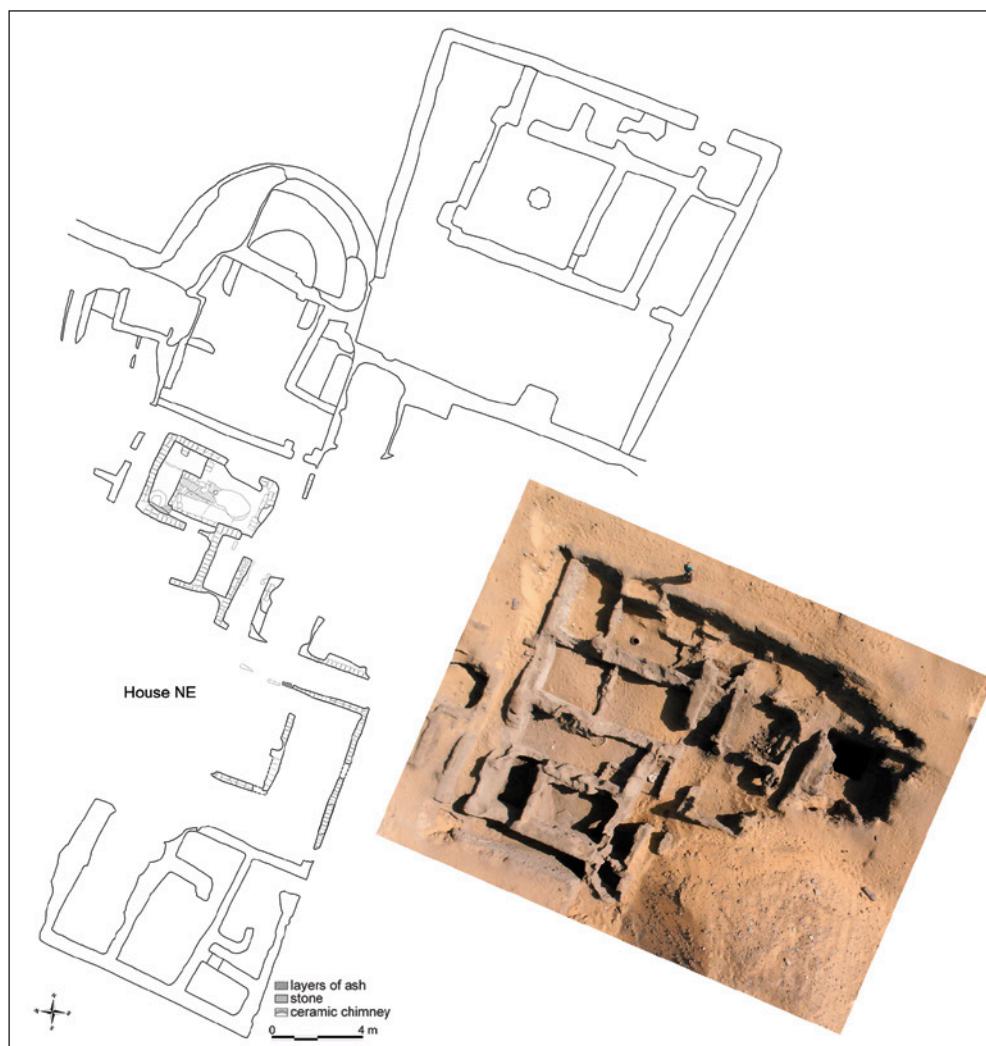


Fig. 5. Plan of the eastern living quarter with a scaled low altitude kite photograph of House E/2013 replacing plan of the feature (Drawing B. Wojciechowski; photo B. Żurawski)

a chimney (ceramic ventilation pipe set vertically in the vault) was explored down to the foundation (and beneath).

The kitchen was entered from outside through a sort of vestibule, from which ascended a flight of stairs supported on a skew vault to the first floor. A huge pentagram was scratched on the wall surface blackened with smoke next to the hearth. The interior was rendered with a heavy coat of mud. The space was blind with no windows, the only source of light being the staircase and the chimney pipe. The kitchen, as well as other units in this sector, were made with mud of darker color and higher organic content. It was more vulnerable to weather conditions than the grayish mud used in earlier structures.

The excavated part of House E/2013, located in the middle section of the wall, comprised a rectangular domestic building (outside dimensions: 9.50 m by 8.50 m), in the corner of two streets on the west and south side. Founded 3.10 m below the local reference point (south threshold of the Upper Church), the house was built of mud brick and a few red bricks, and rendered partly with mud plaster. Traces of mud-brick barrel vaulting were found in all the inner spaces. The construction date was placed in the 10th–11th centuries based on ceramic evidence. The facade was made of mud brick laid in alternating courses of headers and stretchers, two small slot windows being pierced fairly high in the southern part of the wall. A cryptogram of the Archangel Michael (XIIΘ), *nomina sacra* and other unintelligible words were scratched (before firing?) on the red-brick window heads.

Living rooms were located plausibly on the first floor, whereas the ground floor was used for storage and domestic purpose.

## FORTIFICATIONS

Seven trial pits along the inner faces of the north and east curtain traced the original, 7th-century course of the defense wall and the rebuilding of the curtain in the 11th–12th centuries, verifying earlier research in this area (initiated in 2001). In most cases culturally sterile sand was reached beneath the foundations. By the 10th century, safety in the Tungul/Dongola region was such that no fortifications were needed. Consequently they were either dismantled or reshaped to accommodate habitations or workshops(?). The perimeter wall was engulfed by buildings of domestic and communal purpose. The defensive walls were either dismantled or reshaped to accommodate habitations, workshops and shelters for pilgrims flowing en masse into Banganarti after the Upper Church had been raised. Plausibly, the huge elongated rooms built along the outside face of the north wall were built especially for pilgrim accommodation.

These rooms resembled the walled spaces along the west wall of the smaller peribolos in Selib, discovered during the 2011/2012 season (see Cedro 2015, in this volume).

## ICONOGRAPHIC STUDIES

Underlying layers of painted plaster were uncovered in a series of opencast tests in Room 13 (the *Anargyroi* Chapel) of the Upper Church. It was the first layer on the north wall, covered by a second coating preserving numerous graffiti of pilgrims from the 13th and 14th centuries. The composition was identified by Magdalena Łaptaś as an *anargyros* saint with a lancet in his right hand and a purse for other surgical instruments in the left. The holy healer was rendered on a red background,

similarly as Cosmas and Damianos on the west wall in the same room. On his right, another and much taller figure could be discerned. Łaptaś rightly pointed out the

resemblance of this motif to the painted composition from the Northwest Annex of the Monastery on Kom H in Old Dongola.

## CONSERVATION AND RESTORATION AT BANGANARTI

The present résumé of the restoration, reconstruction and conservation program carried out on a large scale in the Upper Church was prepared based on a report submitted by restorer Tadeusz Badowski.

The most important work was done outside the building. The western part of the outer wall on the south was rebuilt to a height of 4 m, plastered and whitewashed using lime mixed with emulsion paint. The new superstructure of walls inside the church was also plastered and whitewashed. In keeping with the practice of previous seasons, two more extension piers added to the dividers between the eastern chapels were dismantled and the inscribed sections of plaster were transferred to the western part of the church (see below). The northern part of the *khurus* divider in the eastern part of the building was also dismantled.

The endangered murals were treated with insecticides to stop termite (*arda*) action and to consolidate the background of the murals. The termite problem was dealt with either by spraying the surface or injecting into termite holes a water dispersion of borax (10% dilution), applied over a 4% or 10% water dispersion of ethanol (with some PRIMAL E-330 added, if necessary) to relieve surface tension. In the first method, the walls were cleaned first with a soft brush, the mycelium cut off with a lancet and surface tension

relieved. In the latter case, the application continued until the wall was saturated and then the holes were sealed with a putty composed of light marl clay, sand and lime in 1:3:1 ratio. The borax method turned out to be ineffective and was replaced with XIREIN (by Kremmer) which was shown not to leave stains and to penetrate deep into the wall. Peeled-off paint was glued on with a water dispersion of PRIMAL E-330 with a 4% addition of polyvinyl acetate, after the surface tension had been relieved using the method described above. Finally, the painting layer was strengthened with PARALOID B-72, which was applied to the wall with a brush. By the close of the season, all central piers and all unpainted walls had been sprayed with CHLORPYRIPHOS (brand name CHLOMIGHT SUPER 48%, by AngloGulf, Ltd.), an insecticide used locally for controlling termites. As far as the effects could be observed, this insecticide leaves neither stains nor discolorations on the plaster surface.

### PLASTER TRANSFERS

The process of plaster transfers from the dismantled walls to new places on the wall in the western section of the church progressed over the two seasons, seven patches in 2011/2012 and another two in the following season.

The same procedure was followed in all cases. The reverse of plaster fragments was



impregnated (twice) with a water solution of PRIMAL E-330 or a 2.5% dilution of PARALOID B-72 in toluene. As a rule, the plaster surfaces without inscriptions were drilled to allow deeper penetration of the glue. Next, the inscribed plaster was sprayed with a 10% solution of alcohol in water and then with a 4% water dispersion of PRIMAL. This process was repeated twice. Plaster was then injected with an 8% water dispersion of PRIMAL E-330. After drying, it was soaked (twice) with a 3.5% solution of PARALOID B-72 in toluene. The fragments to be cut off were fixed with two layers of Japanese tissue glued with 10% polyvinyl alcohol. A sheet of polyester textile was attached to the Japanese tissue by means of hot gluten glue. The broad margins of the textile were nailed to wooden frames (strengthened with plywood board). The bricks, one by one, were chiseled or cut off by hack-saw. The detached plaster fragments were placed flat (face down) on wooden tables in the Upper Church. The back side of the transfers was scraped and rubbed to achieve a flat surface about 10 mm in thickness. Next, the transfers were consolidated with a water dispersion of PRIMAL E-330 (a 4% solution). The plaster surfaces were insulated and strengthened with a 3.5% solution of PARALOID in toluene. After this, a leveling layer composed of marl clay, lime and sand (1:1:3) with an addition of 2.5% water dispersion of PRIMAL E-330 (or AC-33) was applied to the back side of the transfer. The overall thickness of the leveling layer was 3–5 mm. The back side of the transfers was treated

with a 3.5% dilution of PARALOID B-72 in alcohol. An iron mesh covered with another layer of plaster (made of marl clay, lime and sand; 1:3:1) was attached to the back side of the transfer. The wall to which the transfer was to be attached was cross-hatched and strengthened with a 4% or 4.5% solution of PARALOID B-72 in toluene (or B-82 in alcohol). Finally, the transfer was glued onto the wall by means of lime mortar, pressed with a plywood board braced with palm ribs against the opposite wall. After it dried (over two or three days, depending on the temperature), the frames and supports were dismantled. After another 24 hours, the facing was removed. Before removal, the facing was moistened with a 10% dilution of water in alcohol. The final step involved plastering the 3-cm-wide margin of iron mesh and textile to the wall with a paste made of marl clay, lime and sand (1:1:3). Inscribed surfaces were wiped of glue with tampons soaked in ethanol mixed with water.

Recipes and compositions used included: 1) water dispersions of PRIMAL E-330 (8% and 3%); 2) putty fillers (light-colored marl clay, lime and sand, usually 1:1:2 and 1:1:3, depending on the situation); 3) XIREIN, injected into holes left by termites and into bigger apertures; 4) PARALOID B-72 diluted in 2.5% toluene; and finally 5) CHLOMIGHT SUPER 48% (water dilution 1:10).

Some fragmented ceramic objects were reassembled with polyvinyl acetate. Fragile and brittle pieces were soaked (by brush) with a water dispersion of PRIMAL E-330 (4% to 8%).

## KUSHITE TEMPLE AT SONIYAT

The environs of the Kushite temple at Soniyat, discovered during the Dongola Reach Survey in 1998 (Żurawski 2003: 89, 243–250), were mapped and a magnetic survey was implemented. The prospection revealed the outlines of a large building

(at least 82 m east–west) located north of the temple. The internal arrangement is suggestive of a Kushite palace(?). Two huge sandstone blocks found within the walls shared the orientation, but belonged probably to a different phase than the

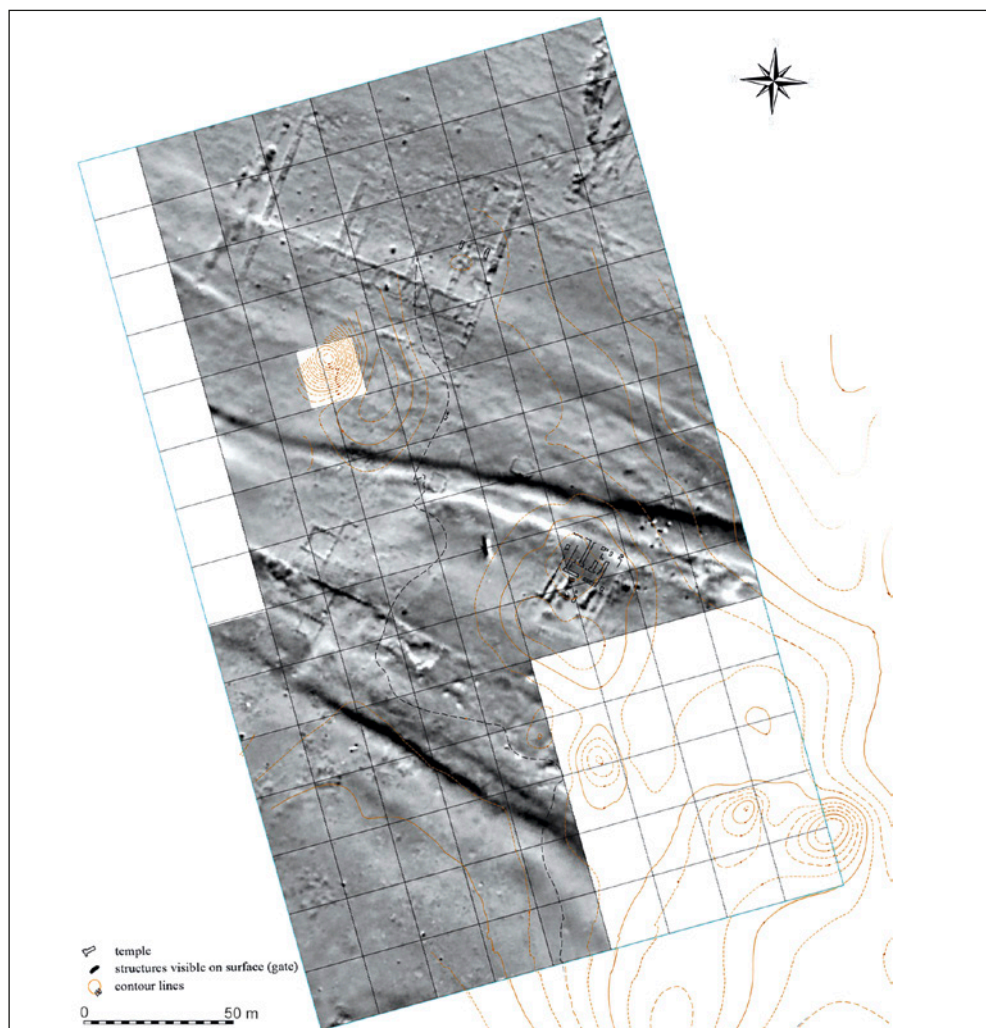


Fig. 6. Magnetic map combined with contour plan of the Soniyat temple and its surroundings (Processing T. Herbich, R. Łopaciuk)

mud-brick walls of the putative palace. It is worth noting that Napatan forms and Egyptian imports dating from the Third Intermediate Period were recognized among the potsherds (Orzechowska 2003: Pl. 1 a–g). The size of the building would

suggest a royal residence, assuming it is indeed a Kushite structure. Perhaps Soniyat should be identified with one of the Kushite administrative centers mentioned in reports of Psamtik II's expedition to Nubia (Żurawski 1998: 80) [Fig. 6].

## SELIB

The importance of Selib lies in the uninterrupted chronological sequence of the remains, from the 1st century through the 13th century and later, covering the decline and fall of the Meroitic state and the emergence of the Kingdom of Dongola. Investigations were carried out at all three sites identified at Selib in previous seasons: the churches and *saqiya*

complex and associated hydraulic installations at Selib 1; the Meroitic settlement at Selib 2 and the Meroitic(?) structure at Selib 3. A third season of geophysical prospection by Robert Ryndziejewicz and Dawid Świąch (supervised by Tomasz Herbich) extended the overall perception of the Selib site, especially its earlier (Kushite) components.



Fig. 7. Selib sites 1, 2 and 3 seen in 2011/2012 on oblique kite photographs; the church at Selib 1 in the foreground (Photo B. Żurawski)

## SELIB 1 (CHURCH)

The progress of work on the five superimposed churches at the site was regularly documented with kite photography [Fig. 7]. Investigations in the 2011/2012 season led to the reconstruction of the plans of the two earliest, superimposed churches at the site (for an extensive report on this work, see Cedro 2015, in this volume).

The earliest building appeared to be a fairly typical basilical church with tripartite western part, without a passage behind the apse [Fig. 8; see also below, Cedro 2015: Fig. 1 on page 389]. Its western part was remodelled when the building was shortened. Its association, if any, with the foundation courses unearthed west of it is difficult to assess due to the poor state of preservation. It is also difficult to recon-

struct the roofing system over the interior. Although the first church seems to have been covered by timber roofing supported on columns, its successor was most probably covered by similar roofing supported on, of all things, wooden beams. The first church was paved with square ceramic tiles (36 cm by 36 cm; 7 cm thick) and well-fitted bricks (36 cm by 18 cm; 7 cm thick) that were partly covered by lime mortar. Surrounding the Selib churches was a peribolos, a subrectangular inner (smaller) enclosure made of brick (both mud and red).

On the strength of an analogy with the sequence observed in the so-called Mosaic Church at el-Ghaddar, it might be assumed that the first church at Selib was considerably enlarged by the addition of a sort of exonarthex that most

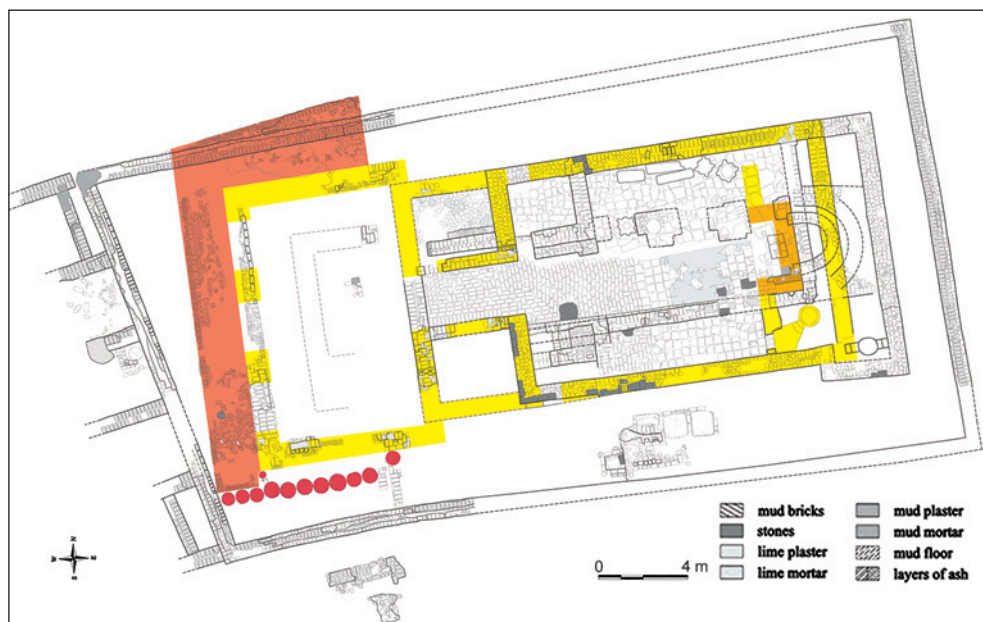


Fig. 8. Plan of the earliest phase of the church  
(Drawing B. Wojciechowski et al.)

probably was provided with a gallery. It was necessary to accommodate the rapidly growing number of Christians in the region. Arguing for a higher western part of the church is a broad mud-brick mastaba abutment that was added to strengthen and protect its foundation. The south wall of this mastaba was lined with a row of eleven Meroitic column drums and a broken granite column shaft. Some of these drums are still covered with lime render; on two (without plaster) relief decoration represented scenes of royals offering to the gods [Fig. 9].

Outside the church there was a set of standardized, rectangular rooms filling the space between the western side of the inner peribolos and the outside enclosure wall; this was the outer peribolos. They do not resemble any of the Nubian houses hitherto excavated in Selib. Firstly, they lack kitchen and storage spaces, not to mention latrines. They could be



Fig. 9. Meroitic column drum probably dragged in from a temple dismantled somewhere nearby(?) (Photo A. Cedro)

interpreted, with some hesitation, as *xenodocheia* for pilgrims coming to visit the St Menas church.

## SELIB 2

A Meroitic settlement was discovered by chance while building a power line and a local road between Selib village and the Karima–Nawa tarmac.

A shifting sand dune revealed on flat ground the outlines of a rectangular mud-brick structure some 500 m<sup>2</sup> in size and a couple of smaller units around it. These were found to extend along the Nile palaeo-channel (Hajduga and Solarska 2015, in this volume). In 2013 exploration was confined to a house to the north of a cluster excavated in 2010 and 2011 (trench supervisor R. Burek). It was a regular rectangle with the main entrance to the south, a windbreak wall shielding it from the prevailing northern winds. Its internal division and communication is clear cut. The walls, especially the north one, were abutted in several places. The roof was made of timber and probably palm leaves (a layer of mud mixed with animal dung used in modern practice is highly speculative). The quantities of ceramic vessels found in this house suggest production or trade of some kind. The huge number of loom weights found in a later structure close to the entrance to the house is suggestive of a spinning cotton/linen industry. Essential to the evaluation of house purpose will be laboratory analysis of the content of a huge vessel filled with a substance resembling lime(?).

Apart from storage vessels, almost without exception imbedded in the floor of the house, there was also some fine tableware, like the eggshell cup found in fragments (almost 80% whole).

## SELIB 3

The key to Selib as a settlement may lie buried under a huge kom located half a kilometer from the peribolos of Selib 1 toward the river, on the other side of a palaeochannel of the Nile [see *Fig. 7*]. The mound is referred to locally as *gubbab nasrani* (although no graves have been found there) and worked stone blocks are reported to have come from the kom (Grzymski 1987: 9). The shape of the mound, scatters of potsherds and also some relics of mud-brick walls seen on the surface suggested a squarish enclosure

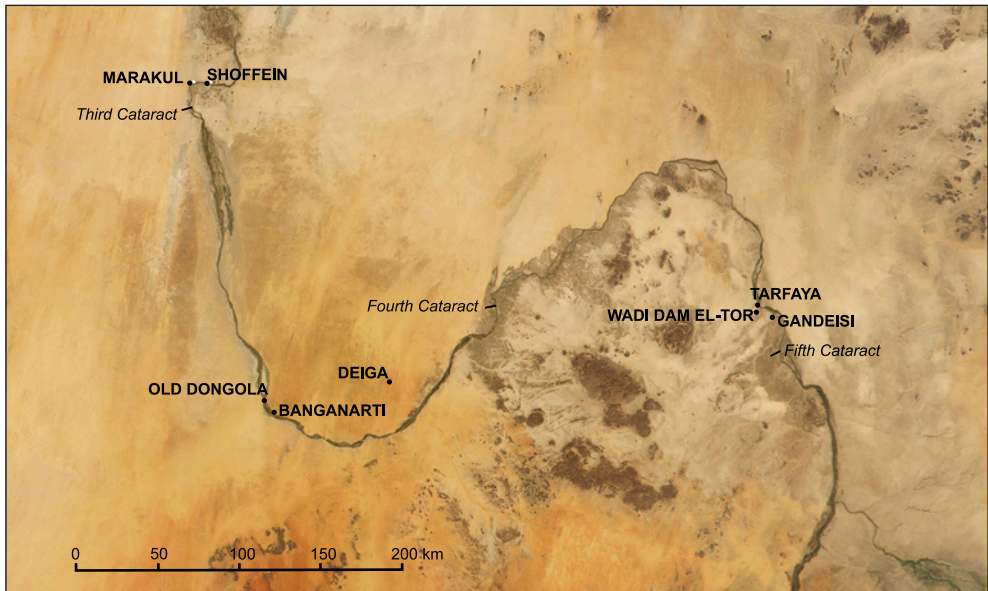
with markedly heightened corners and an elevated central part. It rose on flat ground that was characterized by a scatter of Meroitic potsherds in its western part, but only early Christian pottery found on top of the kom. Among the finds are two fragments of archer's thumb rings and some potsherds dated to Kushite times (Żurawski 2003: 169).

Excavations in 2010 revealed a mud-brick house, but current work was interrupted after it proved impossible for the time being to remove the sand dune covering the remains.

## RECONNAISSANCE OF STRONGHOLDS IN 2013

A reconnaissance in regions scheduled to be flooded by the new Kajbar and Shereik dam construction projects was carried out in 2013. The team started from the Third

cataract region (fortresses of Shofein and Marakul), moved by the Maheila desert shortcut to the region of Karima (Bakhit and Deiga [*Fig. 14*]) and then across the



*Fig. 10. Map of the reconnaissance marking locations discussed in the text (Processing B. Żurawski)*

Bayuda to the Fifth cataract (fortresses of Tarfaya and Wadi Dam el-Tor) [Figs 10, 11]. Aerial photographs were taken of the above fortresses, either in the early morning

or in the afternoon when the light is the most favorable for this kind of documentation. Sites were sampled wherever ceramic scatters were observed for later study.



Fig. 11. Aerial views of fortresses in the area of the 2013 reconnaissance, January 2013: Shoffein, Marakul, Tarfaya, Wadi Dam el-Tor, Gandeisi Island and riverbank near ferryboat station to Gandeisi (Kite photographs B. Zurawski)

Work in the Fifth cataract region had to be curtailed due to altercations with the local community hostile to the dam project. The team moved upriver to the limits of the Polish concession, to Gandeisi Island and the right bank, where an unknown river-bank fort was identified [Fig. 11 bottom], before another local anti-dam committee speeded a forced departure.

Subsequently the team returned to the strongholds at Shofein and Marakul and at Bakhit and Deiga for more thorough investigation of building techniques and dating, as well as tachymetric measurements of the structures (see Łopaciuk et al. 2014) [Fig. 12]. The stronghold of Shofein may be the best preserved early medieval military fort in the Middle Valley

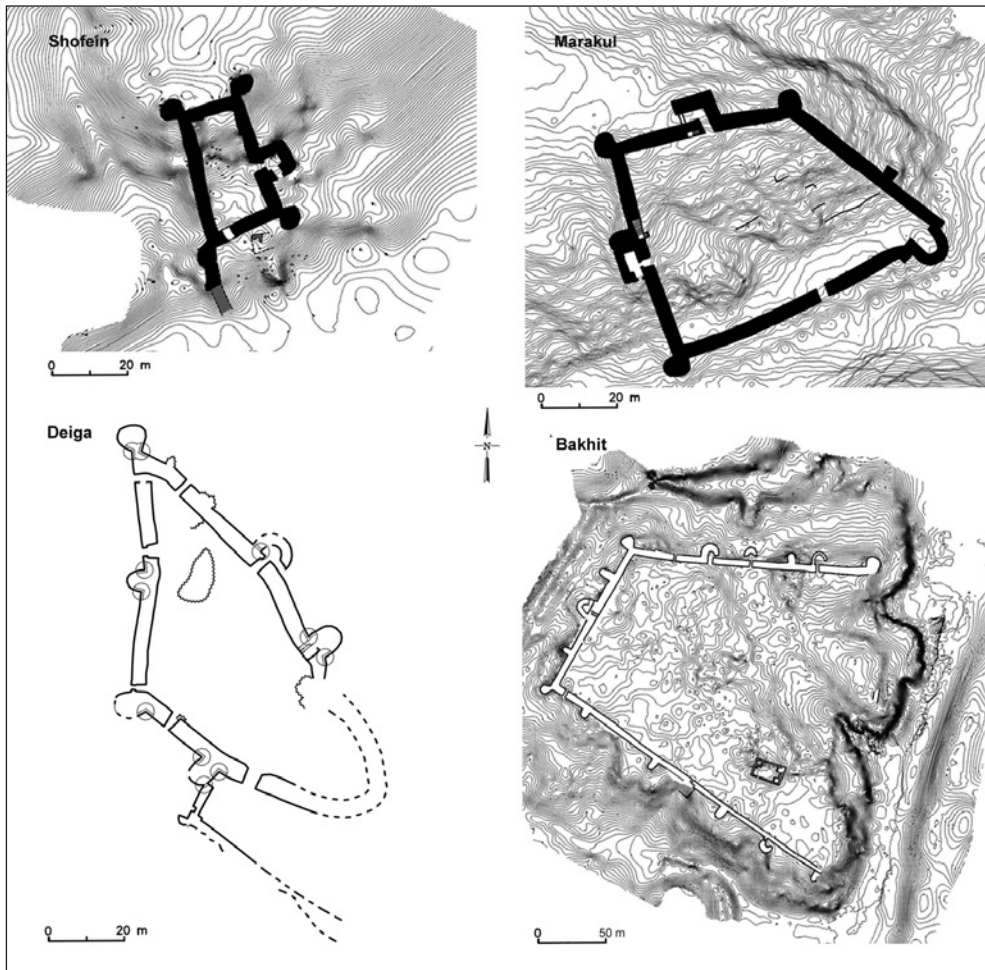


Fig. 12. Plans of strongholds and immediate surroundings investigated in 2013: Shofein, Marakul, Bakhit and Deiga (Tachymetric drawings R. Łopaciuk)



with the defensive parapets still in place along with shooting slots and sockets left most probably after the removal of the stone throwers (trebuchets) that, if at all, would be set in pairs on both sides of the main gate. A combined study of wall structure and ceramics from the mortar (the last by the team's pottery expert, Aneta Cedro) suggested a date for the initial construction not earlier than the mid-6th century. Thus, the construction date for this fortress

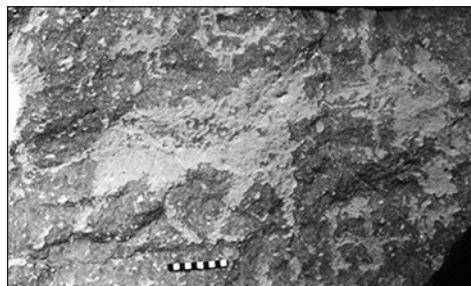


Fig. 13. *Petroglyph picturing a lion*  
(Photo B. Żurawski)



Fig. 14. *Views of strongholds in the Fourth cataract area: top, Bakhit, south curtain wall with bastions and gates; bottom, Deiga, north curtain wall with bastions* (Photos B. Wasik, M. Wiewióra)

may be set in the late 6th/early 7th century AD at the earliest (Shofein could be even half century older than its neighbor at Marakul), in other words, in the formative period of a new political and religious

entity that began its Middle Nile ascendancy under a banner of Christian faith as the Byzantine Empire's *foederatus*.

Rock art representations in the Shofein fortress were copied as well [Fig. 13].

## NOTE ON MEDIEVAL NUBIAN MILITARY ARCHITECTURE

The program initiated under the auspices of the Banganarti expedition, aimed at researching Nubian military architecture of the medieval period, took on momentum in 2013, addressing some crucial issues. Neither material evidence nor written sources, whether local textual or external historic, appear to support the commonly held theory that the Nile strongholds were built to block the main invasion corridor into Nubia. In AD 652 the dozen or so strongholds in the Middle Nile corridor between Aswan and Tungul/Dongola failed to stop the lightning raid of Abdallah ibn Abi Sarkh who promptly advanced to Tungul/Dongola after easily taking Qasr Ibrim. The speed of his advance to the south illustrates the illusory character of these defenses.

The dearth of documentary evidence results in most of the research being based on radiochronology and ceramic evaluation. A new category of data introduced in recent years, that is, relatively well-dated inventions in the field of military technique may impact the studies on Makurian wall defenses. If confirmed, they will have an influence on the *post quem* dating of the Middle Nile military architecture. The invention at issue is the trebuchet. Investigations in 2013 revealed four sockets in the top of the girdle wall at Shofein, situated on either side of the gate. Their setting in

a commanding position, overlooking the river and guarding the gate resembles the trebuchet sockets found in Banganarti fortifications. Similar but smaller sockets were observed also in the Marakul stronghold. Set in the highest section of the west wall, above the gate and the approach to it, they were accessible by a flight of steps accommodated in the thickness of the wall. Should these sockets be associated with trebuchets, a new poliorcetic device that was introduced into Mediterranean warfare in the late 6th century (after the siege of Thessaloniki by the Avars and Slavs), these Middle Nile fortresses will have to be redated.

Regardless of their size, character and political affiliation the medieval Middle Nile defenses were riverbound. The command of the river was essential to a properly functioning system as a whole. None of the known Nubian strongholds was capable of standing a prolonged siege by a force stronger than a band of Bedouins and a good command of the river was a condition *sine qua non*, if a southward-bound enemy was to be stopped. Beside the forts, fortified settlements and defended towns on the river banks, there were also sites with lighter defenses and *skopeloi* (watch-towers). The peribolos at Selib, provided with its own source of water, is a good example of a site with lighter defenses.

The fate of the Fourth cataract strongholds, abandoned within a century of their construction judging by the ceramic evidence, was apparently not shared by the fortresses downriver and upriver. Shofein, Abkur, Dongola, Bakhit, Deiga, Diffar, Marakul and many others were in operation until the late Christian period, although their primary, defensive purpose was only in the first hundred years after their construction. It was during that age that new towers were added and extensions connecting the fort with the river were constructed. The pattern has been confirmed at Banganarti with evidence, after 13 seasons of excavations, indicating the establishment of a fortified settlement and pilgrimage center in the 6th/7th century and the reinforcement of key parts of the fortifications, such as the northern entrance gate, shortly thereafter. The river wall, however, was practically not defended; its both ends were not protected by corner towers. In the 9th through 12th centuries there was apparently no need for the fortifications and the southwestern section of the defense wall practically disappeared in a maze of outer and inner structures of various date and purpose. Efforts *ad hoc* to

strengthen the walls appear to have been short-lived; the process was started at least twice, but never brought to an end.

Last but not least, the dynamics of the emergence of a centralized Christian state in the Middle Nile region in early medieval times reflect a universal pattern attested elsewhere. Forced consolidation of territory usually meets with robust resistance from regional rulers, who revert to fortress construction to preserve the *status quo*. These heavily fortified sites are then taken over by the new political entity, if it succeeds.

Studies of medieval Nubian defenses have recently gained momentum and the program of investigations on strongholds in the Third and Fifth cataracts in 2013 has contributed significant new data. Holistic, contextual research into medieval fortifications on the Middle Nile should address a wide range of issues and invite comparisons between the south (Alwan fortifications) and north. Urgency is suggested before the advance of agriculture, dwelling house construction and general industrialization strip the strongholds of most of their context which is of utmost importance in research on such objects.

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