Banganarti
Studies II (Nubia VIII)

Edited by
Bogdan Żurawski

Institute of Mediterranean
and Oriental Cultures
Polish Academy of Sciences

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Map of the Middle Nile. Created by Bogdan Żurawski

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Front cover photo
Eleventh-century bowl inv. no. BA-20-2935, found in SEECH Sector at Banganarti
Photo by **Aneta Cedro**

Artwork on the back cover
Drawing within the circular inscription shows a pigeon painted on the shoulders of a spouted vessel inv. no. BNG-45-2010, found in the SSWCH Sector of Banganarti
Ink copy by **Aneta Cedro**

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Fig. 1
Aerial view of the Banganarti site, with the supposed *saqiya* marked with an arrow. Photos and rendering by Roman Łopaciuk

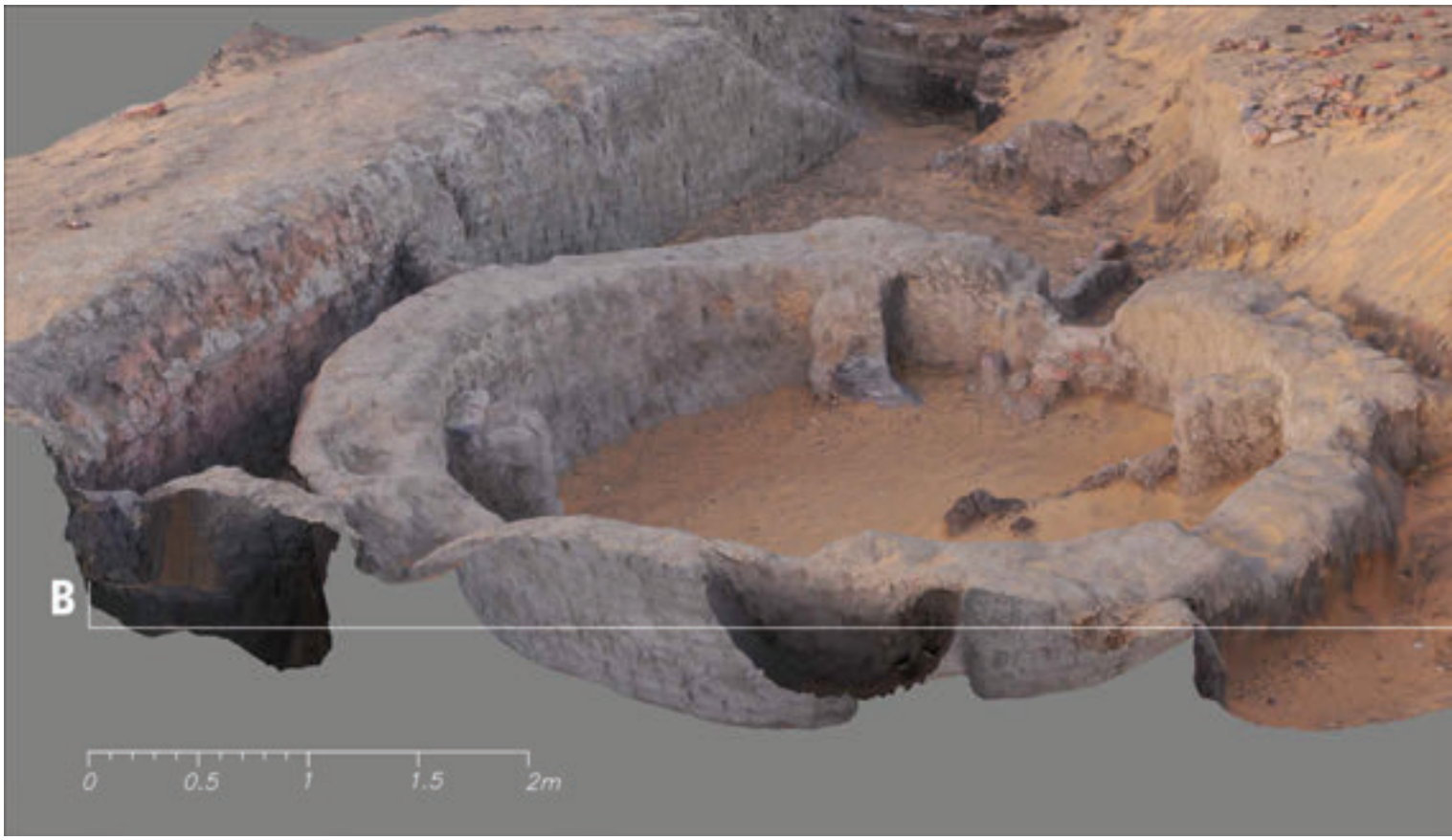
Preface

The second volume of *Banganarti Studies* continues the themes introduced by the first (I do hope that it also retains its qualities). The history of the pilgrimage centre on Locust Island continues to be brought to the fore, but more emphasis is now placed on the hermeneutics of the finds. We do not intend to stop publishing discoveries made in the past, just as we do not plan to discontinue research at Banganarti in the future. Many of the themes announced in this volume will be developed as the fieldwork progresses. This is particularly true of ethnoarchaeological studies. The studying of the living past, i.e. the dying out professions, traditional methods of making pottery, charcoal, bricks, burning lime, building houses and preparing food, etc., which, having their roots in the deep past, are essential for understanding the functioning of the medieval settlement, have been introduced into our research thanks to the project *Archangels and Locusts: Daily Life in Banganarti, a Pilgrimage Centre on the Middle Nile, 6th through 16th Centuries*, sponsored by the National Science Centre of Poland. However, the early contribution of the Qatar Sudan Archaeological Project (QSAP) in realising such a wide range of excavations and achieving such a high level of excellence in multispectral research cannot be overlooked.

In the six months between the publication of the two volumes of *Banganarti Studies*, one excavation campaign took place at Banganarti. This was a study campaign mainly devoted to arranging the exhibits in the Banganarti Museum. The excavation area was cleaned up and some of the old pits were backfilled, especially those around the Raphaelion. Some improvements were also made to the excavation house and visitor centre **(Fig. 3)**. No new excavations were carried out. However, a small discovery was made during the clean-up work, which raises high hopes but still requires further research.

In all fairness, however, it can hardly be called a discovery since the chantier, hitherto called *tholos* and interpreted as a silo, had already been explored in 2007 during the most hectic period of the Meroe Dam Archaeological Salvage Project campaign, when one half of the team was busy salvaging the cultural heritage of the Fourth Cataract area, and the other was trying to continue the research at Banganarti.

The 2007 excavations revealed a circular structure reinforced from the inside by four pillars but did not bring any clarification on the purpose of this structure. At the end of the 2007 season, we had many questions and not a single convincing answer. No wonder that, after 15 years, I decided to return to this problem. Removal in 2022 of the backfill inside and outside the *tholos* revealed previously overlooked features, including a semi-circular gouge 120 cm in diameter carved into the tholos wall **(Fig. 2)**. Its regular shape and undeniable traces of a rotating cogwheel suggest that a *saqiya* may have been at work here.



As the terrain around it sloped towards the west, water was delivered by gravity to the complex of ruined buildings in the southwestern corner of the enceinte. We had already speculated that the preserved elements of this complex, such as the sophisticated drainage system, water collectors and conduits dispatching used water to the outside of the settlement, were part of the baths attached to the *xenodocheion*.

Saqiya must have been somewhere nearby, higher up on the slope, as the large volumes of water drained beyond the perimeter walls through channels under the floor of the south-western complex could only be supplied by the waterwheel. What it was really like, however, we will only find out once the excavations around the *tholos* have been carried out. I hope that we will have the honour and pleasure of presenting the results of this research in the third volume of *Banganarti Studies*.

For now, however, a few words are due to volume two, which we pass on to our readers.

The history of the settlement is discussed in the first chapter, on which I should not comment because I am its author. Reviewers will do so more competently. Nevertheless, it is a more or less successful attempt to summarise the site's history based on internal sources obtained during excavations carried out continuously since 2001. Such a new summary was necessary because recent years, characterised by a considerable extension and diversification of fieldwork and off-season studies, have provided groundbreaking data that have required a revision of previous views on the processes that structured the history of Banganarti.

Fig. 2
North–south section through the eastern part of the putative *saqiya* shows the semi-circular pit where the vertical cogwheel rotated. Photo and drawing by Roman Łopaciuk

The earliest period in Banganarti's history is, of course, the least known. That is why the texts inscribed on the walls of the lower church (Raphaelion I) are so important. Unfortunately, before they could be interpreted, they had to be read, which proved difficult due to the pitiful state of their preservation. **Agata Deptuła** expertly addressed this problem in her doctoral dissertation defended in 2019. Most of the texts, once deciphered, turned out to be liturgical hymns for Lent. In her landmark work *Liturgical Poetry in Christian Nubia*, published in 2020, she edited all the hymns found in the lower church. In addition to a clear and competent philological analysis of the text, she has made interesting observations about the topography and symbolism of the lower church, especially about rituals such as processions associated with Lent. The article published below summarises her theses.

The texts of the Lenten hymns inscribed on the walls of the lower church served as the libretto for Paweł Łukaszewski's VIII symphony *Hymns of Banganarti*, which will have its world premiere on 13 September 2022.

The liturgical texts on the walls of the lower church tell much about canonical religiosity in Nubia before the so-called nationalisation in the tenth and eleventh centuries. Folk religion, the presence of faith and its symbols in the daily life of Banganarti's inhabitants and visitors can be read from the alphabetic signs and inscriptions on pottery objects, sherds and other objects of daily use. Protection from *negotium perambulans in tenebris*, which lives in dark and damp places and causes disease and misery, was needed day and night. **Agata Deptuła** and **Aneta Cedro**, an epigrapher and ceramologist, worked creatively on a 102-piece collection of Banganarti ostraca and their significance for understanding the medieval mind. From their joint efforts emerged a colourful picture of pious wishes and magical expectations, which materialised in the many protective signs, pentagrams, cryptograms, nomina sacra and names of saints and archangels.

Agata Deptuła also collaborated with **Dobiesława Bagińska** to study the monograms on the amphorae found at Banganarti. The information obtained from their analysis is important because the custom of painting large monograms with white paint on the shoulders and arms of amphorae is limited to the early period. Moreover, **Dobiesława Bagińska** is a recognised expert on Nubian amphorae, the subject of her PhD thesis. Thus, the collaboration of these two eminent specialists brings us closer to solving the mystery of the enormous accumulation of broken amphorae in the fill of the lower church.

Hamad Mohamed Hamdeen has visited Locust Island on several occasions. During his stay in February 2018, he took up the palaeobotanical research initiated at Banganarti by **Chris Stevens and Lara Carretero-Gonzales**. However, while the British/Spanish researchers focused on flotation, Hamad focused on macroscopic analyses of plant grains and seed impressions on ceramics. In addition, he examined 2,829 potsherds and complete vessels from excavations carried out in various chantiers within the perimeter wall. Finally, he joined forces with **Petr Pokorny** from the Centre for Theoretical Research at Charles University and the Czech Academy of Sciences to examine and interpret this rich material. Their joint work provided valuable information on the diet and daily life, health and disease of the Banganarti people and pilgrims, adding valuable insights to the excellent research of **Stevens** and **Carretero-Gonzales**.

Fig. 3
Aerial photo (taken on 10/03/2022 at 7:45 am) of Banganarti (foreground left) and a section of the right bank of the Nile, with Old Dongola barely visible due to the morning fog in the upper right corner. Backfilling the trenches around Raphaelion

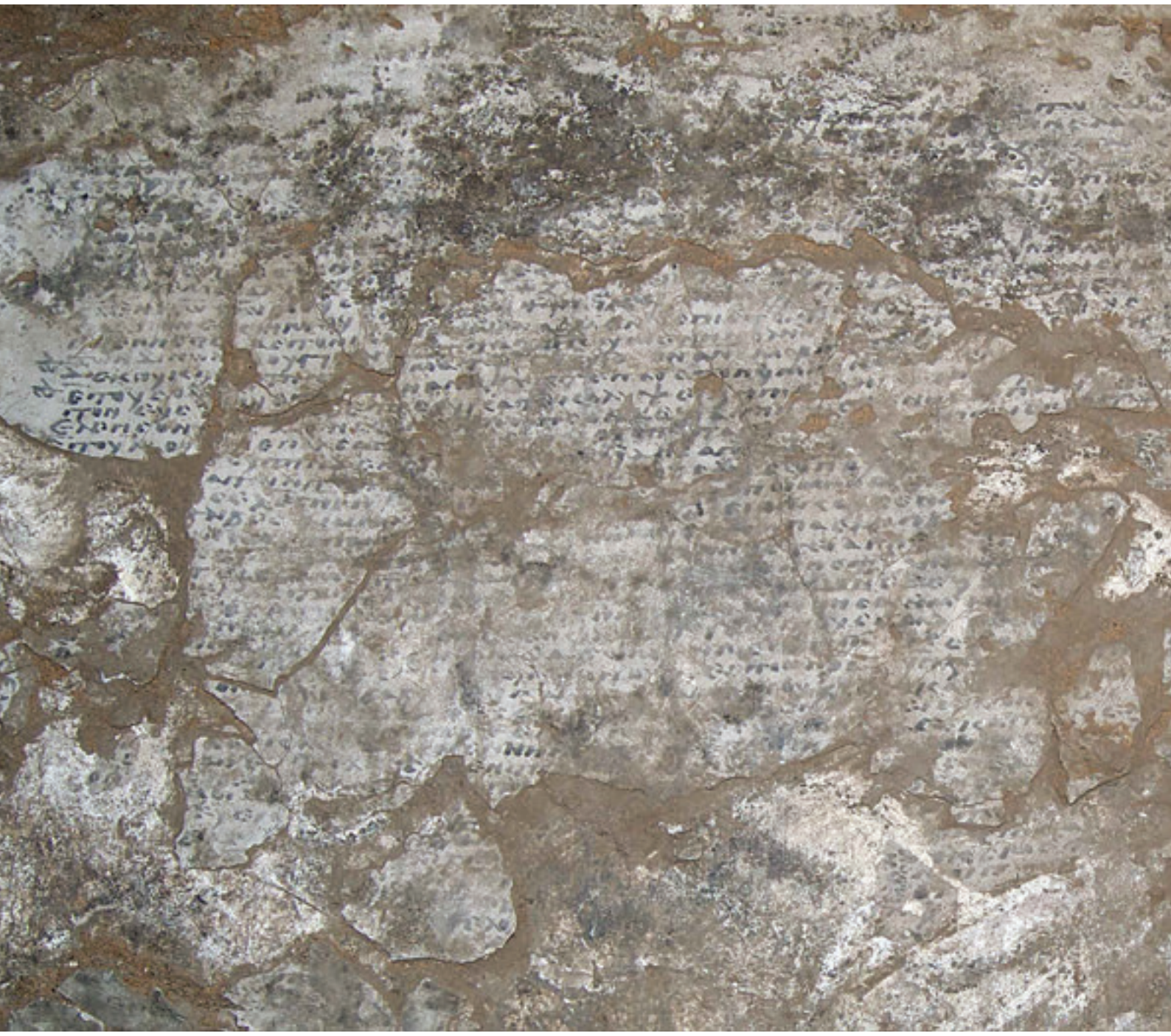
Magdalena M. Woźniak knows Banaganarti from her own experience. She spent several seasons there. Her publication of 83 spindle-whorls found within the settlement's walls proves that, apart from serving pilgrims, the inhabitants of Banganarti were engaged in relatively mundane activities, such as spinning. The lack of weaving workshops implies that spinning was a domestic occupation performed for their own needs and perhaps for visitors to the pilgrimage settlement.

The notes of **Andrzej Leligdowicz**, a professional Arabist and amateur ethnographer, bridge the gap between Banganarti's past and present. Armed with an in-depth knowledge of the Arabic language, he immersed himself in the maze of everyday problems faced by the people of Banganarti. Sadly,

(the square building in the centre left) is underway. Note the enormous expansion of palm groves around the site. Photo by Roman Łopaciuk.

some of his interviews are now deceased, but, fortunately, they were able to pass on to him their own stories as well as those of their families, neighbours and friends. Andrzej was particularly interested in elements of contemporary rural culture that have their roots in the past, hence his focus on disappearing professions. He talked to women potters, men who burn bricks and make charcoal, Takarna people from the West who settled in the region, bakers, fishers, gipsies, herbalists and village *shuyukh* who heal the soul with verses from the Koran.

Bogdan Żurawski Warsaw, June 2022



To Professor Paweł Łukaszewski for his Symphony No. 8 *Hymns of Banganarti*

Plan of the Banganarti site combined with an orthophotomap with sectors marked. Created by Roman Łopaciuk

Peregrinare necesse est: A Brief History of the Locust Island

Bogdan Żurawski

Abstract:

The following text summarises the development of the Banganarti archaeological site from a late post-Meroitic outpost on a caravan route to a state-sponsored Christian pilgrimage centre. Furthermore, it attempts to show what excavations at this site have contributed to the perception of Nubia's past, thus juxtaposing historical narratives with archaeological evidence. Fortunately, dozens of radiocarbon dates and tons of chronologically ordered pottery from precisely dated layers successfully compensated for the lack of dated epigraphic documents. The history of Banganarti, patiently reconstructed over the past 20 years, mirrors the history of the Kingdom of Makuria and its capital, Tungul/Dongola. The construction of the magnificent Raphaelion in the second half of the eleventh century, which harmoniously combined the cult of rulers with the belief in the healing power of relics and the protection of archangels, is a characteristic expression of the process of nationalisation that changed the face of the Makurian state and church.

Keywords: pilgrimages, Nubia, Banganarti, African Christianity, baths, monasteries, fortifications.

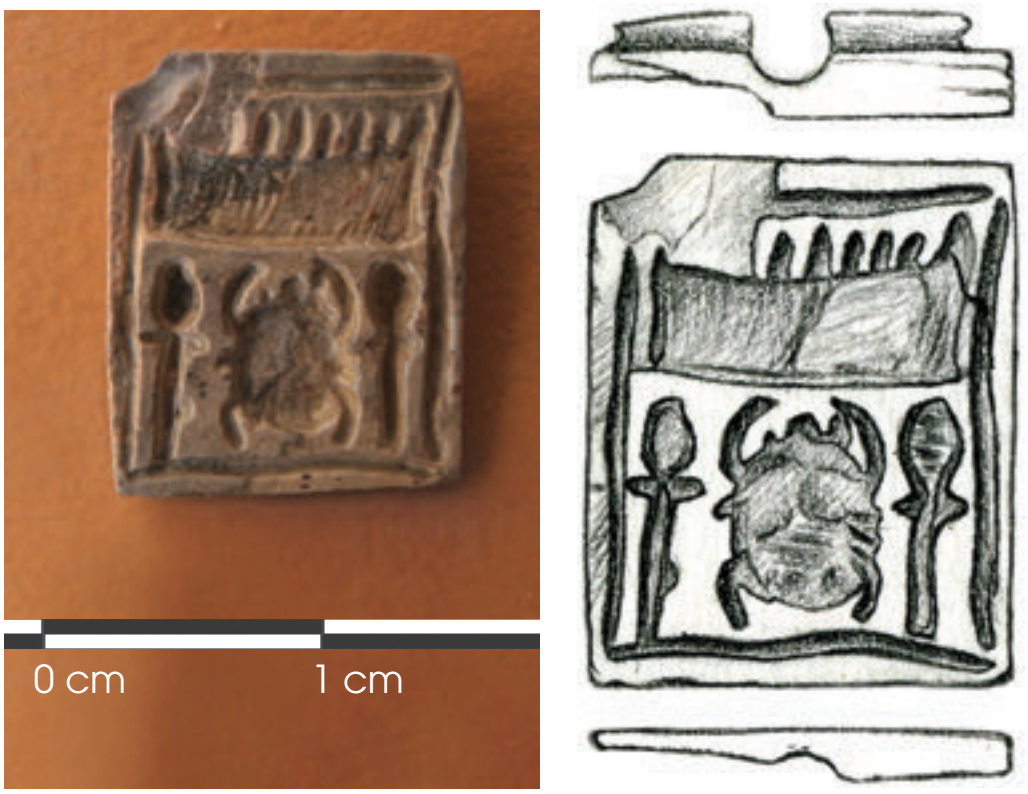


Fig. 1
XXV Dynasty (?) scarab (BNG/05/25). Drawn by Marta Momot, photo by Bogdan Żurawski

Fig. 2
Sandstone archer's thumb ring, inv. no. SDRS 2000/01. Photo by Jacek Poremba

The oldest human handiwork found at Banganarti is a ferruginous sandstone scraper dating to the Middle Stone Age.[1] It probably came from one of the stone workshops on the desert uplands.[2] Since it is not an isolated prehistoric artefact, it can be assumed, although with caution, that the trade route through Banganarti has a history dating back at least 50,000 years BP. Among the pre-Christian artefacts found inside the settlement walls, an inscribed faience scarab holds a special place[3] **(Fig. 1)**. It matches two reliable radiocarbon dates confirming human habitation at Banganarti as early as the 3rd century B.C.[4] Three late Meroitic/

1 Found in February 2022, surface find (BNG 1/2022).
2 Cf. Żurawski 2003a: 110–112, 117–121.
3 BNG/05/25, found on surface near the southeastern corner tower. On Men-Cheper-Re scarabs in Nubia, see Lohwasser 2013: 229–234.
4 Cf. *Banganarti Studies* I, p. 112.

post-Meroitic spindle-whorls[5] and a post-Meroitic (?) sandstone archer's thumb ring,[6] found in the southern part of the site, also confirm the pagan roots of the settlement **(Fig. 2)**.

The earliest masonry structures (probably predating the Christianisation of Makuria in the mid-sixth century) are rectangular, bricked enclosures with walls one brick wide, found in various parts of the site beneath the earliest residential strata dated by ceramics to the Christian period **(Fig. 3)**. No datable ceramic material was recovered from their contexts, and none of them was fully exposed because of their position under the foundations of later buildings or in places where exploration was unsafe due to the loose structure of the trench's sidewalls **(Figs. 4, 5)**. The construction of the walls makes them similar to the Meroitic houses at the Selib 2 site,[7] 7 km upriver.[8] They resemble the jerry-built structures with walls not exceeding 0.20 m that engulfed the village of Meinarti around 450–500.[9]

The earliest pottery found at Banganarti is dated to the sixth/seventh centuries.[10] A fragment of an elaborate stone window grille[11] and a copper alloy plate[12] **(Fig. 6)** date from the same time or are slightly earlier. Considering the early chronology of the settlement, it is impossible not to emphasise that the oldest buildings at Banganarti, lying in the southwest sector, have a different orientation than the rest of the settlement, aligned with the first church. This suggests that these buildings already stood there when Christianity was introduced to the area **(Fig. 7)**. Since Evangelisation was marked in Banganarti by the construction of a church and monastery, the construction of the first wall surrounding the entire settlement may have occurred later than previously assumed.[13]

The 2022 excavations in the central part of the southern curtain wall have clarified several issues regarding the early chronology of the settlement. First of all, they allowed us to give a detailed explanation of the reasons for changing the course of the perimeter wall at this location. After the first year of work at Banganarti, it was known that the buckling in the central part of the southern curtain wall was caused by the need to bypass an object that stood in the way. Excavations in 2007 established that this was a circular ring-shaped structure made of mud brick.[14] Exploration at this locus conducted in 2022 proved that the bypassed building burned down, leaving a distinct layer of burning, clearly visible in the stratigraphy of the locus. This waterwheel and its successor built in the same place supplied water to the baths located in the southwest corner.[15]

The construction of the southern curtain wall, incidentally the last of the four to be built, witnessed some critical events in the site's early history. The destruction

5 Cf. in this volume on pp. 222, 225.
6 SDRS 2001/01; found during the last campaign of the Southern Dongola Reach Survey.
7 Żurawski 2016: 104–105, fig. 11, pls. 30–33.
8 According to the latest findings (2021), Selib 2 has a much older history than the first century A.D. (unpublished report from the 2021 season).
9 Adams 2000: 9.
10 Cedro 2021: 187.
11 Cf. *Banganarti Studies* I, pp. 296–298.
12 BA-19-21.88, found in a test pit excavated on the north side of the southern curtain wall, in its central part.
13 When construction of the first perimeter wall began, the settlement covered an area of 14,000 m^2, of which only a part was built up.
14 Moving the wall in a southerly direction for its entire length was out of the question because the terrain descends in that direction, especially in its western part.
15 The ring-shaped mud-brick structure, which in early preliminary reports was labelled as *tholos* or *mudawar* ('round', 'circular' in Arabic).

Fig. 3
North–south section through the north–south street connecting the southern gate with the lower church area, eastern profile, SECH sector. The early enclosure is marked with an arrow. Elaborated by Michał Dzik in 2018

Fig. 4
Fragment of the eastern curtain wall with a mud-brick rectangular enclosure beneath. The early enclosure is marked with an arrow. Photo by Roman Łopaciuk

Fig. 5
The mud-brick enclosure beneath the eastern curtain wall. Photo by Katarzyna Mich

Fig. 6
Copper alloy plate (BA-19-21.88). Photo by Michał Dzik

of the site's first hydraulic system and invalidation of the southwestern baths, has deprived the pilgrims arriving in increasing numbers in Banganarti of ritual purification before entering the sanctuary and after the hardships of the journey. These problems were solved, and a new bathing system was introduced only after constructing the second line of fortifications in the ninth century.

As can be seen from these few introductory remarks, the early history of Banganarti has been substantially supplemented by the finds made between 2017 and 2022 in the area of the ramparts. Furthermore, the excavations in the central part of the site have also provided solid evidence for the early chronology of the settlement and clarified once and for all the question of the existence of a monastery at Banganarti.

Until 2018, Banganarti's *coenobium* was only somewhat ambiguously attested by a sole mention in the epitaph of Ioannes, a monk of the *[.]enganarti monastery*.[16] Another argument in favour of the thesis assuming the existence of a monastery

16 Łajtar 2003a: 73–75. Both indications suggested a monastic foundation within the defensive walls, but despite intensive research, the existence of the monastic complex could not be confirmed archaeologically until 2018.


GENERAL SURVEY PLAN OF
BANGANARTI SITE
0 2 4 6 8 10 20 30

Fig. 7
Top view of the Banganarti settlement. Site plan combined with aerial photograph (2021).The larger (outer) *peribolos* is outlined with a white hatched band; the excavated fragments are marked by red diagonal hatching. The smaller (inner) *peribolos* is also outlined with a white hatched band; the excavated fragments are marked in solid purple. Measured, photographed and elaborated by Roman Łopaciuk

at Banganarti was the multitude of broken amphorae found in the lowest layers of the lower church's backfill.[17]

The monastery was finally found in 2018 under a thick layer of later habitations on the south and north sides of the lower church (Raphaelion I), which has since been referred to as the *katholikon* (monasterial church). At the same time, the existence of a rectangular *peribolos* surrounding the monastic complex was archaeologically confirmed.[18]

The *peribolos* was a mud-brick wall, ca. 300 m long, 0.80 m thick, raised on a foundation of bricks laid on stretchers in a header bond **(Fig. 8)**. Rainwater that accumulated inside the monastery complex, including water caught by the vaulting of the lower church, was drained outside through terracotta pipes 0.22 m in diameter. It seems clear that the monastery was protected by a reasonably solid wall (0.8 m wide) when the perimeter wall surrounding the settlement did not yet exist. Therefore, it is also very likely that it was demolished simultaneously with the construction of the first perimeter wall. However, other reasons may also have prompted the monks to tear down the wall that separated them from the settlement. Firstly, the growing number of monks caused the monastery complex to run out of space. Secondly, the construction of the *mastaba* buttress backing up the outer walls of the *katholikon* reduced the space needed for the processions that circled the church on the occasion of Lent. Finally, the situation became so complicated that the monks had to demolish a large mud-brick building on the north side of the church, serving as a refectory or infirmary.

The demolition of the *peribolos* and construction of the *mastaba* buttress must have occurred quickly. Most probably, the whole process took place during the eighth century. The pattern of visiting the *ad sanctos* sepulchres, attached to the eastern wall of the lower church, also had to be changed when they were overbuilt with the *mastaba*. Some traces prove the monks tried to deal with this problem. Excavations revealed a corridor leading along the church wall to the sepulchre on the north side of the commemorative chapel. It is difficult to imagine pilgrims getting to the tomb through this corridor, but objects, such as vessels containing water and oil, could have been brought there and left for a while to be sacralised.[19]

However, there could be other reasons for demolishing the *peribolos*. It might have been dismantled because the monastery had to adapt to new challenges posed by the gradual transformation of the Banganarti settlement into an important pilgrimage site. With the increase in the number of pilgrims, the function and character of the cenobitic community changed dramatically. By taking on the whole set of duties associated with servicing the growing pilgrimage traffic, focused on the *locus sanctus* within the monastic compound, the monastic community had to open up because the traditional model of a monastery closed and isolated from the outside world lost its *raison d'être*. Thus, demolishing the *peribolos*

17 Bagińska in this volume. Amphorae were common finds in Egyptian monasteries (Dzierzbicka 2016: 106); cf. also Żurawski 2012: 185. The unusual density of broken wine amphorae in the lower church backfill might also suggest the presence of an infirmary close to the church; cf. Dzierzbicka 2016: 103–104. The large rectangular building on the north side of the lower church may have had this function.

18 There was another wall, the so-called inner or smaller red-brick *peribolos*, surrounding the church only.

19 Furthermore, the disrupted layout of the brick floor in front of Chapel 3 in the upper church and the absence of a brick pavement within the chapel itself suggest that the tomb situated on the south side of the commemorative chapel and directly beneath Chapel 3 was also later visited. This evidence demonstrates that despite the passage of centuries, the memory of the burials of the local holy men, which attracted the first pilgrims to Banganarti, was still alive and that periodic access to these tombs was essential for the ritual functioning of the upper church (Raphaelion II).

Fig. 8
The lowest part of the *peribolos*, beneath the southern part of the monastery complex. Elaborated by Katarzyna Mich

was a natural consequence of the site's development. Furthermore, the elimination of the *coenobium* from the life of the pilgrimage settlement must have led to the creation of a particular class of employees known elsewhere as *spudaioi* or *philoponoi*, who took over from the monks the servicing of the pilgrims.[20]

Such events were quite typical for monasteries within pilgrimage centres. Significant pilgrimage settlements in the Nile Valley were organised according to principles that enabled them to meet the challenge posed by the broad range of services that had to be provided to pilgrims, which were beyond the capacity of the monastic communities. Church attendants or non-ordained priests looked after the pilgrims. For example, Abu Mena's complex functioned without the monks' help.[21] In Banganarti, the management of pilgrim traffic within the settlement could have been structured along the same lines, especially in the later period.[22]

The healing attributes of the Archangel Raphael, the patron saint of both Banganarti churches, helped promote the pilgrimage site. However, the main objects of veneration in the early period were the individuals buried in two tombs

20 Wipszycka 1970: 511–525.
21 There was only a *laura* of hermits near the so-called East Church (Grossmann 1998: 281–301, esp. 291).
22 All the more so that an over-representation of the deacons and members of lower orders was observed among the inscriptions in the upper church (= Raphaelion II); cf. Łajtar 2020: 84.

Fig. 9
The bricked pavement around the lower church. Photo by Michał Dzik

attached to the walls of the commemorative chapel built against the eastern side of the lower church. In addition, the so-called pilgrims' wipes on the church's wall opposite the southern tomb confirm such veneration.[23]

Recent excavations on the north and south sides of the lower church have clarified several questions about the history of its construction and subsequent reconstructions. First, shortly after the consecration, the church's perimeter was paved with half bricks and surrounded by a one-brick wide barrier built in two phases, which was found at 148.70 m, i.e. 3.36 m below the local reference point of 152.06 m[24] **(Fig. 9)**. Second, a brick landing and stairs leading to the northern entrance to the church were uncovered. The stairs were extended to the new floor level in the church after its reconstruction[25] **(Fig. 10)**. The foundations of the church were also found to be perfectly level; the differences between the south and north walls did not exceed a few centimetres.

Although many questions about the earliest history of Banganarti have been clarified in the years 2018–2020, many remain unanswered. Foremost among them is the location of the early cemetery where visitors and residents of the settlement were buried. Despite an intensive search, 20 years of excavations have not led to discovering any extramural graveyard. Trial pits were

23 Żurawski 2012: 377–379; 2019: 91.
24 The upper surface of the stone threshold to the upper church.
25 The reconstruction of the lower church, involving the replacement of columns with pillars, required the demolition of the walls almost to the floor level.

dug up a considerable distance from the perimeter wall without any results.[26] What is even more bizarre, no cemetery has been found dating from the later period, when Banganarti enjoyed widespread fame as a healing resort.[27] This is strange because not all the sick, who made up a large percentage of the visitors to the shrine of the Archangel Raphael, protector of human health and intercessor at the throne of God, could count on miraculous healing. These unfortunates must therefore have been buried somewhere nearby and, in large numbers, without detracting from the Archangel's thaumaturgical efficacy.

Some explanation for the absence of cemeteries outside the walls was provided by the constant threat of overflowing through the annual Nile flood or heavy rainfall.[28] Extramural cemeteries would have been affected in the first place. Secondly, the densely inhabited settlement produced rubbish thrown outside the walls, which the dead undoubtedly disliked. The dozen or so trial pits dug along the perimeter wall provided tons of layered rubbish, ashes and broken ceramics thrown out from inside. The toilets and toilet baths were also discharged outside the walls. Last but not least, most pilgrims who came to Banganarti stayed outside the walls in temporary *rukuba* shelters while waiting their turn to incubate inside the church. Sharing living space with the dead was not an option for either party.[29] Since the cemeteries in question have not been found close to the settlement, they should be searched further. But where? The answer to this question is not easy, but surface research in the area[30] makes it manageable. However, before suggesting the place, it is worth considering another issue, i.e. what Banganarti was before it became the destination of Christian pilgrimages. Determining the burial place of the pre-Christian inhabitants of Banganarti will indicate their descendants' cemetery.

Banganarti owes its prominence as the most important pilgrimage site in the Middle Nile to several factors, one of which was its location where the road along the Nile joined a desert route to the south. On the left bank of the river directly opposite Banganarti, where the village of Abu Gussi exists today, there was a river terminus of the vital trade track along the Wadi el-Melik to Kordofan and Darfur **(Figs. 11, 12)**. It is highly suggestive that Banganarti was the right-bank bridgehead of this track, which was already used during the Meroitic period and retained its importance for the Christian Kingdom of Makuria.[31] Banganarti was undoubtedly a strategic point on the map of early medieval Makuria, which explains the particular interest in this place by the court of Dongola and the presence of high-ranking officials of the kingdom among the Banganarti inhabitants. Moreover, Aberkios, the *epitropos*,[32] and hegemon Markos, whose epitaphs were found in the church complex at Banganarti, probably resided there.[33]

26 The mission received information from workers employed to dig pits in which palm trees were planted, about red-brick structures buried outside the northwest corner of the perimeter wall. Judging by the description, these may have been early Christian graves but follow-up sondages did not yield the expected results.

27 The Archangel Raphael 'specialised' in eye diseases (Żurawski 2019: 95–96).

28 The settlement not only fell victim to high floods of the Nile but also was occasionally swamped by the so-called *seels*, i.e. floods caused by heavy rains.

29 Traces of these makeshift huts are visible, e.g., in the face of the eastern wall.

30 Grzymski 1987: 9–16; Żurawski 2003a: 84–103, 127–163.

31 Żurawski 2021: 172–175.

32 That is, the royal governor or deputy king; cf. Łajtar 2020: 221.

33 Łajtar 2003b: 161–175; 2007: 135–152.

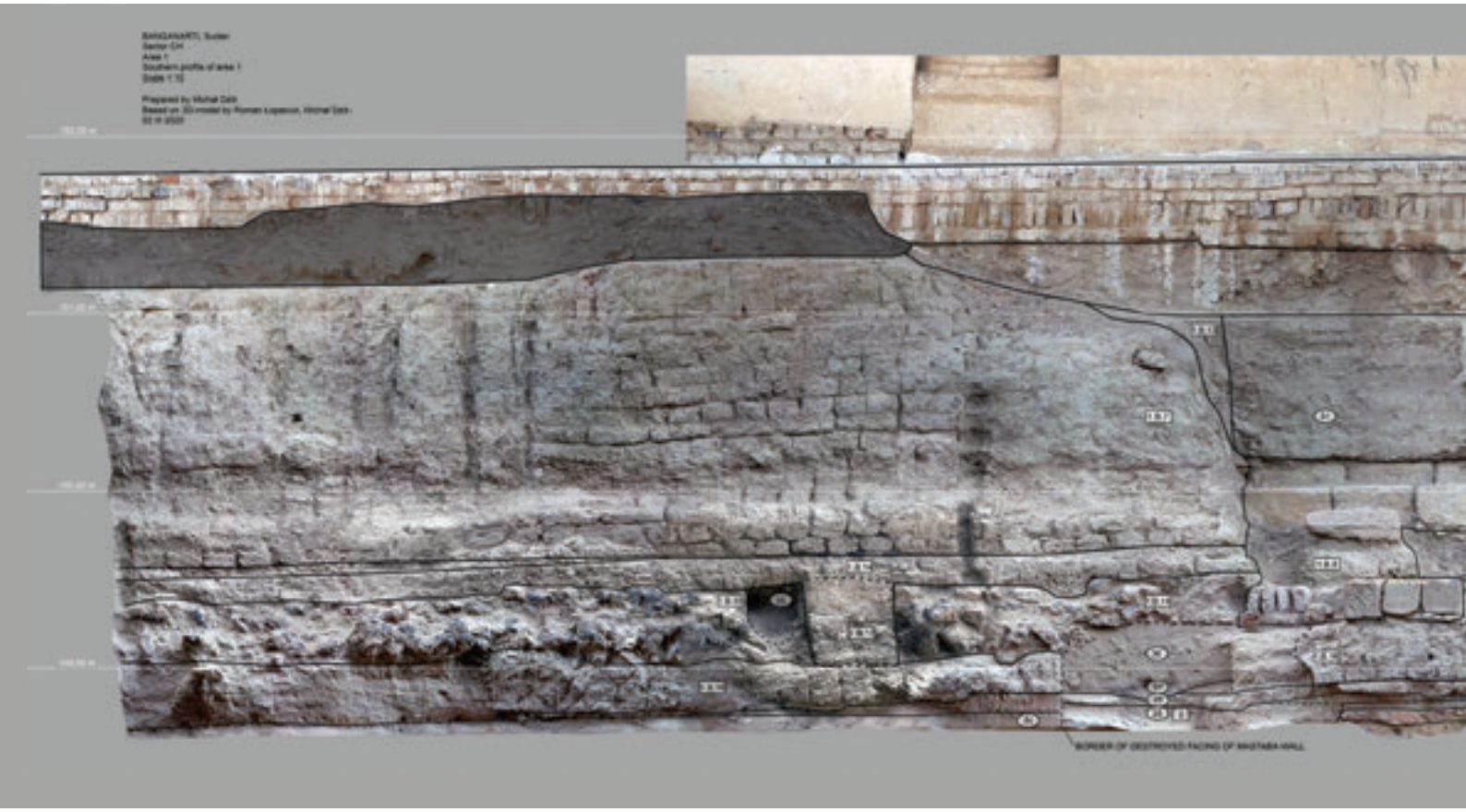


Fig. 10
The southern wall of the trench dug on the northern side of the upper church showing the *mastaba* abutment of the lower church and fragment of the stone stairs leading to its the northern entrance. Elaborated by Michał Dzik

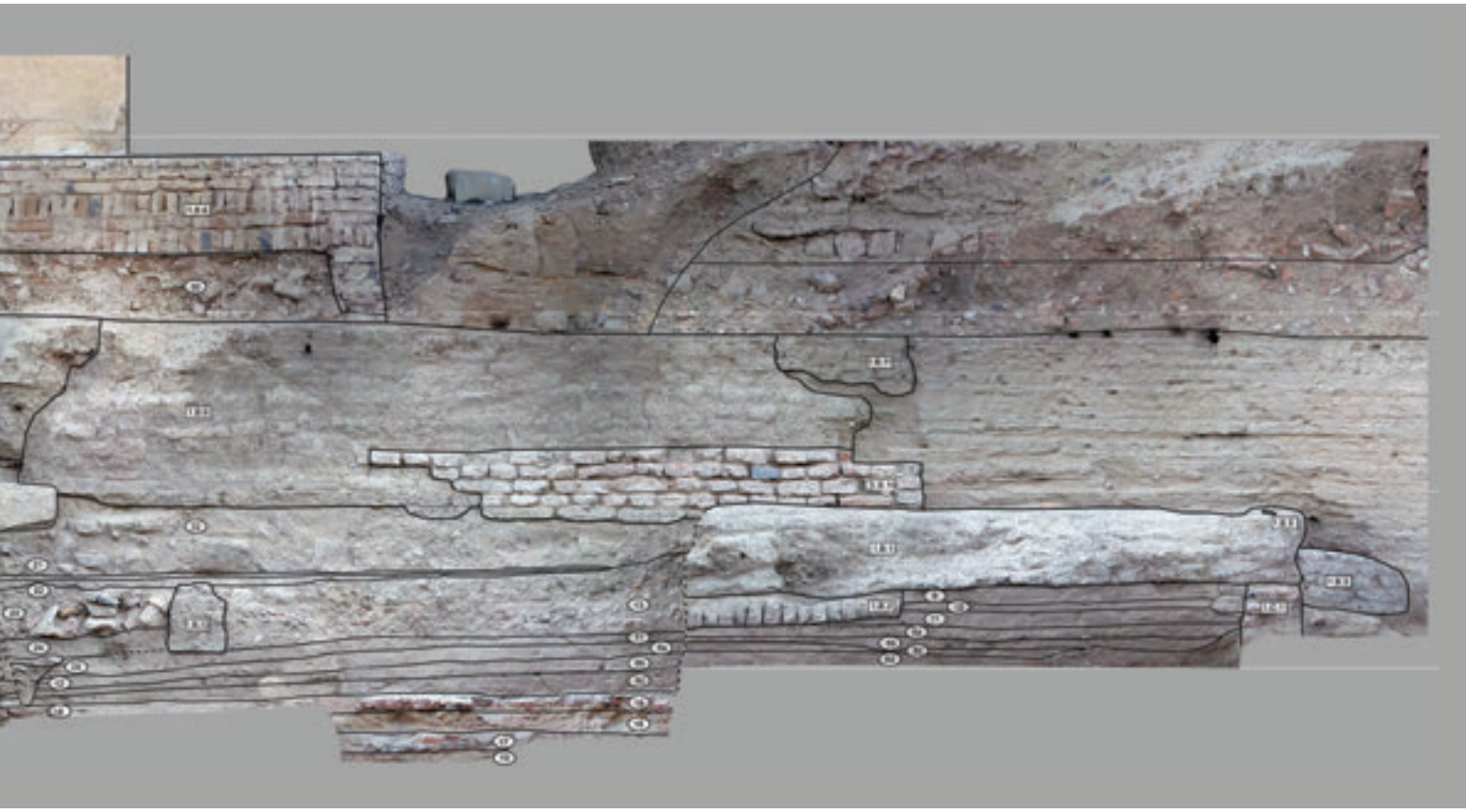
There were many reasons it paid to live at the endpoint of the Middle Nile desert trade route. In such places, customs duties were paid, and escorts were hired because the Bayuda Desert was never safe for caravans and no one ventured crossing without an armed guard.[34] Moreover, the fortress-building frenzy in the Middle Nile Valley between the fifth and sixth centuries A.D. indicates thatthe deserts on both sides of the Nile, which the trade caravans had to cross, were dire straits.[35]

It is not entirely clear what Markos and Aberkios would do if they lived in Banganarti.[36] Whether or not their burial place was far from where they lived, the logic of burying commoners was radically different. While searching for the lost cemeteries of Locust Island, one should pay closer attention to the early characteristics of this place as a *terminus* of the caravan route. Finding where the first converts in the area were buried is essential. Their descendants, for obvious reasons, wanted to rest close to their ancestors. Religion was of secondary importance. Following this pattern, it is worth noting that the vast

34 Żurawski 2021: 175 n. 26.

35 The surroundings of Banganarti, including the island of Tanqasi, were well protected, although the proximity of a powerfully fortified capital should have guaranteed them some security. On the top of Gebel el-Ali there was a *skopelos* or a fortified manned tower, and on the island of Tanqasi there was a fortress which John Gardner Wilkinson saw in the middle of the nineteenth century (Żurawski 2003a: 50, fig. 12; 156, figs. 25–26).

36 Perhaps they lived elsewhere, and the place of their burial was related to the particular kind of holiness that surrounded Banganarti. According to a well-known medieval axiom from a holy place was the shortest way to heaven. This belief is evidenced by the huge cemeteries near pilgrimage sites, such as Dābrā Libanos in Šāwa (Pankhurst, Aspen 2005: 873).



cemetery in Hammur/Tanqasi is located on the mainland opposite the Locust Island. Especially since some people in the tumuli at Hammur were buried with items of weaponry, such as spears with long, wide iron blades and barbed arrowheads.[37] Therefore a question should be asked whether the livelihood of the pre-Christian and early Christian population living around Banganarti was escorting caravans bound for Kordofan and Darfur. If so, would not *hegemones* such as Markos have been responsible for the security on the Wadi el-Melik trail? This is very legitimate, as is the claim that the *méharistes* or desert guardians have graves in the cemetery at Hammur. In January–March 1998, a vast tumulus cemetery was investigated among the houses of Hammur Abbasiya village, 400 m, as the crow flies, from the Banganarti enclosure. Beneath Tumulus 4, a secondary Christian burial was found. By the head of the deceased was an early Christian bowl produced in the Dongola kilns soon after the introduction of Christianity to the region. Unfortunately, rescue investigations at Hammur were limited to the visible tumuli on the surface, whereas the space between the mounds, covered by a thick layer of sand, was not investigated. Therefore, the flat *masatib* of Christian graves may have gone unnoticed. This is likely because the custom of burying Christian dead in tumulus cemeteries is well attested in this region. One does not need to look far; in the cemetery near Jebel Ghaddar, a post-Meroitic tumulus was excavated, surrounded by 55 early Christian graves covered by flat-bricked *masatib*.

37 Żurawski 2003a: 86.


Petermann's Geographische Mittheilungen
Jahrgang 1859, Tafel 17.
Östl. Länge von Greenwich
ORIGINALKARTE
von
TH. v. HEUGLIN'S REISE
durch die
BAJUDA LANDSCHAFT,
von Ab. Dom nach Chartum.
1856.
Von A. Petermann.
Maassstab 1:1.900.000.
DÁR DONGOLA
DÁR BERBER
DÁR GAL
DÁR METAMMEH
DÁR SCHENDI
DÁR MONASIR
DÁR SCHAIKIEH
DÁR ROBATAT
BAJUDA
Steppe Gilif
SAURÁT
HAUAUIN UND DJERMIAB
KABABISCH UND HASSÁNIA
Djebel Simrie
5te Cataracte
6te Cataracte
CHARTUM
Halfaia
Östl. Länge von Paris
GOTHA: JUSTUS PERTHES

Fig. 11
Map of the Bayuda Desert by A. Petermann (1856), illustrating the travels of Theodor von Heuglin. Abu Gussi with two branching desert trails is on the left side of the map near the margin

It may also have been the case at Hammur Abbasiya and Tanqasi esh-Sharq, as is indicated by the random finds of early Christian graves in the *jebel* above the riverine *ziraa* between Hammur and Bukubul.

The late history of Banganarti is reasonably well understood through the inscriptions left by the pilgrims in the upper church. Unfortunately, similar documents are missing from the early phase of the settlement. The inscriptions from the lower church were primarily liturgical.[38] The two stone epitaphs and a couple of fragments of others do not contain information based on which everyday life in the settlement before or soon after the Evangelisation may be reconstructed. The only source of knowledge about early Banganarti is, or rather would be, archaeology were it not for the unimaginable destruction inflicted on the site's lowest cultural layers.

Nevertheless, an early settlement that predates the founding of the monastery and the first church on site was confirmed through excavations in the southwest sector, where the so-called western baths complex was discovered apart from the dwelling houses.[39] Remarkably, the western baths were not used by the pilgrims. The reason was simple: pilgrims began arriving in large numbers when the western baths were already destroyed, most likely by flooding of the Nile.[40] Thus the only possible *raison d'être* for this complex was to serve the travellers on the Wadi el-Melik trail and Makuria's major route along the Nile from Dongola to the territories upriver. An arched entrance, later bricked up, provided direct access from the settlement's central north–south street, emphasising the western baths' communal character **(Fig. 13)**.

Some archaeological arguments confirm the early date of the western baths. **Fig. 14** shows an exciting stratigraphy, which sheds new light on the question of the chronology in the southwestern corner of the settlement. The foundation of the perimeter wall stands on a layer of red-brick rubble. Under the rubble layer, there is an outlet of a drainage channel that carried water from the baths towards the river. The probable interpretation of this sequence is that the perimeter wall was built after destroying the baths.[41] It is worth mentioning that the pottery found in the layer above the red-brick pavement in front of the arch marking the entrance to the baths complex from the street was dated by Dobiesława Bagińska to the sixth or seventh century,[42] which suggests an earlier date for the building itself.

38 Deptuła 2020.

39 Called the southwestern, or simply western, baths in distinction to the bath complex further east along the perimeter wall, called the eastern baths.

40 Baths were a very rare element in the archaeological landscape of Nubia. The Royal Baths at Begrawiya, baths in House A at Old Dongola (cf. on p. 43 n. 82) and a washing installation in the Northwest Annex at Ghazali, which Artur Obłuski, director of a dig at Ghazali, considers to have been a latrine (Obłuski 2018: 191–194) that is all we know about. Despite the striking differences between the baths at Begrawiya and Banganarti, there are some similarities. Mainly, both are located on the western river frontage of the perimeter wall, through which the channels carrying water from the baths into the river passed. There were probably more similarities, but the residual state of preservation of the bath buildings at Banganarti prevents further comparisons. A handful of analogies are provided by the bathing installations in the Late Roman/Byzantine fortified *hydreumata*, guarding the trade route from the Nile Valley to the Red Sea ports. Banganarti's early bathing complex was perfectly located on the leeward side of the settlement, and on a slope towards the river. Such a location is understandable due to the prevailing wind direction.

41 In the central part of the complex once stood a furnace, which was incorporated into a later wall. It is indicated by an outline of vitrified and over-fired bricks, and a layer of ash visible in the cross-section of the wall.

42 Bagińska 2011: 265.

Fig. 12
Ruined Abu Gussi market (in 2019). Photo by Roman Łopaciuk

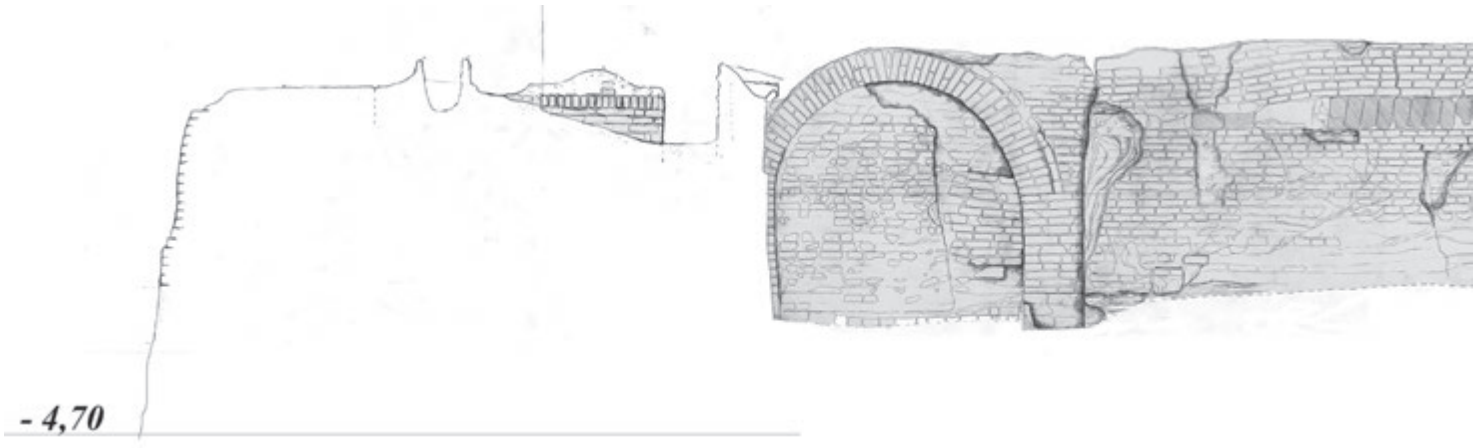
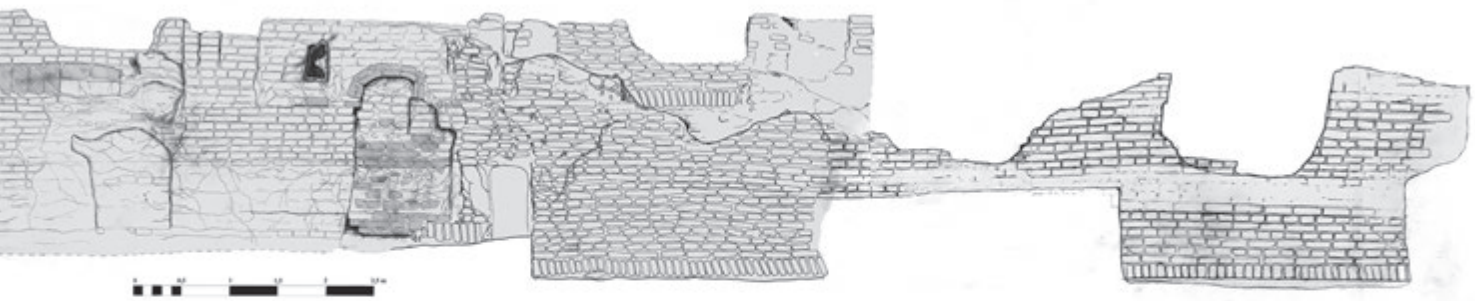


Fig. 13
The western frontage of the north–south street linking the western baths and the lower church with the bricked-up entrance arch to the baths. Drawing by Anna Błaszczyk

The idea of surrounding the settlement with a wall about 2 m thick was likely to have been born early, perhaps even before Abdallah Ibn Abi Sarkh laid siege to Tungul/Dongola in the mid-seventh century.[43] The erection of the first perimeter wall, ca. 400 m long, was very ambitious. Considering its average width of 2 m and the height, probably not less than 6 m, its construction required resources that the local community could certainly not provide, even if we assume that most of the unskilled work was done by slaves brought through the Wadi el-Melik route. In whole or in part, the means were probably provided by one of the royal families from the nearby capital, although the possibility that one of Banganarti's wealthy inhabitants stood behind the enterprise cannot be ruled out.[44] He could have lived in the districts of the elite houses beside the river.[45]

Ceramic analysis (by Aneta Cedro) suggests that at least in the northwestern corner, the first perimeter wall was constructed between the beginning of the seventh and the middle of the eighth century.[46] However, the differences in foundation levels between the perimeter walls of the first and second phases do not indicate a long period between them – e.g. in the southeastern corner tower area, it is 0.75 m.[47] This is quite a lot, but in the whole length of the northern curtain wall, it does not exceed 0.27 m.[48] The wall of Phase I was the outer wall of the settlement until the middle of the ninth century, as evidenced by the ceramic material dumped outside the walls. The early buildings in the southwest corner had to be incorporated into the perimeter wall as the ground sloped sharply, making it impossible to skirt around. The need to enclose several peripheral buildings necessitated a change in the direction of the perimeter wall. Hence the bulge in the southern curtain wall was caused by a *tholos* of 4.5 m diameter. The wall skirted the *tholos* and resumed its course until it reached a point where the terrain was lowering towards the river. In this area,

43 However, there is no evidence that Abdallah Ibn Abi Sarkh attacked Banganarti during the siege of Dongola.
44 The royal patronage over Banganarti, if any, did not end with the construction of the wall; in the eleventh century, the erection of the Raphaelion was, allegedly, sponsored by one of the eleventh-century kings.
45 It is worth mentioning that in neighbouring Dongola the kingly district was also located on the river bank.
46 Unpublished report after the 2020 season.
47 Drzewiecki 2011: 276, and fig. 2 on p. 275.
48 Drzewiecki 2017: 303.



which was only explored on the surface, there was an alleged gate connected with the north–south street leading to the southern entrance of the lower church. Behind the gate, to the west, there was a complex of baths, which had already been partly destroyed at the perimeter wall construction.

Since the terrain behind the gate was noticeably sloping, the wall was more expansive in this section and strengthened from the outside by two semicircular buttresses.[49] Some structures accessible from the exterior were left outside, e.g. the lime kilns in the middle section of the western curtain wall. They were situated on the bank of the Nile channel, so it was somewhat pointless to protect them with a wall. Furthermore, the material for the lime kilns was probably transported by water, so the wall would only have been an obstacle impeding the supply. The two northern bastions are particularly solidly built, probably for the same reason as the western section of the southern curtain wall – the terrain slopes towards the north, which imposed additional obligations on the builders. The western curtain wall is the most poorly preserved part of the fortification. Its southern part has been washed away by the Nile flood or rainwater flowing down the slope into the river. There were probably no angle towers at the western wall's northern and southern ends.[50] Excavations in its northern section indicate the existence of a dense settlement already in the seventh century, as demonstrated by the imported amphorae found in one of the buildings in the 2020 season.[51] The fragment of a sculptured stone window grille found there also suggests the presence of an early building of the highest standard, possibly an elite residence, another church or a chapel (?).[52]

In the mid-eighth century, Dongola was the site of some important events that had repercussions in Banganarti. The central figure in these events was King Abraham, a mysterious figure in Nubian history. Until 2008 his reign was known only from the account of John the Deacon, secretary and biographer of Patriarch

49 Nowhere else was the Banganarti perimeter wall reinforced in this way.

50 The only bastion on the western curtain wall, of very light construction, was added in the later period.

51 Right by the wall described, a pit filled with ash and a brown-greyish layer was discovered, with a partly preserved amphora *in situ*, dated to the seventh–eighth centuries (by Dobiesława Bagińska).

52 Some sort of chapel or stately building in this area is likely. This is indicated by information obtained from workers employed in digging pits for date palms. A recurring theme in these stories is that of foundations made of large red bricks. However, the surveys carried out in the area did not confirm this information. Neither does the owner of the field where the palm trees grow confirm these stories.

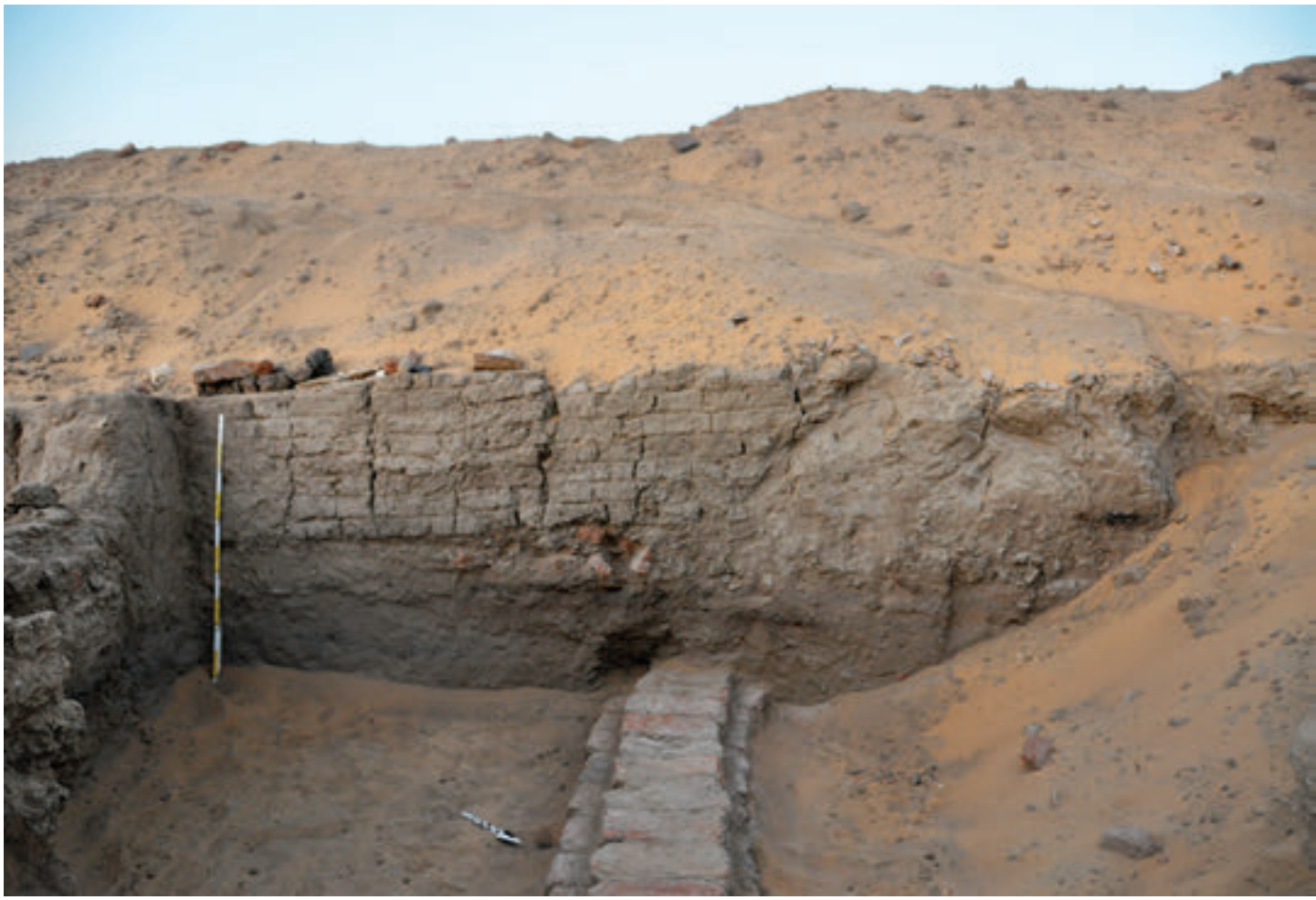


Fig. 14
Bath drainage channel under the perimeter wall. Note the destruction layer above the channel. Photo by Ewa Skowrońska

Michael I, contained in the *History of the Patriarchs of the Alexandrian Church*.[53] The situation changed when a fragment of a stone lintel with an inscription containing a *polychronion*, i.e. a wish for long years to King Abraham, was found in a debris pit on the north side of the lower church. The Greek text of the inscription was written in black ink on the first layer of gypsum plaster.[54] It confirms the reign of this enigmatic king who, if John the Deacon can be trusted, was deposed after a series of disputes with the local and Alexandrian church hierarchy. The historical context of this discovery suggests that the Banganarti inscription was written either shortly after Abraham acceded to the throne, after his predecessor, Simon, or during his brief struggle with Mark, his ephemeral successor. Interestingly, the *History of the Patriarchs* states that Abraham 'was banished to an island in the river'.[55] The place where Abraham's *polychronion* was found raises the question of whether that island was Banganarti.

King Abraham's period in power overlaps with the reign of the Byzantine Emperor Leo III the Isaurian (717–741), who, in 726, inaugurated state-sponsored Iconoclasm in the Empire. Leo also quarrelled with the heads of the church hierarchy.

53 Vantini 1975: 40–44. In the so-called *List of the Dignitaries' Names from the Bishops' Room in the Faras Cathedral*, the name of Markos (no. 15) follows that of Abraham *vel* Aaron (Jakobielski 1972: 198). For the discussion of the possible dates of Abraham's reign, see Munro-Hay 1982–1983: 87–137.

54 Żurawski 2012: 102, 109, 498; Deptuła 2020: 24.

55 Vantini 1975: 42.

He deposed Patriarch Germanus I over the icon question, thus reaffirming the dominance of the throne over the altar. Therefore, it is hard not to ask whether Abraham's quarrels with the church hierarchy may have been caused by differing views on the veneration of images.

A painting found in 2016 in the baptistery of the lower church sheds some light on these questions. Dated to the period between the second half of the eighth century and the second half of the ninth century, it depicts an ecclesiastical dignitary seated on a curule seat, trampling a semi-reclining figure in purple inscribed with the name 'Leo' below. I dare to identify this painting as a Nubian version of the *Triumph of Orthodoxy*, symbolising the attitude of the local church to the central dispute in Eastern Christianity at that time, in which the attitude to the cult of images played a significant role **(Fig. 15)**.

A year before the official condemnation of Iconoclasm at the Second Synod of Nicaea in 787, in Banganarti died *hegemon* Markos.[56] His epitaph was found reused in the floor of the upper church. In addition, the stele was found above the tomb on the south side of the commemorative chapel, which suggests that the epitaph belonged to this tomb. However, this is only a hypothesis because it does not match the socket of the grave stele in the wall of the lower church *vis à vis* this tomb. Thus, the date of the death of *hegemon* Markos tells us only that in 787 the lower church was not yet supported by a *mastaba* buttress that covered both eastern tombs. It is, however, a piece of essential information because the main problem in the chronology of the Banganarti is the paucity of absolute dates. This makes it necessary to interpret local records or sound dating events to link them to the chronology of the Banganarti churches and the site itself. An excellent example of such a situation is the prayer for King Zacharias found in 2002 on the right jamb of the lower church apse.[57] It is written in black ink on the second layer of plaster, thus determining the time of its creation and providing an *ante quem* date for the reconstruction of the lower church.[58]

The inscription is structured as a prayer to the Archangel Raphael to accompany King Zacharias on his road to Christ and to guide, guard, protect and save him from the traps of the enemy.[59] In mentioning Raphael's company on the long journey, the inscription suggests that the donor may have been Georgios, son and successor of King Zacharias, who travelled to Baghdad between 835 and 836. However, the writing of the prayer on the second layer of plaster precludes the possibility that it refers to Zacharias I. On the other hand, Zacharias III (tenth century) is excluded because of the chronology of the paintings on the third layer of plaster, which covers the inscription. This leaves us with Zacharias II.

The content of the inscription, a request for accompaniment on the way to Christ, suggests that the inscription was made after the king's death. However, the request for guidance, guardianship, protection and rescue from enemy traps can also be interpreted as genuine concern for the safety of a king fighting the enemy.[60] For these reasons, it is safer to date the prayer for Zacharias's reign,

56 Łajtar 2003b: 162.

57 Łajtar 2003c: 158–159; 2008: 401; Żurawski 2012: 109–114; Deptuła 2020: 22–23.

58 The *post quem* date is given by the *polychronion* of Abraham, which was written on the first layer of plaster.

59 Deptuła 2000: 23.

60 *History of the Patriarchs* (Life of the Patriarch Joseph 830–849) reports that Zacharias, on being told of the demand to send slaves to Egypt as part of the *baqt* (then in arrears with for 14 years), said that he was unable to meet the demand, because he could not leave the capital, which was threatened by 'al-barbar' (savages) (Vantini 1975: 194).

Fig. 15
A church dignitary on a throne resting his feet on the back of a man dressed in buff trousers tied with ankle straps. A painting from the baptistery of the lower church. Photo by Bogdan Żurawski

Fig. 16 (a, b, c)
The exterior face of the second perimeter wall: (a) western baths area; (b) the central sector of the western curtain; (c) area of the northwest corner. Note the differences in the arrangement of the bricks, especially the absence of bricks laid in a roll in the oldest wall (a)

i.e. 835–856.[61] This assumption would support the thesis that the reconstruction of the lower church involving the addition of side exedras and the eastern commemorative chapel took place between 787, the death of the *hegemon* Markos, and 856, the death of King Zacharias.

King Zacharias, who commissioned a church at nearby Selib,[62] probably personally visited the lower church at Banganarti. His presence there is confirmed by a sizeable inscription with only his name scratched on the western wall of Room 18.[63] This is ideally in line with a later convention that allowed Paper, a petty king of Dongola and its vicinity, to sign on the walls of the upper church in Banganarti with his name alone. Because everyone in his petty kingdom knew who he was.[64]

The thickening of the first phase perimeter wall by adding a mud-brick jacket 0.8–1.2 m wide to its outer side is confirmed on all four curtain walls (**Figs. 16, 17)**. It probably enabled the construction of a crenellated parapet, wide enough to allow two people to pass each other. Nevertheless, the functionality of the reinforced wall in a situation of an enemy attack equipped with siege machinery is very questionable. In terms of poliorcetic art, Banganarti's defences were a pathetic caricature of a fortress. Although the perimeter wall up to 3 m wide surrounded the settlement, there were no stairs by which the defenders could climb to the parapet. In the whole of Banganarti, there is only one diagonal indentation in the inner wall of the curtain wall, which could be interpreted as a flight of stairs leading to the crown of the wall.[65] In neighbouring Selib, a *refugium* and a place of pilgrimage (?), the 350 m long curtain wall made of mud brick on a stone superstructure was equipped with 32 or more flights of stairs leading to the top.[66]

The symbolic nature of Banganarti's defences is not unusual in medieval Nubia. The builders of most Nubian fortresses do not seem to have understood the basic principles of siege warfare. Although built at great expense and sometimes on a grand scale, the Middle Nile fortress in the Middle Ages was only a symbol of power, which assembled a vast workforce to build it. The impressive seat of a ruler emphasised his right to the territory surrounding it and gave him the power and authority to collect duties. Over time, the fortress's permanence was due to the enemy's weakness, who did not have siege machines at his disposal. It may have provided security against attacking Nomads but used to fall easy prey to invaders from the north.

It is not known precisely when the strengthening of Banganarti's first perimeter wall was carried out. However, the site's stratigraphy and analysis of ceramics thrown outside the wall suggest the mid-ninth century. The improvement of the settlement's defences was probably hastened by the grim news coming from the gold-bearing regions of the Fourth Cataract, where King Georgios's army had suffered humiliating defeats at the hands of the Arab adventurer and

61 Godlewski 2008: 277.

62 Żurawski 2016: 94.

63 Deptuła 2020: 67–68.

64 Łajtar 2020: cat. nos. 64, 67, 886. Paper also left his signature, without any designation, in the Cruciform Church at Dongola (Adam Łajtar's personal communication).

65 The width of these alleged stairs would have been about 45 cm, thus preventing the defenders from passing each other. The absence of any trace of stone slabs or burnt bricks with which the steps were lined makes it difficult to believe that a staircase could have existed here.

66 Żurawski 2016: 92–93.

gold-prospector al-Umari.[67] By the middle of the century, al-Umari was sending to Aswan caravans of slaves captured during his victorious skirmishes with the Makurians, which must have caused panic in the capital and the area around it. Moreover, the ninth century must have been a period of general confusion and unrest in the Western Desert because it was at this time that walls surrounded the monasteries in Wadi Natrun.[68]

These events, which might have aroused terror in the region of Dongola, correspond with the dates of the oldest ceramics deposited outside the second-phase wall. Since the date of these events roughly coincides with the rebuilding of the lower church, it is difficult to avoid the question of whether Banganarti suffered at the hands of the 'savages' mentioned in the *History of the Patriarchs* or other tribes penetrating the Middle Nile at that time. However, archaeological traces of extensive human-made destruction are scarce. Therefore, the actual cause of the damage to the lower church was probably natural, such as heavy rain or a high flood of the Nile.

Although Banganarti's fortifications were repaired and generally kept ready to repel all uninvited visitors until the middle of the tenth century, the settlement was, in reality, protected only by the providence of God and his reliable messenger, the Archangel Raphael. During good relations between Makuria and Egypt in the second half of the tenth century, the perimeter wall lost the rest of its *raison d'*être. At the same time, a pilgrimage settlement was rapidly developing, more pilgrims were coming, and new living spaces were badly needed. In addition, the situation was aggravated by the constant rise in the annual flood level on the Nile, which made the entire riverfront uninhabitable. Excavations in the northwestern corner of the settlement revealed that this part was abandoned soon after the tenth century. By this time, the perimeter wall in the northwest corner had already been partly demolished and sporadically used to bury children.[69] The centre of the life of the pilgrimage settlement moved steadily to the east, to the higher ground.

Moving pilgrim services to the eastern part of the settlement had severe consequences. First, the natural drainage and sewage disposal system into the Nile channel ceased, necessitating the construction of local drains that carried the water to the sand layer beneath, directly or through pipes or tubes made of tall vessels.

The process that transformed the pilgrim settlement formed around a local monastery into a large specialised establishment whose economy was based on pilgrimage was part of a broader nationalisation process, somewhat awkwardly but commonly referred to as 'Nubianisation'. It changed the face of the state and the church in the Middle Nile Valley in the tenth–eleventh centuries. In the sphere of worship and religious practices, Nubianisation involved certain departures from the canonical faith, which were manifested, e.g., by the occurrence of funerary deposits in the tombs of church dignitaries in the eleventh century.[70] Nubianisation was also an expression of the rapprochement between throne and altar, in which the throne stood higher than the altar. This process is evidenced by the

67 Vantini 1975: 180–184, 706–720.
68 Mueller-Wiener 1963: 132.
69 The children burials in the lower parts of the perimeter wall were found with their heads to the west.
70 Żurawski 1986: 413–420.

Fig. 17
Phases of the perimeter wall (highlighted) in the west corner of the northern curtain wall. Design by Agata Momot, 3D model by Roman Łopaciuk

mass appearance of portraits of rulers and secular dignitaries in churches. The growth of nationalist tendencies in the religious sphere was fostered by the difficulties associated with visiting the Holy Land and the centres of Eastern Christianity. The response to these complications was a new political theology aimed at merging secular and religious authority to strengthen the state in the face of growing threats. The symbolic epiphany of these tendencies was the construction of a national sanctuary in Banganarti. The seven compositions in the seven apses of the Raphaelion, each depicting a Nubian ruler surrounded by apostles under the protection of an archangel, are brilliant in their visual message and theological depth expositions articulating the strong connection between *hierosyne* and *basileia*. The upper church in Banganarti (= Raphaelion II) was expertly planned and executed as a pilgrimage sanctuary. Apart from the theological and political considerations, the decision to build it was taken when the growing influx of pilgrims from the Nile Valley and beyond reached proportions that required a purpose-built establishment designed to accommodate the massive flow of visitors and allow them easy contact with the *sacrum*.

Fig. 18
The hand of the Archangel giving a reliquary to the king. A fragment of the apse painting in Chapel 3, before conservation. Photo by Bogdan Żurawski

Although it was consecrated by an Egyptian bishop and built according to the eleventh-century Byzantine fashion of using the so-called recessed brick technique[71] and probably under the supervision of Byzantine artisans, the Raphaelion II was Nubian. Completed in the 1170s, it was commissioned to continue the cults of St Raphael the Archangel and Nubian sacrosanct kings. A well-preserved representation of the holy healer St Damianos, painted in a niche in the west wall of the northern staircase vestibule, also confirms the cult of the *anargyroi*.[72]

The period preceding the construction of the national pilgrimage centre in Banganarti saw growing tension between Muslims and Christians in the Holy Land after the fall of the Tulunids, which culminated in the execution of the Patriarch of Jerusalem.[73] Furthermore, persecution of Christians and Jews by the Fatimid caliph al-Hakim exacerbated the situation, hindering Nubian pilgrimages to the Holy Land. In the meantime, the Abu Mena shrine had finally fallen into disrepair. In such a situation, a pilgrimage centre 7 km away from the capital of Makuria was a perfect solution to the above problems. It satisfied the dogmatic need for pilgrimage and filled the spiritual vacuum created by the Nubians' limited access to holy places abroad. On the other hand, the combination of the universal cult of archangels, amazingly alive in Nubia, with the cult of local rulers was a visual manifestation of the artistry and subtlety of the new political theology promoted by the court in Dongola.

71 On recessed-brick masonry, see Ousterhout 2019: 394–395.
72 A partly washed-out image of St Cosmas, his twin brother, was painted next to the niche with the depiction of St Damianos.
73 Bianquis 1998: 103.

The veneration of the deceased buried *ad sanctos* in the crypt on the eastern side of the lower church[74] was probably continued after the lower church was levelled to the ground and overbuilt with the upper church. Because the plan of the Raphaelion II was utterly different from that of its predecessor, the walls of the upper church did not coincide with the lower one. However, there is one exception: above the tomb on the southern side of the commemorative chapel built against the eastern wall of the lower church, the upper church had a chapel (Chapel 3). Its apse was decorated with a representation of an anonymous Nubian ruler under the divine protection of the Archangel Raphael, accompanied by the 12 apostles.

In this scene, the Nubian *caesaropapism* of the eleventh–twelfth centuries is visible in its glory. The king is depicted as *isoapostolos*, i.e. 'equal to the apostles' (also literally, because his figure is the same height as the apostles). He hovers in the air, lifted by the apostles, who support his elbows, as in Kushite royal art.[75] The scene depicts the moment when the Archangel hands the ruler a reliquary. It is hard to imagine a more precise illustration of the divine majesty of the ruler **(Fig. 18)**. The king holds a horned crown in his left hand and in his right a sceptre in the shape of a golden column topped with a capital on which sits the figure of Christ. The Saviour, depicted atop the sceptre, raises his right hand in blessing.[76] Because both hands of the king are occupied, he cannot accept the reliquary given to him by the Archangel.

The scene of transferring relics to the ruler by the Archangel, not belonging to the classic motifs of Christian iconography, must refer to an event of particular significance in the history of the Nubian church and state.[77] Relics were a frequent diplomatic gift from Byzantine emperors to Christian rulers. It is likely that such gifts also reached Nubia. This is more likely because, in the neighbouring Chapel 2, another king is shown with the same sceptre but with a different reliquary in an identical scene. Notably, apart from the two examples from the Raphaelion, a sceptre in such a form is unknown in Christian iconography.

It is impossible not to ask whether the scene could represent critical episodes in the history of Banganarti, namely, the acquisition of the relics,[78] which may have been kept in the sub-floor cache placed beneath an *analogion*-like structure raised on the geometric axis of the church under its dome. Because of its central location, the *analogion* was easily accessible to the faithful, who could circle it in the way the Christian pilgrims circumambulate the *Aedicule* at the Church of the Holy Sepulchre in Jerusalem. The system of two opposite entrances allowed the Banganarti pilgrims to approach the relics by encircling them one or more times. It allowed a more extended stay in this proximity, which was very important for their miraculous influence.

The upper church in Banganarti was a hallmark of Nubian religious architecture. It continued the tradition of a state pilgrimage centre begun by its predeces-

74 Żurawski 2012: 378–379.

75 Żurawski 2014: 145–146.

76 The only known analogy to the sceptre from Chapel 3 comes from the neighbouring Chapel 2.

77 It is a rare and archaising motif known, e.g., from the Palatine Chapel in Aachen (Schiffers 1951: fig. on p. 17)

78 The relics may have been donated by the Byzantine emperor as a political gift or given to prince Georgios in 835, among 'objects of gold and silver, such as it was convenient to our rank' by Patriarch Mar Dionysius, as narrated by Michael the Syrian (Vantini 1975: 320).

sor, the lower church. Both were dedicated to the Archangel Raphael and underwent several transformations and reconstructions caused by constructional faults. The chronology of the upper church, its unique layout, and the time and circumstances preceding its consecration, as revealed by archaeology, precisely match the description of the consecration of the Nubian church commissioned by a Nubian king by Bishop George of Natu. It is contained in the *History of the Patriarchs* (by Severus).[79] Abu al-Makarim also described this episode, but with the strange information that the church, consecrated by Bishop George in the 1070s, according to Severus, was built by King Zacharias in thanksgiving to God for the safe return of his son Georgios from Baghdad in 836.[80] The two narratives seem contradictory. However, they make sense under one condition: they both refer to two phases of one church. The Raphaelion's history fulfils this condition since King Zacharias was involved in reconstructing its early phase. The later phase (Raphaelion II) was built directly above the ruin of its predecessor (the lower church) in the late eleventh century, so that Bishop George could have consecrated it.

Moreover, the unique details of the plan of the church consecrated by George contained in the *History of the Patriarchs* (by Severus) correspond perfectly with the layout of the upper church. The *History* specifically mentions the four 'shrines (*hayakil*) consecrated (by George) on that day'.[81] This information suggests an unusual arrangement. Since the number of shrines in a church is always odd, there should be at least five *hayakil* in the church consecrated by him to fulfil the condition of symmetry. Fittingly enough, the upper church has seven shrines and is the only church in the Dongola region with more than three. The only reasonable solution to this riddle is that Bishop George consecrated the Raphaelion II, built in the second half of the eleventh century, on the site of the dismantled (levelled with the ground) Raphaelion I, erected by King Zacharias shortly after 836.

After the consecration of Raphaelion II in the late eleventh century, the life and work inside the settlement became more and more subordinated to the service of the pilgrims. This was understandable given the significant increase in the number of visitors. The pilgrim, one of the many who began arriving en masse in Banganarti after the new Raphaelion was built, after making an offering at the shrine, had to purify his body and soul before encountering the *sacrum*. Fasting for purification of the soul could be done even on the way. The body, however, had to be purified, preferably in heated water, in a place designed for this purpose.[82] Therefore, bathing facilities became increasingly important. Especially since the bath complex in the southwest corner had been destroyed long ago. The ritual and non-ritual baths had to undergo a profound transformation in response to the changing situation.

In the most general terms, the new system was decentralised. The role of communal baths, somewhat in the style of Graeco-Roman bathhouses, located in the southwest corner, was taken over by a network of sanitary annexes in the *xenodocheia* and separate bathtubs adhered to the walls surrounding the settlement.

79 Vantini 1975: 212.

80 Evetts, Butler 1895: 270.

81 Vantini 1975: 212.

82 The heating increased the ritual efficacy of the lustral water used at the dedication of the Coptic church (Butler 1884: II, 342). For a similar purpose, the water used in the baths of House A at Dongola was heated (Jakobielski 1979: 116; 1982: 116). The purificatory character of the bathing in the capital of Makuria is indicated by the unusual set of protective murals and texts disposed on the walls of House A (Innemée, Zielińska 2019: 124; Godlewski 1982: 96).

Fig. 19
Banganarti in 2020 with the *xenodocheion* during excavation in the foreground. Oblique aerial photo by Roman Łopaciuk

Fig. 20
Oblique aerial photo of the *xenodocheion* in 2020. Photo by Roman Łopaciuk

The latter were equipped with subrectangular stone vats and thick-walled, flat-bottomed earthenware basins where bathers stood while being washed. The purification of the body was now taking place mainly in small bath cubicles, with access from above.

What has not changed was the water source.[83] The stratigraphic sequence exposed during the 2022 investigation between the *tholos* and the perimeter wall suggests that the ring-shaped structure that was eventually bypassed by the perimeter wall and soon after burned down, was the first *saqiya* on site. All that remains of this putative waterwheel is a fragment of its foundation made of large mud bricks[84] laid in a rowlock bond. Its alignment corresponds to the orientation of other buildings from the same period exposed nearby.[85] The stratigraphy also shows that the defensive wall at the point where it almost touches the *tholos* was founded on a thick conflagration layer, which may have been caused by the burning of the wooden platform. In the second phase, this platform, made of *doum* palm trunks, was supported by four pillars regularly arranged along the inner face of the circular wall.

Nevertheless, how water was supplied to the baths remains a mystery. There is not the slightest sign of a canal or pipe conduit. A similar situation was encountered in Selib, where the water was transported form the *saqiya* to a large pool 50 m away. It seems likely that the water was transported through an above-ground canal in both cases, as is still the case today in some parts of the Fourth Cataract region.

The amount of water provided by one *saqiya* was quite considerable. From the observation of the work of the waterwheel working on Artigasha island, it appears that the efficiency of the *saqiya* equipped with *qawadis* of five litres capacity was 3,600 litres per hour.

Pari passu with the construction of the second phase of the wall, a series of square or rectangular rooms was added to the outer face of the southern curtain wall.[86] Built of burnt and mud brick, they had no floors and were usually accompanied by small ovens. The *modus operandi* of these units became clear when analogous structures accessible from above were found in the sanitary complex attached to the northeastern *xenodocheion* at Banganarti. The context suggests a particular way of washing the body. Water was heated in clay pots over the hearths arranged in the neighbouring room, which also served as a kitchen. The bather descended a ladder to the cabin. He poured the water over himself while standing in a subrectangular stone vat or a huge ceramic flatbottomed basin of round or ellipsoidal shape.[87]

Excavations in the *xenodocheion* are currently underway (2022) **(Figs. 19, 20)**. So far, a late phase of the facility has been completely uncovered. It includes

83 See above on pp. 7–8.

84 The brick's length was impossible to estimate, the width was 0.26 m.

85 It was founded at a depth of 149.80 m below the local reference point (the upper surface of the stone threshold at the southern entrance to the upper church), while the perimeter wall at this point is founded 0.05 m higher.

86 There were some bizarre suggestions as to the purpose they served (Drzewiecki 2010: 357–358). However, the pure sand fill and the disarticulated human skeleton found inside the cubicle rather preclude the toilet theory. The suggestion has not found the slightest confirmation so far.

87 Such doorless spaces accessible only from the top were not unknown in medieval Nubia. The storage rooms in some Nubian houses did not have any entrance from ground level. They were accessed from above by a ladder. Adams 1977: 492.


area46
area41
area40
area36
area39
area 38
area 37
area 42
staircase
area 43
area 45
area 44
0 1 2 3 4 5 10

Fig. 21
Scaled vertical aerial photo of the *xenodocheion* with room numbering. Photo by Roman Łopaciuk

Fig. 22
Terracotta basin found in Room 42. Photo by Katarzyna Mich

Fig. 23
Stone basin in Room 39. Photo by Katarzyna Mich

an elaborate two-part, L-shaped kitchen space and a large dormitory occupying two-thirds of the entire complex. Pilgrims stayed mainly in its southern section, partially covered by a roof resting on palm trunks set in the wall and supported by a row of poles dug into the ground. Judging by the traces of multiple hearths, most pilgrims prepared their food for themselves. The bathrooms were arranged along the southern wall of the kitchen space. They consisted of three rectangular cubicles, of which the southwestern was the only one accessible through a door connecting to the dormitory **(Figs. 21)**. The other two could be entered only from above.

Fig. 24
Huge ceramic pool found on the secondary roofing over Room 39. Photo by Katarzyna Mich

The water, as said above, was heated on the fires in the kitchen area adjacent to the baths. Later, a new bathing complex consisting of cubicles set in a row was added outside the southern wall of the dormitory. A large terracotta basin and a stone vat were found in two doorless cubicles **(Figs. 22, 23)**. Notably, there were no outflows from these late bathrooms. Since minimal water was used, it simply soaked into the sandy ground.

The northeastern bath complex was also used as a latrine in the later period (thirteenth century and later). Terracotta toilet seats and huge terracotta basins were installed above the cubicles, resting on beams of the *doum* palm **(Fig. 24)**. Above the entrance to the only cubicle accessed from the narrow lane was an inscription consisting of a cryptogram and monogram of the Archangel Michael **(Fig. 25)**. At the same time, this corridor-like bath installation was extended to the south to create a sizeable sanitary complex used in the fourteenth century and later.

The doorless bathrooms of Banganarti were a step forward in the development of the late Christian *balaneutikè*. The entrance from the top was an exciting solution. The difficulty of climbing up and down the ladder was compensated for by the lack of draughts, which were an absolute nightmare, e.g. in twelfth-century Greece. Michael Choniates, Metropolitan Bishop of Athens in 1182–1204, described, with apparent mockery, a provincial bath as a hut with an open hearth where the bathers shivered from the cold because of the draught. The local bishop bathed there wearing a cap to avoid catching a cold.[88]

88 *Michael Akominatou tou Choniatou ta sozomena* 1879–1880: 2, 235. 13–19.

Fig. 25
Protective inscriptions over the entrance arch to Room 40. Photo by Katarzyna Mich

The history of the Banganarti baths reflects a general trend in the development of Byzantine *balaneutikè*. The earliest Banganarti bathing facilities were the communal baths in the southwestern sector. Dated to the second half of the sixth century, they were accessed by an arched gateway from a busy north–south street and connected by a narrow passage with a private residence next door. Because of the rising level of the Nile, the huge (by local standards) southwestern baths were moved to the east. In the latest settlement phase, the eastern baths were moved outside the perimeter wall and reduced to a cluster of small doorless cabins, usually associated with a hearth or oven. In the final phase of the pilgrim settlement, the baths and latrines became one unit, as is not uncommon in some old-fashioned Sudanese *hammamat*.

The fear of demons haunting the baths was as great in Banganarti as in other corners of the Christian *ecumene*. Apotropaic inscriptions invoking the Archangel Michael written in white paint above the entrance to the late baths/latrines complex, parallel to the *xenodocheion* attached to the inner side of the eastern curtain wall, are the best proof of this[89] **(Fig. 25)**. An apotropaic function is also specific for finds from the *xenodocheion* itself, such as a *qadus* knob with a pentagram carved on it, found, with other objects, on the sill of a blocked slot window, in Space 37 **(Fig. 21)**.[90]

Facilities intended to serve pilgrims were also built outside the perimeter wall.[91] The largest extramural structure associated with pilgrimage is the small *xenodocheion*,

89 More on this subject, cf. Böcher 1970: 204; Dunbabin 1989: 37; Berger 1982: 34; Bonner 1932: 203–208.
90 Cf. *Banganarti Studies* I, fig. 17 on p. 233.
91 E.g. a passage over the wall in the eastern part of the northern curtain wall gave access to a large complex built on the outer side of the wall (Drzewiecki 2017: 303, fig. 2).

built outside the eastern curtain wall on the south side of the eastern tower. Between the eleventh and fourteenth centuries, the northeastern tower was also converted into an outdoor sanitary complex with a rectangular latrine and rooms used for bathing.[92]

The curtain wall in the northeastern part of the settlement was partly demolished to construct a pilgrims' facility serving the increasing number of pilgrims arriving in Banganarti after the eleventh century. In keeping with the spirit of the times, the thickness of the defensive wall at this point was reduced in some places to 80 cm, which made it utterly useless for defence. It was, however, a lovely place for the temporary stay of visitors. Especially in summer, the place was shaded from the sun and exposed to the northern breeze. Excavations yielded, in addition to a collection of carnelian and white crystal beads, three ceramic toilet seats and a stone vat used for bathing (?).[93]

From the eleventh–twelfth centuries, most of the Banganarti residents lived off pilgrims. Such a monocultural economy had limitations, but it also had undeniable advantages. Most importantly, it made the settlement less dependent on the economic situation of the kingdom, which was constantly deteriorating. Paradoxically, Banganarti was somewhat immune to the hardships suffered by neighbouring sites when the Kingdom of Makuria plunged into a political and economic crisis. This is to some extent understandable because whenever a life crisis confronted people, they sought help and protection from divine patrons and intercessors. The churches, holy sites, pilgrimage centres, etc., became a favourite destination for those in need. These were the standard behaviours during pandemics, famines and enemy attacks. Everywhere in the Christian *ecumene*, the limited trust in the efficiency of the state in dealing with imminent danger drove pilgrims to holy places where they could obtain spiritual help and protection from the heavenly patrons. In the Middle Nile, such a place was the shrine of the Archangel Raphael, protector of human health and a great intercessor with God. So, the more misery, poverty, and disease, the more people flocked to the Banganarti Raphaelion. Paradoxically, the pilgrimage settlement, 7 km from the capital of the ailing kingdom, reached the peak of its popularity, as measured by the number of visitors, in the fourteenth century when, in the face of the Black Death, crowds began to flock to the shrine of the Archangel Raphael.

Holy places die hard, but the end comes for them too. The main Nubian pilgrimage centre declined in the fifteenth century, even though it was then visited by prominent officials of the Kingdom of Dotawo, including King Siti himself. The visit of King Siti, attested by three inscriptions in the Raphaelion,[94] indicates that the shrine of the Archangel Raphael continued to be a sacred place for the Nubians and, more importantly, for the institution of the holy kingdom, the political centre of which was moved north, while its religious centre remained in Banganarti. Interestingly, the last Christian kings of Nubia, residing in the north, made pilgrimages to the shrine of the Archangel Raphael, which lay by then outside the political boundaries of their principality, just as the Meroites, Noubades and Blemmyes made pilgrimages to the shrine of Isis on the island of Philae, in Egypt. Perhaps the first visit of King Siti to the Raphaelion took place shortly

92 Bagińska 2008: 421.
93 Żurawski 2008: 392; Drzewiecki 2008: 405–409.
94 Łajtar 2020: cat. nos. 9, 99, 554.

after his enthronement. If so, it would be consistent with the Kushite tradition of a newly enthroned king making coronation pilgrimages to the main religious centres of the kingdom.[95] King Siti may have undergone the rite of incubation in the Raphaelion, just as the rulers of Kush had done in the temples of Amun, but it is probably a too far-reaching suggestion.[96]

Despite the royal visits, the Late Christian period witnessed the pilgrimage centre in Banganarti slowly becoming a ghost town, full of half-ruined houses scattered around the still-standing Raphaelion II with the so-called Western Building attached to it. The dead were buried in the partly deserted settlement, surrounded by the half-dismantled perimeter wall, although the people still lived in the houses nearby.

The defensive walls became an easily accessible source of *muna*, which was mixed with water and made into bricks. Traces of this practice can be seen in the late buildings because the bricks made from reused Nile silt had reduced durability and were easily weathered, especially after being soaked by rainwater.[97] The demolition of Banganarti by the inhabitants of the surrounding Fung-period villages[98] intensified after the site became abandoned.

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Abbreviations

FHN Fontes historiae Nubiorum. Eide, Tormod; Hägg, Tomas; Pierce, Richard Holton; Tőrők, Laszlo. URL: http://digital-ub.uib.no/1956.2/3083.

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95 *FHN*, 71.

96 *FHN*, 208.

97 Late bricks made of secondary clay had a darker colour and a higher admixture of the organic fraction (Żurawski 2015: 375).

98 The most important of these was neighbouring Sinada, which was destroyed by a record flood in 1946.

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Great Lent in Nubia in the Light of the Liturgical Hymns from Banganarti[1]

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Abstract:

All liturgical hymns discovered on the walls of the lower church at Banganarti are connected with one liturgical period, Great Lent, the preparatory period for the most important Christian festival of Easter, which was the oldest and most important Christian feast. No doubt celebrating the Passion of Christ was also significant in the Middle Nile Valley. However, unfortunately, many issues relating to the Nubian Church and its practices remain unknown, including traditions connected with the events of the pre-paschal period. The paper aims to gather all texts known from the Middle Nile Valley related to this period to attempt a reconstruction of the local practices.

Keywords: Nubia, Christian period, Great Lent.

During the study of the inscriptions from the lower church, my attention was particularly caught by a set of inscriptions containing Greek liturgical texts. This remarkable group was located in one room – the central space of the western annexe located precisely opposite the apse **(Fig. 1)**. These inscriptions seem to form a homogeneous collection, with all the longer texts comprising liturgical hymns. They were written in a skilful hand in a pointed sloping majuscule **(Figs. 2, 3)**, a script typical for manuscripts, in very small letter dimensions measuring no more than 0.5 cm. This type and size of script would be expected in a book rather than on the wall of a small and dark space, offering only a limited possibility of reading.[1]

The discovery is all the more extraordinary because an epigraphic programme containing wall-inscribed hymns is unique not only within Christian Nubia but perhaps even of all Christendom. Individual hymns were sporadically written down in Nubian churches, among others in the Archangel Raphael church at Old Dongola,[2] the cathedral at Faras[3] and the Egyptian temple at Tafa, which during the Christian period was transformed into a church.[4] Moreover, single verses derived from hymns were left by pilgrims on the walls of places of worship. This practice is also attested at Banganarti in the upper church,[5] in the monastic complex of Old Dongola[6] and the Sonqi Tino church.[7] There is nothing to suggest those texts could play any unique liturgical role, nor be connected with the function of the space in which they were located, whereas at Banganarti hymns seem to form a homogenous group both in terms of form and content (cf. below), which does not seem accidental. They were probably copied onto the walls from a liturgical book (or even a single liturgical codex), as indicated by the scale of the letters, text layout and elements corresponding to rubrics.[8]

Furthermore, all texts discovered at Banganarti are connected with one liturgical period, Great Lent, the preparatory period for the most important Christian festival of Easter. Therefore, the liturgical hymns discovered and identified at Banganarti provide a basis for a better understanding of how this period was celebrated in medieval Nubia.

Easter is the oldest and most important Christian feast, commemorating the passion, death and resurrection of the Saviour. It is the main element of the moveable annual liturgical cycle, with all other festivals arranged around it. From at least the fourth century A.D. onwards, the celebrations of the paschal mystery were preceded by preparatory fasting lasting 40 days. No doubt celebrating the Passion of Christ was also extremely important in the Middle Nile Valley. However, unfortunately, many issues relating to the Nubian Church and

1 Most of this chapter originally formed a part of my doctoral dissertation written at the Faculty of History of the University of Warsaw under the supervision of Adam Łajtar and defended in May 2019. The thesis, after some modifications and after having been translated by Magdalena Jarczyk, was published in 2020 under the title *Liturgical Poetry in Christian Nubia: The Evidence of Wall Inscriptions in the Lower Church at Banganarti*. However, at the last stage of preparation I decided that excluding the part concerning Great Lent and publishing it as a separate text would be beneficial for the book.

2 Unpublished, in preparation by Tomasz Derda, Adam Łajtar and Agata Deptuła.

3 Ring 1982.

4 Unpublished, publication of the site in preparation by a group of researchers directed by Gertrud van Loon.

5 Łajtar 2020.

6 Adam Łajtar, personal communication.

7 Unpublished, edition in preparation by an international group of researchers directed by Vincent Laisney.

8 Deptuła 2020: 143.

Fig. 1
Model of Room 18. Prepared by Roman Łopaciuk

its practices remain unknown, including traditions connected with the events of the pre-paschal period.

No iconographic programme for Great Lent appears to exist. The only painting linkable to Great Lent is the scene of the raising of Lazarus in the church at Naqa el-Oqba, in the western part of one of the aisles. However, this church is an exception; its paintings are closer to Egyptian rather than Nubian patterns in execution, themes and composition.[9]

Until the discovery of the hymns at Banganarti, only four texts possibly relating to Great Lent had been known:

1. A lectionary from Qasr Ibrim (*P. QI* I 7)[10]

The leaf of a parchment codex containing readings for the first two Saturdays and Sundays of the month Mesore. After listing the lection for the first Sunday, the manuscript further contains the information that the same pericope – *Heb.* 6:7–8 – should also be read on the sixth Saturday of Great Lent: ⲛⲏⲥ̀ⲧ́ · ⲥⲁⲃ̀ⲃ́ · ϛ̄ | [..]ⲡ̣ ⲉⲥⲉⲥⲱ, which should probably be translated as 'Great Lent, 6th Saturday. Say (?)'.[11]

2. A lectionary from Qasr Ibrim (*P. QI* I 1)[12]

A parchment fragment containing only one psalm reading for the fifth Sunday of Great Lent (ⲛⲏⲥ̀ⲧ́ ⲕⲩⲣⲓⲁⲕⲏ ⲉ). It specifies chanting Psalm 31, which begins with the words Μακάριοι ὧν ἀφέθησαν αἱ ἀνομίαι καὶ ὧν ἐπεκαλύφθησαν αἱ ἁμαρτίαι.

9 Zielińska 2009: 143–144.
10 Latest edition: Ochała 2015: 7–9.
11 After Ochała 2015: 8.
12 Latest edition: Ochała 2015: 9–10.

3. A calendar calculating the date of Easter for several consecutive years[13]

This text of four columns of dates was written on the reverse of the *Arabic Scroll of Timotheos*, appointed bishop of Qasr Ibrim in the fourteenth century. The calendar offers a rough and incomplete reckoning of the date of the Sunday before the beginning of Great Lent and the date of Easter day for the years 1372–1378. It is unclear whether the bishop had this compilation written in Egypt before his journey to Nubia, predicting the lack of such data on the spot,[14] or after his return to Makuria, primarily since the text was written in Nubian majuscule, a script characteristic of scriptoria in the Middle Nile Valley.[15]

4. An inscription from Old Dongola quoting the homily *De ieiunio* by Basil the Great[16]

Another source is the inscription from Old Dongola, located in the vestibule (Room 1) of the southwestern annexe of the monastery on Kom H. According to Włodzimierz Godlewski, the annexe may have initially been the monks' main entrance into the building,[17] above the passage from the vestibule. It contains a quote from *De ieiunio*, a Great Lent sermon by Basil the Great.[18]

The text from which this excerpt was taken is Basil the Great's first homily, one of two texts for the first Sunday of Great Lent. In the passage, Basil refers to the Bible, specifically the Book of Isaiah.[19] The sermons are not directly connected to Great Lent, but both contain a new idea of fasting as not merely abstaining from food and drink but also as spiritual purification – abstaining from evil deeds, falsehood and lies.

The discoveries in the lower church at Banganarti provide four new inscriptions connected with the pre-paschal period, three comprising more than one piece. Those are:

5. Two hymns connected with Great Lent[20]

Both hymnical pieces are located on the southern wall and written in a single hand, one below the other and separated by a horizontal line. Neither has exact parallels among known liturgical hymns. The upper text (lines 1–10) is very poorly preserved, impeding the reconstruction of the whole. However, references to Great Lent in at least three lines indicate it was connected with this period. The lower text (lines 11–33) is much better preserved, which means it can identified as a structural hymn divided into seven strophes (*troparia*). Each verse lists one of the virtues of fasting and gives an *exemplum bonum* of abstinence drawn from the Old Testament. The same motives can be found in liturgical poetry and patristic literature intended for the preparatory period of Great Lent.

13 Plumley 1975: 41–42.
14 Plumley 1975: 41.
15 Ochała 2011: 50.
16 Łajtar 2015: 289–292.
17 Godlewski 2015: 278–279.
18 Basilius Caesariensis, *De ieiunio [homilia 1]*, *PG* 31: 164.
19 *Isa*. 58:4 and 6.
20 Deptuła 2020: no. 19.

Fig. 2
Location of the inscription with liturgical canon (no. 29) on the northern wall of Room 18. Prepared by Roman Łopaciuk

6. Two liturgical hymns possibly connected with Lazarus Saturday[21]

Unfortunately, the texts located on the western wall are poorly preserved, with large fragments of plaster missing, and the ink faded in the case of those remaining *in situ*. Nonetheless, visible remains establish that the text consists of two separate structural hymns – canons.[22] Moreover, a reference to the resurrection of Lazarus in line 3 leads to the assumption that the hymn is connected with the Saturday of Lazarus, the last Saturday of Great Lent before Palm Sunday and a special day within the pre-paschal period: the cumulation of Lent and transition to Holy Week. The miracle of the raising of Lazarus in the Gospel of St John[23] was the subject of many hymns and homilies connected with this day, as a theme giving expression to the concept of the general resurrection of humankind.[24]

21 Deptuła 2020: no. 22.
22 For more about the genre, see Wellesz 1962: 243–245.
23 *Jn*. 11: 1–45.
24 Shurgaia 1997: 147–168.

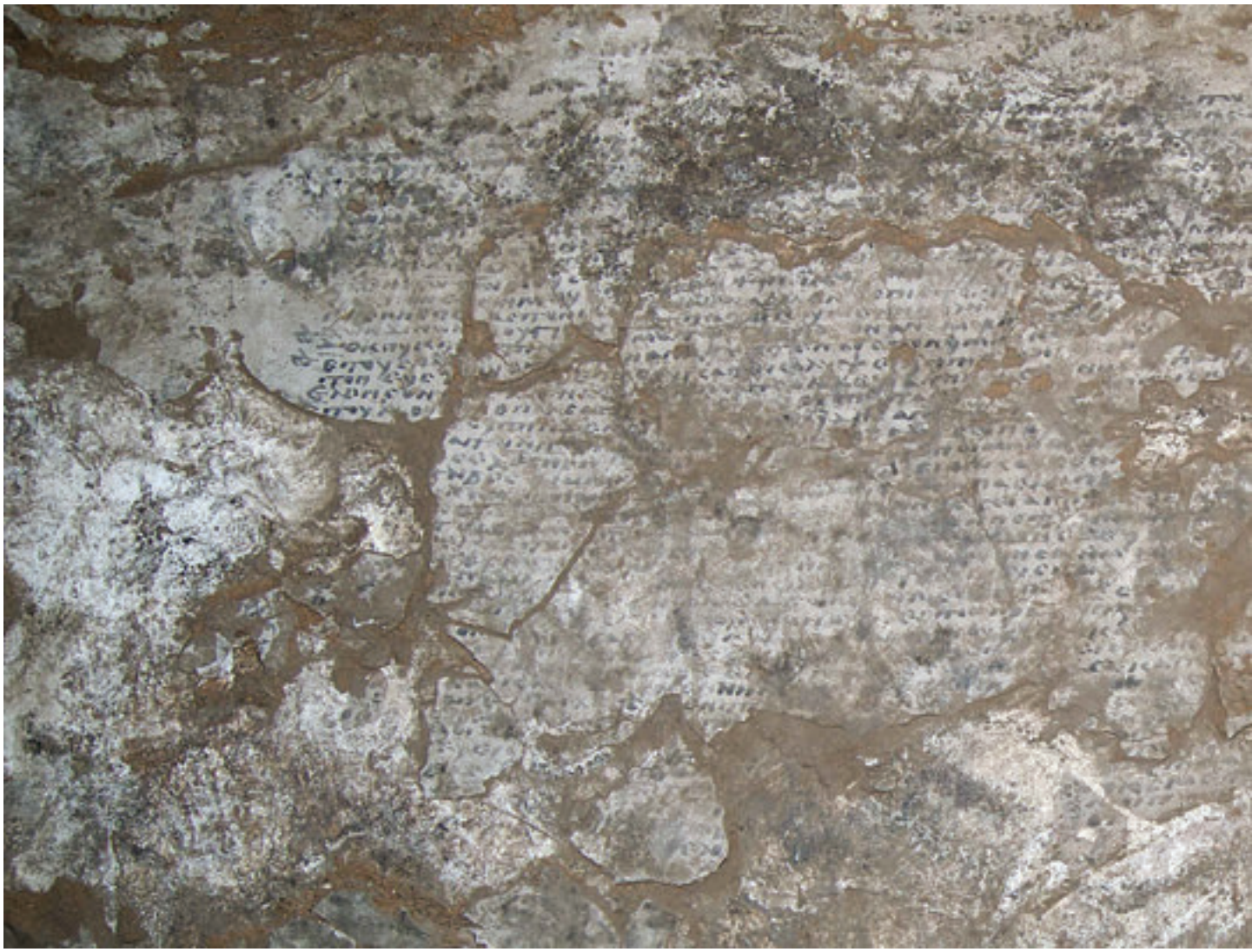
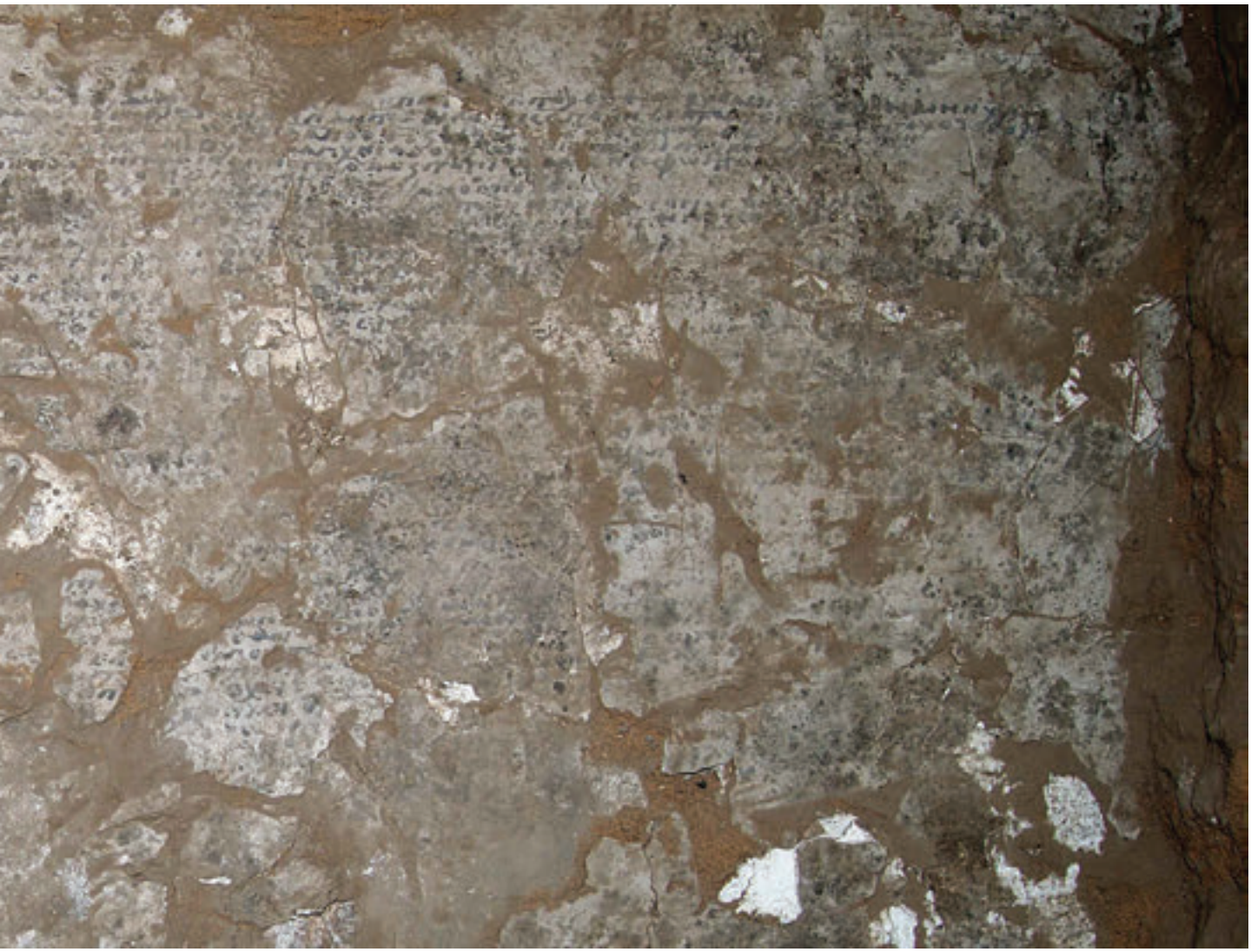


Fig. 3
Inscription with liturgical canon (no. 29) located on the northern wall of Room 18. Photo by Roman Łopaciuk

7. List of *troparia* for Palm Sunday[25]

Another inscription on the western wall is also very poorly preserved. Although the least preserved of all the texts discovered in the lower church, it seems essential. It consists of several short poetic pieces (*troparia*) occupying one to two verses. It is possible to distinguish among them the well-known *troparion Hodie ingressus est Salvator*, a fragment based on Psalm 117.26, and another one commemorating Jesus' entrance into the Holy City. Remarkably, the tradition of singing short hymns related to the triumphal entrance of the Saviour during Palm Sunday is already mentioned by Egeria[26] and is attested in the earliest liturgical books, such as the fifth–eigth-century Georgian Lectionary[27] and the Georgian Tropologion, comprising the oldest stratum of Greek hymnography,[28] which is still prominent in the Eastern Church today. Moreover, singing was frequently

25 Deptuła 2020: no. 25.
26 *Itinerarium Egeriae* 31.10.
27 Ed. Tarchnisvili 1959.
28 *Udzvelesi Iadgari*, ed. Metreveli, Čankievi, Xevsuriani 1980.



connected with the Palm Sunday procession, and a similar sequence of hymns discovered on papyri[29] is believed to be evidence that such a procession also took place in the Egyptian Church.[30]

8. Hymn connected with Great Lent[31]

The last inscription, located on the northern wall, consists of only one text – a structural hymn (canon) divided for night odes. This text is also only partially preserved, and it was possible to find explicit references to fasting in only three lines. An additional line mentions repentance, which is a subject frequently referred to during Great Lent. 'Fast' is defined as a 'doctor of bodies and souls' in one line, and this notion is very similar to the conceptions recurring in other hymns described above. However, like the other hymns from the room, it can be assumed this is also related to Great Lent in its entirety.

29 *P. Vindob*. G 1383 + 19895 + 26089.
30 Grassien 2001: 559–569.
31 Deptuła 2020: no. 29.

Fig. 4
Northern wall of Room 18, before conservation. Photo by Bogdan Żurawski

Although the collection of texts connected to Great Lent is more than modest, it allows for some preliminary conclusions regarding local practices. The Qasr Ibrim lectionaries prove that the division into two cycles of feast days, fixed and moveable, was known in Nubia, with Great Lent and then Easter part of the latter. Throughout the Christian world, Great Lent theoretically lasted 40 days; however, the issue is more complex. Forty-day-long fasting became a fixture of pre-paschal preparations in all Churches in the fourth century following the Council of Nicaea, but the actual length may have differed in various traditions depending on whether Saturdays and Sundays were also counted. According to Egeria, Great Lent in Jerusalem lasted eight weeks, including Holy Week, but researchers believe she was mistaken about the number she quoted.[32] The sixth Saturday commemorated Lazarus in the traditions of Constantinople and Jerusalem, but it was the seventh Saturday in the Coptic Church.[33] Therefore, the question of how many weeks Great Lent lasted in Nubia should be raised. Based on the data from the compilation on the back of the Timotheos scrolls, Martin Plumley calculated that this period lasted from the last Sunday before Lent until Easter, at least in the fourteenth century, so 55 days,[34] which gives us seven weeks of Great Lent and six days of Holy Week. Therefore, the Nubian Church followed the Egyptian tradition, which is logical when considering that Timotheos had those dates calculated before returning to his see. Furthermore, the Nubian liturgical calendar was based on the Egyptian civil calendar.[35]

Some information, although very scant, concerning the system connected with the pre-paschal period can be drawn from sources found at Qasr Ibrim. The *Apostolos* from the *Qasr Ibrim Lectionary* (*P. QI* I 7) has no analogies in any available books. Readings from the Epistle to the Hebrews on the last Saturday of Great Lent feature a few sources, including the *Typicon Magnae Ecclesiae*, *Sin. Geo. O.* 10, and *Vladimir 21 Savva* 4,[36] as well as the *Georgian Lectionary*,[37] but none use the same passage. Another *Lectionary* (*P. QI* I 1) prescribes singing Psalm 31 on the fifth Sunday of Lent. According to the *Typikon* of the Great Church, the psalm was chanted in full on the sixth Sunday of Great Lent[38] and during Holy Week. I have been unable to find any evidence for its use in other sources. Both examples imply that the Nubian Church made use of local reading traditions.

The Banganarti hymns provide further details for that liturgical period. Most importantly, they demonstrate that the concept of Great Lent and fasting in the region corresponded to traditions known from the entire Christian *oecumene*. Great Lent was meant to be spiritual preparation for the paschal *Triduum*, its main point being not so much abstinence from eating as spiritual cleansing. This concept is conveyed both in the hymns described above and in the inscription from the Kom H monastery at Old Dongola. Texts discussing the virtues of abstinence and instructing the audience on how to fast usually connect to the onset of the preparatory period. The subject was raised either during the first week of Great Lent

32 For more on the length of Great Lent, see Talley 1991; Bertonière 1997: 29–31; Bradshaw, Johnson 2011: 92–113.
33 Camplani 1993: 105–120.
34 Plumley 1975: 41.
35 Ochała 2015: 35.
36 After Galadza 2018: 336, table 5.12.
37 Tarchnisvili 1959: 74.
38 *Typicon Magnae Ecclesiae*, vol. II: 62.

or in the preceding Cheesefare Week, and the two Banganarti hymns most probably were intended for this period. It is impossible to determine whether Cheesefare Week was part of the celebration in the Nubian Church. However, specific date-reckoning of the last Sunday before Great Lent, known in the Eastern tradition as Cheesefare Sunday, on Bishop Timotheos' calendar might indicate this day was of some importance in the Middle Nile Valley.

Another critical stage of Great Lent is its end, or, more precisely, the transition between the *quadragesima* and Holy Week. In all traditions, this period is dedicated to the notion of universal resurrection and the Saviour's triumph over death, as expressed through the commemoration of the raising of Lazarus. The canon mentioning Lazarus implies that the tradition of celebrating the last Saturday of Great Lent as the Saturday of Lazarus was also known in the Middle Nile Valley.

Great Lent culminates in the commemoration of Christ's triumphant entry into Jerusalem, when he was greeted by the inhabitants with palms. In remembrance of this event, a procession with palms was held on the Sunday before Holy Week, with chanting of short pieces on how the Saviour entered the city and the verse from Psalm 117 with which the Gospel says he was greeted. The Banganarti inscription comprising short *troparia* (cf. above) attests such hymns were also chanted in medieval Nubia, which in turn may indicate that a solemn procession took place there on the last Sunday of Great Lent.

The evidence listed above, while meagre, demonstrates Lent-related texts from Nubia have parallels in all the traditions of the Christian East, implying Great Lent was celebrated in the same way in Nubia as in Jerusalem, Constantinople, Antioch, and Alexandria, but also in the periphery of the Byzantine Empire, as indicated by Georgian and Armenian sources.

The only observable discrepancies between Nubian tradition and that of the other Eastern Churches lie in the selection of readings for Great Lent Sundays, which may be evidence of local practices developed over the centuries. The lack of analogies in the selection of pericopes for fixed and moveable cycle feast days was raised by Grzegorz Ochała in his analysis of the surviving lectionary fragments.[39]

Encountering a cluster of so many inscriptions of the same nature together in one space leads to questions regarding their purpose. They cannot have found their way there by accident; therefore, we must consider the motivations and reasons of the people who decided to put them on the walls of a small and dark room. The purpose of the inscriptions absolutely cannot have been functional: the letters are very small, and reading them *in situ* is practically impossible. No cantor could have used them as an aid when chanting the hymns, and it strains the imagination to picture someone memorising a long hymn from the wall there. It is also unlikely these hymns could have been school exercises. Examples of pupils writing on church walls are known at Faras,[40] Old Dongola[41] and Sonqi Tino,[42] among other places, but are usually simple texts comprising columns of words beginning with the same letter; long and complicated hymns are not exactly optimal for learning how to write. On the other hand, it is not completely impossible

39 Ochała 2015: 34–37.
40 Jakobielski 1965: 176; 1974: 307; Kubińska 1974: 225–229.
41 Łajtar 2014: 290–292.
42 Laisney 2012: 611–612.

for them to have been the writing practice of a professional scribe, who used empty wall spaces to practise his hand before committing a sacred text to the expensive medium of parchment. Still, this does not seem all that likely, and the practice is not attested in any other finds.

All this implies they were merely symbolic in function, signifying the purpose of the entire room; however, no indications of any particular purpose of this space are known in the Nubian Church.

The only example of an inscription connected to the liturgical purpose of a specific space are the northern pastophory prayers known from several Nubian churches at Old Dongola, Sonqi Tino and Faras. They are always accompanied by a particular iconographic and architectural programme depicting Christ blessing a chalice located near a specially constructed altar. The prayers themselves, the most complete variant having five texts, have no exact analogy in other traditions, but are definitely connected with the Liturgy of the Presanctified Gifts,[43] which made it possible to receive communion in the form of bread and wine outside the standard Liturgy of the Eucharist and which was of particular importance on the aliturgical days (Monday to Friday) of Great Lent, but was also used on other, specific days of the year.[44]

We have too little data to say what this liturgy was like in Nubia, but, indeed, it must have been conducted, in part at least, in the northern pastophory where the inscriptions and paintings are located. The iconographic programme accompanying the texts emphasises the liturgical nature of this room.

As for the space in the lower church with liturgical hymns, nothing indicates its inscriptions are part of the same programme as the paintings. There is no way to combine the images of the holy riders or the scene on the western wall with Great Lent,[45] and so they should be considered separately. The texts were copied from liturgical books, imported from Eastern Christendom and used in Nubia. The hymns of undoubted interpretation are liturgical canons traditionally chanted during the morning office – Matins,[46] and short Palm Sunday hymns possibly chanted during the palm procession.

As suggested by Bogdan Żurawski, the space under consideration may have functioned as a counter-apse, and the celebrations held there included Matins.[47] However, after deciphering all these inscriptions, an association with Great Lent might indicate the space was used to celebrate Matins and the entire pre-paschal synaxis.

The key to understanding the role of the room may lie in the texts relating to the Palm Sunday procession. This procession was originally held outside the church but, over time, moved into the building in Jerusalem, Constantinople and Alexandria. The procession is typically directed to the narthex within a church – a space only rarely encountered in Nubian churches. In the absence of the narthex, its functions may have been taken over by other rooms opposite the apse, such as Room 18 in the case of the church at Banganarti. Therefore, the presence of inscriptions would symbolically emphasise the liturgical importance of this space.

43 For more on the subject, see Łajtar, Zielińska 2016: 439–452; Brakmann 2012: 285–292.

44 For more on the Divine Liturgy of the Presanctified Gifts, see: Alexopoulos 2009; in Christian Nubia: Łajtar, Zielińska 2016: 449–452.

45 For an interpretation of the paintings, see Żurawski 2012.

46 Wellesz 1962: 243–245.

47 Żurawski 2012: 237–238.

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Inscribed Vessels from Banganarti

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Abstract:

This paper presents the graffiti and dipinti from Banganarti written on vessels intended for domestic use. Inscribed vessels discovered at Banganarti are dated from the seventh until the fourteenth century, covering nearly the entire settlement's occupational period. Altogether there were 102 finds. The texts can be divided into two main categories based on their nature and function: (1) owners' inscriptions with 25 examples and (2) group containing names of divine entities, constituting more than half of all the discoveries.

Keywords: medieval Nubia, Banganarti, pottery, graffiti.

Inscriptions on pottery constitute the most numerous group of epigraphic finds. In the Database of Medieval Nubian Texts, there are 384 examples recorded, which makes them the third-largest group in this collection, amounting to 13% of all textual sources from medieval Nubia.[1] However, finds from only a few sites have been published so far. The most extensive publications are connected with two sites: the monastic complex at Ghazali[2] and Soba, the capital of Alwa, one of the three medieval Nubian kingdoms.[3] To these should be added examples from other settlements, which can be found in various publications, e.g. Meinarti,[4] Aksha[5] and Faras,[6] to name only a few.

In most cases, these publications are limited to presenting the material with a preliminary reading of the texts without further analysis, considering the types of the inscribed vessels or their chronology. The only more comprehensive study, which apart from the edition of texts provides information concerning pottery and the context of discovery is an article written by Adam Łajtar and Krzysztof Pluskota describing the deposit discovered in a storeroom (Room 21) of the Western Annex of the Monastery on Kom H at Old Dongola.[7] The assemblage of 28 pieces is dated to the thirteenth–fourteenth centuries and consists mainly of vessels belonging to only two individuals: Marianos and Lazaros, both referred to as archimandrites. However, it is only a tiny part of the inscribed vessels from Old Dongola. Only within the Monastery on Kom H, between 2014 and 2017, more than 200 pieces were discovered that are still awaiting publication.

Further excavations at Ghazali and Soba brought to light additional finds of this type. At Ghazali, where works are already finished, approximately 1,000 inscribed fragments are now being prepared for publication.[8] Excavations at Soba resumed in 2018 and are still in progress. Since then, several dozens of potsherds with graffiti have been discovered.[9] Many unpublished finds are scattered around various museum collections in Sudan and worldwide or hidden in archaeological missions' storerooms. The number of inscribed vessels from medieval Nubia is challenging to estimate, but the entire assemblage comprises several thousand pieces.

Even though the texts inscribed on the vessels are generally short, usually featuring a personal name, title, or the name of a divine entity (cf. below), their study poses a considerable challenge. Most of the names are written in abbreviated form, frequently as monograms, and their decipherment, especially in the case of rare names, is difficult. The same applies to the titles and offices, which often lack parallels outside the Middle Nile Valley. There are also abbreviations, symbols, and numeric cryptograms, apparently popular in medieval Nubia but incomprehensive for modern scholars. Only the publication of most of those finds from different sites and mutual comparison will provide a better understanding of the

1 Ochała 2014: 13.
2 Shinnie, Chittick 1961; Obłuski, Ochała 2016.
3 Jakobielski 1991; Anderson 1998.
4 Adams 2001.
5 de Contenson 1966.
6 Jakobielski 1965.
7 Łajtar, Pluskota 2001.
8 Grzegorz Ochała, personal communication.
9 Drzewiecki et al. 2020.

tradition of casual writing in medieval Nubia. The juxtaposition of those graffiti with other writing sources, like visitors' graffiti and documents, will enable us to find parallels and unravel enigmatic abbreviations.

The main aim of this paper is to present the graffiti and dipinti from Banganarti written on vessels intended for domestic use. Some texts were also discovered on amphorae, but transporting vessels from Banganarti are the subject of another article in this volume, written by Dobiesława Bagińska, in which inscribed objects are provided with a transcription of the text (for a short description and summary of the content, see below).

Inscribed vessels discovered at Banganarti are dated to the seventh–fourteenth centuries, so they cover nearly the entire occupational period of the settlement. However, most texts were incised on Classic Christian pottery (nos. **13–51**), as well as on Post-Classic and Late Christian pottery (nos. **52–93**). The most popular form of inscribed ceramics throughout this period was a fine ware bowl with text incised inside on the body or the bottom. They represent various forms and sizes, with most small to medium bowls decorated and plain. Inscriptions on closed vessels, such as jugs, bottles or jars, occur scarcely; only seven examples were recorded among the ceramic assemblage from Banganarti. Most inscribed vessels were preserved as potsherds, and, consequently, the incised texts were often incomplete.

There are no regularities when it comes to the distribution of finds on the site. Most of the sherds were discovered in secondary contexts, which impeded the establishment of their original backgrounds. Only two bowls (nos. **24** and **32**) were undoubtedly discovered *in situ*, placed as a foundation deposit in a small, vaulted casing made of baked brick, which was a structural element of a staircase.[10] In all probability, two intact spouted jars (nos. **35** and **37**) were also discovered in their original contexts, with the first located in one of the houses in the southern quarter, and the second in a space adjacent to the enclosure wall, along with other complete vessels. Nonetheless, most vessels were connected with residential quarters and intended for private use. Only calix no. **95** from the fourteenth century can be labelled as a liturgical vessel.

Apart from the inscriptions written on the vessels from Banganarti, six ostraca were written on re-used sherds with black ink. Unfortunately, the ink had faded in most cases, making the text illegible.

Another find which deserves particular attention is a bowl discovered in 2011 inside House SW1 in the southwestern living quarter (inv. no. 82/2011).[11] This vessel, dated to the seventh–eighth centuries, stands out not only from the inscribed objects from Banganarti – it seems that it also does not have a parallel in the entire Middle Nile Valley. A distinctive element is the type of script, which can be identified as Byzantine minuscule, which is extremely rare in medieval Nubia. Except for the Banganarti text, ostraca were found during the West Bank Survey at Abd el-Qadirand one ostracon was discovered on Kom B at Old Dongola.[12]

10 Cf. Żurawski et al. 2017.
11 Publication of the text is still in preparation.
12 Unpublished; Adam Łajtar, personal communication.

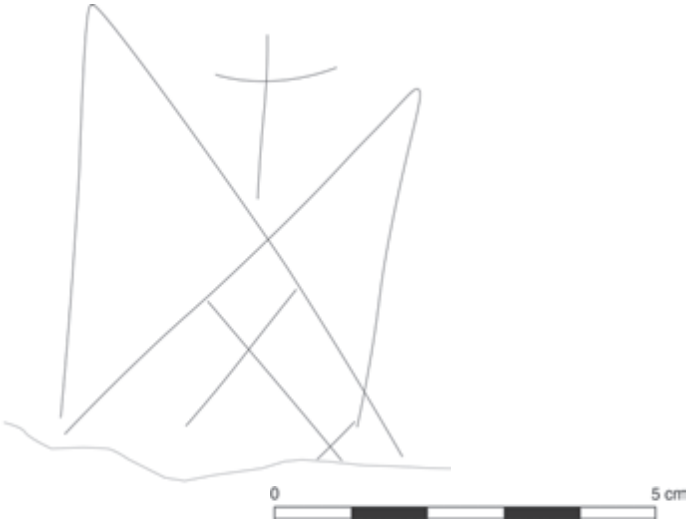

GENERAL SURVEY PLAN OF
BANGANARTI SITE
2018/2019 SEASON
N
S
0 2 4 6 8 10 20 30
NEECH
EECH
NNECH
NECH
ECH
NNCH
NCH
CH
NNWCH
NWCH
WCH
NNWWCH
NWWCH
WWCH

Fig. 1
Plan of Banganarti with marked sections. Prepared by Roman Łopaciuk

Catalogue

I. Early Christian Pottery (Seventh–Mid-Ninth Centuries)

1. Inv. no.: BNG/167/08.
Place of discovery: Sectors NNWCH/4–5, Sector IV of the enclosure wall, feature 1.[13]
Type of vessel and description: rim fragment of a large bowl with red slip (Pl. 1).
Dimensions: rim diameter – ca. 27 cm.
Dating: seventh–first half of ninth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



† Μιχα(ή)λ

The name of the Archangel Michael written in the form of a monogram.

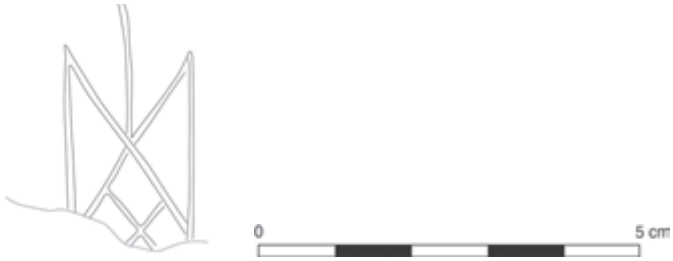
2. Inv. no.: BNG/82/2011; ZW/67/2011.
Place of discovery: Sector SSCH/6, southwestern living quarter, House SW1, Room 1, the layer of burning.[14]
Type of vessel and description: rim fragment of a thin-walled black bowl, with double grooves outside, below the rim (Pl. 1).
Dimensions: rim diameter – 16.2 cm, height – 3.9 cm.
Dating: seventh–first half of ninth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

13 Cf. Drzewiecki 2011.
14 Cf. Żurawski et al. 2014.

Μιχα(ὴ)λ Ἀρχάγγ(ε)λο[ς]

The monogram most probably comprising two words: Archangel Michael.

3. Inv. no.: BNG/397/08.
Place of discovery: Sector SSECH/6, Room 13.
Type of vessel and description: rim fragment of a semi-spherical bowl with red slip (Pl. 1).
Dimensions: rim diameter – 17 cm, height – 5 cm.
Dating: eighth–ninth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



† Μιχα(ήλ)

The name of the Archangel Michael is written in the form of a monogram.

4. Inv. no.: BNG/20/745; CB-1887.
Place of discovery: Context SCH-1-261, residential buildings on the south side of the church, Room/Space 1, layer 261.
Type of vessel and description: rim fragment of a bowl with red slip (Pl. 1).
Dimensions: rim diameter – 16.4 cm, preserved height – 5.5 cm.
Dating: eighth–ninth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

† Μιχα(ή)λ †
†

[- - -]

The decoration comprises several elements, but only the monogram of the Archangel Michael is preserved in its entirety. Next to it, a cross and another illegible monogram were located. In the central part of the bottom, there is another cross or the letter *chi*.

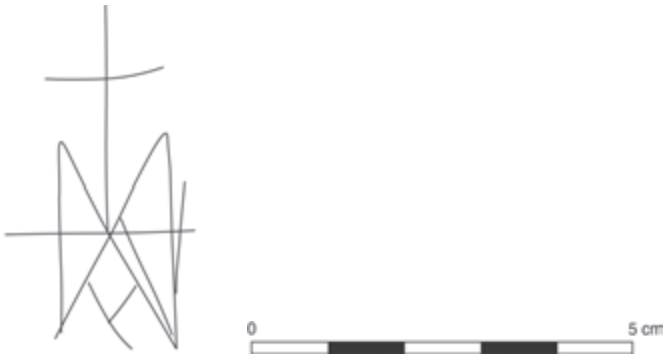
5. Inv. no.: BNG/18/137; CB-602.
Place of discovery: Context SCH-9, residential buildings on the south side of the church, Room/Space 9, level 149.99.
Type of vessel and description: half a bowl (complete profile) with ring base, white to pinkish slip and red rim stripe (Pl. 1).
Dimensions: rim diameter – 19.5 cm, base diameter – 7 cm, height – 5.4 cm.
Dating: eighth–ninth/tenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

Μιχα(ή)λ

The monogram comprises letters *mi*, *chi*, *alpha* and possibly *lambda* disposed vertically.

6. Inv. no.: BNG/14W/06.
Place of discovery: lower church, test pit no. 3, lower layer.
Type of vessel and description: shoulder fragment of a red-slipped bottle (Pl. 1).
Dimensions: max. diameter – 35 cm.

Dating: seventh–mid-ninth centuries.
Inscription: text incised outside, on the body.
Type of text: name of a divine entity.



† Μιχαήλ

The name of the Archangel Michael is written in the form of a monogram.

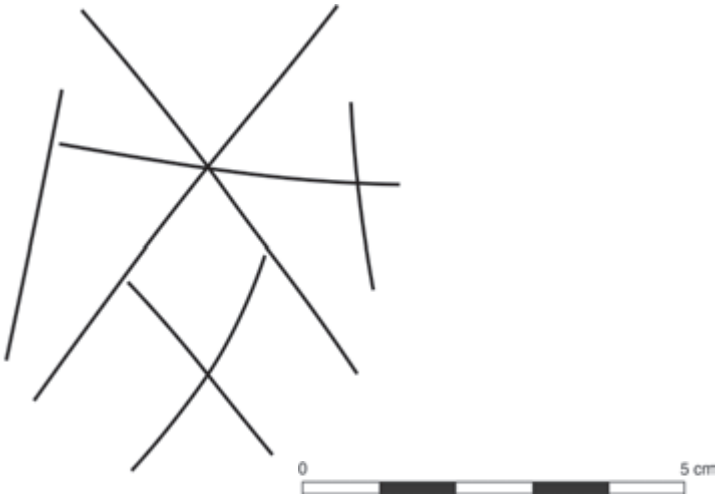
7. Inv. no.: BNG/192/07.
Place of discovery: Sectors NNWCH/4–5, Sector IV of the enclosure wall, north gate, third arbitrary level.[15]
Type of vessel and description: rim fragment of a large bowl, with painted decoration of black and red dots inside, around the rim interior (Pl. 2).
Dimensions: rim diameter – 32 cm, height – 9.3 cm.
Dating: eighth–ninth/tenth centuries.
Inscription: text incised on the rim.
Type of text: owner's inscription and name of a divine entity.

† Μιχαήλ † ιϲογ

The text comprises two elements, the name of the Archangel Michael and the name of the owner; both are preceded by crosses. Name ιϲογ is a proper name, a variation of the name Ἰησοῦς which is well attested in Nubia.[16]

15 Cf. Drzewiecki 2010.
16 E.g. *P. Qasr Ibrim* I 4 84; *P. Qasr Ibrim* 4 69; Tsakos 2007: 236.

8. Inv. no.: BNG/55/07.
Place of discovery: Sector SSCH/1, Space 6, uppermost layer.[17]
Type of vessel and description: rim fragment of a tableware pot (Pl. 2).
Dimensions: rim diameter – 13 cm, max. diameter – 23 cm, height – 8.5 cm.
Dating: eighth–ninth centuries.
Inscription: text incised outside, on the body.
Type of text: owner's inscription.



χαηλ

The personal name Chael is written in the form of a monogram.

9. Inv. no.: BA/17/914; CB-501.
Place of discovery: Context SCH-4-18, residential buildings on the south side of the church, Room/Space 4, layer 18.
Type of vessel and description: wall fragment of a small bowl with cream slip.
Dimensions: 5.6 × 3.5 cm.
Dating: eighth–ninth/tenth centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

πϱ(εσβύτεϱος)

The owner's inscription is preserved partially and comprises only the ecclesiastical title. A personal name most probably preceded the title.

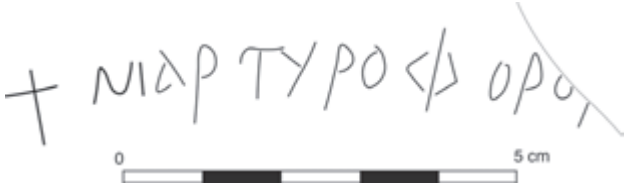
17 Cf. Drzewiecki 2010.

10. Inv. no.: BNG/20/11-12; ZW/12/11-12.
Place of discovery: Sectors SSWCH/5–6, southwestern living quarter, House SW3, Room/Space 4, second arbitrary level.[18]
Type of vessel and description: large fragment of a bowl (complete profile) with ring base, ledge rim and matt light-orange slip (Pl. 2).
Dimensions: rim diameter – 26 cm, base diameter – 9.5 cm, height – 6 cm.
Dating: eighth–ninth centuries.
Inscription: text incised inside, on the body.
Type of text: unclear, perhaps owner's inscription.

[- - -]ⲙⲉⲣ

Only three letters are visible, and it is unclear whether they were preceded by anything else. Since there are few Greek or Old Nubian words with such an ending, it must have been written in an abbreviated form, most probably a name. Based on the preserved letters, the most suitable seems to be the name Merkurios, popular in medieval Nubia. Its abbreviated form is attested to in two sources: *I. Faras Greek* 26 and *P. Qasr Ibrim* 4 68. In both, the abbreviation is marked by a superscribed letter *kappa*; it could be the same in this case, as the part of the vessel above the letters is not preserved.

11. Inv. no.: BNG/127/2013; ZW/25/2013.
Place of discovery: Sector ECH/4, eastern living quarter, House E/2013, Room C, first arbitrary level.[19]
Type of vessel and description: fragment of a bowl with red slip and ledge rim (Pl. 2).
Dimensions: rim diameter – 24 cm, height – 7 cm.
Dating: eighth–ninth centuries.
Inscription: text incised on the rim.
Type of text: owner's inscription.



18 Cf. Żurawski 2015.
19 Cf. Żurawski et al. 2014: 68–69.

† ⲙⲁⲣⲧⲩⲣⲟⲫⲟⲣⲟⲩ

Martyrophoros is a personal name attested only in medieval Nubia, but it seems to have been popular over the centuries. The same name was borne by a king mentioned in an inscription from the upper church at Banganarti,[20] and perhaps the same individual is also referred to in one more graffito.[21] Another attestation of this name, four in number, was believed to pertain to the same archbishop Martyrophoros who lived in the twelfth century.[22] Thus, the inscription under consideration indicates that the name was already used in the Early Christian period.

12. Inv. no.: BA/17/1159; CB-147.
Place of discovery: Context NECH-4-239, northeastern living quarters, Room/Space 4, layer 239.
Type of vessel and description: fragment of a thin-walled bowl (Pl. 2).
Dimensions: rim diameter – 22 cm, base diameter – 9 cm, height – 7 cm.
Dating: eighth–ninth/tenth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

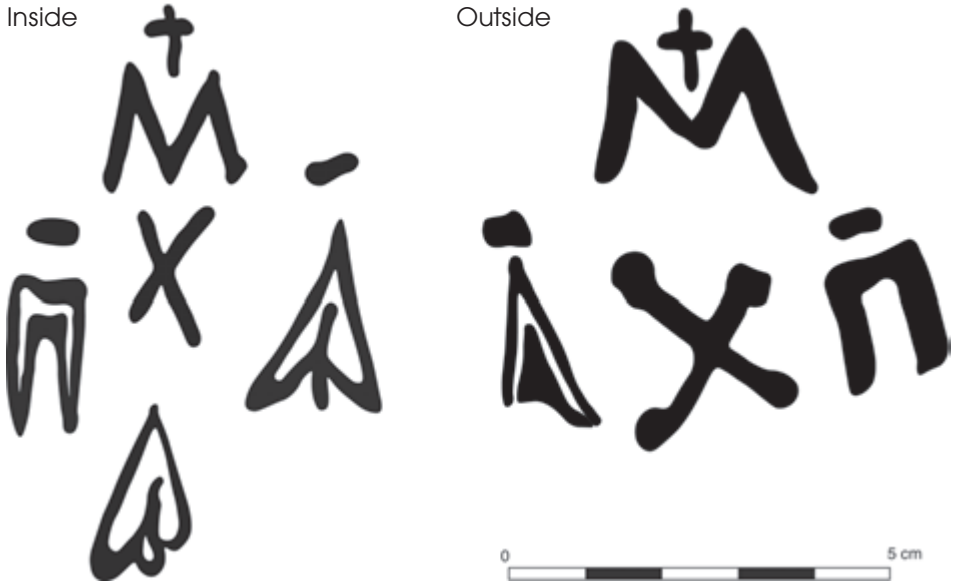
ⲁ̣

Ornamented form of the letter *alpha*, standing alone or part of a monogram.

II. Classic Christian Pottery (Mid-Ninth–Eleventh Centuries)

13. Inv. no.: BNG/457/06.
Place of discovery: Sectors NNECH/1, 4–5, northeastern corner tower.[23]
Type of vessel and description: fragment of a bowl (complete profile) with plain rounded bottom and buff slip (Pl. 3).
Dimensions: rim diameter – 17 cm, height – 4.8 cm.
Dating: second half of ninth–first half of eleventh centuries.
Inscription: text painted with black ink on the bottom, both outside and inside.
Type of text: name of a divine entity.
Bibliography: illustration in Bagińska 2008: 421–423, figs. 10d, 11a.

20 Łajtar 2020: no. 630.
21 Łajtar 2020: no. 690.
22 *I. Khartoum Greek* 6; Ruffini 2012: 28.
23 Cf. Drzewiecki 2008.



Inside:

†
ⲙ
ⲏ̄ ⲭ ⲗ̄
ⲁ i.e. † Μιχαήλ

Outside:

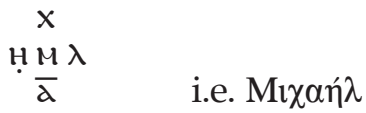
†
ⲙ
ⲗ̄ ⲭ ⲏ̄
[ⲁ] i.e. † Μιχαήλ

On both sides of the bowl, the Archangel Michael's name is written with letters composed to form the shape of a cross; the only difference is the inverted order of the letters *eta* and *lambda*. Attractive features are the horizontal dashes placed above those two letters. In analogous monograms from Old Dongola, similar elements are placed above *chi* marks *iota*,[24] but in this case its usage is not clear. Notably, *lambda* and *alpha* have the same shape without the middle horizontal stroke, which is a characteristic element of *alpha*.

14. Inv. no.: BNG/128/07.
Place of discovery: Sector NNWCH/5, Sector IV of the enclosure wall, section 2/2007, first arbitrary level.[25]
Type of vessel and description: rim fragment of a bowl (Pl. 3).
Dimensions: rim diameter – 12 cm, height – 5 cm.
Dating: tenth–eleventh centuries.

24 Łajtar, van der Vliet 2017: 47–48.
25 Cf. Drzewiecki 2010.

Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



The name of the Archangel Michael written with letters composed to form the shape of a cross.

15. Inv. no.: BA/18/1924; CB-751.
Place of discovery: Context SECH-3-38, southeastern quarters, Room/Space 3, layer 38.
Type of vessel and description: wall fragment of a bowl with red slip.
Dimensions: 6 × 8.3 cm.
Dating: ninth–tenth centuries.
Inscription: text incised inside, on the bottom.
Type of text: name of a divine entity.

The name of the Archangel Michael written in the form of a monogram, in a very slopy hand. Most probably, the letter *lambda* is placed horizontally to the right of the main part of the monogram.

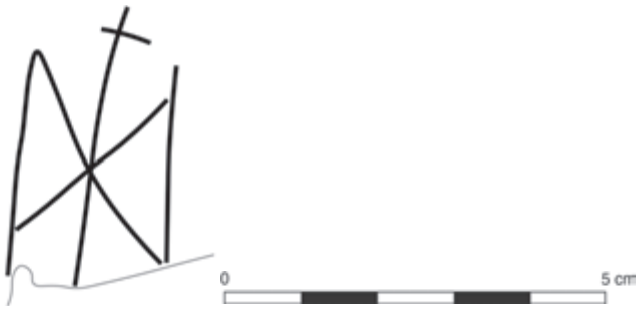
16. Inv. no.: BNG/06/2014.
Place of discovery: surface.
Type of vessel and description: bottom fragment of a bowl with a ring base and traces of creamish-pink slip (Pl. 3).
Dimensions: base diameter – 7 cm, max. diameter – 11 cm, height – 2.5 cm.

Dating: ninth–eleventh centuries.
Inscription: text incised inside on the bottom.

Μιχ[αήλ]

The name of the Archangel Michael written in the form of a monogram.

17. Inv. no.: BNG/189/08.
Place of discovery: upper church, test trench N1.[26]
Type of vessel and description: fragment of a bowl (complete profile) with a ring base and white slip (Pl. 3).
Dimensions: rim diameter – 22 cm, base diameter – 9 cm, height – 7.5 cm.
Dating: mid-ninth– eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



† Μιχα̣(ή)λ

The name of the Archangel Michael written in the form of a monogram.

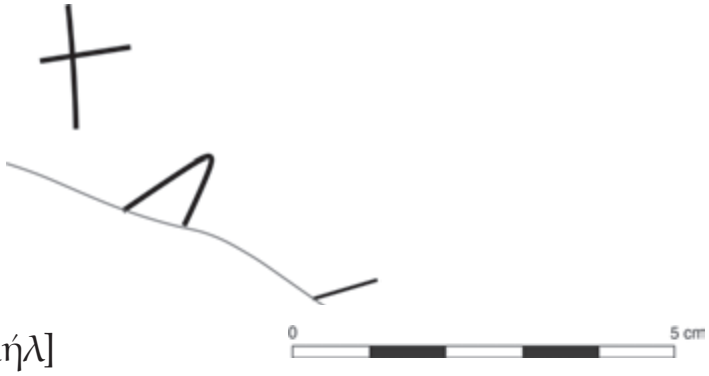
18. Inv. no.: BA/18/1920; CB-787.
Place of discovery: Context: SECH-12-1, southeastern quarters, uppermost layer in Room/Space 12.
Type of vessel and description: rim fragment of a small bowl with glossy white slip, orange top, and a dark-orange rim stripe (Pl. 3).
Dimensions: rim diameter – 13 cm, height – 4 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

26 Cf. Żurawski 2011.

† Μιχ(αήλ)

The name of the Archangel Michael is written in an abbreviated monogram comprising only a cross and the letters *mi* and *chi*.

19. Inv. no.: BNG/145/08.
Place of discovery: Sector ECH/6, test trench no. 1.
Type of vessel and description: wall fragment of a bowl with creamish-white slip.
Dimensions: max. diameter – 18 cm.
Dating: mid-ninth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



† Μ[ιχαήλ]

The text is only partially preserved, but most probably it contains the name of the Archangel written in the form of a monogram.

20. Inv. no.: BA/19/1988; CB-852.
Place of discovery: Context NECH-29-294, northeastern living quarters, Room/Space 29, layer 294.
Type of vessel and description: rim fragment of a thin-walled bowl with white slip, orange top outside, orange rim stripe and painted black decoration inside (Pl. 3).
Dimensions: rim diameter – 12 cm, height – 3.7 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised outside, on the body.
Type of text: name of a divine entity.

† Μιχαήλ

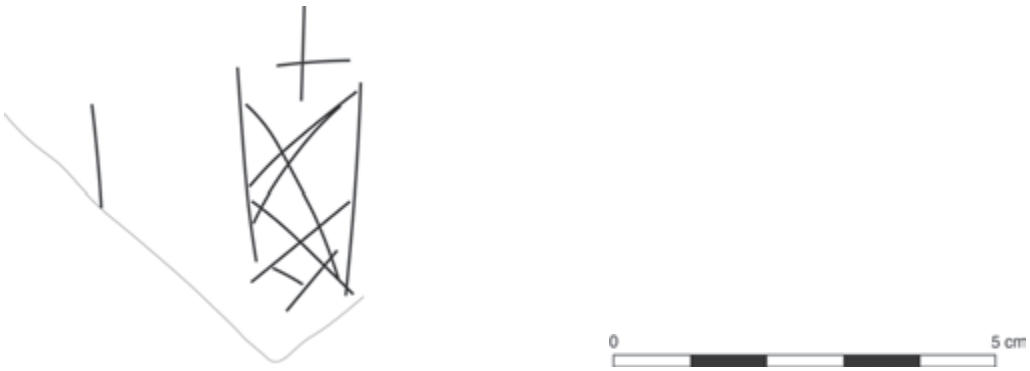
The graffito is not entirely preserved, but most probably it was the monogram of the Archangel Michael.

21. Inv. no.: BA/19/2458.
Place of discovery: Context NECH-33-554, northeastern living quarters, Room/Space 33, layer 554.
Type of vessel and description: base fragment of a white-slipped bowl intentionally cut into an oval disc (Pl. 3).
Dimensions: 5.8 × 4.8 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

† Μιχα(ή)λ

The name of the Archangel Michael written in the form of a monogram.

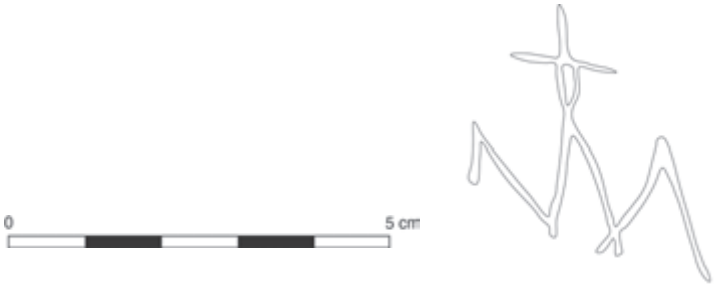
22. Inv. no.: BNG/331/08.
Place of discovery: upper church, trial pit no. 3.
Type of vessel and description: rim fragment of a bowl with buff slip and traces of orange rim stripe (Pl. 3).
Dimensions: rim diameter – 21 cm, height – 6 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



† Μιχα(ή)λ

The name of the Archangel Michael written in the form of a monogram. The vertical line incised to the left of the main text indicates that there could have been another element, perhaps one more monogram.

23. Inv. no.: BNG/18/210; CB-609.
Place of discovery: Contexts SCH-8a-139, 141, 180, residential buildings on the south side of the church, Room/Space 8a, layers 139, 141, 180.
Type of vessel and description: lower fragment of a bowl with orange slip outside and buff inside (Pl. 4).
Dimensions: base diameter – 9.4 cm, max. diameter – 15 cm, height – 3.4 cm.
Dating: second half of ninth–tenth centuries.
Inscription: text incised outside, on the body.
Type of text: name of a divine entity.



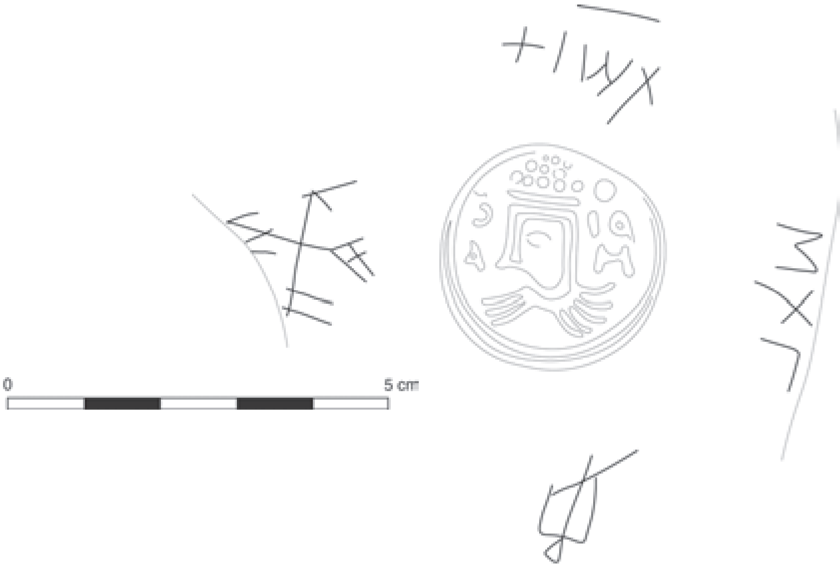
† μ̣ . (?)

The reading is not clear. It can be a ligature of two letters, *mi* and *lambda* (?), constituting a monogram of the Archangel Michael, but it might just as well be a drawing with a cross.

24. Inv. no.: BNG/163/2013; W/BNG/30/2013 (CB-138).
Place of discovery: Sector SWCH/7, southwestern living quarter, trench 11/13.
The bowl was a part of a deposit placed in a small, vaulted casing made of baked brick, a structural element of a staircase.[27]

27 Cf. Żurawski et al. 2017.

Type of vessel and description: fragment of a thin-walled bowl (complete profile) with glossy cream slip and a central seal decorated with a depiction of a male head (Pl. 4).
Dimensions: rim diameter – 12.6 cm.
Dating: tenth–eleventh centuries.
Inscription: bowl decorated before firing with a seal with an impressed inscription; later on, additional texts were incised inside, at the bottom, around the central seal.
Type of text: owner's inscription and names of divine entities.
Bibliography: mentioned in Żurawski et al. 2017: 354, fig. 3.



Central seal:

Ῥω̣μ̣αῖος

The bowl was decorated with a central seal, depicting a male torso accompanied by the caption. The text incised on the seal is very faded, and the letters encircling the depiction are written in a confused order and each on a different axis. Bowl under consideration and no. **51** are decorated in the same way as those known from Debeira West,[28] Arminna West[29] and Old Dongola (unpublished). Based on those analogies, it is possible to reconstruct the word Ῥωμαῖος pertaining, most probably, to a citizen of the Empire. The composition of the text together with the male representation constitutes the decoration of the bowl, which was probably copied from some external source, perhaps, as was suggested by Shinnie, from a coin,[30] but an exact parallel is still to be found.

Incised text:

ⲙ
ⲏ ⲭ̣ ⲗ
ⲁ † ⲓ̅ⲱ̅ⲭ̅ ⲙⲭⲅ ⳨

28 Shinnie, Shinnie 1978: nos. 56, 254, 691.
29 Weeks 1967: 61.
30 Shinnie, Shinnie 1978: 770.

The incised text consists of four elements: a monogram of the Archangel Michael with letters composed to form the shape of a cross, the letters ιωχ with a horizontal stroke above preceded by a cross, the acronym ⲙⲭⲣ and the title presbyter written in abbreviated form. The interpretation of the letters ιωχ is not clear. Strokes placed above letters usually mark either a numeral or abbreviation. Since the letters do not constitute a number in the Greek numbering system, it must have been an abbreviation, probably a personal name. The name Ioannes frequently occurs on pottery, abbreviated as ιωⲛ or ιωγ[31] and possibly a spelling variant of this name (Ἰωχάννης ?) should also be reconstructed in this place. In Coptic sources from Nubia, the name appears in the form ⲓⲱϧⲁⲛⲛⲏⲥ,[32] and the Greek spelling with *chi* is attested in Egyptian sources.[33] Moreover, perhaps it is simply a mistake of the scribe, who erroneously wrote *chi* instead of *upsilon* due to the similar shape of both letters. Another element is a variant of a cypher popular in Egypt: ⲭⲛⲅ. This is most probably an acronym and should be expanded as *Χριστὸς Μαρίας γέννα* – Christ the offspring of Mary, although other interpretations exist, and the symbol is still a subject of intense scholarly debate.[34] In medieval Nubia, the symbol is well attested (all known examples were collected by Alexandros Tsakos [2015]) and always appears in this form. Shifting the focus from Jesus to Mary and emphasising her role as the Mother of God reflects her significance in Nubian religious practices.

25. Inv. no.: BNG/12/XI/2008.
Place of discovery: lower church, trial pit no. 3a, the northern niche in the prosthesis.[35]
Type of vessel and description: base fragment of a fine white ware bowl (Pl. 4).
Dimensions: base diameter – 10 cm, height – 1 cm.
Dating: second half of ninth–tenth centuries.
Inscription: fragment of a bowl with text incised on the bottom.
Type of text: name of a divine entity.
Bibliography: illustration in Żurawski 2012: 202, fig. 10.

31 Tsakos 2007; Shinni, Chittick 1961: nos. 24–25, 101.
32 *SBKopt* 3 1601; *P. Lond. Copt.* 450; *P. Lond. Copt.* 449.
33 E.g. *O. Abu. Mina* 156, 169.
34 See Derda 1992; Tsakos 2015; de Bruyn 2017: 65–66.
35 Cf. Żurawski 2011.

ρ
η φ λ
ạ   i.e. Ῥαφαήλ

The name of the Archangel written with the letters composed to form the shape of a cross. The letters *rho*, *phi* and *alpha* form a vertical ligature connected by a line which is an integral element of *rho* and *phi* but also passes through the central part of *alpha*. Thus, the latter sign looks more like a triangle than a proper letter.

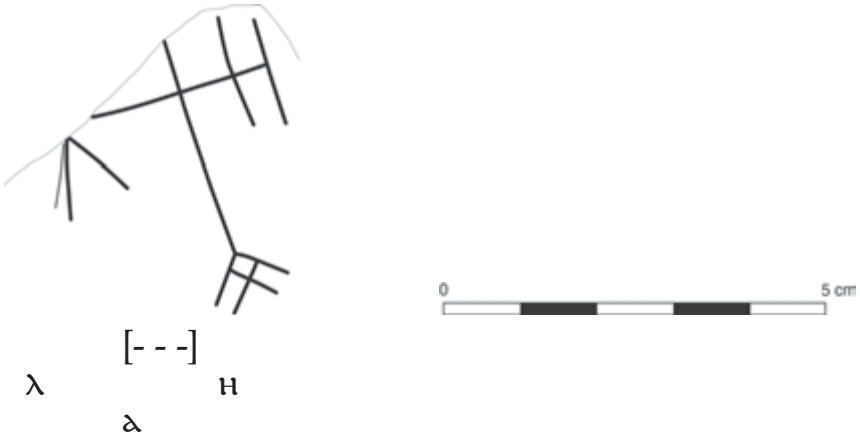
26. Inv. no.: BA/16/486; CB-22.
Place of discovery: Context NECH-5-84, northeastern living quarters, Room/Space 5, layer 84.[36]
Type of vessel and description: base fragment of a thin-walled bowl with white slip, decorated inside with a central seal, painted red (Pl. 4).
Dimensions: max. diameter – 7.6 cm, height – 1 cm.
Dating: tenth–eleventh centuries.
Inscription: central seal decorated with a monogram impressed before firing.
Type of text: name of a divine entity.

Ραφαήλ

The name of the Archangel is in the form of a monogram. The letters *rho*, *phi* and *alpha* in vertical ligature and *eta* and *lambda* are placed on both sides. The impressed text is inverted like a mirror image. The text was inscribed before firing and thus constituted a decorative element integrally connected with the bowl.

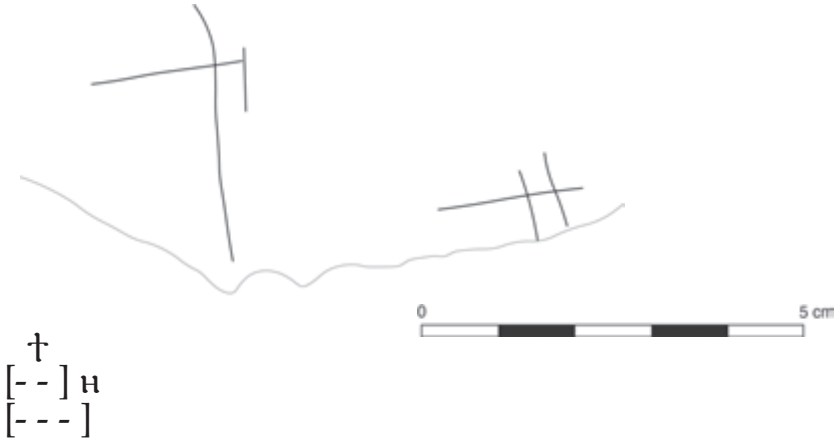
27. Inv. no.: BA/20/2974; CB-1973.
Place of discovery: Context SECH-13-1, southeastern quarters, uppermost layer in Room/Space 13.
Type of vessel and description: base fragment of a bowl, with glossy white slip, decorated with a central seal painted red (Pl. 4).
Dimensions: max. diameter – 11 cm, height – 2.1 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

36 Cf. Dzik 2017.



The name of an archangel is written in the form of a monogram with letters composed to form the shape of a cross. Since there are no traces of *phi* in the central part, it is most probably the name of the Archangel Michael.

28. Inv. no.: BA/20/2680; CB-2022.
Place of discovery: Contexts NECH-26-567, 568, 569, northeastern living quarters, Room/Space 26, layers 567–569.
Type of vessel and description: half of a bowl with buff slip, decorated inside with a central seal (missing) (Pl. 4).
Dimensions: rim diameter – 10.5 cm, height – 4 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: unclear, perhaps the name of a divine entity.



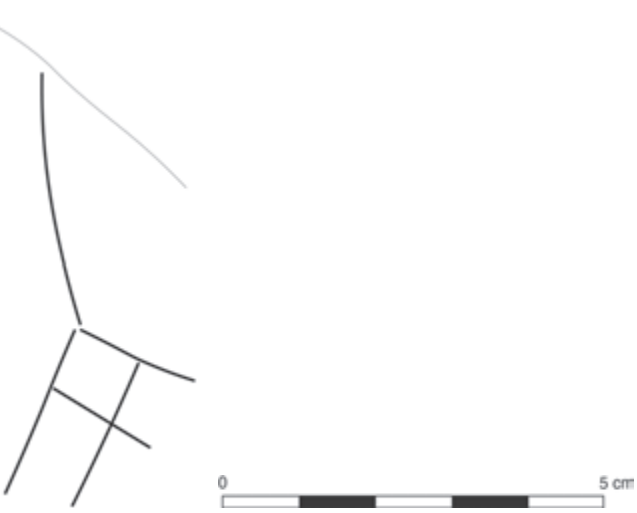
s

29. Inv. no.: BNG/145/07.
Place of discovery: Sectors NNWCH/7–8, Sector IV of the enclosure wall, section 5, uppermost layer.[37]
Type of vessel and description: base fragment of a bowl.
Dimensions: max. diameter – 14 cm, height – 2.6 cm.

37 Cf. Drzewiecki 2010.

Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the bottom of the bowl.
Type of text: unclear, perhaps name of a divine entity.

[- - -]



ⲁ

A fragment of a monogram, possibly the name of an archangel, but other possibilities cannot be excluded.

30. Inv. no.: BNG/32/03.
Place of discovery: upper church, eastern corridor behind chapels (Space 3).
Type of vessel and description: rim fragment of a large painted bowl (Pl. 4).
Dimensions: rim diameter – 21.5 cm, height – 6 cm.
Dating: mid-ninth–eleventh centuries.
Inscription: text incised outside, on the body.
Type of text: name of a divine entity.

† x̄ n̄ θ̄ 684 = Μιχαήλ

The name of an archangel written in the form of a numeric cryptogram. In Greek, sequences of letters can also be read as sequences of numbers, and the numeric cryptogram is the sum of the values of the individual letters making up a given word (ⲙⲓⲭⲁⲏⲗ: ⲙ = 40, ⲓ = 10, ⲭ = 600, ⲁ = 1, ⲏ = 8, ⲗ = 30; in total 689, or χπθ in the Greek notation). This type of representation of the divine names, and especially the name of Michael, was

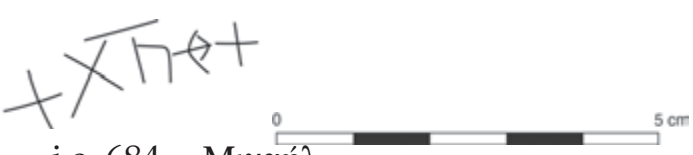
very popular in medieval Nubia.[38] Usually, numerals were marked with a stroke located above the letters; each numeral is marked separately.

31. Inv. no.: BNG/18/2011; ZW/25/2011.
Place of discovery: Sector SSWCH/4, southwestern living quarter, House SW1, Room/Space 4, south from the pillar, third arbitrary level.[39]
Type of vessel and description: lower fragment of a small bowl with a rounded base, white slipped.
Dimensions: max. diameter – 6.8 cm, height – 1.4 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the bottom.
Type of text: name of a divine entity.

x̄n̄ϙ̣ 684 = Μιχαήλ

The name of the Archangel Michael is written in a numeric cryptogram.

32. Inv. no.: BNG/163/2013; ZW/29/2013 (CB-137).
Place of discovery: Sector SWCH/7, southwestern living quarter, trench 11/13. The bowl was a part of a deposit placed in a small, vaulted casing made of baked brick, which was a structural element of a staircase.[40]
Type of vessel and description: over half of a thin-walled bowl with glossy, dark-orange slip, decorated with a central seal (Pl. 4).
Dimensions: rim diameter – 12.7 cm, height - 3,5 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.
Bibliography: mentioned in Żurawski et al. 2017: 354, fig. 3.



† x̄n̄θ̄ † i.e. 684 = Μιχαήλ

38 For more information on numerical cryptograms and their use in Nubia, see Łajtar, van der Vliet 2017: 72–74; Plumley 1982: 91–97.
39 Cf. Żurawski et al. 2014.
40 Cf. Żurawski et al. 2014: 68–69.

The name of the Archangel Michael is written as a numerical cryptogram. The numeral is marked by the horizontal stroke above. The text is flanked by two crosses.

33. Inv. no.: BA/16/500; CB-23.
Place of discovery: Contexts NECH-5-84, 109, northeastern living quarters, Room/Space 5, layer 84.[41]
Type of vessel and description: base fragment of a thin-walled bowl, white--slipped, decorated with a central seal painted red and with the depiction of a cross (Pl. 4).
Dimensions: max. diameter – 11.8 cm, height – 1 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

χπ̄θ 684 = Μιχαήλ

The name of the Archangel Michael is written as a numerical cryptogram. The numeral is marked with a horizontal dash above.

34. Inv. no.: BNG/17/146; ZW/2017/02.
Place of discovery: Sector SECH/6, southeastern quarters, House E/17/4, Room/Space 3, first arbitrary layer.
Type of vessel and description: neck of a bottle with red slip, neck painted orange, decoration of incised grooves at the junction of neck and shoulder (Pl. 5).
Dimensions: rim diameter – 8.6 cm, max. diameter – 15 cm, height – 8.5 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised around the neck.
Type of text: name of a divine entity and owner's inscription.

πρ(εσβύτερος) ϯ χπθ i.e. 684 = Μιχαήλ
Illegible

41 Cf. Dzik 2017.

The text comprises three elements. Two are placed together: the ecclesiastical title of the owner and the numerical cryptogram of the Archangel Michael. It is unclear whether the cryptogram should be understood as an apotropaic symbol, or rather both elements constituted a whole with the title denoting that the owner was a priest in the church of Archangel Michael. The strokes of the cross and the letter *chi* end with small, incised circles and thus resemble the magical 'ring-letters' (for commentary, see no. **88**). On the opposite side there is one more graffito, which is written carelessly and partially blurred. It seems that the letters were written in two registers with two letters in the upper part; possibly one of them can be recognised as *chi*. Perhaps it was a personal name written in abbreviated form.

35. Inv. no.: BNG/18/186; CB-612.
Place of discovery: Context SCH-8b-[19]-125, residential buildings on the south side of the church, Room/Space 8b, feature 19, layer 125.
Type of vessel and description: wall fragment of a bowl with creamish orange slip, decorated outside with black-red stripes and date prints (Pl. 5).
Dimensions: max. diameter – 19.3 cm, height – 5.4 cm.
Dating: ninth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

Digram ⲁⲱ written in the form of a monogram or the name Ioannes written in the form of a very simplified monogram.[42]

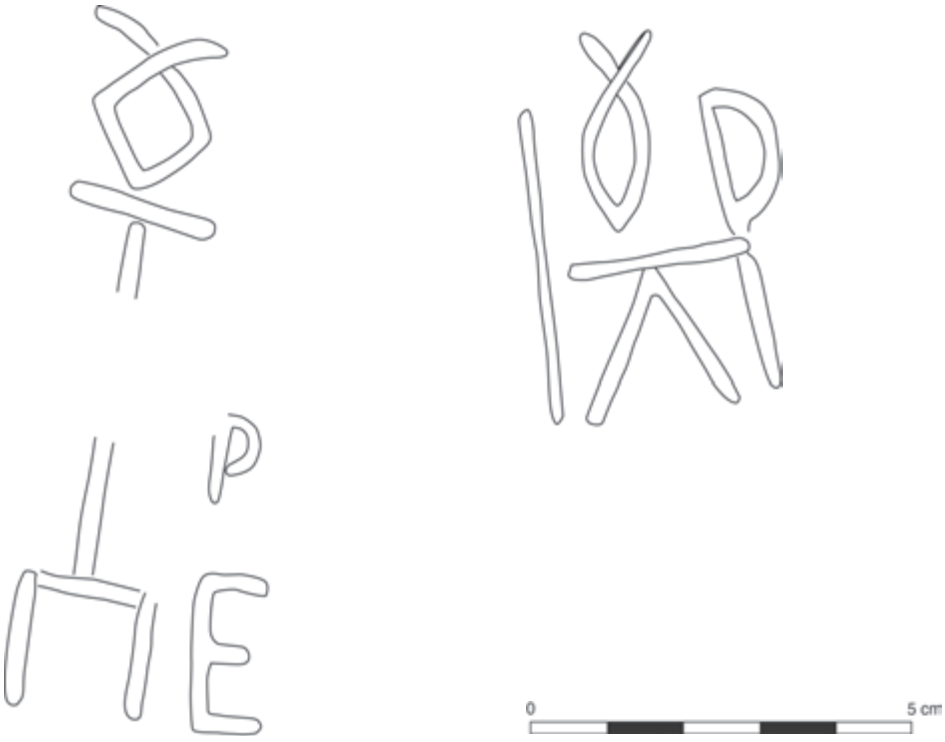
36. Inv. no.: BNG/18/253; CB-707.
Place of discovery: Context SCH-1-[25]-178, residential buildings on the south side of the church, Room/Space 1, feature 25, layer 178.
Type of vessel and description: spouted jar with ring foot, orange slip, with a decoration of incised wavy lines and painted in red bands of guilloche and floral motifs on the shoulder.
Dimensions: neck diameter – 21 cm, base diameter –13 cm, max. diameter – 35 cm, height – 28 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised on the body of the vessel.
Type of text: unclear.

42 For a similar form, see Griffith 1927: pl. 73, no. 8.

† ⲁⲱ

Digram *alpha omega* is written as a monogram, or the name of Ioannes (cf. no. **35**).

37. Inv. no.: BNG/45/2010; ZW26/2010.
Place of discovery: Sectors SSCH/6–9, unit 6, northwestern corner, the layer of debris above the pure sand.[43]
Type of vessel and description: spouted jar with ring foot, red-slipped, decoration of incised wavy lines and painted frieze of birds on the shoulder.
Dimensions: rim diameter – 17 cm, max. diameter – 42 cm, base diameter – 15 cm, height – 43.5 cm.
Dating: eighth/ninth–tenth centuries.
Inscription: two monograms incised before firing on the shoulder.
Type of text: owner's inscription.
Bibliography: mentioned in Żurawski et al. 2013: 275, fig. 2.



ⲡⲉⲧⲣⲟⲩ ⲕⲗⲏⲣⲓⲕⲟⲩ̃

Both words were written in the form of a monogram. In addition, the text contains information about the vessel's owner, comprising his name and his ecclesiastical title.

43 Cf. Drzewiecki 2013.

38. Inv. no.: BNG/43/2011; ZW/46/2011.
Place of discovery: Sector SSCH/3, southwestern living quarter, House SW1, Room/Space 2, third arbitrary level.[44]
Type of vessel and description: rim fragment of a thin-walled bowl, white-slipped with orange top outside and decoration of double black stripes below the rim (Pl. 5).
Dimensions: rim diameter – 20 cm, height – 5.2 cm.
Dating: mid-ninth–eleventh centuries.
Inscription: text incised outside, on the body.
Type of text: owner's inscription.

ⲕⲏⲣⲓⲕⲟⲩ

A personal name written in the form of a monogram in which all the letters are written vertically. Most probably it should be read ⲕⲏⲣⲓⲕⲟⲩ and understood as a variant spelling of the name ⲕⲩⲣⲓⲁⲕⲟⲥ. The name in this form is attested at Ghazali, where it also appeared in the form of a monogram but in a different shape[45] or abbreviated form.[46]

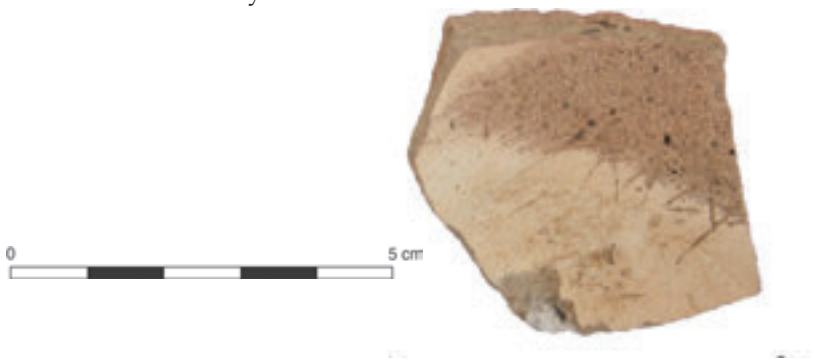
39. Inv. no.: BNG/52/11-12; ZW/15/11-12.
Place of discovery: Sector SSWCH/5, southwestern living quarter, House SW3, Space 5, fifth arbitrary level.[47]
Type of vessel and description: rim fragment of a thin-walled bowl with glossy white slip, orange rim stripe, and painted black decoration inside (Pl. 5).
Dimensions: rim diameter – 15 cm, height – 5 cm.
Dating: second half of ninth–first half of eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

44 Cf. Żurawski et al. 2014.
45 Shinnie, Chittick 1961: no. 115.
46 Shinnie, Chittick 1961: nos. 19, 69.
47 Cf. Żurawski 2014.

κηρικογ

The name Kerikos written in the form of a vertical monogram, very similar to that of no. **38**. Both bowls could have belonged to the same person.

40. Inv. no.: BNG/171/08.
Place of discovery: Sector SSCH/4, Room 9.[48]
Type of vessel and description: base fragment of a bowl.
Dimensions: base diameter – 9 cm, height – 1.2 cm.
Dating: tenth–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: not clear; it could be either an owner's inscription or the name of a divine entity.



μαρ[ια - - -]

The name Maria referring either to the Mother of God or to a personal name based on the name Maria like μαριανος, μαριακογδα or, appearing on another vessel from Banganarti, μαριαμη (cf. no. **85**).

41. Inv. no.: BNG/42/2011; ZW24/2011.
Place of discovery: Sector SSCH/6, southwestern living quarter, from the surface south of House SW1.[49]
Type of vessel and description: wall fragment of a bowl with white slip.
Dimensions: 7.6 × 4.2 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the bottom.
Type of text: unidentified, perhaps owner's inscription.

48 Cf. Żurawski 2011.
49 Cf. Żurawski et al. 2014.

[- -]
[- - -]ϵ
ⲗ̣

A partially preserved cross-shaped monogram, where only two letters are visible; most probably those are *epsilon* and *lambda*. Based on these two letters I am unable to propose any reading.

42. Inv. no.: BNG/43/2011; ZW/45/2011.
Place of discovery: Sector SSCH/3, southwestern living quarter, House SW1, Room 2, second arbitrary level.[50]
Type of vessel and description: fragment of a large bowl (complete profile), with ring base, white-slipped with orange rim stripe (Pl. 5).
Dimensions: rim diameter – 22 cm, base diameter – 8.5 cm, height – 7.5 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified, perhaps owner's inscription.

ⲣ
ⲙ
ⲁ

The letters ⲣⲙⲁ look like the numeral 141, possibly a numerical cryptogram. A similar one was recorded in one of the inscriptions from the upper church,[51] where the context implies that the cryptogram denotes an unknown personal name. However, the vertical writing of a cryptogram is unusual, and the letters are not marked as numerals. Therefore, another possibility must be taken into consideration. Due to the popularity of the cult of archangels in the Nubian kingdoms and the frequent appearance of their

50 Cf. Żurawski et al. 2014.
51 Łajtar 2020: no. 140.

names on vessels, perhaps the letters should be understood as an abbreviated list of archangels and expanded as Raphael, Michael and Anael. The most detailed lists of archangels from Nubia contain seven names – Michael, Gabriel, Raphael, Ourouel, Iael, Anael, and Zedekiel,[52] although they are usually limited to the most popular ones: Michael, Raphael, and Gabriel.[53] There are no sources with Anael appearing in the shortened list nor is he ever invoked individually.

43. Inv. no.: BA/19/2304; CB-1640.
Place of discovery: Context NECH-33-511, northeastern living quarters, Room/Space 33, layer 511.
Type of vessel and description: rim fragment of a bowl with white-slip inside and pinkish-orange outside (Pl. 5).
Dimensions: rim diameter – ca. 13 cm, height – 5 cm.
Dating: second half of ninth–tenth centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

[- - -]χ̣ριc[- - -]

A personal name composed based on the name Christ. In medieval Nubia the most popular one was χριcτωφορος, attested to in at least three sources: *I. Ginari* 46, *I. Sakinya Pernigotti* 14 and one more from Old Dongola, which remains unpublished.[54] Moreover, there are two female names with this stem: χριcτιηλ[55] and χριcτοφορια.[56] It is impossible to tell which one was written here.

44. Inv. no.: BNG/148/XI/08.
Place of discovery: Sector SSCH/9, Sector VII of the enclosure wall, Room 6a.
Type of vessel and description: almost complete small bowl with polished cream slip, inside decoration of three grooves below the rim and a central seal with a cross on the bottom (Pl. 6).
Dimensions: rim diameter – 12.8 cm, height – 4 cm.
Dating: second half of ninth–tenth centuries.
Inscription: text incised inside on the body.
Type of text: unidentified.

52 Łajtar 2009: 115–119; Łajtar, van der Vliet 2017: 161–162.
53 Cf. Deptuła 2020: 14.
54 DBMNT 1358.
55 *I. Khartoum Greek* 30; *I. Ginari* 49.
56 *SB* 5 8237; *I. Lefebvre* 646.

єκκλ̣н
ⲁ

The text is preserved in its entirety and comprises two elements written on different parts of the bowl. The reading of the first part is not clear. *Lambda*, if it is the correct interpretation, is written on a different axis from the other letters, as in text no. **45**; perhaps both texts were written by the same person. A horizontal stroke above this word suggests that it was written in an abbreviated form, and the letters imply the reading ἐκκλη(σία) – *church*, or rather abbreviated form of a personal name with the biblical root εκκλησιαστης. A similar text is also found on vessels from Abkanarti,[57] Meinarti[58] and Ghazali.[59] I am unable to provide a satisfactory interpretation of the given text.
The second element is the letter *alpha*, which stands alone (for interpretation, see below).

45. Inv. no.: BNG/181/XI/08.
Place of discovery: Sector SSCH/9, Sector VII of the enclosure wall, section 3-4/2017, second arbitrary level.[60]
Type of vessel and description: fragment of a small bowl (complete profile) with polished cream slip and red rim stripe (Pl. 6).
Dimensions: rim diameter – 11 cm, height – 3.5 cm.
Dating: mid-ninth–tenth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

.χ. н

The reading of the text is unclear. The first sign is only partially visible and can be reconstructed as a cross or the letters *alpha*, *chi*. The only legible letters are *chi* in the second place and *eta* at the end. Between them there is another letter, which looks like *lambda* but is written on a different axis. All the letters are marked with a horizontal

57 Unpublished, DBMNT 2461.
58 Unpublished, DBMNT 1239.
59 Shinnie, Chittick 1961: 101.
60 Cf. Drzewiecki 2011.

stroke above, which suggests that this might be the numeral ϧλн = 638, possibly some divine, or personal, name written in the form of a numerical cryptogram, otherwise not attested in sources. Another possibility is that it is the personal name ϧⲁнλ, with letters placed in shifted order.

46. Inv. no.: BNG/38/03.
Place of discovery: upper church, eastern corridor behind Chapels 3–4.
Type of vessel and description: base fragment of a bowl with a rounded base.
Dimensions: max. diameter – 6.6 cm, height – 1.1 cm.
Dating: mid-ninth–eleventh centuries.
Inscription: text incised inside the bowl, on the bottom.
Type of text: unidentified.

The text seems to be preserved in its entirety. The reading of the second letter is unclear, as it can be read as *epsilon* or *beta*; both are written in an untypical way. As the first two letters are marked with a dash above, they can be understood as the numeral 22 (κβ) or a *nomen sacrum* Κ(ύρι)ε. In both interpretations their connection with the letter *alpha* is unclear.

47. Inv. no.: BA/18/1894; CB-765.
Place of discovery: Context SECH-6-1, southeastern quarter, uppermost layer in Room/Space 6.
Type of vessel and description: rim fragment of a bowl with creamish-white slip (Pl. 6).
Dimensions: rim diameter – 20 cm, height – 5.7 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

The letter *alpha* standing alone.

48. Inv. no.: BA/18/1922; CB-742.
Place of discovery: Context: SSECH-11-1, southeastern quarters, uppermost layers in Room/Space 11.
Type of vessel and description: rim fragment of a thin-walled bowl with white slip and an orange top outside, inside painted decoration of black stripes (Pl. 6).
Dimensions: rim diameter – 14 cm, height – 4.7 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

H

It seems that the inscription comprises only one letter standing alone.

49. Inv. no.: BNG/13/2010.
Place of discovery: Sector NNWCH/4, Sector III of the enclosure wall, test trench 2, located east of the northern gate.[61]
Type of vessel and description: rim fragment of a bowl with white slip and an orange top outside.
Dimensions: unknown.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

The text comprises only one letter. It is not clear whether it was *eta* or *pi*.

50. Inv. no.: BNG/51/2013; ZW/17/2013.
Place of discovery: Sector SWCH/7, southwestern quarter, trench 11/13, Room/Space 1, second arbitrary level.[62]
Type of vessel and description: half of a bowl with a ring base; white-slipped with dark-orange top outside; decoration painted black on the outside wall and base (Pl. 6).

61 Cf. Drzewiecki 2013.
62 Cf. Żurawski et al. 2014: 68–69.

Dimensions: rim diameter – 18 cm, base diameter – 7 cm, height – 6.5 cm.
Dating: tenth–eleventh centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

[- - -] ⲁ̄ⲗ

The horizontal dash above the letters indicates that it was a word written in an abbreviated form. Based on only these two letters, I cannot propose any interpretation.

51. Inv. no.: BNG/66/2010; ZW/19/2010; CB-135.
Place of discovery: upper church, inside a pillar between Chapels 2 and 3.[63]
Type of vessel and description: base fragment of a thin-walled bowl with buff slip and a central seal inside, decorated with a depiction of a male head (Pl. 6).
Dimensions: max. diameter – 7.5 cm, height – 1.2 cm.
Dating: tenth–eleventh centuries.
Inscription: letters impressed on the central seal before firing.
Type of text: legend.

Ῥωμαῖος

Central seal with a male torso accompanied by the caption *Romaios*; cf. no. **24**.

63 Cf. Żurawski et al. 2014.

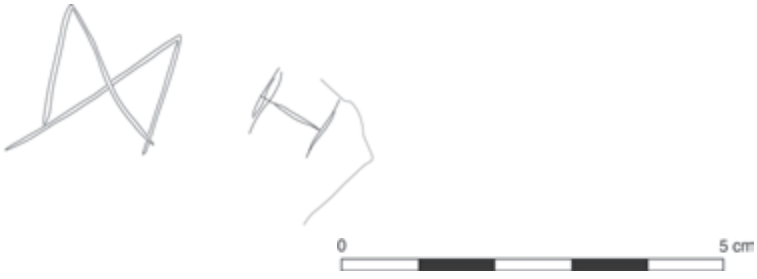
III. Late Classic and Post-Classic Christian Pottery (Eleventh–Twelfth/ Thirteenth Centuries)

52. Inv. no.: BNG/79/XI/2008.
Place of discovery: SEECH/9, unit 16, second arbitrary level.[64]
Type of vessel and description: fragment of a bowl (complete profile) with orange slip.
Dimensions: unknown.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

Μιχ(αήλ)

The name of the Archangel Michael written in the form of a monogram.

53. Inv. no.: BA/19/2559; CB-1146.
Place of discovery: Context NECH-45-434, northeastern living quarters, Room/Space 45, layer 434.
Type of vessel and description: wall fragment of a bowl with buff slip inside and orange slip outside.
Dimensions: max. diameter – ca. 22 cm, height – 4.6 cm.
Dating: second half of eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

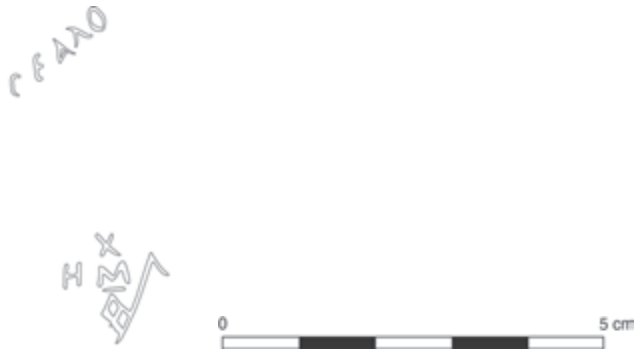


64 Cf. Drzewiecki 2011.

† Μιχ[α]ήλ

The graffito is not fully preserved, but it seems that it was the name of the Archangel Michael written partially in the form of a monogram (at least the first three letters) followed by *eta*. The other letters are not preserved.

54. Inv. no.: BNG/05/2010; ZW/06/2010.
Place of discovery: Sectors ECH/1, EECH/3, eastern tower, first arbitrary level.[65]
Type of vessel and description: half of a large bowl (complete profile), with a ring base, orange slip inside and outside on the top, creamish on the lower part; inside rich decoration painted black, with a band of guilloche and radial motifs (Pl. 7).
Dimensions: rim diameter – 30 cm, base diameter – 10.5 cm, height – 11 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised outside, on the bottom.
Type of text: name of divine entity.



ⲥⲉⲁⲗⲟ

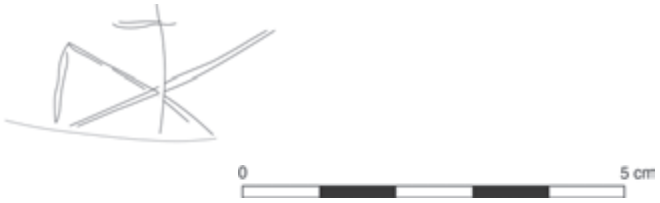
ⲭ
ⲏ ⲙ ⲗ
ⲁ̄ i.e. Μιχαήλ

The graffito comprises two elements. One is the name of the Archangel Michael written with the letters composed to form the shape of a cross. The interpretation of the second text poses some problems since it is otherwise not attested. It is impossible to tell whether it was a personal name (not attested) or an Old Nubian word ending with the suffix -ⲗⲟ determining the locative.[66]

55. Inv. no.: BA/18/2380; CB-1721.
Place of discovery: Contexts NECH-33-1, 541, northeastern living quarters, uppermost layers in Room/Space 33.

65 Cf. Drzewiecki 2013.
66 Van Gerven Oei 2021: § 10.1.1.4.

Type of vessel and description: rim fragment of a bowl with dark-orange slip.
Dimensions: rim diameter – 15 cm, height – 2.8 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of divine entity.



† Μιχαήλ

The name of the Archangel Michael written in the form of a monogram.

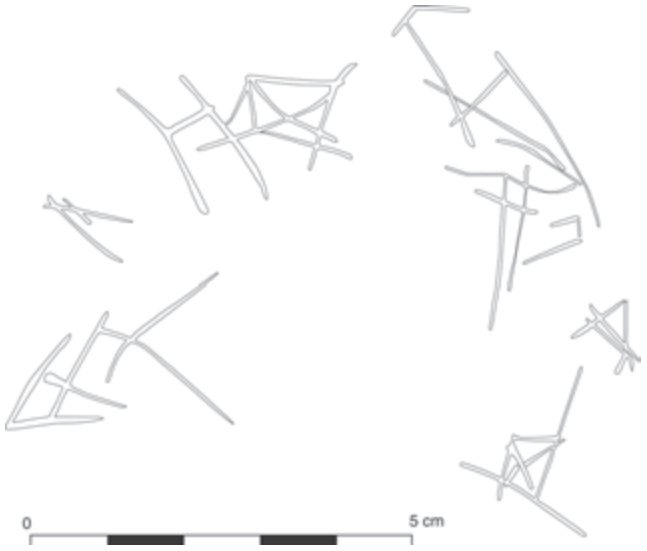
56. Inv. no.: BNG/48/2010; ZW/13/2010.
Place of discovery: Sectors ECH/1, EECH/3, eastern tower, first arbitrary level, from the cleaning.[67]
Type of vessel and description: rim fragment of a bowl with orange slip and painted radial decoration (Pl. 7).
Dimensions: rim diameter – 19.5 cm, height – 5 cm.
Dating: mid-eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: name of divine entity.

ⲣ
ⲏ ⲫ ⲗ
ⲁ̣ i.e. Ῥαφαήλ

The name of an archangel written with letters composed to form the shape of a cross. Notably, the letter *alpha* is written in the exactly same way as in monogram no. **25**.

67 Cf. Drzewiecki 2013.

57. Inv. no.: BNG/18/250; CB-605.
Place of discovery: Context SCH-11, residential buildings on the south side of the church, Room/Space 11, level 149.75.
Type of vessel and description: complete small bowl with rounded base, orange-slipped (Pl. 7).
Dimensions: rim diameter – 11 cm, height – 3.5 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: unclear, perhaps the names of divine entities.



[- - -] ⲁ ϫ ⲗ ⲏ ⲫ̣ . . . .[- - -]

The graffito consists of many incised, intersecting lines, of which only a few shapes can unambiguously be recognised as letters. The rest look either like random lines or geometric figures. Distinguishable letters are: *chi* and *alpha* written as a ligature followed by *lambda* and *eta*. Perhaps another shape can be identified as the letter *phi*. They may be connected with the names of archangels, especially with Michael or Raphael.

58. Inv. no.: BNG/13W/2006.
Place of discovery: surface.
Type of vessel and description: rim fragment of a bowl with a plain rounded bottom, matte buff slip and orange rim stripe.
Dimensions: rim diameter – 11.5 cm, height – 4.2 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

[x]π̣θ 684 = Μιχαήλ

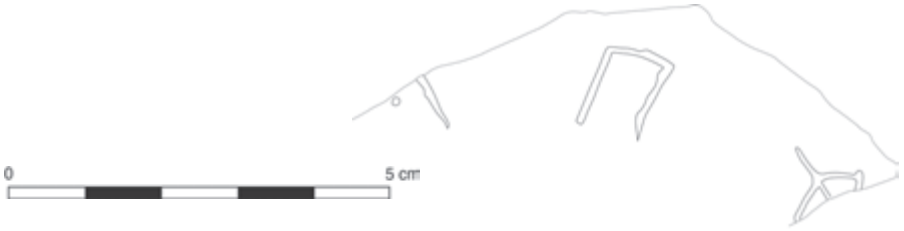
The numeric cryptogram of the Archangel Michael. Numerals are marked with a horizontal stroke above.

59. Inv. no.: BNG/25W/06.
Place of discovery: Sectors NNECH/1, 4–5, northeastern corner tower, test pit 4.
Type of vessel and description: rim fragment of a bowl with polished yellow slip and a dark-orange rim stripe (Pl. 7).
Dimensions: rim diameter – 11 cm, height – 3.5 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

χπθ 684 = Μιχαήλ

The numeric cryptogram of the Archangel Michael marked with a stroke above.

60. Inv. no.: BNG/07/2010; ZW/09/2010.
Place of discovery: Sector NNCH/5, trench 2 outside the enclosure wall, second arbitrary level.[68]
Type of vessel and description: base fragment of a thin-walled bowl with orange slip outside and white inside.
Dimensions: max. diameter – 13.2 cm, height – 2 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the bottom.
Type of text: name of a divine entity.



χ̣πθ 684 = Μιχαήλ

The name of the Archangel Michael is written as a numerical cryptogram. There are large spaces between the letters, and the numerals are not marked.

68 Cf. Drzewiecki 2013.

61. Inv. no.: BNG/18/277; CB-604.
Place of discovery: Context SCH-14c-1; residential buildings on the south side of the church, uppermost layer in Room/Space 14c.
Type of vessel and description: fragment of a bowl (complete profile) with a flat, solid base, dark-yellow slip outside and white inside, with painted decoration of fish in the centre (Pl. 7).
Dimensions: rim diameter – 17.5 cm, base diameter – 7.7 cm, height – 5.4 cm.
Dating: eleventh–first half of twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

χπ̅θ̅ i.e. 684 = Μιχαήλ

The name of the Archangel Michael is written as a numerical cryptogram.

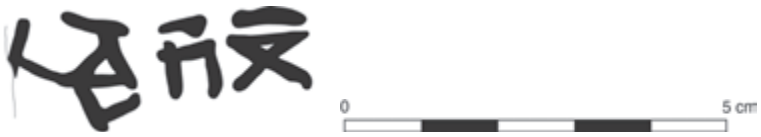
62. Inv. no.: BNG/10W/2006.
Place of discovery: Sector ECH, from the surface.
Type of vessel and description: rim fragment of a bowl with a plain rounded bottom and splayed walls, white-slipped with orange top outside.
Dimensions: rim diameter – 13 cm, height – 5.7 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

χπ̅[θ] 684 = Μιχαήλ

The numeric cryptogram of the Archangel Michael.

63. Inv. no.: BNG/26W/06.
Place of discovery: Sector ECH, from the surface.
Type of vessel and description: small body fragment of a pot or vase, with orange slip with painted decoration in black.
Dimensions: 4.2 × 3 cm.
Dating: twelfth century.
Inscription: text written in black ink outside, on the body.

Type of text: name of a divine entity.



† θ̄π̄x̄ i.e. χπθ 684 = Μιχαήλ

The name of the Archangel Michael is written in a numeric cryptogram, but the letters are written from right to left. Each letter has separate horizontal strokes placed above, marking a numeral. There are more examples of cryptograms with inverted letters among inscribed pottery from Banganarti (nos. **71**, **72** and perhaps **99**). This notation is also attested to in one of the graffiti from the monastery on Kom H at Old Dongola.[69]

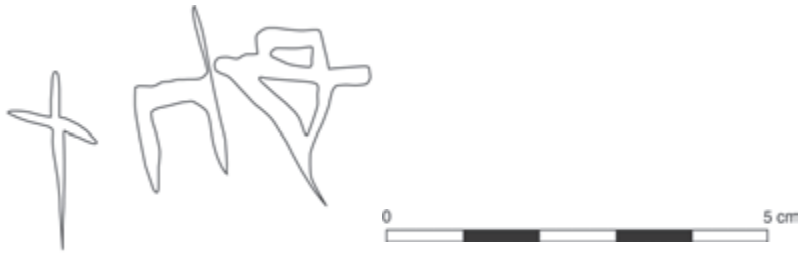
64. Inv. no.: BNG/07/2010; ZW/08/2010.
Place of discovery: Sector NNCH/5, trench 2 outside the enclosure wall, second arbitrary level.[70]
Type of vessel and description: wall fragment of a small bowl with orange slip and traces of a painted black stripe inside.
Dimensions: 5 × 4 cm.
Dating: twelfth century.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

[x]πθ̄ 684 = Μιχαήλ

The name of the Archangel Michael is written in the form of a numerical cryptogram. A horizontal dash marking a numeral is placed only above *theta*.

65. Inv. no.: BNG/01W/2006/P.
Place of discovery: Sector EECH/3, outside the eastern tower.
Type of vessel and description: fragment of a red-slipped bowl.
Dimensions: rim diameter – 19 cm, height – 8.5 cm.
Dating: twelfth–fourteenth centuries.
Inscription: text incised outside, on the body.
Type of text: name of a divine entity.

69 Łajtar, van der Vliet 2017: no. VI.
70 Cf. Drzewiecki 2013.



χπθ 684 = Μιχαήλ

The numeric cryptogram of the Archangel Michael. The numeral is not marked.

66. Inv. no.: BNG/102/2013; ZW/24/2013.
Place of discovery: Sector ECH/4, eastern living quarter, House E/2013, room J, third arbitrary level.[71]
Type of vessel and description: fragment of a bowl (complete profile) with a solid, flat base and dark-orange slip; inside painted black decoration of radial motifs (Pl. 7).
Dimensions: rim diameter – 16 cm, base diameter – 8 cm, height – 5.5 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

$\overline{\text{χπθ}}$ 684 = Μιχαήλ

The name of the Archangel Michael is written as a numerical cryptogram.

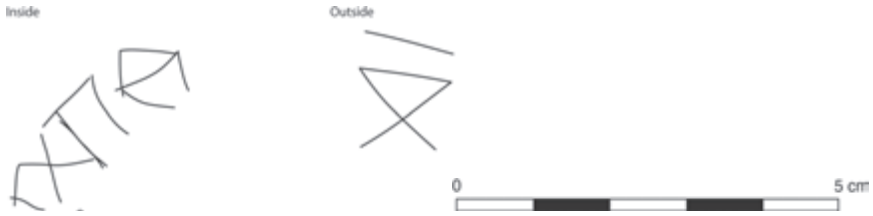
67. Inv. no.: BA/15/47; CB-354.
Place of discovery: Context NECH-11-1, northeastern living quarter, uppermost layer in Room/Space 11.[72]
Type of vessel and description: base fragment of a small bowl or cup with a slightly rounded base and light-orange slip.
Dimensions: max. diameter – 7.7 cm, height – 2 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the bottom.
Type of text: name of a divine entity.

71 Cf. Żurawski et al. 2014: 68–69.
72 Cf. Dzik 2017.

† χπθ 684 = Μιχαήλ
Traces

The name of the Archangel Michael is written as a numerical cryptogram. The numeral is not marked. However, on the opposite side there are traces of another, illegible, fragment of text.

68. Inv. no.: BNG/16/605; CB-209.
Place of discovery: Context ECH-2-14a, northeastern living quarters, Room/Space 2, latrine fill, layer 14a.[73]
Type of vessel and description: rim fragment of a bowl with red slip and black rim stripe, inside traces of painted black decoration (Pl. 8).
Dimensions: rim diameter – 18 cm, height – 4.2 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised on the body outside and inside the bowl.
Type of text: name of a divine entity.



Inside:

† χπθ 684 = Μιχαήλ

The name of the Archangel Michael is written as a numerical cryptogram.

Outside:

χ̄

73 Cf. Dzik 2017.

Only one letter, with a dash above, is visible. It is not clear whether it was a single letter (a numeral or abbreviation) or rather the beginning of a numeric cryptogram: хпѳ or хн.

69. Inv. no.: BA/19/2399; CB-1970.
Place of discovery: Context NECH-18a-537, northeastern living quarters, Room/Space 18a, layer 537.
Type of vessel and description: rim fragment of a small bowl with pinkish-orange slip (Pl. 8).
Dimensions: rim diameter – 10 cm, preserved height – 3 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

х̄п̄ѳ i.e. 684 = Μιχαήλ

The name of the Archangel Michael written in the form of a monogram. Written in a sloppy hand.

70. Inv. no.: BNG/43/07.
Place of discovery: Sector SSCH/9, Sector VII of the enclosure wall, Space 4.[74]
Type of vessel and description: rim fragment of a bowl with painted decoration inside.
Dimensions: rim diameter – 19 cm, height – 5.5 cm.
Dating: twelfth–fourteenth centuries.
Inscription: text incised inside, on the body, below the rim.
Type of text: name of a divine entity.

хпѳ 684 = Μιχαήλ

The numeric cryptogram of the Archangel Michael. The numeral is not marked.

71. Inv. no.: BA/19/2488; CB-1029.
Place of discovery: Context NECH-43-428, northeastern living quarters, Room/Space 43, layer 428.

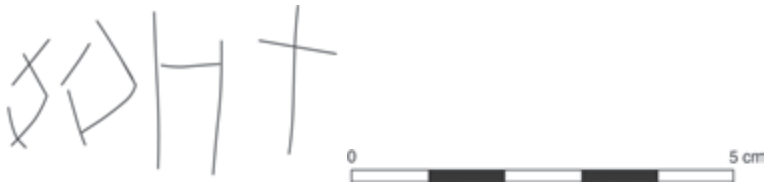
74 Cf. Drzewiecki 2010.

Type of vessel and description: complete bowl with a flat base and pinkish-
-orange slip (Pl. 8).
Dimensions: rim diameter – 10.2 cm, base diameter – 5 cm, height – 5.5 cm.
Dating: twelfth century.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

ⲟⲡⲭ

The text is rather bizarre. It seems to comprise the numerical cryptogram of the Archangel Michael, but written not only in an inverted order, from right to left, but additionally *theta* is rhomboidal in shape and is deprived of the middle bar. The bowl seems to form a set with no. **72**. They were both discovered *in situ* in the same room and were written in a very similar hand.

72. Inv. no.: BA/19/2483; CB-1036.
Place of discovery: Context NECH-43-N.22, northeastern living quarters, Room/Space 43, inside hand-made pot (vessel no. 22).
Type of vessel and description: complete bowl with a flat solid base, orange slip and painted black decoration inside; a band of guilloche below the rim and fish in the centre of the base (Pl. 8).
Dimensions: rim diameter – 18 cm, base diameter – 7.5 cm, height – 7.6 cm.
Dating: twelfth century.
Inscription: text incised inside, on the body.
Type of text: unclear, perhaps the name of a divine entity.



ⲟⲟⲏ̣ⲭ̣

The reading of the text is unclear since the readable letters do not make any sense. In addition, it is unclear whether the last sign should be identified as a cross or as the letter *chi*. The identification of the remaining letters is also uncertain. The vessel was discovered *in situ* together with no. **71**. Considering the layout of the text and the paleography, especially the rhomboidal *omicron*, it can be assumed that both were done by the same person and have similar content. Perhaps the letters should be reconstructed as ⲭⲡⲑ, written from right to left. Nevertheless, I cannot explain the presence of the additional *omicron* at the beginning.

73. Inv. no.: BNG/21/2010.
Place of discovery: Sector SSECH/3, trench 4 in front of the entrance to the southeastern tower, fourth arbitrary level.[75]
Type of vessel and description: rim fragment of a small, thin-walled bowl with buff slip and orange top.
Dimensions: 2.9 × 2 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the bottom.
Type of text: name of a divine entity.

⌊- - ⌋ ⲑ ⌊- - ⌋

A fragment of the numerical cryptogram of the Archangel Michael.

74. Inv. no.: BNG/07/2010; ZW/07/2010.
Place of discovery: Sector NNCH/5, trench 2 outside the enclosure wall, second arbitrary level.[76]
Type of vessel and description: rim fragment of a bowl with orange slip outside and buff interior.
Dimensions: rim diameter – 12 cm, height – 3.5 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

ⲭ̣ [- - -]

It is not clear whether this is the letter *chi* or a cross. Perhaps it is the name of an archangel written in the form of the numerical cryptogram ⲭⲡⲑ or ⲭⲏ.

75 Cf. Drzewiecki 2013.
76 Cf. Drzewiecki 2013.

75. Inv. no.: BNG/93/04.
Place of discovery: Sectors WCH/4, 7, test pit III/2004, western building, Room D.
Type of vessel and description: body fragment of a closed-form vessel.
Dimensions: 7.2 × 7.8 cm.
Dating: twelfth–fourteenth centuries.
Inscription: text incised outside, on the body.
Type of text: name of a divine entity.

† χϧ 640 = Ραφαήλ

The name of the Archangel Raphael written in the form of a numeric cryptogram (ⲣⲁⲫⲁⲏⲗ: ⲣ = 100, ⲁ = 1, ⲫ = 500, ⲁ = 1, ⲏ = 8, ⲗ = 30; in total 640 or χϧ in the Greek notation). The numeral is not marked.

76. Inv. no.: BA/20/2935; CB-1967.
Place of discovery: Context SECH-13-103, southeastern quarters, Room/Space 13, layer 103.
Type of vessel and description: more than half of a bowl, white-slipped, decorated with a red central seal (Pl. 8).
Dimensions: rim diameter – 12.8 cm, height – 3.6 cm.
Dating: eleventh century.
Inscription: text incised inside, on the bottom, around the seal.
Type of text: owner's inscription and the name of a divine entity.

ⲙⲉⲥⲓ		ⲁ̄	ⲓ̅ⲥ̅ⲟ	ⲙⲁ
ⲉⲡⲕ	ⲙⲓⲭ	ⲡ̄	ⲭ̅[ⲥ]	ⲣⲓⲁ

An incised inscription encircles the central seal; however, the text is not continuous and individual elements are written on different axes; furthermore, components of the same section are written on both sides of the seal opposite each other. The text comprises an invocation to Jesus Christ, the names Maria and Michael, the letters *alpha* and *pi* with a horizontal dash above and information about the bowl owner.

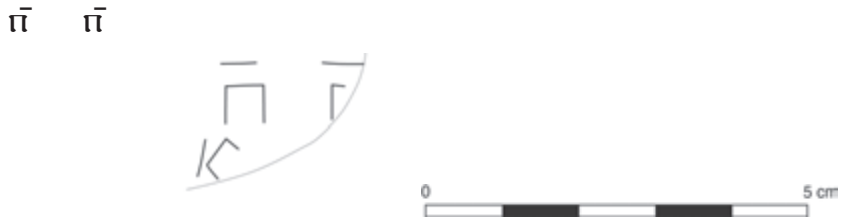
The vessel belonged to an individual named ⲙⲉⲥⲓ. Unfortunately, this name has been attested in Nubia only twice so far. One attestation is a dedicatory inscription from the Archangel Raphael Church at Old Dongola (unpublished, the information was provided by Adam Łajtar, who is preparing an edition of inscriptions from this church). Another example is the chalice from the upper church from Banganarti (cf. no. **95**), mentioning Deacon Mesi. However, it is unlikely that all the inscriptions were connected with the same person.

More of a problem is the identification of the office that Mesi held. The most logical explanation seems to expand the letters ⲉⲡⲕ as *ἐπίσκοπος*. However, this interpretation yielded some problems. First, it is not a typical abbreviation for this office, and this would be the only attestation of such a notation. Furthermore, most Nubian bishops also bore the title *abba*, which was a mark of their monastic past, and the title usually preceded the name. Therefore, it cannot be excluded that Mesi was a bishop, especially since the nearest bishopric, Old Dongola, was located only 10 km downstream from Banganarti.

Another part of the text possibly should be taken into consideration as a whole. Surely an invocation to Jesus Christ and the letters *pi* and *alpha* constitute an iconic representation of the Theophany-cross (cf. commentary to no. **77**), and the letters are acronyms of the names of two out of the Four Living Creatures: ⲁⲅⲅⲁⲗⲟⲛⲁⲧⲁⲡ and ⲡⲁⲣⲁⲙⲩⲣⲁ or ⲡⲉⲓⲟⲟⲩⲣⲟⲩⲑⲓⲟⲛ. Interestingly, it seems that only two of the four names were written on the bowl. Although the vessel is only partially preserved, there is no space where other acronyms could fit. Perhaps in this particular case, the author chose to invoke only two of the Living Creatures and two other divine entities, the Archangel Michael and the Mother of God. Such an instance is known from Gezira Dabarosa, where a central cross is flanked on

a stela by the acronyms of two names and the numerical cryptograms of the Archangels Michael and Raphael.[77]

77. Inv. no.: BNG/37/2014; ZW/11/2014.
Place of discovery: Sector NECH/4, House E/2/2014.[78]
Type of vessel and description: rim fragment of a small bowl, with a rounded bottom and splayed walls.
Dimensions: rim diameter – 10.5 cm, height – 3.4 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity/saint.



ιc [ο χc]
[α̅ μ̅]

Although the inscription is only partially preserved it can be reconstructed based on similar finds. It constitutes an iconic representation of the *maiestas crucis*, a popular motif of Nubian wall paintings, representing the cross with the image of Christ in the centre encircled with representations of the Four Living Creatures.[79] In the first line, two letters *pi*, marked with horizontal dashes, are acronyms for the names of two out of the Four Living Creatures: παραμγρα and πειοογρογθιοη. The middle line is occupied by the invocation Ἰ(ησοῦ)ς ὁ Χ(ριστό)ς; notably, the *nomen sacrum* is not marked with a horizontal dash. Therefore, in the last, unpreserved, line are the expected acronyms of the names of the other two Creatures: μελιτωη and αγραηιαταπ. The full names of the Creatures are attested to in the inscription accompanying the painting of the *maiestas crucis* from Faras.[80]

78. Inv. no.: no inventory number, discovered in season 2004–05.
Place of discovery: unknown.
Type of vessel and description: wall fragment of a bowl with white slip and painted black decoration inside.
Dimensions: 9.2 × 6.8 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the bottom.
Type of text: unclear, perhaps the name of a divine entity.

77 Unpublished, after Łajtar, van der Vliet 2017: 44.
78 Cf. Żurawski et al. 2017.
79 For more about the names accompanying the paintings, see Tsakos 2014; about the inscriptions see Łajtar, van der Vliet 2017: 43–44.
80 Jakobielski et al. 2017: no. 76.

π̄

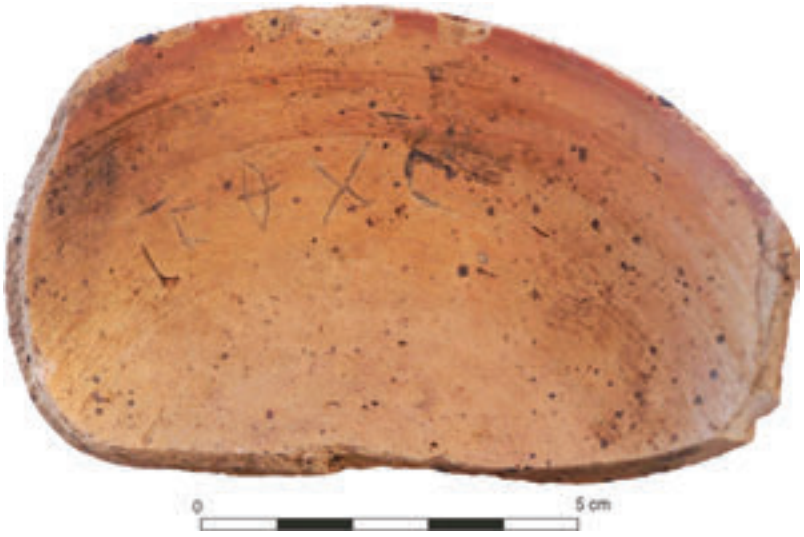
The horizontal stroke above the letter *pi* indicates that it was either a numeral or an abbreviation. Assuming a large space between the letters, it is possible to reconstruct in this place the numeric cryptogram of the Archangel Michael: χπϑ. Another possibility is that the letter was part of a larger composition containing the names of the Four Living Creatures (cf. no. **77**) and that the letter *pi* is an acronym of παραμγρα or πειοογρογθιον.

79. Inv. no.: BA/18/1783; CB-555.
Place of discovery: Context NECH-27-271, northeastern living quarters, Room/Space 27, layer 271.
Type of vessel and description: rim fragment of a bowl with creamish slip and traces of painted decoration inside (Pl. 8).
Dimensions: rim diameter – 20.5 cm, height – 5.5 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body, below the rim.
Type of text: unclear, perhaps name of a divine entity.

π ⲁ

The letters are placed apart from each other, and it is possible that there were further elements of the composition on the unpreserved part of the bowl. Perhaps these were the acronyms for names of the four Apocalyptic Beasts written on the four sides of the vessel (cf. no. **77**).

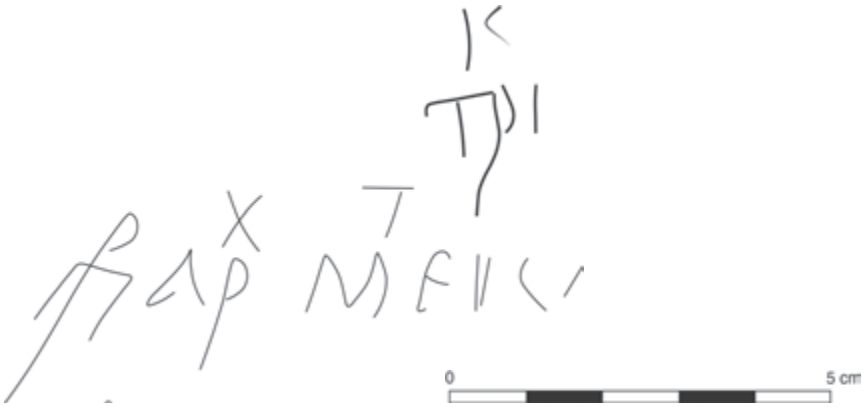
80. Inv. no.: BNG/18/467-51.
Place of discovery: Context NCH/D-1-II, residential buildings on the north side of the church, second arbitrary level in Room/Space 1.
Type of vessel and description: rim fragment of a bowl with a rounded base, orange slip, and dark-orange rim stripe.
Dimensions: rim diameter – 13 cm, height – 4 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.



$\overline{\text{ιc}}$ θ $\overline{\text{xc}}$ i.e. Ἰ(ησοῦ)ς ὁ Χ(ριστό)ς

The epiclesis of Jesus Christus written in a form of *nomina sacra*. It is noteworthy because instead of the article ó the author mistakenly wrote the letter *theta*.

81. Inv. no.: BNG/09W/2006.
Place of discovery: Sectors WCH/7–8, Western Building WB.11.
Type of vessel and description: upper fragment of a jug with dark-red slip; rim and most of the body missing (Pl. 8).
Dimensions: max. diameter – 13 cm, height – 8.5 cm.
Dating: eleventh–thirteenth centuries.
Inscription: text incised on the shoulder, on the main axis of the vessel.
Type of text: owner's graffito.



τρὶκ΄(λίνος)
Πρ(εσβύτερος) ἀρ̀χ΄(ι)μειζ΄(ότερος) κα̣[ι - - -]

This graffito comprises only the titles that the owner held. Most probably, his name was recorded on the opposite side of the vessel, which is not preserved. In addition, the text is written in an unusual way. There seemed to be insufficient space in one line for all the titles, so the author wrote the last element above.
The man under consideration had extended titulary and combined clerical (presbyter) and secular offices of high rank (*archimeizoteros* and *triklinos*). Although well attested in medieval Nubia, the latter two still pose a problem with interpretation. The form *archimeizoteros* is attested to only once,[81] but its equivalent – *protomeizoteros* – appears several times in documents.[82] We do not know the exact duties connected with this office, possibly it was analogous to the *meizoteroi* known from Byzantium. The title holders acted as stewards attached to the most important officials of the kingdom[83] and *proto*- or *archimeizoteros* presided over other *meizoteroi*. The next title causes even more problems, since it was always recorded in abbreviated form, even the full spelling is doubtful. Most probably the person who held this title was responsible for the table of the most important officials in the kingdom.[84] There are ca. 20 attestations of this title or of its Old Nubian equivalent (ⲟⲗⲫⲟⲗ). Moreover, in several protocols of Nubian documents *archimeizoteros* is also mentioned, usually listed close to the top of the list, indicating that he was an essential figure in the Makurian kingdom.[85] Since the vessel is only partially preserved it cannot be excluded that after the conjunction there was the prefix ἀρ̀χ΄and the owner of the vessel held two superior positions: *archimeizoteros* and *architriklinos*.

82. Inv. no.: D/2001/19.
Place of discovery: surface.
Type of vessel and description: fragment of a bowl (complete profile) with plain a rounded bottom, dark-cream slip and painted decoration inside (Pl. 9).
Dimensions: rim diameter – 23 cm, height – 7 cm.

81 *P. Qasr Ibrim* 4, 95.
82 *P. Lond. Copt* 449 and 450; other sources remain unpublished.
83 *I. Qasr Ibrim* 56.
84 See Łajtar, Ochała 2018: 563.
85 Łajtar, Ochała 2018: 563.

Dating: eleventh–mid-twelfth centuries.
Inscription: text incised outside, on the body.
Type of text: owner's inscription.
Bibliography: illustration in ŻURAWSKI 2003: 424, pl. 71b.

χαηλ

The name Chael written in the form of a monogram. The upper part of the letter *chi* ends with circles.

83. Inv. no.: BA/19/2090; CB-1085.
Place of discovery: Context NECH-36-1, northeastern living quarters, uppermost layer in Room/Space 36.
Type of vessel and description: fragment of the lower part of a bowl with a rounded base (Pl. 9).
Dimensions: max. diameter – 9 cm, height – 2.8 cm.
Dating: twelfth century.
Inscription: text incised inside, on the bottom.
Type of text: owner's inscription.

χαηλ

The name Chael written in the form of a monogram.

84. Inv. no.: BNG/225/XI/08.
Place of discovery: Sector ECH/6, trial pit E2, Room 6.[86]
Type of vessel and description: body fragment of a vase with painted black decoration.
Dimensions: 19 × 13 cm.
Dating: twelfth–fourteenth centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

ⲭⲁⲏⲗ

The name Chael written in the form of a monogram.

85. Inv. no.: BNG/19/11; CB-1781.
Place of discovery: Sector CH/3-surface, the surface of the buildings on the north side of the church.
Type of vessel and description: wall fragment of a bowl with dark-orange slip outside, a buff interior, and painted decoration inside (Pl. 9).
Dimensions: 9.5 × 8 cm.
Dating: twelfth–thirteenth centuries.
Inscription: text incised inside, on the bottom.
Type of text: owner's inscription.

[- - -] ⲙⲁⲣⲓⲁⲙⲏ

The text comprises a personal name and it is not clear whether it was preceded by any other element. The name ⲙⲁⲣⲓⲁⲙⲏ is well attested in Nubian sources, among others at Faras from the epitaph

86 Cf. Żurawski 2011.

of Iesou son of Mariame[87] and the dedicatory inscription left by Mariami daughter of Marianta;[88] the owner inscription from Soba[89] and in legal documents from Qasr Ibrim. Interestingly this is a female name attested to in both Egypt and Nubia, a variant of the name Mariam.[90]

86. Inv. no.: BA/15/383; CB-385.
Place of discovery: Context NECH-6-1, northeastern living quarters, uppermost layer in Room/Space 6.[91]
Type of vessel and description: half of a large bowl (complete profile), with a ring base, orange slip and rich black painted decoration inside (Pl. 9).
Dimensions: rim diameter – 27 cm, base diameter – 10 cm, height – 9.6 cm.
Dating: twelfth–thirteenth/fourteenth centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

Illegible

ⲁ

‖ † ‖
ⲥⲓⲙ
ⲙⲟⲛ

87 *I. Waraw* 109.
88 Jakobielski 1974: 298–299.
89 Shinnie 1955: no. 8; reading corrected in Ochała 2018: no. 19.
90 Ochała 2019: no. 1.
91 Cf. Dzik 2017.

The text comprises three elements each written on a different axis; two are located next to each other and the third one on the opposite side of the base. The only clear element is the letter *alpha* standing alone. The other two cause some problems with interpretation. One consists of dozens of intersecting lines resembling a monogram; however, no single letter can be identified with certainty. The second one perhaps contains the name ⲥⲓⲙⲱⲛ with the letter *mi* incised upside down and *omega* and *ni* written in ligature. The name is a spelling variant of a name well-attested in Nubia – ⲥⲩⲙⲉⲱⲛ, borne also by kings.[92] An interesting element is a cross flanked by the double strokes above the name.

87. Inv. no.: BNG/43/2014; ZW/10/2014.
Place of discovery: surface.
Type of vessel and description: rim fragment of a bowl with orange slip and painted black decoration inside (Pl. 9).
Dimensions: rim diameter – 22 cm, height – 6.5 cm.
Dating: twelfth century.
Inscription: text incised inside, on the body.
Type of text: unclear, perhaps owner's inscription.

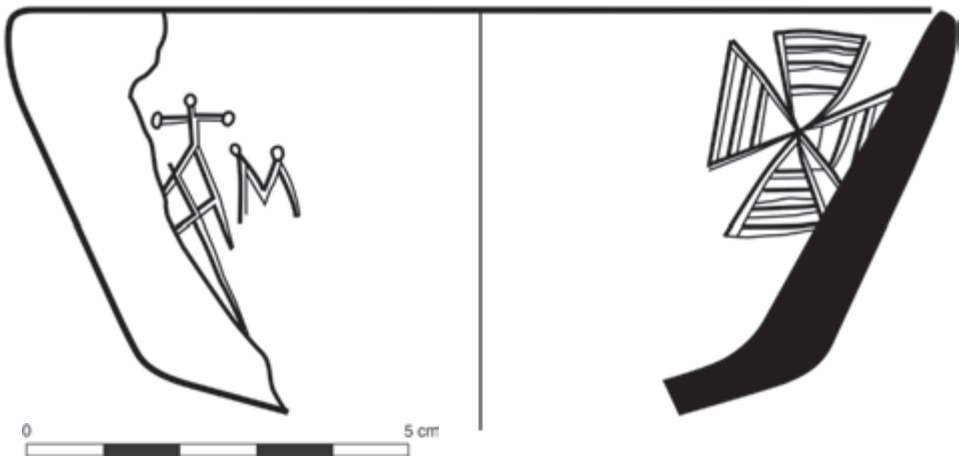
†ⲥⲉⲗⲗⲉ̣ [- - -]

The interpretation of the text is not entirely clear, especially since it is only partially preserved. Most probably it comprises a personal name. A very similar graffito was also recorded on a jar from Selib,[93] where the text reads ⲥⲉⲗⲗⲉⲛⲏ. In Nubia this seems to be a popular dating formula connected with the lunar calendar.[94] Σελλένη is a corrupted form of the Greek dative σελήνῃ indicating the time.
Interestingly, the uncorrected form was used in Nubia on a regular basis.[95] However, it is difficult to explain the function of a dating formula on a vessel, especially given that, as attested by the text from the vessel from Selib, the formula is not followed by a numeral. So perhaps it should be understood as a personal name, as yet not attested in Nubian sources. Furthermore, in one graffiti from the upper church at Banganarti there is the name ⲟⲩⲛ(ⲛⲁ, which is the Old Nubian equivalent of the Greek lunar formula,[96] so perhaps both the Greek and the Old Nubian phrase was also used as a personal name.

88. Inv. no.: BNG/18/501/57.
Place of discovery: Sector NCH/D1, uppermost layer.
Type of vessel: rim fragment of a small bowl with white slip.

92 *P. Qasr Ibrim* IV 64–65, 70.
93 Żurawski et al. 2017: 367.
94 For more on Nubian chronological systems, see Ochała 2011.
95 Ochała 2011: 308–309.
96 Łajtar 2020: no. 724.

Dimension: rim diameter – 12 cm, height – 5 cm.
Dating: twelfth century.
Inscription: text incised inside, on the body; it is accompanied by a large incised cross.
Type of text: unclear, perhaps owner's inscription.



[- - -]ⲁⲙ

It is unclear whether the whole text comprised only two letters or if another element preceded the visible part. The cross above *alpha* indicates that it could either be an initial or a middle letter; in both cases, it implies an abbreviated word. Since there are few words in Greek ending with *mi*, the most plausible reconstruction here seems to be an abbreviated name, possibly Abraham (ⲁⲃⲣⲁⲁⲙ). An exciting element of the inscription in question are also the circles added at the end of the arms of the cross and in the upper part of the letter *mi*. Such elements bring to mind the so-called ring letters, which belong to the group of magical signs (*charaktêres*), which frequently appear in written incantations.[97] Such signs are also known from the magical texts from medieval Nubia, from Meinarti[98] or Old Dongola (unpublished).
Nonetheless, there are more examples of the use of ring-letters on vessels in medieval Nubia. From Soba, there are at least three monograms with letters ending in circles[99] examples are also known from Old Dongola[100] and Ghazali.[101] At the current research stage, it is impossible to determine whether letters ending with circles were merely decorative elements or had apotropaic importance.

89. Inv. no.: BA/18/1670; CB-1856.
Place of discovery: Contexts NECH-30-299, 301, northeastern living quarters, Room/Space 30, layer 299.

97 De Bruyn 2017: 57–58.
98 Ruffini 2012: no. 5.
99 Jakobielski 1991: nos. 55–57.
100 Danys 2016: 771, fig. 7.
101 Lethmayer, Zach 1986: 146, fig. 10.

Type of vessel and description: rim fragment of a bowl with light-orange slip.
Dimensions: rim diameter – 13.6 cm, height – 3 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

ⲁ̄

The letter *alpha* with a horizontal dash above could either stand alone, be a part of the digram ⲁⲱ, or be an acronym of the name ⲁⲅⲣⲁⲛⲓⲁⲧⲁⲡ, one of the four Apocalyptic Beasts (cf. no. **77**).

90. Inv. no.: BNG/71/07.
Place of discovery: Sectors SSCH/7–8, Sector VII of the enclosure wall, section 1/2017, first arbitrary level.[102]
Type of vessel and description: fragment of a small bowl/cup with a flat base.
Dimensions: rim diameter – 11 cm, base diameter – 6 cm, height – 6 cm.
Dating: eleventh–thirteenth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

ⲁ

Only one letter is preserved, and it is unclear whether it was part of the digram ⲁⲱ, the beginning of a word, possibly a personal name, or whether the inscription comprised only a single letter.

91. Inv. no.: BNG/20/11-12; ZW/08/11-12.
Place of discovery: Sectors SSWCH/5–6, southwestern living quarters, House SW3, northwestern part of Room/Space 4, second arbitrary level.[103]
Type of vessel and description: rim fragment of a bowl with matt, light-orange slip outside and creamish interior; orange rim stripe; inside a groove below the rim and a flattened rib.
Dimensions: rim diameter – 32 cm, height – 8 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

102 Cf. Drzewiecki 2010.
103 Cf. Żurawski 2015.

[- - -]ⲭ[- - -]

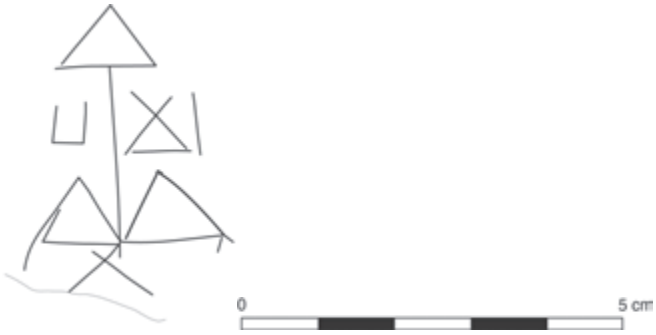
It is unclear whether this was a cross crowning a monogram or the letter *chi*.

92. Inv. no.: BNG/376/2008.
Place of discovery: upper church.
Type of vessel and description: rim fragment of a bowl with light-orange slip.
Dimensions: rim diameter – 21.5 cm, height – 6 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.

ⲭ̅ⲙ̅ⲏ̣

The reading of the text is unclear. The first letter looks like an inverted *rho*, but it could also be an unfinished cross, which commences the inscription. Similarly uncertain is the identification of the last sign, which could be either *chi* or a cross. Although the reading of the letters located in the middle is quite sure, their interpretation causes difficulty. A horizontal dash located above indicates that this could be the numeral 648, perhaps a divine name or a private one written in the form of a numerical cryptogram; however, it is not otherwise attested. It might be considered that this was an attempt to write the name of the Archangel Michael.

93. Inv. no.: BNG/81/11-12; ZW/155/11-12.
Place of discovery: Sector ECH/5, House NE, Room/Space 9, under the entrance arch.[104]
Type of vessel and description: large bowl (missing rim and fragment of wall) with a ring base, light-orange slip outside, matte buff inside; rich, black painted decoration of radial bands filled with guilloche (Pl. 9).
Dimensions: base diameter – 8 cm, max. diameter – 30 cm, height – 9 cm.
Dating: eleventh–twelfth centuries.
Inscription: text incised inside, on the body.
Type of text: unidentified.



Illegible

The text is written in the form of a monogram. Although the graffito is preserved in its entirety and carefully executed, not a single letter can be identified unambiguously. It seems instead to be an attempt to imitate a monogram, but the reason behind such a practice is incomprehensible. Very similar signs are also known from the vessels from Soba.[105]

IV. Late Christian Pottery (Twelfth/Thirteenth–Fifteenth Centuries)

94. Inv. no.: BNG/18/471/82.
Place of discovery: Sector NCH/A, Spaces 10–11, second arbitrary level.
Type of vessel: rim fragment of a bowl with painted decoration inside.
Dimension: rim diameter – 10 cm, height – 4 cm.
Dating: fourteenth–fifteenth centuries.
Inscription: text incised inside, on the body.
Type of text: owner's inscription.

104 Cf. Żurawski 2014.
105 Anderson 1998: 121–122, nos. 337, 347, 370, 373; Jakobielski 1991: no. 81.

ⲕⲟⲗ(ⲗⲟⲩ)ⲑ̀ⲑ́(ⲟⲥ)

The name Kollouthos is written in abbreviated form, and the abbreviation is marked by the suspension of the letter *theta*. In medieval Nubia the name is attested to both as the name of a private person[106] and as the name of a saint, and is sometimes used to refer to his church.[107]

95. Inv. no.: BNG/18/2002.
Place of discovery: upper church, Room 25.
Type of vessel and description: chalice covered with pinkish slip.
Dimensions: unknown.
Dating: fourteenth–fifteenth centuries.
Inscription: text incised outside, along the rim.
Type of text: owner's inscription.
Bibliography: illustration in Żurawski et al. 2014: 219, fig. 2.

[- - -]ⲥⲓ ⲕⲟⲫ̣ⲫ̣ⲁ ⲉⲟⲃ ⲩ̣ⲩ̣ ⲙ̣̀ⲭ́ⲡⲟ ⲭ̣ⲡⲟ

The text stands out from other graffiti from Banganarti by its length and the fact that it is the only one written in Old Nubian. Unfortunately, most of the text is either illegible or incomprehensible. Also, the beginning of the text is not preserved. However, according to the discoverers, just after finding it, it was visible in its entirety and it opened with the name and title of Deacon Mesi.[108] Now only two of the last letters of the personal name are preserved. The

106 E.g. one of the bishops of Faras bore this name; see Jakobielski 1972: 190–195.
107 Ochała 2019: no. 17.
108 Adam Łajtar, personal communication.

reading of any of the following elements is not clear. Most possibly, the first word should be transcribed as ⲕⲟⲫⲫⲁ and is perhaps related to the noun ⲕⲟⲫ/ⲕⲟⲫⲫ- ('face')[109] with the predicative morpheme -ⲁ (?). The next one (ⲉⲟⲥ) is a compound of the well-attested Old Nubian term for eparch (ⲥⲟⲉⲟⲥ) and, according to Gerald Brown, this element is connected with the word ⲉⲟⲗ ('lord').[110] It cannot be excluded that both elements incised on the vessel refer to some title otherwise unattested. Old Nubian ⲕⲟⲫⲫ is the equivalent of Greek πρόσωπον, which also can mean 'person'[111] and therefore the hypothetical title could be 'the lord of the people'. Another element are the two letters *upsilon* standing together. Although there is no horizontal dash above marking an abbreviation, most probably this is the word *υἱός*, the genitive shortened in a way typical for *nomina sacra*. This would mean that the previous information was related not to the owner of the calix but rather to his father. Since the personal name is lacking, another possibility should be taken into consideration, i.e. that ⲕⲟⲫⲫⲁ is a personal name and ⲉⲟⲥ is either another part of the name[112] or a title. Personal presentation is followed by the names of the Archangel Michael. The first sign comprising several intersecting lines is most probably his name in the form of a monogram. It is possible to identify the letters *mi*, *chi* and *alpha*. Then the name is twice written as a numerical cryptogram; in the first one, the letter *chi* forms a vertical ligature with the letter *pi*. In both cases, *theta* is replaced by the letter *omicron* (cf. nos. **71**, **72**).

V. Incerta

96. Inv. no.: BNG/46/07

Place of discovery: Sector SSWCH/7, Sector VII of the enclosure wall, section 5.[113]
Type of vessel and description: rim fragment of a bowl.
Dimensions: rim diameter – 17 cm, height – 3 cm.
Dating: unknown.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

ⲙ
ⲗ̄ ⲭ̄ ⲏ
ⲁ̣

i.e. Μιχαήλ

Although the reading of the central and lowermost letters is not clear, most probably they should be identified as *chi* and *alpha* respectively, and thus the whole inscription would give the name of the Archangel Michael written with letters composed so as to form the shape of a cross.

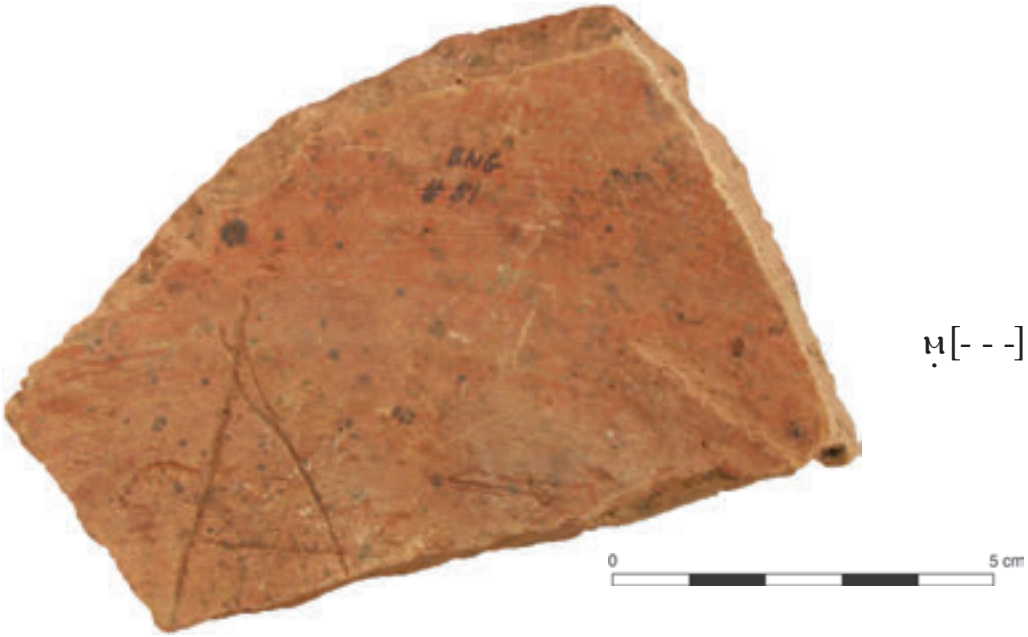
109 *OND* 100.
110 *OND* 201.
111 LSJ s.v. πρόσωπον IV.
112 The term ⲥⲟⲉⲟⲥ is also attested as a personal name; cf. Łajtar 2020: 694.
113 Cf. Drzewiecki 2010.

97. Inv. no.: BA/18/1509.
Place of discovery: Sector SSECH, Space 2, uppermost layer.
Type of vessel and description: wall fragment of a handmade bowl.
Dimensions: max. diameter – 34 cm.
Dating: unknown.
Inscription: text incised inside, on the body.
Type of text: name of a divine entity.

† Μιχαήλ

The name of the Archangel Michael written in the form a monogram.

98. Inv. no.: BNG/81/04-05
Place of discovery: surface.
Type of vessel and description: wall fragment of a bowl with red slip.
Dimensions: 10.8 × 7.8 cm.
Dating: unknown.
Inscription: text incised inside, on the bottom.
Type of text: unclear, perhaps the name of a divine entity.



μ̣[- - -]

Possibly a fragment of the monogram of the Archangel Michael. The horizontal stroke above *mi* could be an element marking *iota*.

99. Inv. no.: BNG/128/07.
Place of discovery: Sector NNWCH/5, Sector IV of the enclosure wall, section 2/2007, first arbitrary level.[114]
Type of vessel and description: rim fragment of a bowl.
Dimensions: rim diameter – 12 cm, height – 4.2 cm.
Dating: unknown.
Inscription: text incised both on the outside and inside of the body.
Type of text: name of a divine entity (?).

Inside:

ⲣ

ⲡⲭ[- - -]

The graffito comprises two elements. The first one looks like a monogram with letters composed to form the shape of a cross, but the only discernible letter, located at the top, is *rho*, which indicates that this could be the name of the Archangel Raphael. Another element are the letters *pi* and *chi*, which could be part of the numerical cryptogram of the archangel written in inverted order. However, the numeral is not marked.

Outside:

ⲙⲭ[- - -]

Most probably the name of the Archangel Michael.

100. Inv. no.: BNG/216/07.
Place of discovery: Sectors NNWCH/4–5, Sector IV of the enclosure wall, north gate, first arbitrary level.[115]
Type of vessel and description: rim fragment of a bowl.
Dimensions: unknown.
Dating: unknown.
Inscription: text incised inside, on the body.
Type of text: perhaps name of a divine entity.

[_ _ _] ⲡ ⲟ

This is possibly an unfinished numeric cryptogram of the Archangel Michael: ⲭⲡⲑ.
A horizontal stroke is lacking both in the letter *theta* and the one marking the numeral above letters. The text is supplemented by a five-point star.

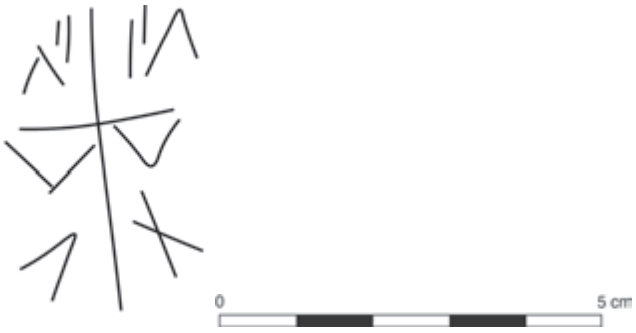
114 Cf. Drzewiecki 2010.
115 Cf. Drzewiecki 2010.

101. Inv. no.: BNG/61/2011; ZW/11/2011.
Place of discovery: Sector SSCH/3, southwestern living quarters, House SW1, Room/Space 2, fourth and fifth arbitrary level.
Type of vessel and description: large fragment of a bowl, with a ring base, white slip and red rim stripe.
Dimensions: rim diameter – 20 cm, base diameter – 7.8 cm, height – 6.5 cm.
Dating: unknown.
Inscription: text incised inside, on the body.
Type of text: unclear, perhaps owner's inscription.

ⲣ
ⲙ
ⲁ

For the commentary, see no. **42**. Most probably both bowls belonged to the same person.

102. Inv. no.: BNG/29/14.
Place of discovery: surface.
Type of vessel and description: unclear.
Dimensions: rim diameter – 30 cm.
Dating: unknown.
Inscription: text incised inside, on the body.
Type of text: unidentified.



Illegible

An illegible monogram. Perhaps the letter in the middle can be identified as *omega* and the one in the lower-left corner as *chi*, and at least three shapes look more like *lambda*. On the other hand, perhaps this is only an attempt to imitate a monogram; cf. no. **93**.

Altogether, there are 102 inscribed domestic vessels from Banganarti, but some of them comprise more than one graffito, mentioning both the owner and a divine entity, and therefore there are ca. 120 different fragments of text. To this number, we should also add inscriptions on amphorae, which amount to 38 pieces in total. They were excluded from this article for two main reasons. First of all, amphorae from Banganarti are the subject of another article in this volume.[116] Secondly, it seems that the texts on transported vessels belong to a different category and should be analysed separately. Half of them comprise monograms with a personal name painted in white paint before firing. As many as 13 cases [117] comprise the same name (*Ioannes*) written in the form of a monogram. It is unclear whether this name refers to the producer or the addressee. Therefore, more comprehensive studies are needed covering similar objects, including inscriptions from stoppers,[118] from the different Middle Nile Valley sites to find some patterns in a larger group. The same is true for marks either painted with white paint or incised before firing, seven of which were found at Banganarti[119] but are also attested on other sites.[120] Interestingly, only one amphora dated to the eleventh–twelfth centuries has a numeric cryptogram of the Archangel Michael, and perhaps three other graffiti can be connected with the same divine entity [121]; however, the reading is not entirely clear. Only one sherd has the name of the owner [122], ⲙⲁⲣⲓⲁⲛⲕⲟⲩⲇⲁ, written in its entirety before firing.

In contrast, 95% of inscriptions on the domestic vessels were done after firing, indicating that graffiti were made by the owners or on their direct order after purchasing. Only six pieces had text inscribed before firing; three of them (nos. **24**, **26**, **51**) are decorated with a central seal with an impressed inscription, and on two (nos. **13**, **63**) letters are painted in black ink. It seems that in these cases text had a primarily decorative function.

Next, the texts can be divided into two main categories based on their nature and function – owners' inscriptions and names of divine entities.

The first group comprises pieces of text providing information about the owner of the vessel, usually in the form of a personal name, which is sometimes supplemented by the office or title. At Banganarti, this group is represented by 25 items; however, some interpretation is not entirely clear. Most of them contain proper names written either in full (nos. **7**, **11**, **40**, **43**, **76**, **85–87**, **95**) or as a monogram (nos. **8**, **36–39**, **41**, **82–84**). They also can be abbreviated by contraction (nos. **24**, **44**, **88**) or suspension (nos. **10**, **94**). Possibly one name appearing twice (nos. **42**, **101**) is written in the form of a numeric cryptogram. Given that both bowls with this name were discovered in the same house, they likely belonged to one individual. Also reoccurring are the names Chael and Mesi. The first one is always written as a monogram and appears as many as four times (nos. **8**, **82–84**). Three sherds with this name are dated to the twelfth century and perhaps could constitute a set. The bowl and calix signed with the name Mesi (nos. **76**, **95**) come from different centuries,

116 See in this volume pp. 155–198 (Chapter IV. Dobiesława Bagińska, *The Amphorae for Wine with Monograms and Signs Discovered at Banganarti, Sixth–Twelfth Centuries A.D.*)
117 See Chapter IV in this volume: nos. AM 1/1–1/4, 1/12–1/19, Fig. 1.1–1.12; AM 2/2, Fig. 3.3.
118 Dzierzbicka 2015.
119 See Chapter IV in this volume: no. AM 5/1, Fig. 4.4.
120 Cf. Danys 2015.
121 See Chapter IV in this volume: nos. AM 1/5–1/7, 1/22, Fig. 2.1–4; AM 1/8, 1/23, Fig. 2.12–13.
122 See Chapter IV in this volume: no. AM 6/2, Fig. 4.6; Table 3.d.

indicating that this name, unattested outside medieval Nubia, was quite popular over time.

Only five graffiti list the owners' titles, and in all cases they are connected with a church; however, one presbyter also held two secular positions of high rank (no. **81**). The title presbyter is attested to as many as four times (nos. **9**, **24**, **34**, **81**). There is also a single example of a cleric (no. **37**) and perhaps a bishop (no. **76**). Interestingly, there are no attestations of any title connected directly with the monastic community, which frequently appear on the vessels from Old Dongola[123] and Ghazali.[124]

As many as 63 graffiti belong to the second group and feature names of divine entities; possibly at least eight other texts with unclear reading can be added to this group. All this constitutes more than half of the whole collection. On the vessels appear names of Jesus Christ (nos. **76–77**, **80**), names of the Four Living Creatures (nos. **76–79**), Mary (nos. **24**, **76**), and the Archangel Raphael (nos. **25–26**, **56–57**, **75**). The greatest popularity was enjoyed by the Archangel Michael whose name constitutes 75% of all divine names. It was written both as a monogram and as a numeric cryptogram, with a slight predominance of the monogram; it can be noticed that this proportion has changed over time. On Early Christian pottery, the name of the Archangel Michael was always written in the form of a monogram. The earliest examples of the cryptogram appeared only in the tenth century, whereas among Late Christian pottery, cryptograms seem to have prevailed over the monograms (there are 16 and 5 examples of both, respectively). The sample material from Banganarti is too small to draw far-reaching conclusions, and data from other sites chronological is lacking. Therefore, it is impossible to indicate whether this tendency applied to the whole of medieval Nubia or was a result of local conditions.

However, at Banganarti names of divine entities appear not only on the vessels, but were also discovered incised in the upper part of a brick window frame placed with a bed to the front. Four such examples were discovered in the eastern living quarters, three *in situ* and an additional one in a pit filled with debris. Two comprise numeric cryptograms of the Archangel Michael (one in mixed order) (Pl. 10a, d), the epiclesis of Jesus Christ written in the form of *nomen sacrum* (Pl. 10c) and one illegible (Pl. 10b). The names of the archangels and *nomina sacra* were also written on seals or on personal adornments (Pl. 11a–b). The owner, Ioannes, of a pectoral decorated with the nativity scene, inscribed his name on the back, besides invoking Jesus Christ and Mary (Pl. 11c).

Furthermore, there are many inscriptions left by pilgrims, especially in the upper church, which invoke deities,[125] but there are also some examples from the lower church.[126] On the walls of the upper church, the Archangel Raphael is recorded more often than Michael, which is most probably connected with the fact that he was especially venerated in this church.[127] However, it seems that graffiti left by pilgrims and those incised on private belongings differ in nature. Pilgrims usually address deities to intercede with God on their behalf and to beg for protection and salvation.

123 Łajtar, Pluskota 2001.
124 Shinnie, Chittick 1961.
125 Łajtar 2020.
126 Deptuła 2020: 6 n. 28; 11, 139; nos. 3, 5, 7, 8, 23(?), 27, 28.
127 Łajtar 2020.

It seems that the texts on the vessels and bricks have nothing to do with veneration. Instead, they fulfilled an apotropaic function, and the main task of the divine name was to protect the owner from evil forces, and, as such, they are an expression of the characteristic Nubian belief in the magical power of divine beings, especially in the power of the Archangel Michael.

Only a few inscriptions with divine names were executed with much care. On the contrary, most of them seem to have been incised carelessly with a sharp tool by unskilled hands. This is especially evident in the case of monograms. There are single examples with elaborate shapes. Usually, the name of the Archangel Michael was composed only of the letters *mi*, *chi* and *alpha* forming a vertical monogram with a cross added at the top (nos. **1–6**). Moreover, the letter *alpha* could be omitted (cf. nos. **18**, **52**, **55**). This type of monogram is already attested in Early Christian pottery and seems to be in use at least until the fourteenth century (e.g. no. **95**). The author of such inscriptions did not need to possess any special skills or knowledge of the letters. A more elaborate monogram form is attested at Banganarti from the Classical Christian period (nos. **13**, **14**). However, even in this case, it is evident that the people who wrote these monograms did not distinguish the shapes of the letters and merely copied them from some source. The letters *alpha* and *lambda* frequently look exactly the same or were replaced with a triangle; the same shape is taken by the letter *chi* in monogram no. **96**. Moreover, a lack of understanding is evident in the case of those numeral cryptograms in which, sometimes, letters are put in inverted order (no. **63**, **71–72**) or replaced by a letter of a similar shape (nos. **71–72**, **95**). Finally, in the case of one *nomen sacrum*, the article (ó) is replaced by the letter *theta* (no. **80**). The above examples all indicate that, in most cases, the owners did not understand what was written on the vessels. Instead it had only visual meaning for them. This hypothesis can be supported by graffiti which only imitate monograms (nos. **93**, **102**) and in which not a single letter can be identified.

Another recurring element is letters standing alone. At Banganarti those are nos. **12**, **44**, **47–49**, **86**, **89–90**. Their interpretation is unclear; however, these are not isolated examples. There are many instances of inscriptions comprising only one letter, attested in the upper and lower church at Banganarti.[128] Single letters also appear frequently on inscribed vessels from Soba.[129] Sometimes letters were preceded by a cross or marked with a horizontal dash above. Except for the letter *mi*, which most probably stands for the Archangel Michael, the most frequent letters on pottery are *alpha*, *pi*, *eta* and *theta*.[130] *Alpha* could be interpreted as a part of the digram ⲁⲱ. Another possibility is that the letters *alpha* and *pi*, especially when marked with a horizontal stroke above, could stand for an acronym of the name of one of the Four Living Creatures. Since *eta* is frequently confused with *pi*, perhaps this letter also symbolises one of the Creatures. First letters of the Beast names frequently occur on vessels with an apotropaic function (cf. nos. **76–79**),[131] usually as a set, but it is possible that they could also be used alone. However, more exhaustive study of the subject is required.

128 Łajtar 2020: nos. 21, 114, 186, 194, 258, 259, 380, 385, 390, 502, 518, 526, 607, 700, 746, 757, 778, 801, 804, 812, 827, 840, 860, 868, 883, 887, and 908; Deptuła 2020: no. 7.

129 Jakobielski 1991: nos. 229–263; Anderson 1998: nos. 408–441.

130 In the visitors' inscriptions the proportions are different; cf. Łajtar 2020: 31.

131 Tsakos 2014.

Plate I
Inscribed vessels from the Early Christian period; cat. nos.: 1–6

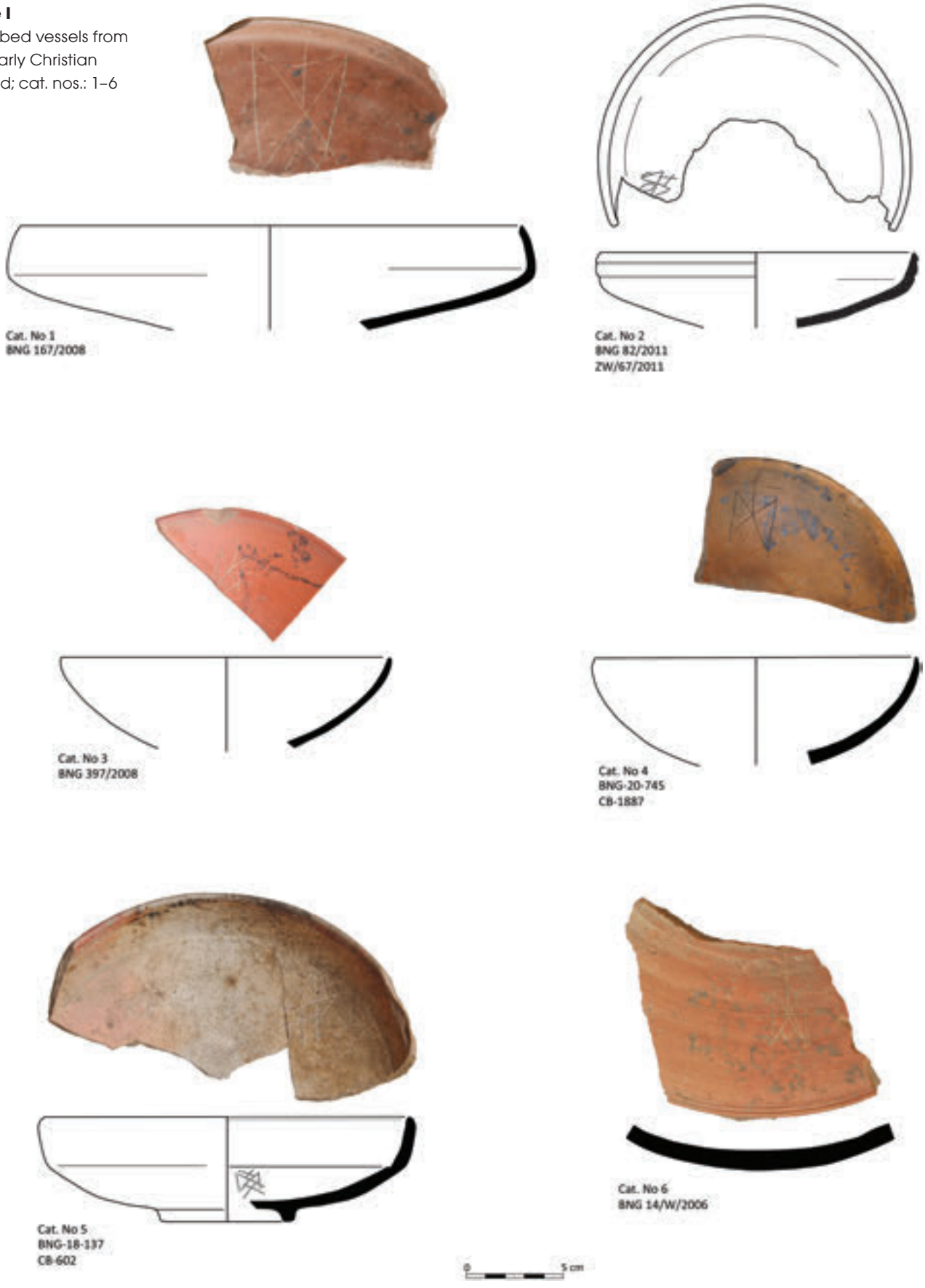


Plate II
Inscribed vessels from the Early Christian period; cat. nos.: 7–8, 10–12

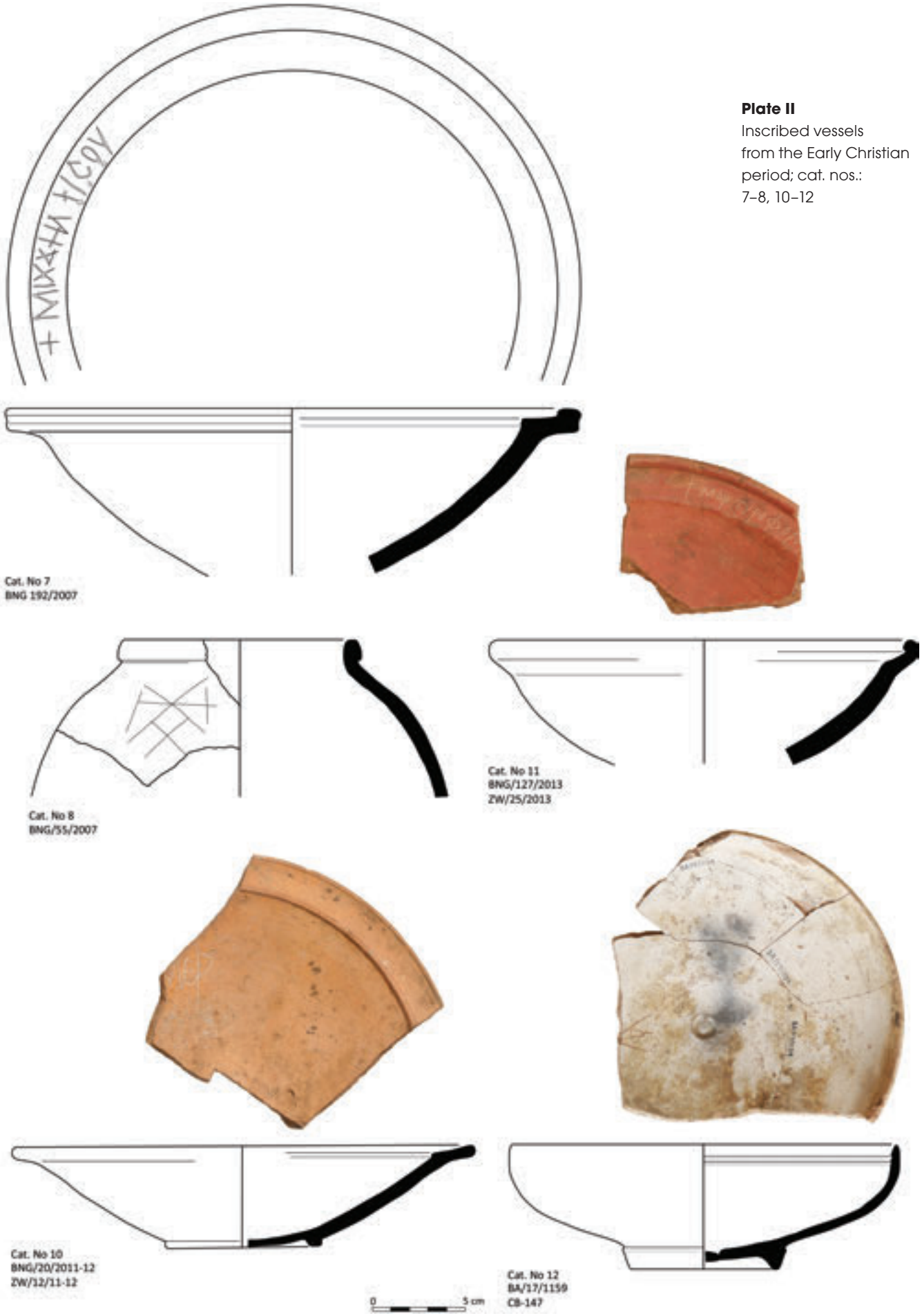


Plate III
Inscribed vessels from the Classic Christian period; cat. nos.: 13–14, 16–18, 20–22

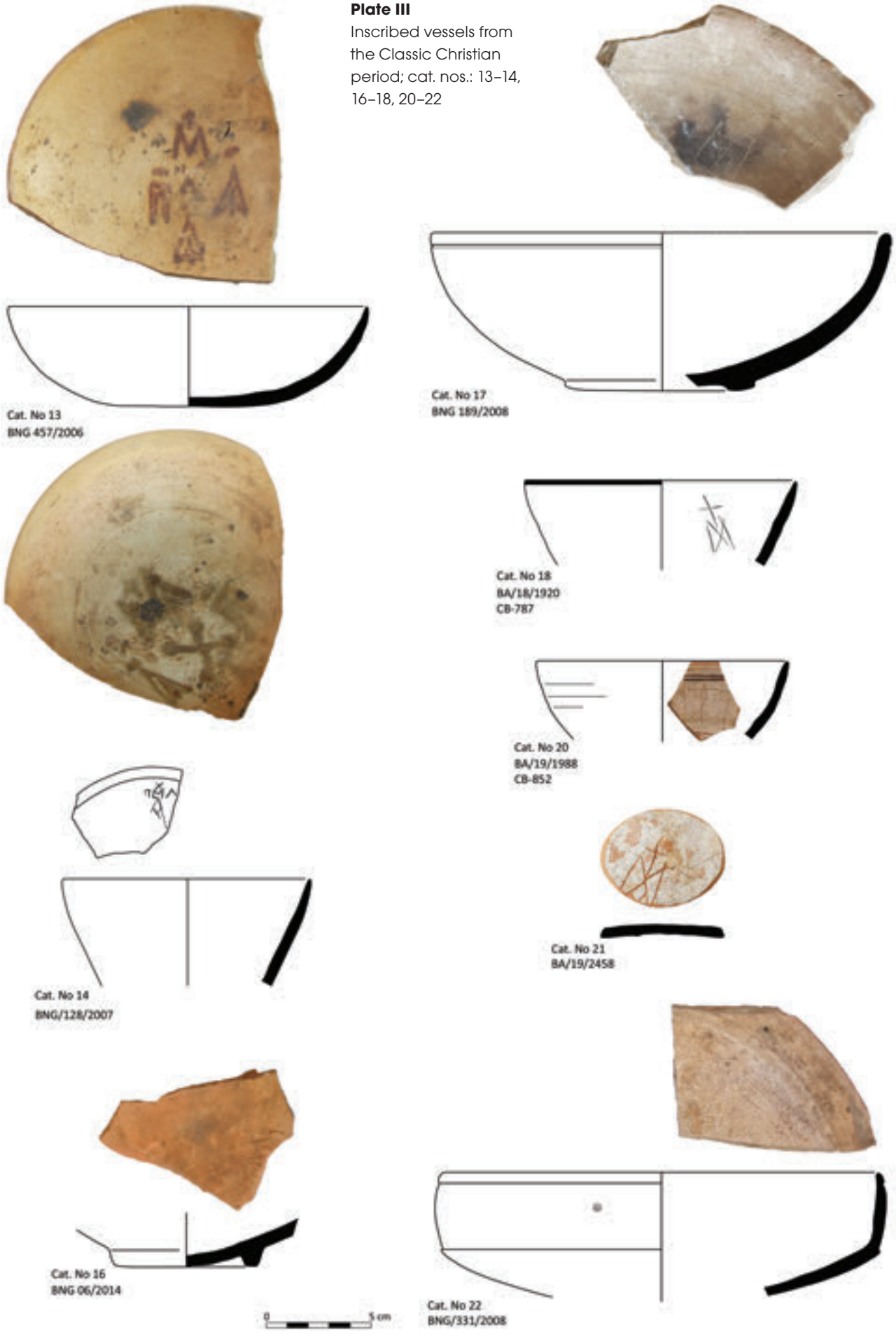


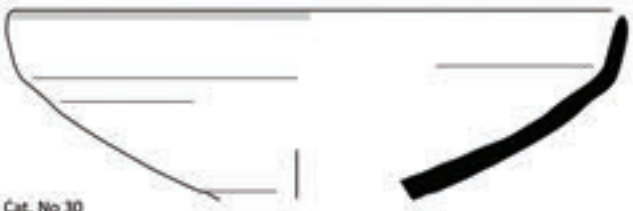
Plate IV
Inscribed vessels from the Classic Christian period; cat. nos.: 23–28, 30, 32–33

Cat. No 23
BNG/2018/210
CB-609

Cat. No 24
BNG/163/2013
W/BNG/30/2013
CB-138

Cat. No 27
BA-20-2974
CB-1973

Cat. No 28
BA/20/2680
CB-2022



Cat. No 30
BNG 32/2003

Cat. No 25
BNG/12/XI/2008

Cat. No 26
BA/16/486
CB-22

Cat. No 32
BNG 163/2013
ZW/29/2013
CB-137

Cat. No 33
BA/16/500
CB-23

Cat. No 34
BNG/2017/146
ZW/2017/02

Cat. No 35
BNG/2018/186
CB-612

Cat. No 38
BNG/43/2011
ZW/46/2011

Cat. No 42
BNG/43/2011
ZW/45/2011

Cat. No 39
BNG/52/2011-12
ZW/15/2011-12

Cat. No 43
BA/19/2304
CB-1640

Plate V
Inscribed vessels from the Classic Christian period; cat. nos.: 34–35, 38–39, 42–43

Plate VI
Inscribed vessels from the Classic Christian period; cat. nos.: 44–45, 47–48, 50–51

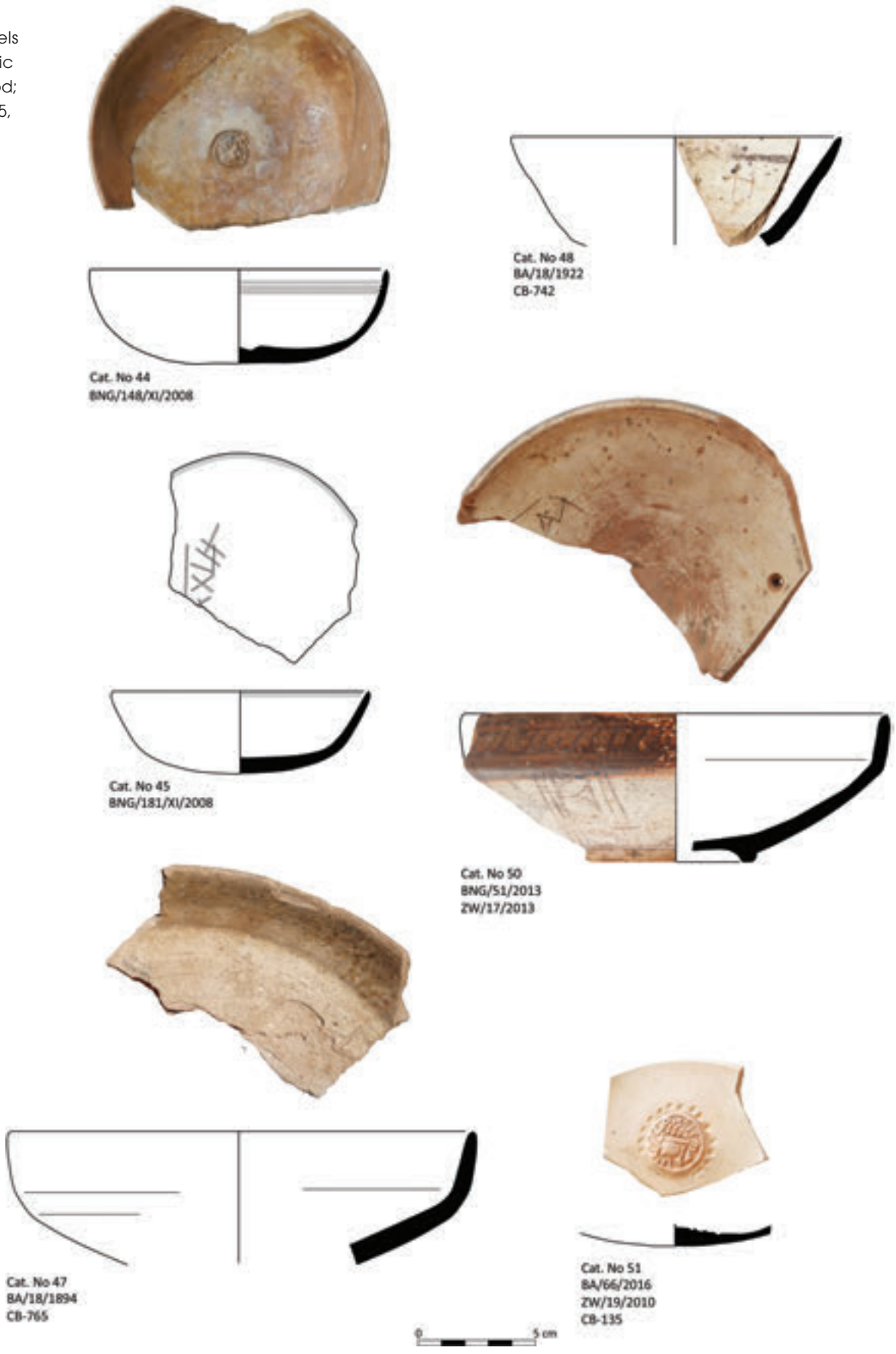
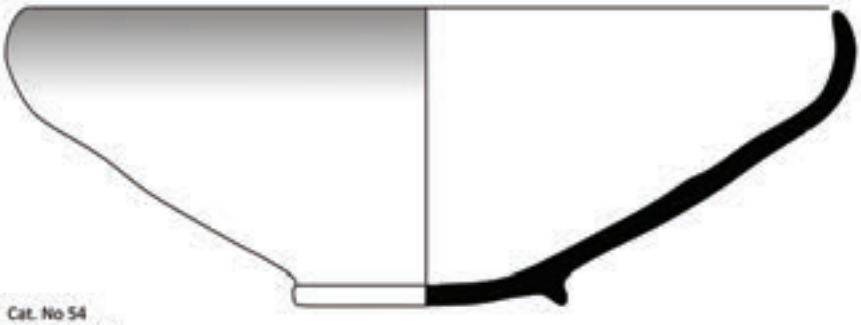


Plate VII
Inscribed vessels from the Late Classic and Post-Classic Christian periods; cat. nos.: 68–69, 71–72, 76, 79, 81

Cat. No 57
BNG/18/250
CB-605

Cat. No 59
BNG/25W/2006



Cat. No 54
BNG/05/2010
ZW/06/2010

Cat. No 61
BNG/18/277
CB-604

Cat. No 56
BNG/48/2010
ZW/13/2010

Cat. No 66
BNG/102/2013
ZW/24/20134

Plate VIII
Inscribed vessels from the Late Classic and Post-Classic Christian periods; cat. nos.: 68–69, 71–72, 76, 79, 81

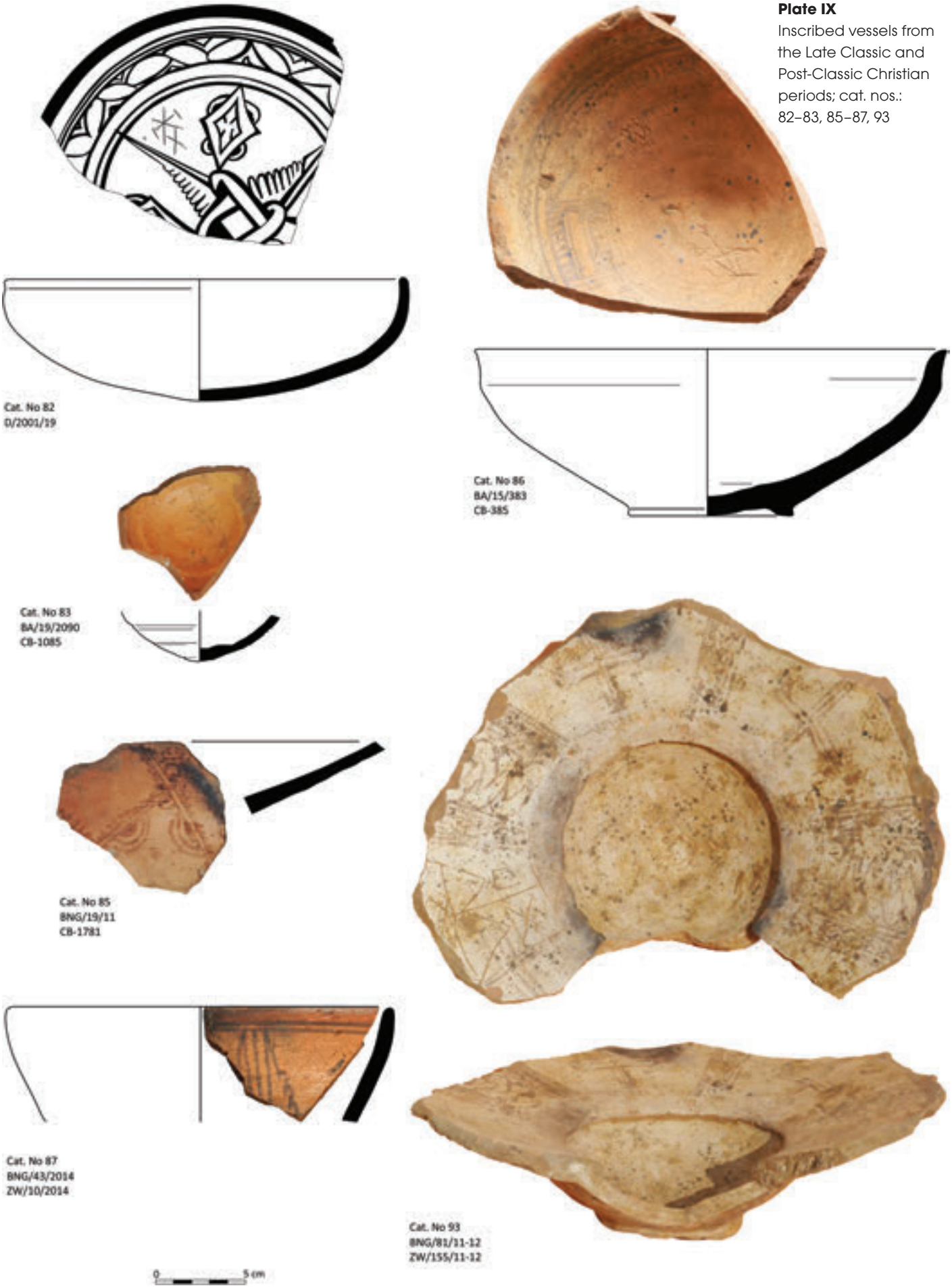


Plate IX
Inscribed vessels from the Late Classic and Post-Classic Christian periods; cat. nos.: 82–83, 85–87, 93

Plate X
Inscribed bricks from the window frame. Photos and drawings by Agata Deptuła

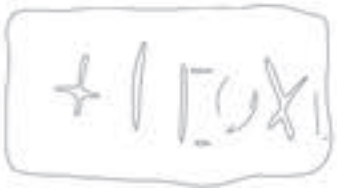


Plate XI
Clay seals and pectoral with inscriptions. Drawings by Aneta Cedro, photo by Michał Dzik

Bibliography

Abbreviations

Abbreviations of papyrological sources follow the standard established by the *Checklist of Editions of Greek, Latin, Demotic, and Coptic Papyri, Ostraca, and Tablets*, http://papyri.info/docs/checklist (accessed 15 June 2021). In addition, the following abbreviations are used:

DBMNT = Database of Medieval Nubian Texts, http://www.dbmnt.uw.edu.pl (accessed 15 June 2021).

I. Khartoum Greek = A. Łajtar, *Catalogue of the Greek Inscriptions in the Sudan National Museum at Khartoum (I. Khartoum Greek)* [= *Orientalia Lovaniensia Analecta* 122], Leuven – Paris – Dudley, MA, 2003.

I. Qasr Ibrim = A. Łajtar, J. van der Vliet, *Qasr Ibrim: The Greek and Coptic Inscriptions Published on Behalf of the Egypt Exploration Society* [= *The Journal of Juristic Papyrology Supplement Series* 13], Warsaw 2010.

LSJ = H. G. Liddell, R. Scott, H. S. Jones, *A Greek–English Lexicon: With the Revised Supplement*, Oxford 1996.

OND = G. M. Browne, *Old Nubian Dictionary* [= *Corpus Scriptorum Christianorum Orientalium* 556, *Subsidia* 90], Leuven 1996.

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The Amphorae for Wine with Monograms and Signs Discovered at Banganarti (Sixth–Twelfth Centuries A.D.)

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Abstract:

The amphorae discovered at Banganarti in seasons 2001–2020 are the dominant types of ceramics, discovered in mass quantities primarily as sherds, scattered in various rooms and levels. To determine their provenance, in 2020 the author selected a group of typologically important amphorae with monograms and signs, which are presented here. Then pottery samples were taken to Poland for research and future analysis. The monograms and signs dated to the sixth–seventh centuries, painted before firing, suggest they were made on the amphora bodies by people working in the pottery workshops. In the author's opinion, monograms or signs inscribed before firing on amphorae represent a producer or production centre located in Nubia. Some amphorae unearthed at Banganarti dating to the eleventh–twelfth centuries have one or two holes drilled after firing below the handles to aid fermentation and were used for storing wine.

Keywords: amphorae, wine, Nubian Church, monasteries, Christianity, Banganarti, Nubia, local trade.

Introduction and Methodology

During research in the lower and upper church of St Raphael the Archangel in 2001–2020, numerous fragments of amphorae were unearthed. They constitute a basis for studies focusing on the development of amphorae forms: the shape of the body, rim, base and arrangement of the handles.[1] These features underwent various observable changes over time, and therefore amphorae can be regarded as useful chronological markers. Epigraphic descriptions of the amphorae are the work of Agata Deptuła.[2]

Each type of amphorae with monograms and signs is presented in the Catalogue (see below), based on selected types produced in Nubia during the Early Christian period (A.D. 550–850), Classic Christian period (A.D. 850–1100) and Post-Classic Christian period (A.D. 1100–1200).[3]

The amphorae produced in Nubia from the sixth to twelfth century were used to transport local wine to the church in Banganarti and the residence of the Makurian ruler in Tungul/Dongola, and therefore testify to the production of wine in the region.[4]

Some amphorae can be reconstructed, but the majority remain as fragmented material, counted in thousands of sherds, especially of the bodies of the vessels.[5] Rims with handles as well as bottoms are crucial to distinguish an amphora type.

Amphorae studies have two main aspects: establishing the typology of amphorae and determining the variability of amphora forms over time and their chronology relative to the recovered places and levels/phases.

Examination of the amphorae followed procedures used for recording mass material. Analyses are based on statistical methods. The ceramics are grouped according to their stratigraphic position (especially those excavated in the lower church in seasons 2006–2008).

The chronological division is based on typological and stylistic analyses strictly connected with the archaeological context. The material is quantified by counting: rims, handles and bases (diagnostic fragments). The rims of amphorae with handles or only one preserved handle are counted as rims. Non-diagnostic body sherds are counted separately. Body sherds with monograms or signs were joined to other amphora parts if possible. The typological examination recovered over 450 amphorae unearthed at Banganarti, but this article presents only 13 selected amphora types with monograms and signs. The texts inscribed on transported amphorae should be analysed separately. Locally produced amphorae are sorted according to technological criteria into a group of wheel-made containers (named by the author 'AM'). The designations of amphora types and fabrics follow the field system used at Banganarti, established by the author for the publication of the ceramic material.

1 Żurawski 2003: 140–153; 2012: 182–186; Phillips 2003: 407–432; Bagińska 2005; 2008: 410–425, fig. 3/c–f, 4/a–h, 8/g, 9/h–i; 2011: 264–267.
2 Presented in the Catalogue and typology of the amphorae.
3 Adams 1986: 480–500; Phillips 2003: 407–412.
4 Bagińska 2005.
5 The amphorae presented here are located in the Polish Archaeological Mission storage house and in the Banganarti Museum.

In cases where amphorae correspond to Nubian pottery production centres, this information is mentioned for ceramic material unearthed at Banganarti. The Catalogue of amphorae prepared by the author presents detailed data.

The author worked partly with old material stored at Banganarti and personally documented material on site during archaeological excavation (in seasons 2006, 2008, 2018 and 2020).

Typology

AM 1

Wine amphorae with monograms and signs were unearthed at Banganarti, mainly in the lower church.

Occurrence in Nubia

More than 50 vessels and many AM 1 type amphora fragments from Banganarti, Selib and Old Dongola are recorded.

Many were excavated at Old Dongola in several locations: 1) Kiln R1 B-1st phase, levels 10–21 (Doks. 157/87, 158/87, 159/87 - PCMA UW).[6] 2) The Church of the Granite Columns, under the corner of the building (Dok. 59/71, National Museum in Warsaw 235033 MN). 3) Site unknown (Dok. 58/87 - PCMA UW). 4) Palatial Building B.I., B.I.41, K. Danys mentions nine amphorae and many fragments in the test trenches of B.I, the storerooms, below the foundation level of SWN. B.I. (B.I.37, B. I.42).[7] Amphorae from nearby sites are Selib, site 1, Northern Building BN. 14,[8] and one amphora at Abd el-Qadir site 5-0-12 (Sudan Antiquity Service excavations in 1961, Sudan National Museum, Khartoum 16066).

Description

Large AM 1 type amphorae have a rim diameter of 7–8.5 cm, shoulder diameter of 25–28 cm, body diameter of 25.5–28 cm, bottom diameter of 2–3.9 cm, and a height of 57.5 cm. As reconstructed by Krzysztof Pluskota, measurements are: 54 cm height, 26.3 cm body diameter and 8.5 cm rim diameter. The rim is rounded, falling inward, with a long, cylindrical neck bulging in the middle. Two coil handles are attached to the vessel neck and shoulder. Shallow surface ribbing is visible on the neck and shoulder, wider on the neck than the shoulder. The body is elongated and tapers downwards, and the body and bottom are ribbed. The bottom is rounded with a small, solid knob in a few profile versions.

Fabric

Desert clay.[9]

Capacity and Contents

AM 1 type amphorae hold 12–13 litres of wine, following K. Pluskota's form reconstruction.[10] At Old Dongola, they do not show internal impregnation

6 Pluskota 1992: fig. 25/A; 2001: 362–364, fig. 9; 2005: 227–232, fig. 8.
7 Danys 2015: 118–121, 128–133, nos. 1–9; 2016: 769–773, 778, fig. 9; 2018: 611–612, fig. 4/6–7.
8 Cedro 2016: 382.
9 See the Catalogue below for details.
10 Pluskota 2001: 362, fig. 9/A.

with resin, but their local origin supports Pluskota's theory that they were intended for wine transportation. All Banganarti examples are not resinated.

Epigraphy

Those unearthed at Banganarti have large monograms on the shoulder and body, sometimes painted in yellow or cream. Unfortunately, the most common monogram is only partially preserved on fragments (AM 1/1–1/4, 1/12–1/19, Fig. 1) as the name *Ioannes*, written as **Ἰωαννου**.[11]

Four amphorae (AM 1/5–1/7, 1/22, Fig. 2.1–4) had a large sign painted in yellow on the shoulder.

Two monogram fragments (AM 1/20, 1/21, Fig. 2.5–6) are cruciform and constructed around the letter **Φ**, painted in yellow.

Amphora body (AM 1/24, Fig. 2.7) with the letter A painted in cream, either standing alone or a part of a monogram (?).

Partially preserved monogram (AM 1/10, Fig. 2.8) painted in cream on an amphora shoulder; visible are letters **Φ** and a reversed **A**. One fragment (AM 1/25, Fig. 2.9) preserves **[- - -]** ΧϒΥ in cream paint, for *Nomen sacrum – Christos* **[- - -]** Χ**(**ριστο**)**ῦ.

Amphora (AM 1/11, Fig. 2.10) with illegible letters incised after firing on the exterior surface and another (AM 1/9, Fig. 2.11) of unknown meaning incised before firing.

Two amphora fragments (AM 1/8, 1/23, Figs. 2.12–13) with signs painted in cream and yellow on the shoulders.

Several of the AM 1 amphorae from sites other than Banganarti have painted or incised monograms, as follows:

1) Amphora shoulder unearthed at Old Dongola (Dok. 59/71) with a cream-painted monogram of unknown meaning (Adam Łajtar, personal communication).[12]
2) Shoulder of the Abd el-Qadir amphora, with white-painted dipinto ***ΠΟΥ***, meaning unknown (Adam Łajtar, personal communication).[13]
3) A few amphorae from Old Dongola mentioned by Katarzyna Danys, with yellow- and cream-painted monograms on their shoulders and the incised name of the Archangel Michael – **ΜΙΧΑΗΛ**, the letters ***B*** and ***Δ*** or **X**, and potter's marks.[14] Amphorae sherds discovered at Selib with yellow- and white-painted monograms, typical of Dongola amphorae types A and B.[15]

Distribution and Provenance

The type AM 1 imitation of the Aswan amphora form has not been discovered beyond Banganarti, Old Dongola and Abd el-Qadir. This type is the product of the ceramic workshops discovered on Kom R at Old Dongola, including a complex of ceramic workshops and kilns producing Dongolan ceramics. So far, such amphorae have been discovered in Kiln R1 B (levels 10–21).[16]

11 Monograms and sign descriptions for this and the following amphora types at Banganarti are by Agata Deptuła (University of Warsaw).
12 Bagińska 2005: 476–478.
13 Bagińska 2005: 476–480.
14 Danys 2015: 118–121, 128–133, nos. 1–9, fig. 10-4–5; 2016: 773, fig. 9; 2018: fig. 4/6–7.
15 Cedro 2016: 382.
16 Pluskota 2001: 357–365, fig. 9; 2005: 227–232, fig. 8.

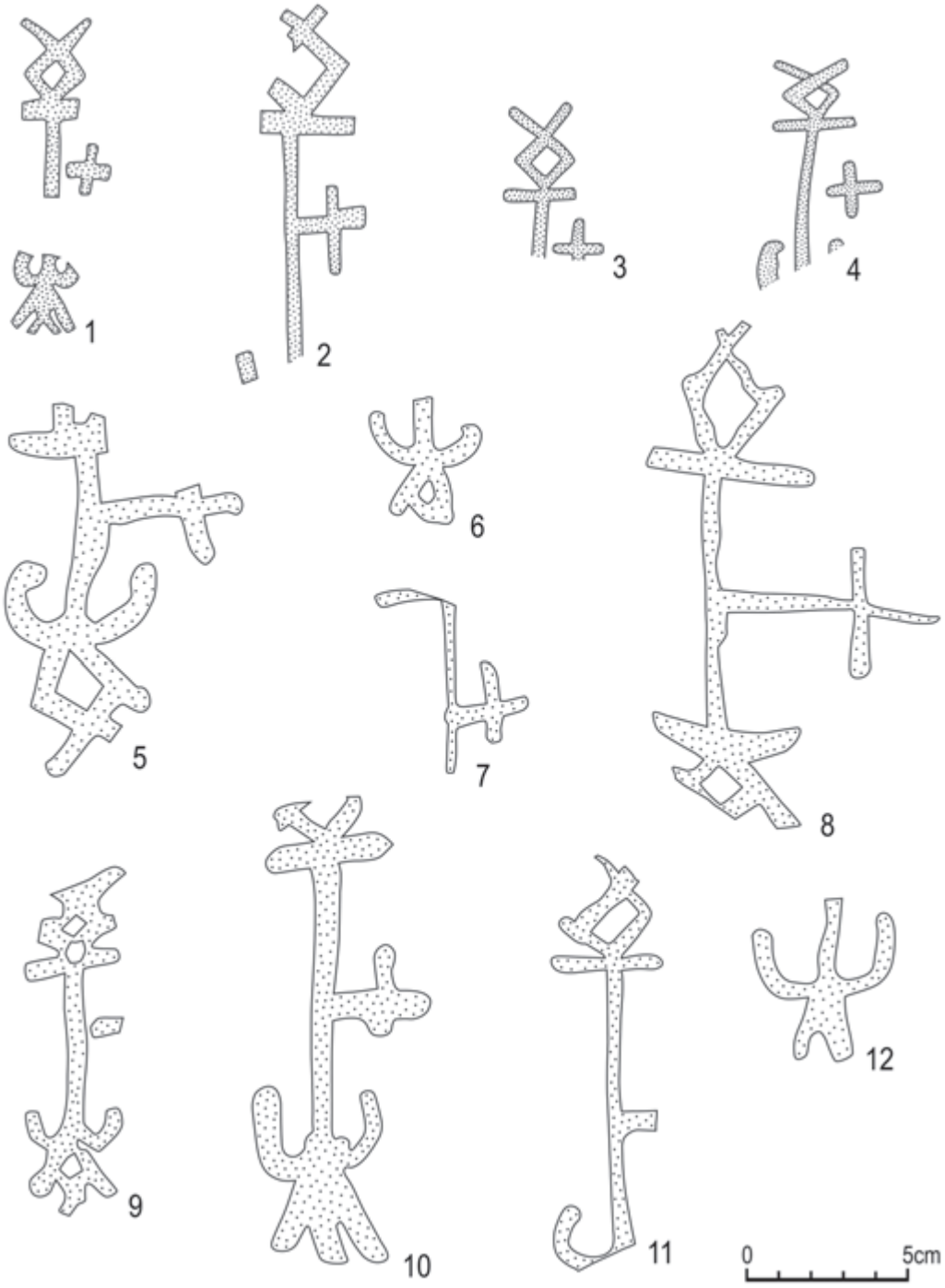


Fig. 1
The monograms discovered at Banganarti: 1 – AM 1/1; 2 – AM 1/2; 3 – AM 1/3; 4 – AM 1/4; 5 – AM 1/12; 6 – AM 1/13; 7 – AM 1/14; 8 – AM 1/15; 9 – AM 1/16;10 – AM 1/17; 11 – AM 1/18; 12 – AM 1/19

The prototype/model for the Old Dongola pottery workshop vessels was established on Elephantine Island.[17]

Dating

Fragments excavated in the lower church at Banganarti are dated to the sixth or seventh century.[18] Type AM 1 amphorae were excavated in levels with many Early Christian vessels.[19]

17 Gempeler 1992: abb. 124/2.
18 Bagińska 2008: 411, 416, 418, figs. 3c–d, 3f, 4a–h.
19 Bagińska 2008: 410–425, figs. 1a–j, 3a–b, 6a–h, 7a–f.

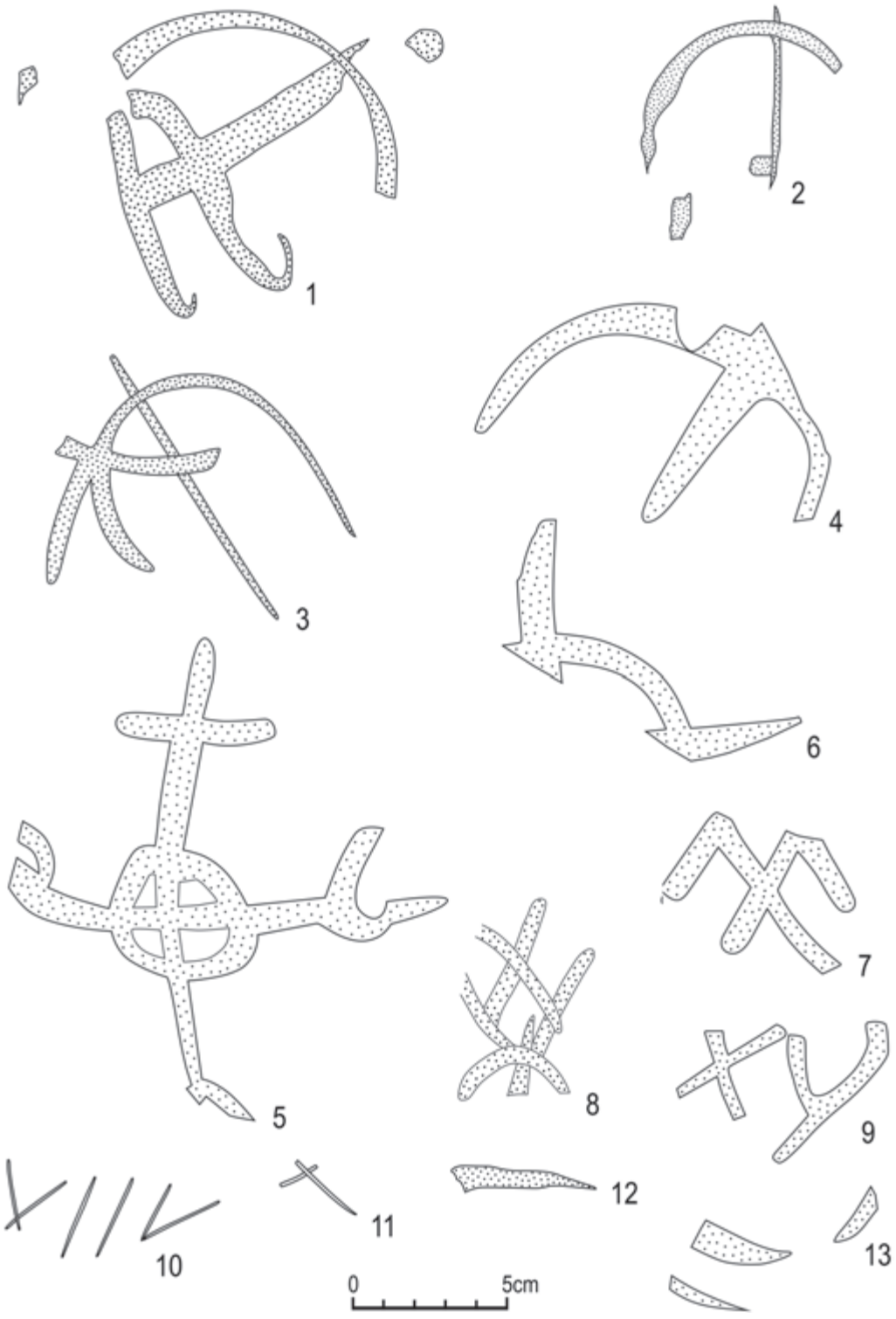


Fig. 2
The monograms and signs discovered at Banganarti: 1 – AM 1/5; 2 – AM 1/6; 3 – AM 1/7; 4 – AM 1/22; 5 – AM 1/20; 6 – AM 1/21; 7 – AM 1/24; 8 – AM 1/10; 9 – AM 1/25; 10 – AM 1/11; 11 – AM 1/9; 12 – AM 1/8; 13 – AM 1/23

Analogy and Comments

At Selib (site 1, Northern Building BN. 14), many sherds with white monograms may date to the sixth–seventh centuries A.D.[20] Krzysztof Pluskota dates the amphorae discovered in Kiln R1B (1st phase, levels 10–21) as well as the use of

20 Cedro 2016: 380, 382.

Kiln R1 B at Old Dongola to the sixth–seventh centuries, and mentions this type is recorded at many seventh-century sites along the Nile Valley.[21] The amphora excavated under the corner of the Church of the Granite Columns at Old Dongola, dates its foundation at the end of the seventh century.[22] The amphora without recorded context at Old Dongola is dated only to Christian period. The nine Old Dongola amphorae and many fragments discovered in Palatial Building B.I., B.I.41, B.I test trenches, the storerooms and below the foundation level of SWN. B.I. (B.I.37, B. I.42), represent Types A–C in Pluskota's typology, all chronologically associated with the seventh century.[23] The fragment recovered at Abd el-Qadir site 5-0-12 by the Sudan Antiquity Service, is dated very widely to the Christian period. Amphorae serving as a prototype for Old Dongola amphorae were discovered on Elephantine Island at Aswan. One, excavated in level A (above the Nilometer) is dated to the second half of fifth–sixth century and another, discovered in House F 8608b, at the turn of the sixth/seventh century.[24]

The amphora type discussed here confirms Aswani amphorae reached Nubia as a result of trade together with other goods, where the local population adopted the vessel form and over time began to produce it as a container for their domestic wine production. It follows that production of imitation Aswan amphorae was undertaken in Old Dongola in the sixth–seventh centuries A.D.

Catalogue

AM 1/1

Amphora fragment.

Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.

Inv. no.: 375/2006; 125/20.

Dimensions: rim diameter – 7.6 cm.

Epigraphy: on the shoulder, monogram in cream paint, *Ioannes* written as **Ἰωαννου**.

Fabric: (Sample A56) desert clay, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – pink 5YR 7/4, core – pink 5YR 7/4.

Publication: Bagińska 2008: 411, fig. 4a.

Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.

Tables 2a, 8k; Fig. 1.1.

AM 1/2

Amphora fragment.

Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level, foundation layer.

Inv. no.: 468/2006.

Dimensions: rim diameter – 7.9 cm.

Epigraphy: on the shoulder, a monogram in cream paint, *Ioannes* written as **Ἰωαννου**.

Fabric: (Sample -) desert clay, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – pink 5YR 7/4, core – pink 5YR 7/4.

Publication: Bagińska 2008: 411, figs. 3c, 4b; Żurawski 2012: 182–186, figs. 71, 74c.

21 Pluskota 2001: 364; 2005: 227–232, fig. 8; 2010: 255–262.
22 Jakobielski 2001: 9–10.
23 Danys 2015: 118–121, 128–133, nos. 1–9; 2016: 777, fig. 9; 2018: 611–613, fig. 4/6–7.
24 Gempeler 1992: 192, abb. 124.2.

Drawing: D. Bagińska; photo. A. Oleś-Niedzielska.
Tables 4e, 8j; Fig. 1.2.

AM 1/3

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level, foundation layer.
Inv. no.: 442/2006.
Dimensions: rim diameter – 7 cm.
Epigraphy: on the shoulder, monogram in cream paint, the name *Ioannes* written as **Ἰωαννου**.
Fabric: desert clay, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – pink 5YR 7/4, core – pink 5YR 7/4.
Publication: Bagińska 2008: 411, fig. 4c.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 4a, 8c; Fig. 1.3.

AM 1/4

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level, foundation layer.
Inv. no.: 424/2006; 130/20.
Dimensions: shoulder diameter – 28 cm.
Epigraphy: on the shoulder, monogram in reddish-yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A68) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/6, interior surface – light red 2.5YR 6/6, core – light red 2.5YR 6/6**.**
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 3b, 7f; Fig. 1.4.

AM 1/5

Amphora fragment.
Recovered: Banganarti, lower church, sounding 2/2006, lower level.
Inv. no.: 355/2006; 129/20.
Dimensions: rim diameter – 7.4 cm.
Epigraphy: on the shoulder, a large sign in cream paint, illegible.
Fabric: (Sample A66) desert clay, mica, lime, quartz, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: Bagińska 2008: 416, figs. 3f, 4f; Żurawski 2012: 182–186, figs. 71, 74c.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 2b, 9c; Fig. 2.1.

AM 1/6

Amphora fragment.
Recovered: Banganarti, lower church, sounding 3/2006, behind the apse, lower level.
Inv. no.: 373/2006; 124/20.
Dimensions: rim diameter – 7.3 cm.
Epigraphy: on the shoulder, fragmentary sign in cream paint, illegible.

Fabric: (Sample A53) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: Bagińska 2008: 418, fig. 4g; Żurawski 2012: 182–186, fig. 71.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 1b, 7t; Fig. 2.2.

AM 1/7

Amphora fragment.
Recovered: Banganarti, lower church, sounding 3/2006, passage behind the apse, lower level.
Inv. no.: 354/2006; 33/20.
Dimensions: rim diameter – 7 cm, preserved height – 52 cm.
Epigraphy: on the shoulder, sign in cream paint, illegible.
Fabric: (Sample A113) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: Bagińska 2008: 418, figs. 3d, 4h.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 4f, 10d; Fig. 2.3.

AM 1/8

Amphora fragment.
Recovered: Banganarti, lower church, sounding 2/2006, lower level, foundation layer.
Inv. no.: 421/2006; 81/20.
Dimensions: rim diameter – 8.3 cm.
Epigraphy: on the shoulder, fragmentary sign in cream paint, illegible.
Fabric: (Sample A112) desert clay, mica, lime, quartz, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: Bagińska 2008: 416, fig. 4e; Żurawski 2012: 182–186, fig. 71.
Drawing: D. Bagińska; photo: K. Maciejewska.
Table 4b; Fig. 2.12.

AM 1/9

Amphora fragment.
Recovered: Banganarti, lower church, sounding 3/2006, behind the apse, lower level.
Inv. no.: 376/2006; 114/20.
Dimensions: rim diameter – 7.1 cm.
Epigraphy: on the shoulder, a sign incised before firing, illegible.
Fabric: (Sample A13) desert clay, mica, lime, straw; Munsell: exterior surface – pink 5YR 7/4, interior surface – light reddish brown 2.5YR 6/4, core – light reddish brown 2.5YR 6/4.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Table 3f; Fig. 2.11.

AM 1/10

Amphora fragment.

Recovered: Banganarti, lower church, sounding 3/2003, the apse.
Dimensions: body diameter – 28 cm.
Epigraphy: on the body, partially preserved monogram in yellow paint, the visible letters are **Φ** and reversed **A**, remainder illegible.
Fabric: (Sample A31) desert clay, quartz, mica; Munsell: exterior surface – grey 10YR 6/1, interior surface – reddish yellow 5YR 6/6, core – reddish yellow 5YR 6/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 3c, 7o; Fig. 2.8.

AM 1/11

Amphora fragment.
Recovered: Banganarti, lower church, sounding 2/2006, lower level.
Inv. no.: 455/2006; 112/20.
Dimensions: body diameter – 28 cm.
Epigraphy: on the exterior body surface, several illegible letters incised after firing.
Fabric: (Sample A5) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/6, interior surface – light red 2.5YR 6/6, core – light red 2.5YR 6/6.
Publication: unpublished.
Drawing: A. Rak; photo: A. Oleś-Niedzielska.
Tables 3a, 7g; Fig. 2.10.

AM 1/12

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 553/2006; 82/20.
Dimensions: body diameter – 26.5 cm.
Epigraphy: on the shoulder, monogram in yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A100) desert clay, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 4/6, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5a, 7i; Fig. 1.5.

AM 1/13

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 554/2006; 92/20.
Dimensions: body diameter – 27.5 cm.
Epigraphy: on the body, a monogram in yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A76) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/8, interior surface – light red 2.5YR 6/8, core – light red 2.5 YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5b, 7h; Fig. 1.6.

AM 1/14
Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 557/2006; 86/20.
Dimensions: body diameter – 27 cm.
Epigraphy: on the body, monogram in cream paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A97) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/8, interior surface – red 2.5YR 5/6, core – red 2.5YR 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5c, 7d; Fig. 1.7.

AM 1/15
Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 562/2006; 87/20.
Dimensions: body diameter – 27.5 cm.
Epigraphy: on the body, monogram in yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A102) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – reddish brown 2.5YR 5/4, interior surface – reddish brown 2.5YR 4/4, core – red 2.5YR 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5d, 7l; Fig. 1.8.

AM 1/16
Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 563/2006; 84/20.
Dimensions: body diameter – 26.5 cm.
Epigraphy: on the shoulder, monogram in yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A98) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5e, 7m; Fig. 1.9.

AM 1/17
Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 565/2006; 99/20.
Dimensions: body diameter – 27.5 cm.
Epigraphy: on the body, monogram in yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A70) desert clay, mica, lime, haematite, straw; Munsell:

exterior surface – red 2.5YR 5/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5f, 7k; Fig. 1.10.

AM 1/18

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 552/2006; 95/20.
Dimensions: body diameter – 25.5 cm.
Epigraphy: on the shoulder, monogram in cream paint, *Ioannes* written as **Ἰωαννου**.
Fabric: (Sample A73) desert clay, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 6/6, interior surface – red 2.5YR 6/6, core – red 2.5YR 5/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5g, 7e; Fig. 1.11.

AM 1/19

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 564/2006.
Dimensions: body diameter – 28 cm.
Epigraphy: on the body, monogram in yellow paint, *Ioannes* written as **Ἰωαννου**.
Fabric: desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 5h, 7j; Fig. 1.12.

AM 1/20

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 561/2006; 88/20.
Dimensions: body diameter – 28 cm.
Epigraphy: on the shoulder and body, monogram in yellow paint, in the form of a cross, constructed around the letter **Φ**.
Fabric: (Sample A71) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 6a, 7r; Fig. 2.5.

AM 1/21

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 556/2006; 85/20.
Dimensions: body diameter – 26.5 cm.

Epigraphy: on the body, monogram in the form of a cross, in cream paint constructed around the letter **Φ**.
Fabric: (Sample A104) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 4/8, interior surface – red 2.5YR 5/6, core – red 2.5YR 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 6b, 7b; Fig. 2.6

AM 1/22

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 566/2006; 96/20.
Dimensions: neck diameter – 7.5 cm, shoulder diameter – 25 cm.
Epigraphy: on the shoulder, part of a large sign in yellow paint, illegible.
Fabric: (Sample A72) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 6d, 7p; Fig. 2.4.

AM 1/23

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 555/2006; 80/20.
Dimensions: shoulder diameter – 26 cm.
Epigraphy: on the shoulder, a large sign in yellow paint, illegible.
Fabric: (Sample A96) desert clay, mica, lime, haematite; straw, Munsell: exterior surface – red 2.5YR 5/6, interior surface – red 2.5YR 5/6, core – red 2.5YR 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 6e, 7c; Fig. 2.13.

AM 1/24

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.
Inv. no.: 559/2006; 89/20.
Dimensions: body diameter – 27.5 cm.
Epigraphy: on the body, fragmentary monogram (?) in cream paint, the letter **A**, either free-standing or part of a monogram, remainder illegible.
Fabric: (Sample A101) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/6, interior surface – red 2.5YR 5/6, core – red 2.5YR 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 6c, 7a; Fig. 2.7.

AM 1/25

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, northern aisle, lower level.

Inv. no.: 560/2006; 94/20.
Dimensions: body diameter – 25.5 cm.
Epigraphy: on the body, fragmentary monogram in cream paint: **[- - -] ΧΥ**, preserved fragment of *Nomen sacrum – Christos* [- - -] Χ(ριστο)ῦ.
Fabric: (Sample A74) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/6, interior surface – red 2.5YR 5/6, core – red 2.5YR 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 6f, 7n; Fig. 2.9.

AM 2

Type AM 2 amphorae were recovered in three locations within the lower church at Banganarti.

Occurrence in Nubia

This type was also recovered at Old Dongola, on Kom A, site SWN, B.I., Room 15 (toilet depository) (ADd. 01 110 – PCMA UW).

Description

This type has a 7.2–8.2 cm diameter rim and 30.2 cm body diameter. The rim is rounded; the neck is long and cylindrical with straight sides (in contrast to type AM 1). Massive coil handles are attached to the neck and shoulder. Its outer surface has narrow ribbing, wider on the neck than the shoulder. The inner surface has traces of wheel-made manufacture.

Fabric

Desert clay.[25]

Capacity and Contents

Type AM 2 amphora capacity is unknown. Banganarti amphorae are not resinated and were produced for local wine transport and storage, perhaps with liturgical associations. They were not used to transport wine over long distances, and that is probably why they are not impregnated internally. The amphora found at Old Dongola does bear remains of internal impregnation, suggesting its primary content was wine. Resination of amphorae was also intended for wine preservation and, at the same time, gave the vessel a characteristic taste and smell.

Epigraphy

The first Banganarti amphora (AM 2/1, Fig. 3.1) has three horizontal lines incised after firing on one handle. The second (AM 2/3, Fig. 3.2) has a single pre-firing letter **A** on the shoulder. The third (AM 2/2, Fig. 3.3) has *Ioannes* written as **Ἰωαννου** on the shoulder in cream paint. The fourth (AM 2/5, Fig. 3.4) has a sizeable but illegible monogram in yellow paint and lines incised on the body after firing. The fifth (AM 2/6, Fig. 3.5) has a fragmentary cross monogram in cream paint, and the sixth a small fragment of a monogram (?) in cream paint on the shoulder (AM 2/4, Fig. 3.6). The Old Dongola amphora has a yellow-painted dipinto of unknown meaning on the shoulder that includes the letter ***B*** (Adam Łajtar, personal communication) in a horizontal arrangement.[26]

25 See the Catalogue below for details.
26 Bagińska 2005: 361–362.

Distribution and Provenance

Type AM 2 amphorae are recorded only at Banganarti and Old Dongola. The place of production is unidentified, but characteristics of the ceramic material, tempers used and final vessel finish all suggest the Old Dongola ceramic workshops.

Dating

All six amphorae excavated in the lower church at Banganarti are dated to the sixth–seventh centuries.

The Old Dongola amphora found on Kom A, site SWN, B.I., Room 15 (toilet depository), dates to the seventh century (Włodzimierz Godlewski, personal communication). Taking into account the dates of the ceramic workshops and kilns discovered at Old Dongola, specifically the R1 kilns on Kom R, it can be assumed the type A 2 amphorae could have been produced in these workshops in the seventh century or earlier.[27]

Catalogue

AM 2/1

Amphora fragment.
Recovered: Banganarti, sounding 4/2004.
Inv. no.: 53/2004; 14/20.
Dimensions: neck diameter – 8.2 cm.
Epigraphy: on one handle, three horizontal lines, incised after firing.
Fabric: (Sample A4) desert clay, lime, haematite; Munsell: exterior surface – yellowish red 5YR 5/6, interior surface – light brown 7.5YR 6/4, core – light brown 7.5YR 6/4.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Table 3k; Fig. 3.1.

AM 2/2

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, lower level.
Inv. no.: 443/2006.
Dimensions: rim diameter – 8 cm.
Epigraphy: on the shoulder, a fragment of a monogram in cream paint, *Ioannes* written as **Ἰωαννου**.
Fabric: desert clay, mica, lime, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: Żurawski 2012: 182–186, fig. 74a.
Drawing: A. Rak; photo: A. Oleś-Niedzielska.
Tables 4d, 8f; Fig. 3.3.

AM 2/3

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, lower level.
Inv. no.: 374/2006.
Dimensions: rim diameter – 7.8 cm.
Epigraphy: on the shoulder, individual letter **A**, incised before firing.

27 Pluskota 2001: 364; 2005: fig. 8.

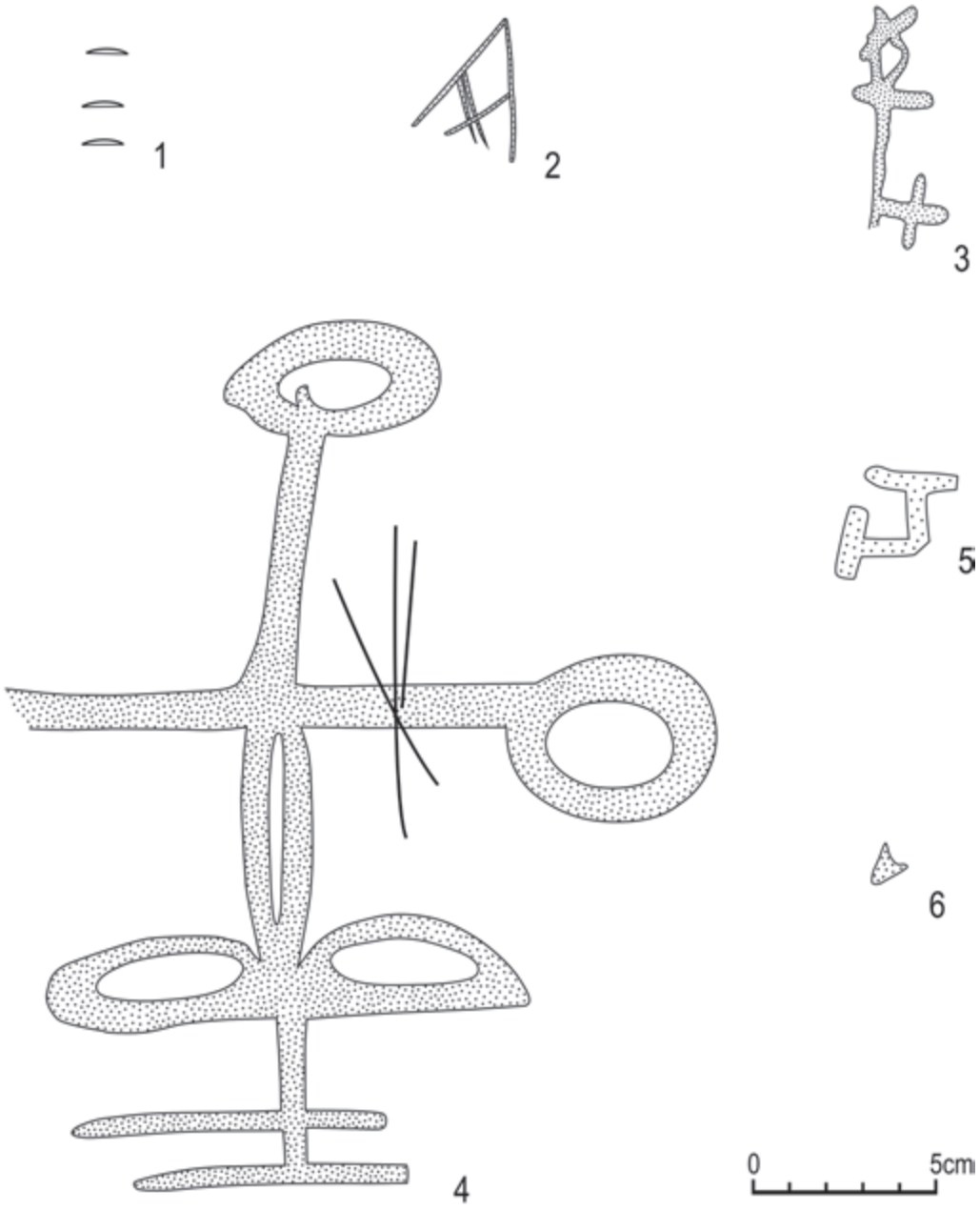


Fig. 3
The monograms and signs discovered at Banganarti: 1 – AM 2/1; 2 – AM 2/3; 3 – AM 2/2; 4 – AM 2/5; 5 – AM 2/6; 6 – AM 2/4

Fabric: (Sample -) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – red 2.5YR 5/6, interior surface – red 2.5YR 5/6, core – red 2.5YR 5/6.
Publication: Żurawski 2012: 182–186, fig. 71.
Drawing: D. Bagińska; photo: A. Oleś-Niedzielska.
Tables 3e, 8g; Fig. 3.2.

AM 2/4

Amphora fragment.
Recovered: Banganarti, lower church, sounding 1/2006, lower level.
Inv. no.: 415/2006; 120/20.
Dimensions: rim diameter – 7.2 cm.
Epigraphy: on the shoulder, a small fragment of a monogram (?) in cream paint.
Fabric: (Sample A107) desert clay, lime (high content), haematite, straw;

Munsell: exterior surface – light red 2.5YR 6/8, interior surface – pink 5YR 7/4, core – pink 5YR 7/4.
Publication: Bagińska 2008: 411, fig. 4d.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 4c, 8b; Fig. 3.6.

AM 2/5

Amphora fragment.
Recovered: Banganarti, lower church, sounding 2/2006, lower level.
Inv. no.: 456/2006.
Dimensions: rim diameter – 7.2 cm, body diameter – 30.2 cm.
Epigraphy: on the body, illegible monogram in yellow paint and lines incised after firing.
Fabric: desert clay, mica, lime, straw; Munsell: exterior surface – reddish brown 2.5YR 4/4, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: upublished.
Drawing: D. Bagińska.
Table 2c; Fig. 3.4.

AM 2/6

Amphora fragment.
Recovered (in 2003): Banganarti, lower church, above the floor.
Dimensions: neck diameter – 7.7 cm, height – 16 cm.
Epigraphy: on the shoulder, a fragmentary monogram of a cross, in cream paint.
Fabric: desert clay, mica, quartz, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – pink 5YR 7/4, core – pink 5YR 7/4.
Publication: Żurawski 2003: 144–145, 152, fig. 24.
Drawing: D. Bagińska; photo: E. Klimaszewska-Drabot.
Tables 6g, 8a; Fig. 3.5.

AM 3

This amphora type was excavated at Banganarti in the lower church at sounding 2/2006 (lower level) **(AM 3/1)**.

Occurrence in Nubia

This is the only example recorded in Nubia.

Description

Amphora with a rim diameter of 7.5 cm and body diameter of 31 cm. The neck is long and cylindrical, with handles attached to the neck and shoulder. The handles are oval in cross-section. Both neck and shoulder have shallow surface ribbing, wider on the neck than the shoulder.

Fabric

Desert clay.[28]

Capacity and Contents

Its capacity is unknown. Although not resinated, it was probably used to transport wine.

Epigraphy

On the shoulder, a single cross sign, incised before firing.

28 See the Catalogue below for details.

Distribution and Provenance

Type AM 3 is not yet recorded beyond Banganarti. Therefore, the place of production is unspecified, but its fabric characteristics indicate a local Nubian source of production.

Dating

This type is dated to the sixth–seventh centuries.

Catalogue

AM 3/1

Amphora fragment.
Recovered: Banganarti, lower church, sounding 2/2006, lower level.
Inv. no.: 418/2006; 127/20.
Dimensions: rim diameter – 7.5 cm, body diameter – 31 cm.
Epigraphy: on the shoulder, a single cross sign, incised before firing.
Fabric: (Sample A54) desert clay, mica, lime, straw; Munsell: exterior surface – light red 2.5YR 6/6, interior surface – light red 2.5YR 6/6, core – light red 2.5YR 6/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 1a, 8i; Fig. 4.1.

AM 4

Two fragments were discovered at Banganarti: (1) in the upper church, sounding in Chapel 5 under the floor; and (2) in the lower church, sounding 3/2006, the apse area, above the floor **(AM 4/1–4/2)**.

Occurrence in Nubia

One fragment was excavated at Old Dongola, Kom A, site SWN, B.I., Room 15 (toilet depository) (ADd.01 107 – PCMA UW).

Description

The amphora has a 6.6–6.7 cm rim diameter and a 24.7 cm shoulder diameter. The rim is rounded. The neck is massive, long and cylindrical. Both neck and shoulder have shallow surface ribbing. The inner surface has traces of wheeled manufacture. The thick coil handles are attached to the neck and shoulder.

Fabric

Desert clay.[29]

Capacity and Contents

The capacity of this type is unknown. It is not resinated, but was probably used for wine storage.

Epigraphy

One amphora shoulder fragment (AM 4/1, Fig. 4.2) has a fragmentary monogram in yellow paint, perhaps a letter **Θ** either standing alone or forming part of a monogram. The other (AM 4/2, Fig. 4.3) has only a small fragment of a sign in cream paint on the shoulder.

Distribution and Provenance

This amphora type is not recorded beyond Banganarti and Old Dongola. The place of production is unidentified, but its fabric characteristics indicate a local

29 See the Catalogue below for details.

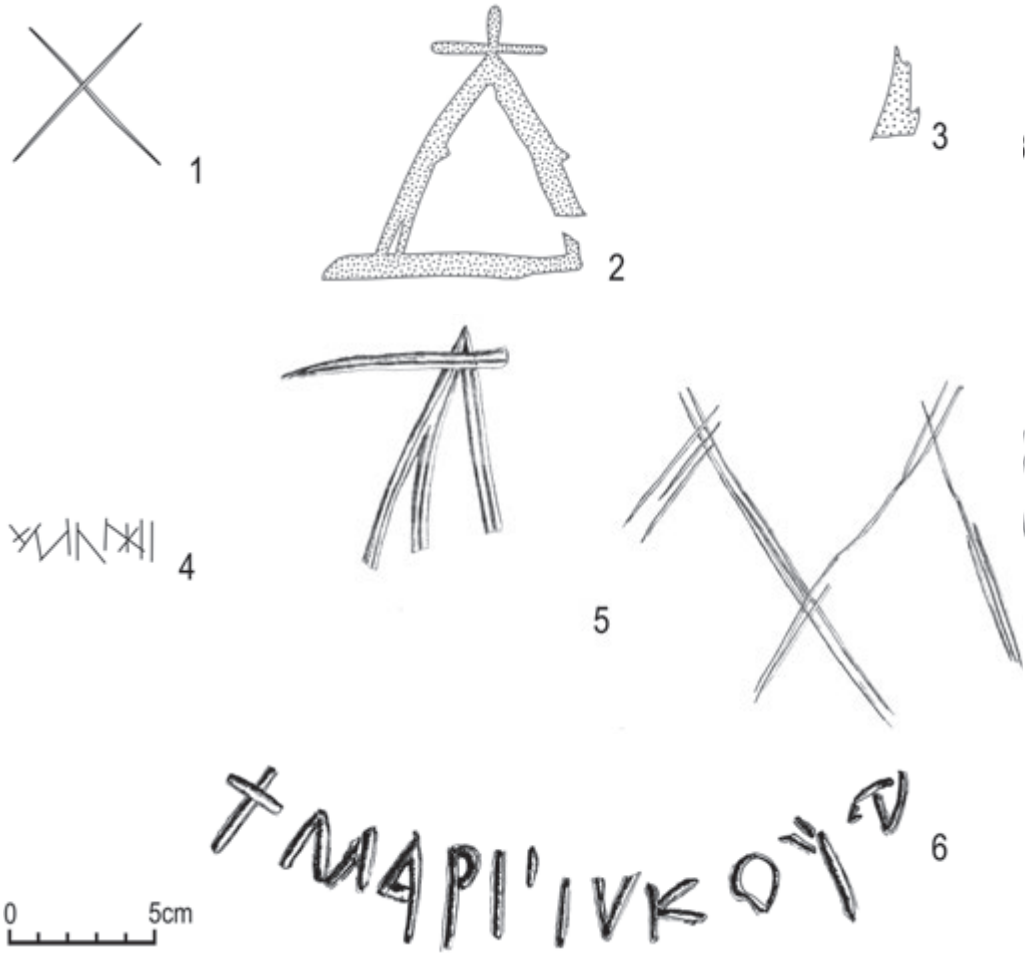


Fig. 4
The monograms and signs discovered at Banganarti: 1 – AM 3/1; 2 – AM 4/1; 3 – AM 4/2; 4 – AM 5/1; 5 – AM 6/1; 6 – AM 6/2

Nubian production source. Bogdan Żurawski believes this type may come from the Old Dongola ceramic workshops.[30]

Dating

Both Banganarti amphorae are dated to the seventh century, but the fill as a whole is widely dated to the seventh–tenth centuries.[31]

Analogy and Comments

Włodzimierz Godlewski (personal communication) dates the amphora discovered at Old Dongola, Kom A, site SWN B.I., Room 15 (toilet depository), to the seventh century, suggesting local production of this type in Nubia took place in the seventh century in the Old Dongola area.

Catalogue

AM 4/1

Amphora fragment.
Recovered: Banganarti, upper church, sounding in Chapel 5, under upper church floor.
Inv. no.: 223/2005; 107/20.
Dimensions: rim diameter – 6.6 cm, shoulder diameter – 24.7 cm.
Epigraphy: on the shoulder, monogram in yellow paint, perhaps the letter **Θ**

30 Żurawski 2003: 144–145.
31 Żurawski 2003: 144–145, 151, fig. 23.

either standing alone or forming part of a monogram.
Fabric: (Sample A6) desert clay, mica, lime, haematite, straw; Munsell: exterior surface – light red 2.5YR 6/6, interior surface – light red 2.5YR 6/6, core – light red 2.5YR 6/6.
Publication: unpublished.
Drawing: M. Momot; photo: K. Maciejewska.
Tables 3g, 8h; Fig. 4.2.

AM 4/2

Amphora fragment.
Recovered: Banganarti, lower church, sounding 3/2003, the apse area, above the floor.
Inv. no.: 20/2003; 27/20.
Dimensions: rim diameter – 6.7 cm, height – 11 cm.
Epigraphy: on the shoulder, fragmentary sign in cream paint, illegible.
Fabric: (Sample A77) desert clay, mica, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – pink 5YR 7/4, core – pink 5YR 7/4.
Publication: Żurawski 2003: 144–145, 151, fig. 23.
Drawing: D. Bagińska; photo K. Maciejewska.
Tables 3h, 8e; Fig. 4.3.

AM 5

One amphora was discovered at Banganarti in the lower church, sounding 1, lower level **(AM 5/1)**.

Occurrence in Nubia

This is the only example recorded in Nubia.

Description

The rim diameter is 8 cm. The rim is rounded, with a very short cylindrical neck. The handles are attached to the neck and shoulder and are oval in cross-section. Both neck and shoulder are ribbed on the surface.

Fabric

Desert clay.[32]

Capacity and Contents

The capacity of this amphora is unknown. It is not resinated, but was probably used to store wine.

Epigraphy

On one handle (AM 5/1, Fig. 4.4), an illegible inscription which can probably be read as **ΜΙΧΑΗΛ** (*Michael*), incised after firing.

Distribution and Provenance

This amphora type is not yet recorded beyond Banganarti. The place of production is unidentified, but is a local Nubian source of production.

Dating

This amphora type dates to the seventh–eighth centuries.

Catalogue

AM 5/1

Amphora fragment.

32 See the Catalogue below for details.

Recovered: Banganarti, lower church, sounding 1/2006, lower level.
Inv. no.: 444/2006.
Dimensions: rim diameter – 8 cm.
Epigraphy: on one handle, illegible inscription, probably to be read as ***MIXAHΛ*,** incised after firing.
Fabric: desert clay, mica, lime, straw; Munsell: exterior surface – light red 2.5YR 6/8, interior surface – light red 2.5YR 6/8, core – light red 2.5YR 6/8.
Publication: Żurawski 2012: 182–186, fig. 74b.
Drawing: A. Rak; photo: A. Oleś-Niedzielska.
Table 3i; Fig. 4.4.

AM 6

Two amphora fragments of this type were discovered at Banganarti in Sector NECH, Room 36, level 1 **(AM 6/1–6/2)**.

Occurrence in Nubia

Only four amphorae of this type are recorded in Nubia. It is known at Old Dongola, from Kom H, North-Western Annexe (NW. room 1), the southern crypt, in the eastern part of grave 27.[33] Another was found at Faras, in the northeastern corner of the burial crypt of Bishop Ioannes.[34]

Description

This amphora type has a rim diameter of 6.5–6.7 cm, shoulder diameter of 33 cm, body diameter of 37 cm, and height of approximately 48–50 cm. The rim is thick and everted, with a short cylindrical neck and globular body. The handles are attached to the rim and shoulder and are oval in cross-section. The outer surface has shallow ribbing. Those at Old Dongola and Faras have a wider rim and neck than those at Banganarti, testifying to different production sources.

Fabric

Nile silt.[35]

Capacity and Contents

Those at Faras and Old Dongola hold 2.5 litres of wine. One at Banganarti has two holes, and the other one a hole drilled after firing below one handle. Such holes were used in the wine fermentation process,[36] although the amphorae are not resinated. This amphora type was used for wine storage.

Epigraphy

Two illegible letters, one incised before firing and the other after firing, are found on the body of one Banganarti amphora (AM 6/1, Fig. 4.5). The body of the other (AM 6/2, Fig. 4.6) is inscribed with the personal name † ⲙⲁⲣⲓⲁⲛⲕⲟⲩⲇⲁ (Mariankouda), incised before firing.

Distribution and Provenance

This amphora type is reported only at Banganarti, Old Dongola and Faras so far. The place of production is unidentified, but their fabric characteristics indicate at least one local Nubian production source.

33 Żurawski 1999a: 234–235, fig. 28.
34 Kołodziejczyk 1982: 176–177, 179, fig. 4; Michałowski 1963: pl. LVI, 239.
35 See the Catalogue below for details.
36 Adams 1966: 283.

Dating

Both amphora fragments excavated at Banganarti are dated to the eleventh century.

Analogies

The amphora discovered in grave 27 at Old Dongola is dated to the eleventh century, while this part of the Monastery of the Holy Trinity is dated to the tenth–thirteenth centuries.[37] The Faras amphora is dated to the first half of the eleventh century.[38]

Catalogue

AM 6/1

Amphora fragment.
Recovered: Banganarti, Sector NECH, Room 36, level 1.
Inv. no.: BA 19-2090, NECH-36-1, CB 1015; 34/20.
Dimensions: rim diameter – 6.7 cm, body diameter – 37 cm, preserved height – 32.7 cm.
Epigraphy: on the body, two illegible letters, one incised before firing and the other after firing.
Fabric: (Sample A114) Nile silt, lime, mica, straw; Munsell: exterior surface – red 2.5YR 4/6, interior surface – light reddish brown 2.5YR 6/4, core – dark grey 7.5YR N4/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska, A. Cedro.
Tables 1c, 10b; Fig. 4.5.

AM 6/2

Amphora fragment.
Recovered: Banganarti, Sector NECH, Room 36, level 1.
Inv. no.: BA 19-2090, NECH-36-1, CB 1016; 31/20.
Dimensions: neck diameter – 6.5 cm, shoulder diameter – 33 cm.
Epigraphy: on the body, inscription naming † mariaṇ̣koud[a] (Mariankouda), incised before firing.
Fabric: (Sample A115) Nile silt, mica, straw, broken ceramics particles; Munsell: exterior surface – red 2.5YR 4/8, interior surface – reddish brown 5YR 4/3, core – very dark grey 7.5YR N3/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 3d, 7s; Fig. 4.6.

AM 7

Discovered at Banganarti in Sector NECH, Room 43, level 424 **(AM 7/1)**.

Occurrence in Nubia

This is the only example recorded in Nubia.

Description

The amphora has a rim diameter of 7.6 cm, a body diameter of 37.5 cm, a base diameter of 7 cm, and a height of 49 cm. The rim is thick and rounded, with

37 Żurawski 1999a: 234–235, fig. 28; 1999b: 427; Jakobielski 2001: 24–25.
38 Kołodziejczyk 1982: 176–177, 179.

a short cylindrical neck, globular thick-walled body and rounded bottom with a slight central depression. The handles are attached to the rim and shoulder. They are oval in cross-section and rise slightly above the rim. The body has visible traces of wheeled production.

Fabric

Nile silt mixed with desert clay.[39]

Capacity and Contents

This amphora holds 23 litres. It is not resinated, but this large type was probably used only for wine storage. Below one handle is a hole, drilled after firing.

Epigraphy

On the body (AM 7/1, Fig. 5.1), two illegible signs, one in yellow paint and the other incised after firing.

Distribution and Provenance

This type is recorded only at Banaganarti so far. The place of production is unidentified, but fabric characteristics indicate a local production centre.

Dating

This amphora is dated to the eleventh century.

Catalogue

AM 7/1

Complete amphora.
Recovered: Banganarti, Sector NECH, Room 43, level 424 (context NECH-43-424).
Inv. no.: BA-19-2149, CB 990; 36/20.
Dimensions: rim diameter – 7.6 cm, body diameter – 37.5 cm, bottom diameter – 7 cm, height – 49 cm.
Epigraphy: on the body, two illegible signs, one in yellow paint and the other incised after firing.
Fabric: Nile silt mixed with desert clay, lime, straw; Munsell: exterior surface – reddish brown 2.5YR 5/4, interior surface – light reddish brown 5YR 6/3, core – very dark grey 7.5YR N3/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska, A. Cedro.
Tables 2e, 9e; Fig. 5.1.

AM 8

One amphora was discovered at Banganarti in Sector NECH, space 38, level 1 **(AM 8/1)**.

Occurrence in Nubia

Only two amphorae are recorded in Nubia. Another one was excavated at Soba in the western part of Mound B.[40]

Description

The amphora has a rim diameter of 7 cm, a body diameter of 35 cm, a bottom diameter of 13.2 cm, and a height of 43 cm. Its modelled rim is everted and

39 See the Catalogue below for details.
40 Welsby, Daniels 1991: 33–34, 170, fig. 85/8.

Fig. 5
The monograms and signs discovered at Banganarti: 1 – AM 7/1; 2 – AM 8/1; 3 – AM 9/1; 4 – AM 10/1; 5 – AM 11/1; 6 – AM 12/1; 7 – AM 13/1

thick, with a small spout to better pour the liquid (wine) contents, a short cylindrical neck, globular body and rounded bottom. The small handles are attached to the rim and shoulder. They are oval in cross-section, and rise above the rim. The shoulder and lower body have shallow ribbing indicating wheeled manufacture.

Fabric

Nile silt mixed with desert clay.[41]

41 See the Catalogue below for details.

Capacity and Contents

This amphora holds 22 litres. It is not resinated, but this type was used to store wine, as the hole below one handle was drilled after firing to aid fermentation.

Epigraphy

The body of the Banganarti amphora (AM 8/1, Fig. 5.2) has one illegible inscription incised after firing, and one sign (circle) incised before firing. The Soba amphora body has a graffito incised after firing, of unknown meaning (Adam Łajtar, personal communication).

Distribution and Provenance

This amphora type is not recorded beyond Banganarti and Soba. The place of production is unidentified, but fabric characteristics indicate a local Nubian source of production.

Dating

The amphora excavated in Banganarti ise dated to the eleventh century.

Analogy

The amphora discovered at Soba is also dated to the eleventh century.[42]

Catalogue

AM 8/1

Complete amphora.
Recovered: Banganarti, Sector NECH, space 38, level 1.
Inv. no.: F-/2019, BA 19-1982, CB 834; 40/20.
Dimensions: rim diameter – 7 cm, body diameter – 35 cm, bottom diameter – 13.2 cm, height – 43 cm.
Epigraphy: on the body, one illegible inscription incised after firing and one sign (circle) incised before firing.
Fabric: (Sample -) Nile silt mixed with desert clay, lime, haematite, straw;
Munsell: exterior surface – light red 2.5YR 6/6, interior surface – grey 5YR 5/1, core – dark grey 7.5YR N4/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska, A. Cedro.
Tables 1d, 9d; Fig. 5.2.

AM 9

Amphora discovered at Banganarti in Sector NECH, space 43, level 418 **(AM 9/1)**.

Occurrence in Nubia

This is the only example recorded in Nubia.

Description

Amphora with a rim diameter of 5.8 cm, body diameter of 37.5 cm, bottom diameter of 13.8 cm, and height of 45 cm. Rim is thick and rounded, neck short and cylindrical, with a globular body and very thin bottom. The handles are attached to the rim and shoulder. They are oval in cross-section and rise above the rim. The outer surface of the shoulder and lower body have shallow ribbing.

Fabric

Nile silt.[43]

42 Welsby, Daniels 1991: 33–34.
43 See the Catalogue below for details.

Capacity and Contents

This amphora holds 24 litres. Although not resinated, it was probably used to store wine, as a hole was drilled after firing below one handle to aid fermentation.

Epigraphy

On the body (AM 9/1, Fig. 5.3), incised letters **Π** and **Θ** in ligature and **X** located below, for **Μιχαήλ**, a numerical cryptogram of the *Archangel Michael* written horizontally after firing.

Distribution and Provenance

This amphora type has not been found beyond Banganarti. The place of production is unidentified, but fabric characteristics indicate a local Nubian source.

Dating

The amphora is dated to the eleventh–twelfth centuries.

Catalogue

AM 9/1

Complete amphora.
Recovered: Banganarti, Sector NECH, space 43, level 418.
Inv. no.: 6E/2019, BA 19-2567, CB 1039; 35/20.
Dimensions: rim diameter – 5.8 cm, body diameter – 37.5 cm, bottom diameter – 13.8 cm, height – 45 cm.
Epigraphy: on the body incised letters **Π** and **Θ** in ligature and **X** located below, for **Μιχαήλ**, a numerical cryptogram of the *Archangel Michael*, written horizontally. This is incised after firing, and the next sign is pre-firing.
Fabric: (Sample A117) Nile silt, mica, straw; Munsell: exterior surface – light red 2.5YR 6/6, interior surface – brown 7.5YR 4/2, core – very dark grey 7.5YR N3/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska, A. Cedro.
Tables 1e, 9a; Fig. 5.3.

AM 10

One amphora was discovered at Banganarti in Sector NECH, space 43, level 428 **(AM 10/1)**.

Occurrence in Nubia

This is the only amphora recorded in Nubia so far.

Description

It has a rim diameter of 6 cm, a body diameter of 35.4 cm, a bottom diameter of 15 cm and a height of 44.8 cm. The rim is thick and everted, with a short cylindrical neck, globular body and thick rounded bottom. The handles are attached to the rim and shoulder. They rise above the rim and are oval in cross-section.

Fabric

Nile silt mixed with desert clay.[44]

Capacity and Contents

This amphora holds 21 litres. Although not resinated, it was probably used to store wine, as a hole was drilled after firing below one handle to aid fermentation.

44 See the Catalogue below for details.

Epigraphy

On the body (AM 10/1, Fig. 5.4), two illegible signs, one incised before firing and one after firing, but partly destroyed by a large hole. In addition, four smudges (signs?) are painted red on the body.

Distribution and Provenance

This amphora type has not been found beyond Banganarti. The place of production is unidentified, but fabric characteristics indicate a local Nubian production source.

Dating

This amphora is dated to the eleventh–twelfth centuries.

Catalogue

AM 10/1

Complete amphora.
Recovered: Banganarti, Sector NECH, space 43, level 428.
Inv. no.: 4F/2019, BA 19-2445, CB 1012; 37/20.
Dimensions: rim diameter – 6 cm, body diameter – 35.4 cm, bottom diameter – 15 cm, height – 44.8 cm.
Epigraphy: on the body, two illegible signs, one incised before firing and the other after firing, but partly destroyed by a large hole. Four smudges (signs?) are painted in red on the body.
Fabric: (Sample A118) Nile silt mixed with desert clay, straw, lime (large particles visible on the surface); Munsell: exterior surface – light red 2.5YR 5/4, interior surface – pinkish grey 7.5YR 6/4, core – dark grey 7.5YR N4/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska, A. Cedro.
Tables 1f, 10a; Fig. 5.4.

AM 11

One amphora was discovered at Banganarti, in Sector NECH, Room 43, level 418 **(AM 11/1)**.

Occurrence in Nubia

This is the only example recorded in Nubia.

Description

Rim diameter: 6.4 cm, body diameter: 37 cm, bottom diameter: 13.6 cm, height: 46.4 cm. Thick everted rim, short cylindrical neck, globular body and flat bottom, with handles attached to rim and shoulder. The handles rise above the rim, and are oval in cross-section. The outer surface has shallow ribbing.

Fabric

Nile silt.[45]

Capacity and Contents

This amphora holds 24 litres. It is not resinated, but this kind of large, globular amphora was used to store wine. A hole drilled after firing below one handle aids wine fermentation.

Epigraphy

On the body (AM 11/1, Fig. 5.5) are illegible signs incised before firing.

45 See the Catalogue below for details.

Distribution and Provenance

This amphora type has not been recorded outside Banganarti. The place of production is unidentified, but fabric characteristics indicate a local Nubian source.

Dating

This amphora is dated to the eleventh–twelfth centuries.

Catalogue

AM 11/1

Complete amphora.
Recovery: Banganarti, Sector NECH, Room 43, level 418 (context NECH-43-418).
Inv. no.: BA 19-2568, CB 1040; 30/20.
Dimensions: rim diameter – 6.4 cm, body diameter – 37 cm, bottom diameter – 13.6 cm, height – 46.4 cm.
Epigraphy: on the body, illegible signs incised before firing.
Fabric: (Sample A52) Nile silt, haematite, lime, straw; Munsell: exterior surface – reddish brown 2.5YR 5/4, interior surface – reddish brown 5YR 5/3, core – dark grey 7.5YR N4/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska, A. Cedro.
Tables 2f, 9b; Fig. 5.5.

AM 12

One amphora was discovered at Banganarti in the Southern Sector, Room 6 **(AM 12/1)**.

Occurrence in Nubia

This is the only example recorded in Nubia.

Description

Amphora with a rim diameter of 8 cm. The rim is rounded, with a short and cylindrical neck and an oval body. The handles are attached to the rim and shoulder and are oval in cross-section. The neck and shoulder have shallow surface ribbing. Storage-type amphora.

Fabric

Desert clay.[46]

Capacity and Contents

Capacity is unknown. It is not resinated, but this amphora type was used for wine storage.

Epigraphy

On one handle (AM 12/1, Fig. 5.6), a cross incised before firing.

Distribution and Provenance

This amphora type has not been recorded beyond Banganarti. The place of production is unidentified, but its fabric characteristics indicate a local Nubian production centre.

Dating

This amphora fragment is dated to the eleventh–twelfth centuries.

Catalogue

AM 12/1

Amphora fragment.

46 See the Catalogue below for details.

Recovery: Banganarti, Southern Sector, Room 6.
Inv. no.: 68/08; 140/20.
Dimensions: rim diameter – 8 cm.
Epigraphy: on one handle, a cross incised before firing.
Fabric: (Sample A86) desert clay, lime, haematite, straw; Munsell: exterior surface – red 10R 5/6, interior surface – red 10R 5/6, core – red 10R 5/6.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 3j, 8d; Fig. 5.6.

AM 13

One amphora discovered at Banganarti in Sector NECH, Room 36, level 1 **(AM 13/1)**.

Occurrence in Nubia

This is the only amphora recorded in Nubia.

Description

Amphora with a rim diameter of 7 cm, body diameter of 42.4 cm and preserved height of 37 cm. The rim is cut and sloped inwards, with a cylindrical neck and globular body. The handles are attached to the rim and shoulder. The handles rise above the rim and are oval in cross-section. Its outer surface has shallow ribbing.

Fabric

Nile silt.[47]

Capacity and Contents

Its capacity is unknown. It is not resinated, but was used to store wine. A hole drilled after firing below one handle aids wine fermentation.

Epigraphy

On the body (AM 13/1, Fig. 5.7) is an illegible sign, incised before firing.

Distribution and Provenance

This amphora type has not been recorded beyond Banganarti. The place of production is unidentified, but the characteristics of the fabric indicate a local Nubian source.

Dating

This amphora is dated to the twelfth century.

Catalogue

AM 13/1

Amphora fragment.
Recovered: Banganarti, Sector NECH, Room 36, level 1.
Inv. no.: BA 19-2090, NECH-36-1, CB 1014; 32/20.
Dimensions: rim diameter – 7 cm, body diameter – 42.4 cm, height – 37 cm.
Epigraphy: on the body, illegible sign, incised before firing.
Fabric: (Sample A116) Nile silt, lime, straw, broken ceramic particles; Munsell: exterior surface – reddish yellow 5YR 6/6, interior surface – pinkish grey 5YR 6/2, core – dark grey 7.5YR N4/0.
Publication: unpublished.
Drawing: D. Bagińska; photo: K. Maciejewska.
Tables 2d, 10c; Fig. 5.7.

47 See the Catalogue below for details.

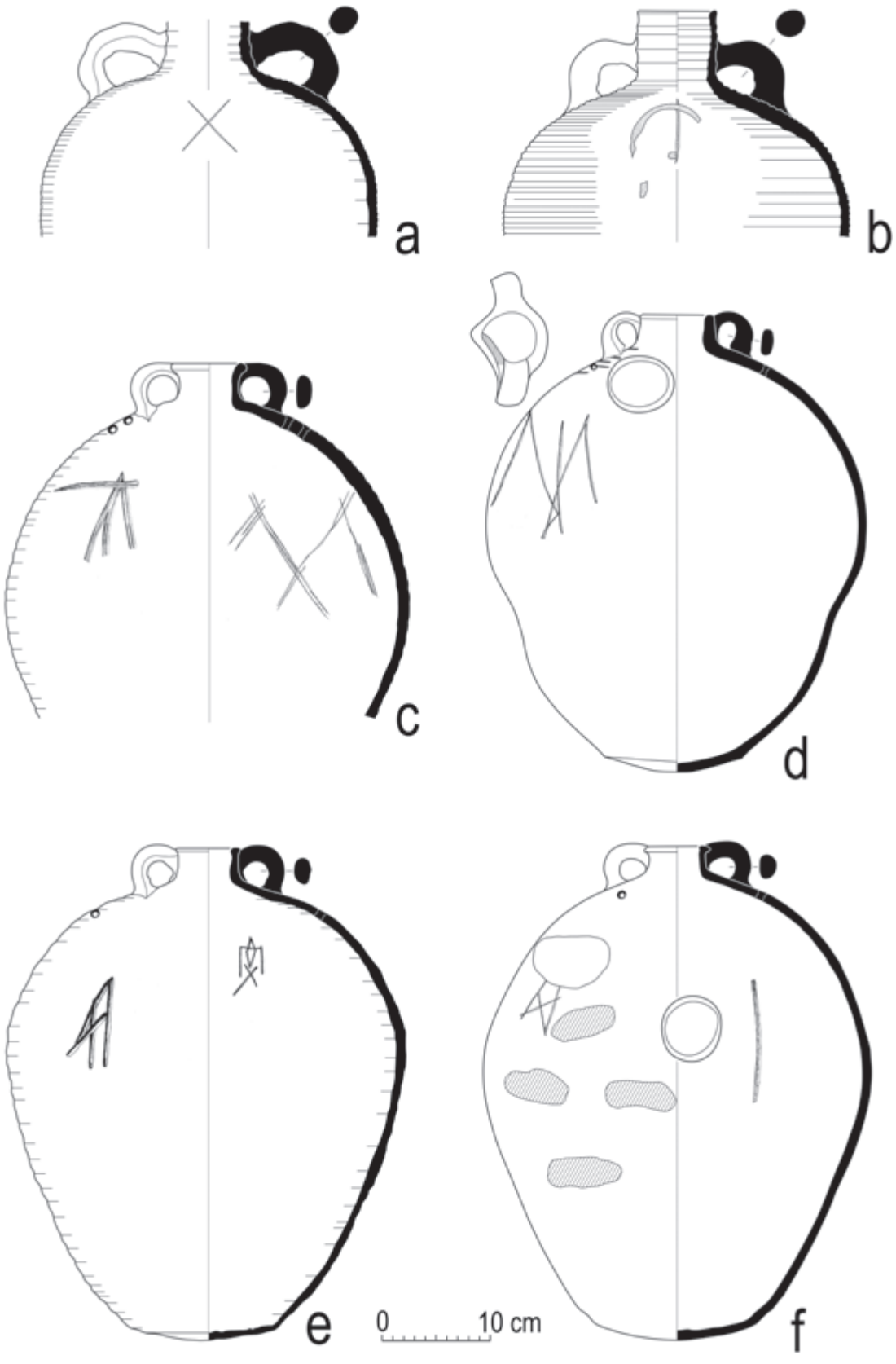
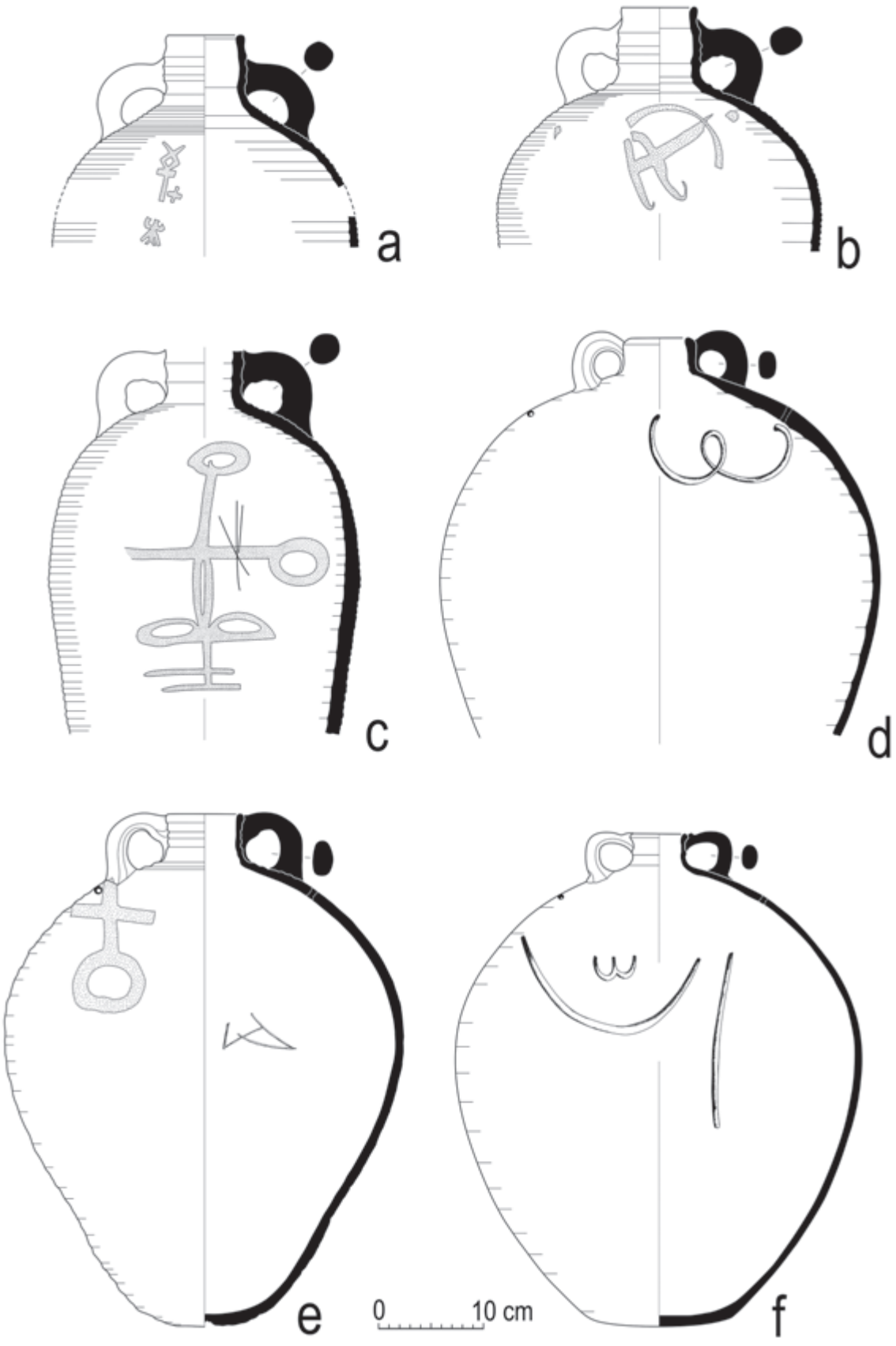


Table 1
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 3/1
b – AM 1/6
c – AM 6/1
d – AM 8/1
e – AM 9/1
f – AM 10/1

Table 2
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 1/1
b – AM 1/5
c – AM 2/5
d – AM 13/1
e – AM 7/1
f – AM 11/1



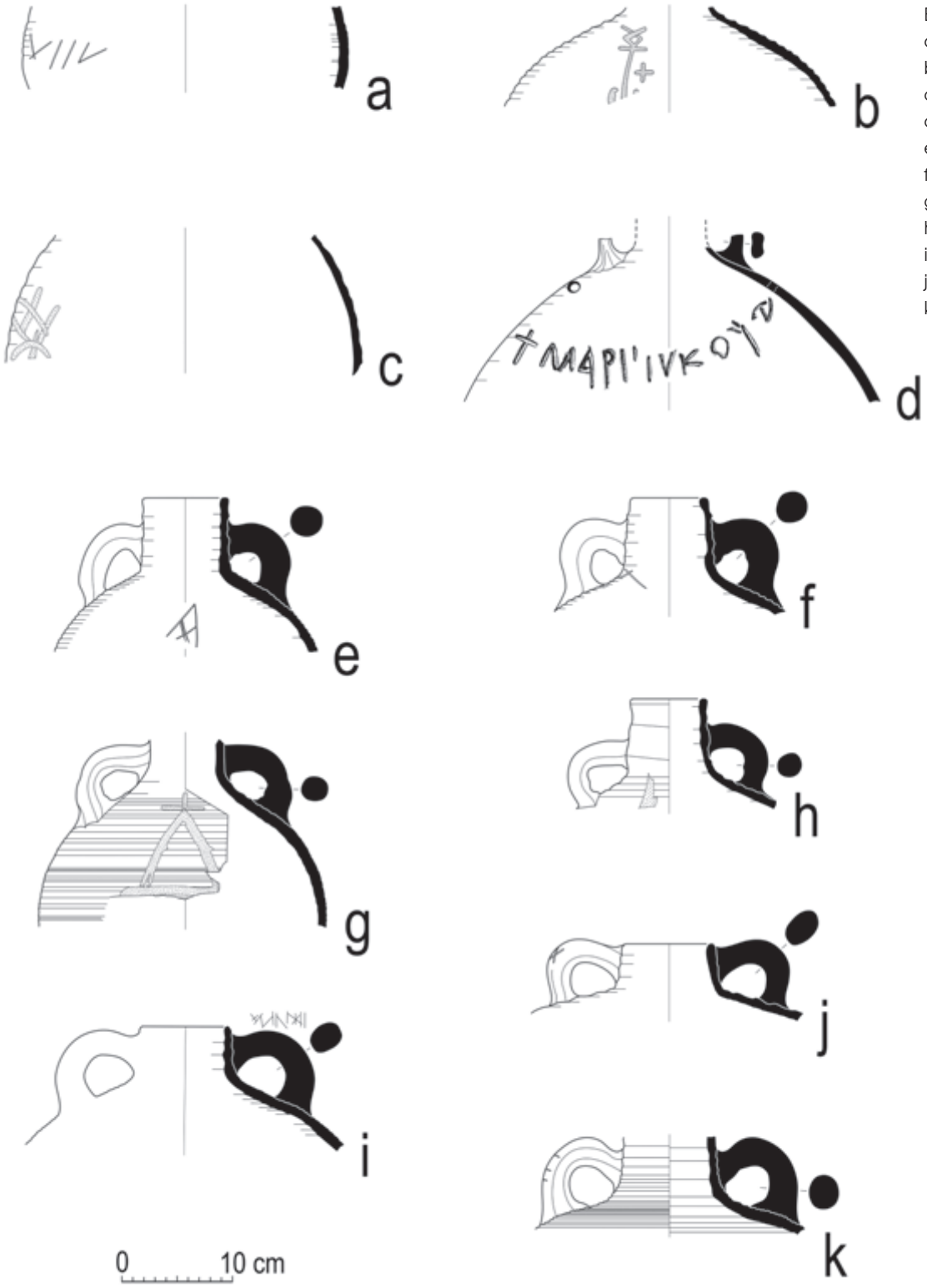
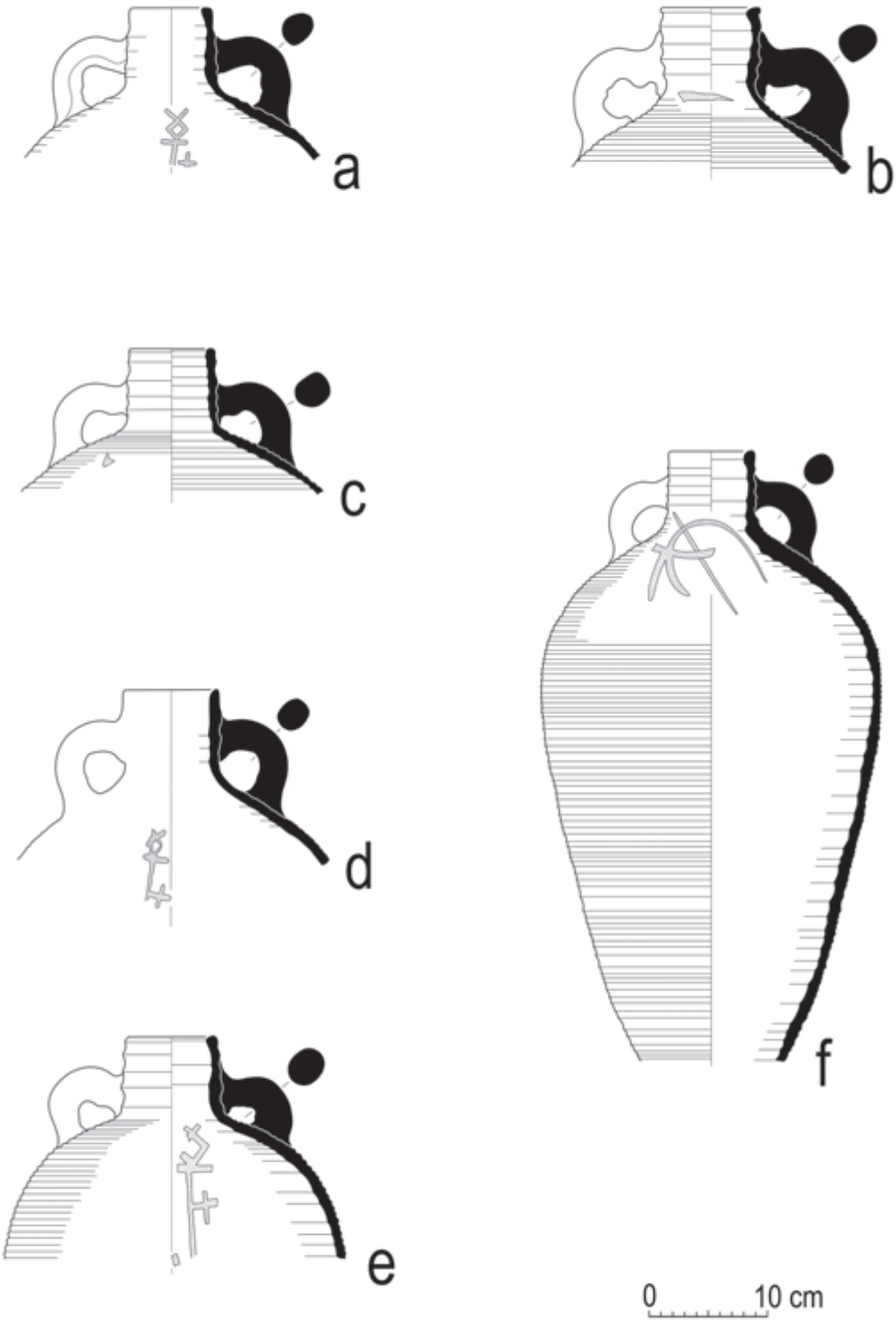


Table 3
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 1/11
b – AM 1/4
c – AM 1/10
d – AM 6/2
e – AM 2/3
f – AM 1/9
g – AM 4/1
h – AM 4/2
i – AM 5/1
j – AM 12/1
k – AM 2/1

Table 4
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 1/3
b – AM 1/8
c – AM 2/4
d – AM 2/2
e – AM 1/2
f – AM 1/7



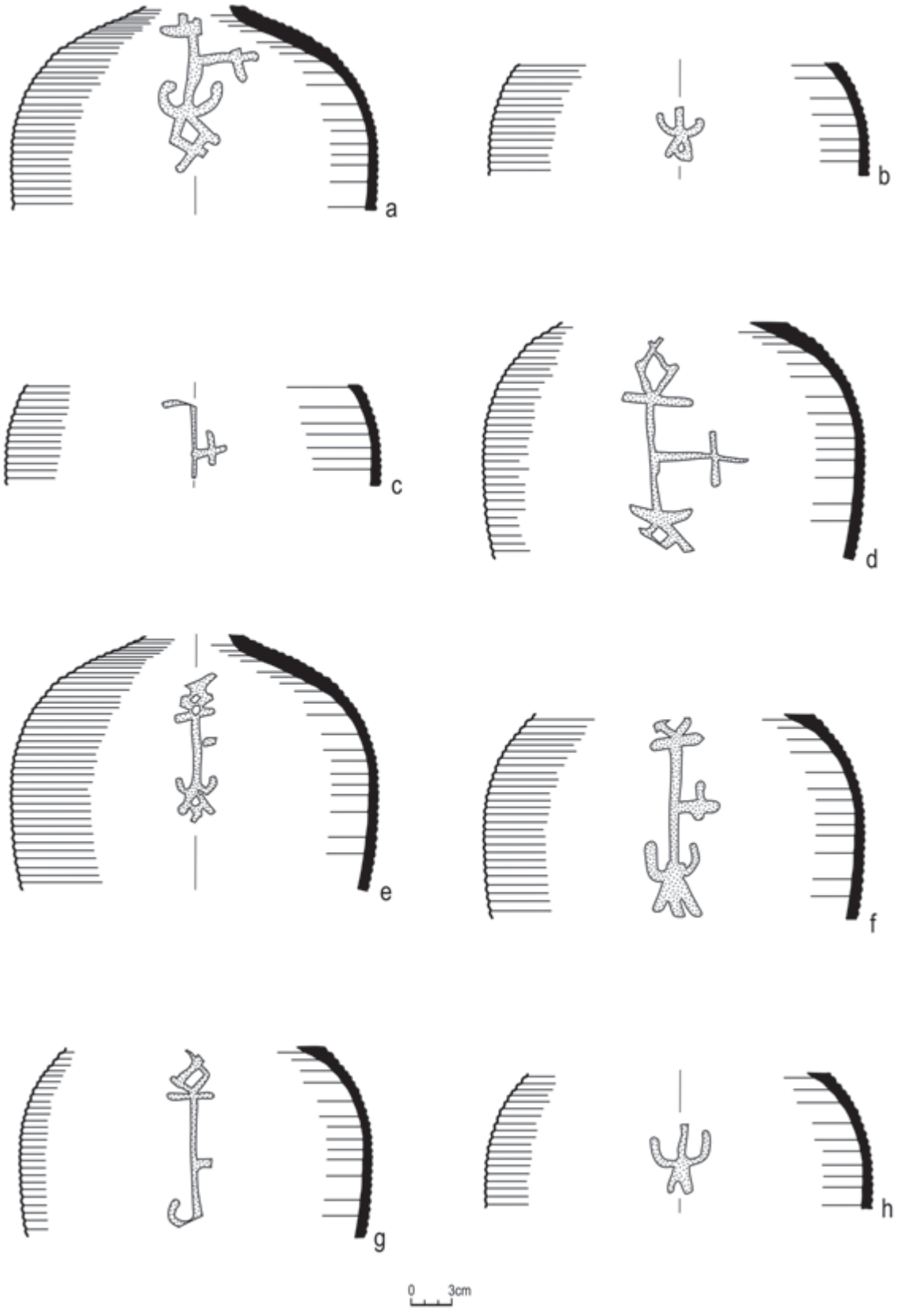
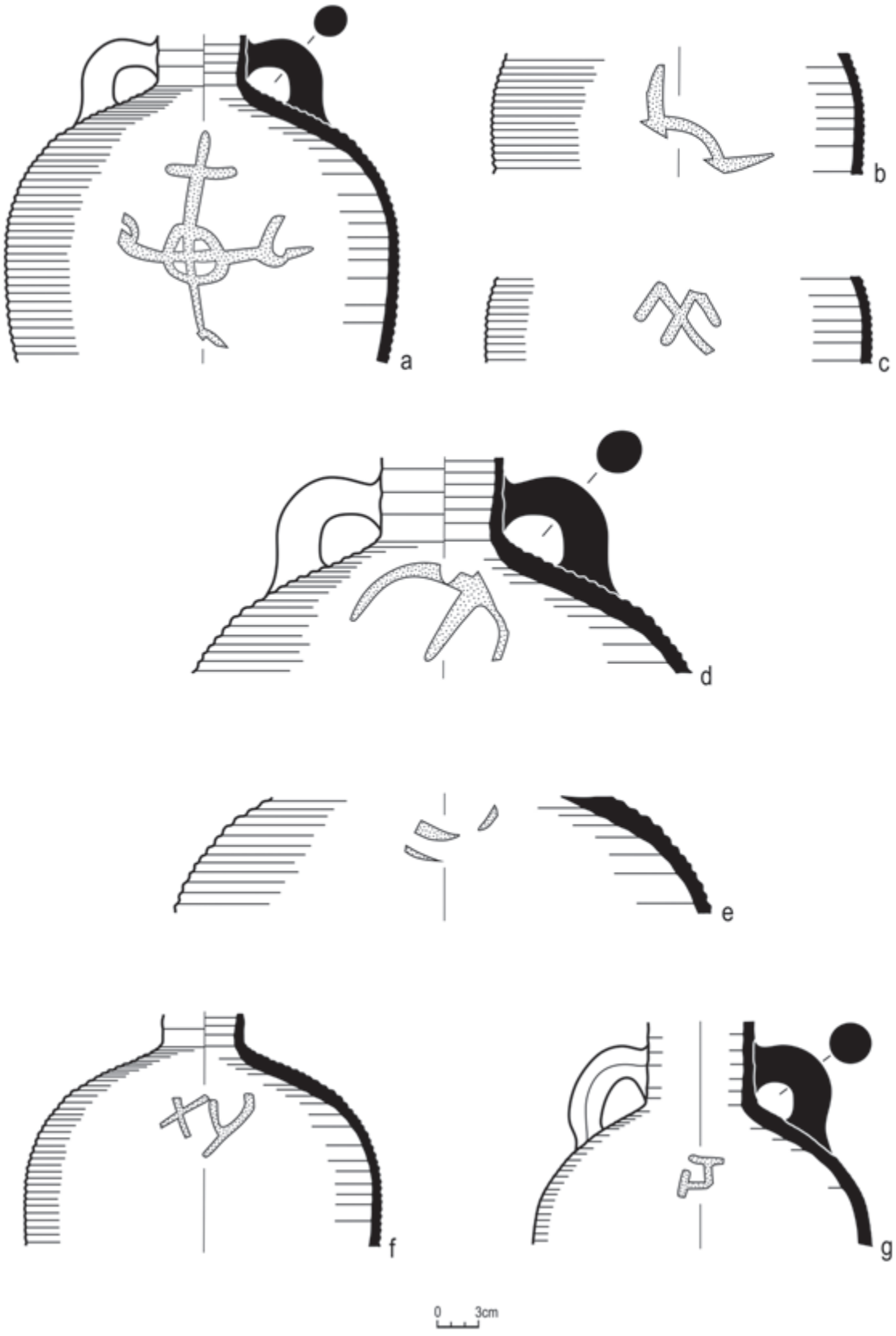


Table 5
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 1/12
b – AM 1/13
c – AM 1/14
d – AM 1/15
e – AM 1/16
f – AM 1/17
g – AM 1/18
h – AM 1/19

Table 6
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 1/20
b – AM 1/21
c – AM 1/24
d – AM 1/22
e – AM 1/23
f – AM 1/25
g – AM 2/6



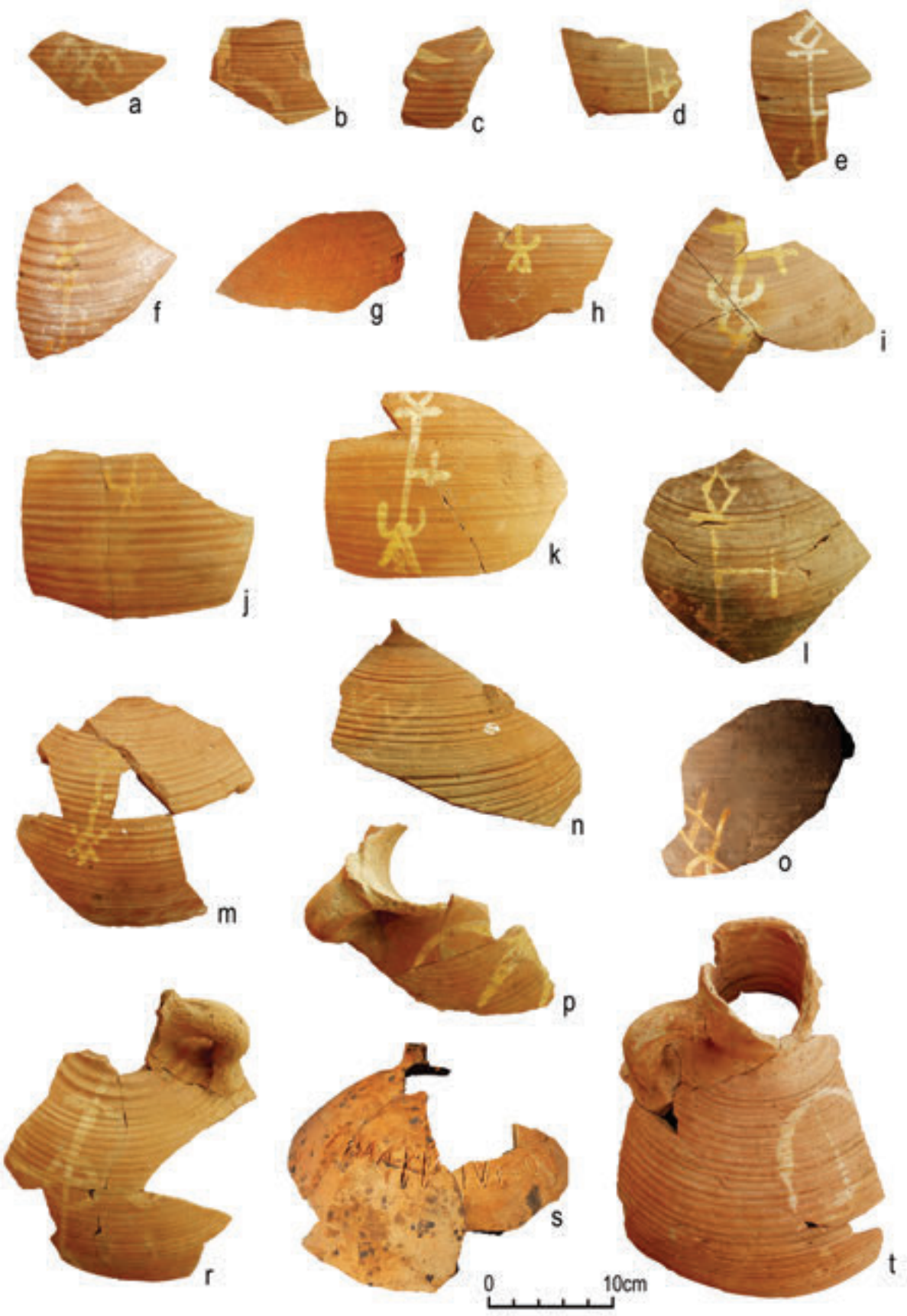


Table 7
Amphorae with inscriptions and monograms discovered at Banganarti, cat. nos.:
a – AM 1/24
b – AM 1/21
c – AM 1/23
d – AM 1/14
e – AM 1/18
f – AM 1/4
g – AM 1/11
h – AM 1/13
i – AM 1/12
j – AM 1/19
k – AM 1/17
l – AM 1/15
m – AM 1/16
n – AM 1/25
o – AM 1/10
p – AM 1/22
r – AM 1/20
s – AM 6/2
t – AM 1/6

Table 8
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 2/6
b – AM 2/4
c – AM 1/3
d – AM 12/1
e – AM 4/2
f – AM 2/2
g – AM 2/3
h – AM 4/1
i – AM 3/1
j – AM 1/2
k – AM 1/1

Table 9
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 9/1
b – AM 11/1
c – AM 1/5
d – AM 8/1
e – AM 7/1

Table 10
Amphorae with monograms and signs discovered at Banganarti, cat. nos.:
a – AM 10/1
b – AM 6/1
c – AM 13/1
d – AM 1/7

Conclusions

The monograms and signs (dated to the sixth–seventh centuries) presented here, painted before firing, suggest they were made on the amphora bodies by people (maybe producers) working in the pottery workshops. Many large monograms and signs were painted in yellow or cream on the bodies of wine amphorae with a capacity of around 12–13 litres.

As many as 13 inscriptions (AM 1/1–1/4, 1/12–1/19, Fig. 1.1–1.12; AM 2/2, Fig. 3.3) use the same name – Ioannes, written as the monogram **Ἰωαννου**. So this name might refer either to the potter or the wine producer or to an address.

Two fragments have painted monograms in the form of a cross, constructed around the letter **Φ** (AM 1/20–1/21, Fig. 2.5–6).

One amphora has the letter A, which may be a singleton or part of a monogram (AM 1/24, Fig. 2.7).

One amphora has a partially preserved monogram with the letters **Φ** and a reversed **A** visible (AM 1/10, Fig. 2.8).

1 fragment has **[- - -]** ΧΥ: *Nomen sacrum – Christos* **[- - -]** Χ(ριστο)ῦ (AM 1/25, Fig. 2.9)

Six amphorae (AM 1/5–1/7, 1/22, Fig. 2.1–4; AM 1/8, 1/23, Fig. 2.12–13) have a large illegible sign.

One amphora has a large illegible monogram and lines incised on the body after firing (AM 2/5, Fig. 3.4).

One amphora has a monogram, with a fragmentary cross visible (AM 2/6, Fig. 3.5).

One amphora has a small fragment of a monogram on the shoulder (AM 2/4, Fig. 3.6).

One amphora has a possible letter **Θ** either standing alone or forming part of a monogram (AM 4/1, Fig. 4.2).One amphora has an illegible sign (AM 4/2, Fig. 4.3).

In the author's opinion, the monograms and signs incised after firing are made by the owner of the amphora or they indicate his address. In the case of three horizontal lines, they count the number of amphorae containing wine; the number 3 may indicate the number of amphorae in the warehouse or to be delivered to the addressee. On the other hand, letters or signs may be an abbreviation of the name of the owner or addressee, possibly dedicated to the saint or the name of a monastery or church.

One amphora (AM 1/11, Fig. 2.10) has illegible letters on the exterior surface.

One amphora (AM 1/9, Fig. 2.11) has a sign of unknown meaning.

One amphora (AM 2/1, Fig. 3.1) has three horizontal lines on one handle.

One handle (AM 5/1, Fig. 4.4) has an illegible inscription, probably (*Michael*).

In the author's opinion, monograms or signs inscribed on amphorae before firing represent the producer or production centre in Nubia.

One amphora (AM 2/3, Fig. 3.2) has an individual incised letter **A** on the shoulder.

One amphora shoulder (AM 3/1, Fig. 4.1) has the sign of a cross.

The same is true for marks in yellow paint and incised before firing, many of which are found at Banganarti, but are also attested at other sites, e.g. Old Dongola, dated by Katarzyna Danys to between the end of the sixth century and the first quarter of the seventh century.[48]

48 Danys 2015: fig. 10.4–5, 118–121; 2016: 769–773, 777–778.

The pottery centre established at Old Dongola around the sixth century produced tableware and transport vessels, such as amphorae, modelled on the products of Egyptian ceramic centres, including the centre nearest Nubia – in Aswan.[49]

At that time, amphorae were used to transport wine from vineyards in the nearby Letti Basin, where conditions were ideal for growing crops, including grapes. Descriptions of Arab travellers record wine-growing in Nubia, here and in the Dongola area, and discoveries of numerous forms of local amphorae intended for local wine confirm these medieval accounts. It should not be forgotten that wine was an essential element in the conduct of liturgy in Dongolan churches. Hence the production of amphorae for wine produced locally near Old Dongola, the capital of Makuria, seems unquestionably justified. The rulers of Makuria, following Mediterranean patterns in many aspects of their lives, could have also aquired a taste for wine. Imported wine was a luxury drink in medieval Nubia, intended for the king and the court. The political and economic difficulties associated with wine transport from northern areas perhaps forced the Nubians to start producing their own wine, and at the same time to produce amphorae for its transport and storage. The people of Nubia wanted to be independent of the wine supplied from Egypt. Unfortunately, we do not have archaeological records regarding any wine press for the period in question. Presumably, wine presses were moved from place to place, but they were made of perishable materials and therefore have not survived.

Amphorae unearthed at Banganarti dating to the eleventh–twelfth centuries, hold 21–26.5 litres of wine. Some amphorae have one or two holes drilled below the handles after firing, used for wine fermentation. These amphorae are used in wine storage. Monograms and signs, incised before and/or after firing, dominate in this period.

One amphora (AM 6/1, Fig. 4.5) has (illegible) letters, one incised before firing and the other after firing.

Only one sherd (AM 6/2, Fig. 4.6) is inscribed with its owner's name, Mariankouda † mariaṇ̣koud[a]**,** incised before firing.

One amphora (AM 8/1, Fig. 5.2) has one illegible inscription incised after firing and one sign (circle) incised before firing.

Interestingly, only one amphora (AM 9/1, Fig. 5.3), dated to the eleventh–twelfth centuries, bears a numeric cryptogram of the Archangel Michael: **ΧΠΘ** (689) = **Μιχαήλ** (AM 9/1, Fig. 5.3) written after firing.[50]

One amphora body (AM 10/1, Fig. 5.4) has two signs: one incised before firing and the second incised after firing but destroyed in part by a large hole. In addition, four red-painted smudges, probably signs, are on the body.

One amphora (AM 11/1, Fig. 5.5) has (illegible) signs incised before firing.

One amphora (AM 12/1, Fig. 5.6) has the sign of a cross, incised before firing on one handle.

One amphora (AM 13/1, Fig. 5.7) has an (illegible) sign incised before firing on the body.

Monograms and signs applied in yellow and cream paint before firing, dating to the eleventh–twelfth centuries are very rare on ceramic material unearthed at Banganarti.

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49 Bagińska 2005: 625–647.

50 The sum of the numerical values of the Greek letters in this name: **Μ** – 40**, Ι** – 10, **Χ** – 600, **Α** – 1, **Η** – 8, **Λ** – 30.

One amphora (AM 7/1, Fig. 5.1) has a painted sign and a second sign incised after firing.

The author's observations on monograms and signs established that those incised before firing were made by potters in ceramic workshops, but it remains uncertain whether this name refers to the potter, the wine producer or an address. A few monograms from Nubia are made by people who did not correctly understand letters and the idea of monograms.[51]

Monograms and signs made by owners are incised after firing to identify property.

It is suspected that the change in amphorae forms produced in this period (eleventh–twelfth centuries), from a slender early Christian form with large handles adapted for long-distance transport, to a squat form with small handles, testifies to adaptations in long-distance trade within the kingdoms and the transition to a form of the self-sustaining economy within large cities and settlements, where amphorae production took place near cultivated lands. Why, from about the tenth century, was the production of amphorae meeting the parameters of transport vessels, the convenience of movement and position in boats discontinued? Probably the answer to this question lies in the political and economic situations of Nubia of that period. Numerous repeated Arab invasions and the unstable political situation in Nubia did not favour long-distance trade and the movement of goods. As a result, Nubia began to isolate itself and, presumably, cities and settlements became more self-sufficient, trading only in their immediate vicinity.

During this period in Makuria, various local amphorae (differing in form and handle location) are observed, and it seems they were produced as containers for wine from local vineyards. Amphorae were produced in various ceramic centres despite slight morphological differences, as evidenced by the wide distribution of amphorae in Nubia from Meinarti to Soba. The similar morphological features indicate people could produce large, bulky amphorae practical for storage, already tested in an earlier period, from about the tenth century. An interesting issue is the very large amphorae size, and simultaneous use of very small handles unable to support lifting a vessel having a total capacity of 21 to 26.5 litres of liquid.

It seems likely that amphorae were produced as containers strictly to store locally produced wine for the needs of the local community and the liturgical functions of the Church.

Old Dongola and Banganarti, located near very fertile farmland (Letti Basin), where grapevines are believed to have been grown, support this hypothesis. Therefore, it seems reasonable to say vessel forms changed mainly due to the Makurian need for more capacious vessels for storing wine, and this is how the change in amphora forms across Nubian history should be understood. Makurian potters produced amphorae at the request of wine producers. Those ordering the vessels, familiar with the realities of everyday life and the processes of wine production and storage, sought to obtain large and capacious amphorae, primarily for storage purposes. Amphorae are usually the latest preserved deposits relating to religious functions in churches, so it can be assumed previously used vessels, which had fulfilled their purpose for transporting and storing wine related to the liturgy, were simply thrown away.

51 Stefan Jakobielski, personal communication.

It is believed churches and monasteries owned agricultural land and, among other produce, grapevines were cultivated on this land to produce wine for liturgical purposes in churches and for consumption in monasteries.

Many amphorae discovered at Old Dongola and Banganarti may indicate their local Dongolan production, although kilns producing these types have not yet been discovered. Likewise, the origin of the amphorae discovered at Soba is unknown. Amphorae were produced in various ceramic centres, as evidenced by their very wide distribution in Nubia. Similar morphological features indicate the practicality of the form, a liking for it and the ability to produce large, bulky amphorae in the period from the second half of the eleventh until the twelfth century.

Amphora fragments are so diverse in form, rim shape, handle mounts, ceramic mass and surface treatment that the author feels justified in distinguishing multiple amphora types (even if they are represented by a single example). Hopefully, new amphorae belonging to the types distinguished here will be discovered with the progress of archaeological work in Nubia. Furthermore, due to the lack of comparative material in Nubia, it will probably be possible to supplement the typology with information not yet available to us.

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Plant Impressions from the Surfaces of Christian Pottery at Banganarti

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Abstract:

This article analyses plant impressions from the Christian pottery recovered at Banganarti. The sherds and vessels were collected from Sectors NECH, SSCH, NCH and WWCH within different contexts, dating to the Early, Classic and Late Christian periods (seventh–fourteenth centuries). As many as 2,829 pottery pieces were examined: 1,032 with plant impressions and 1,777 without impressions. In addition, leaves, nodes, internodes, branches, stems and seed impressions were noted on 20 pieces. Plants identified from their impressions are wheat (*Triticum* sp.), barley (*Hordeum vulgare*) and bitter apple (*Citrullus colocynthis*). The presence of wheat and barley at the site indicates their importance as food sources for humans and animals in the past. In addition, *Citrullus colocynthis* is well known for its multiple medicinal uses during the Christian period.

Keywords: positive cast, plant impression, *Triticum* sp., *Hordeum vulgare*, *Citrullus colocynthis*.

History of Research on Plant Impressions in Sudanese Archaeology

Imprints of grains and other plant remains on pottery are primary ways of documenting crop plants at archaeological sites in arid environments. Pottery is one of the main diagnostic objects in archaeology, and imprints on pottery have an obvious advantage as, once detected, they can be culturally classified and dated.[1] The evidence of plants on pottery consists of impressions of small plant materials, such as seeds/grains, husks and leaves. The dry plant materials absorb a certain amount of water from their moist clay surroundings, and the passage of water from the clay deposits a layer of fine clay particles around them. This fine cast often preserves minute morphological details of the grains.[2] During the pottery firing, these plant materials are burnt away, leaving cavities that retain more or less the same external morphological features as the plant remains.[3] According to Anwar Magid and Knut Krzywinski, the development and application of making positive casts of plant impressions in pottery is at least 100 years old.[4] Some of the earliest publications concerning impressions of plants are those of John Mortimer and James Cree.[5]

In Sudan, plant impressions on pottery surfaces have been reported at many sites. From the southern and northern areas of the Neolithic site at Kadero, north of Khartoum, 170 impressions of plants were analysed, and the plants identified were classified into three groups of cereals and unidentified grasses.[6]

From the Neolithic sites at Nofalab and Islang (dating to 5290–5870 B.C.), some plant impressions were reported from the surface of the pottery.[7] In addition, Ann Stemler reported many plant impressions from the surfaces of Neolithic pottery at the sites of Kadero, El Zakiab, Um Direiwa and El Kadada.[8] Stemler's determinations include wild sorghum, *Setaria* sp., *Pennisetum* sp., *Citrullus* sp., *Panicum miliaceum*, *Nymphaea*, and *Celtis* sp.

Anwar Magid reported plant impressions on Mesolithic potsherds recovered at Sheikh Mustafa and Sheikh el-Amin sites in the Blue Nile region.[9] The specimens included *Setaria* sp., wild sorghum, *Cassia* sp., *Grewia* sp., *Celtis integrifolia, Solanum dubium*, Cucurbitaceae, *Echinochloa* sp., *Carex* sp., *Grewia tenax* and Solanaceae.

Alan Clapham and Peter Rowley-Conwy identified three different species of the genus *Triticum dicoccum* dating to the Napatan, Meroitic and post-Meroitic periods, and the genus *Triticum durum* and *Tritucum aestivum* dated to the post-Meroitic period.[10]

From Mahal Teglinos near Kassala, about 350 km east of Khartoum, a total of 25 sherds was examined for plant impressions. These included *Sorghum bicolor*, *Setaria* sp., *Vigna unguiculata*, and fruit stones of *Ziziphus spinachristi*.[11]

1 Zohary, Hopf 1988: 4.
2 Helbaek 1955: 653.
3 Renfrew 1973: 8.
4 Magid, Krzywinski 1995.
5 Mortimer 1905; Cree 1908.
6 Klichowska 1978.
7 Magid 1982.
8 Stemler 1990.
9 Magid 2003.
10 Clapham, Rowley-Conwy 2007.
11 Beldados 2011.

Impressions of *Ricinus communis* seeds were reported on the surface of Mesolithic pottery at the site of Kabbash Haita (dating to 7700 B.C.) on the east bank of the Nile River about 34 km north of Khartoum.[12] In addition, a large part of a mud roof from two rooms in House E13.4 in the New Kingdom town at Amara West in northern Sudan was recovered. On it were impressions of grass and plants, indicating its roof beams had been covered with branches and bundles of grass.[13]

Archaeobotanical remains from Gala Abu Ahmed (dating to 1250–400 B.C.) in Wadi Howar include imprints of wild grasses on various pottery fragments.[14] From the 91 potsherds examined from KG23, in the locality of Khashm el-Girba in eastern Sudan, about 65 sherds produced 279 identifiable plant impressions, of which 249 impressions recorded on 63 sherds were of sorghum.[15] The remaining sherds produced undiagnostic fragments of grass straw (leaf or culm).

Hamad Mohamed Hamdeen et al. published plant impressions on a Christian-period wine-making basin at site MRB-05-001 in western Dongola's El-Mirebiet oasis of the El-Ga'ab depression.[16] They were identified from their cast impressions as wheat (*Triticum* sp.) and barley (*Hordeum* sp.).

Christian Pottery from Banganarti

Studies of pottery from Banganarti during the 2019 season concentrated on ceramic finds recovered in the ongoing excavations. Archaeological exploration was conducted simultaneously in a few areas, bringing differing amounts of finds, of various quality and chronology. Altogether more than 20,000 sherds and nearly 70 complete vessels were recorded. As usual, the largest group of ceramics found *in situ* was represented by hand-made cooking pots. Surprisingly, this season, some unique discoveries of entire rooms and numerous vessels, mostly storage containers, were revealed in their original place. The pottery chronology ranges from the seventh to fourteenth centuries, covering almost the entire medieval period.[17]

Materials and Method

Many plant impressions were observed on the surfaces of the Christian pottery from the Banganarti church. Sherds and vessels were collected from Sectors NECH, SSCH, NCH and WWCH within different contexts, dating to the Early, Classic and Late Christian periods (seventh–fourteenth centuries; **Table 1**). As many as 2,829 pottery pieces were examined; 1,032 with plant impressions and 1,777 without. In addition, leaves, nodes, internodes, branches, stems and seed impressions were noted from 20 potsherds **(Fig. 1)**, initially examined using low-power binocular microscopes at 10–40x magnification.

12 Magid 2014.
13 Spencer 2014: 476.
14 Jesse 2014: 552.
15 Winchell et al. 2017.
16 Hamdeen, Madani, Tahir 2018.
17 Aneta Cedro, personal communication.

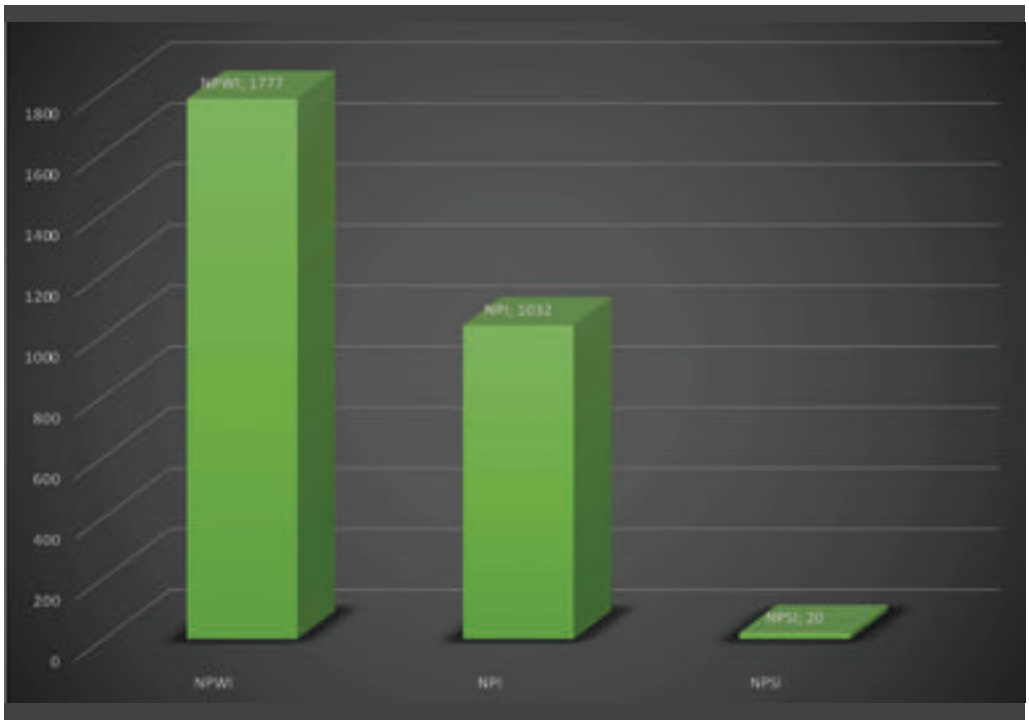

Fig. 1
Number of pottery samples examined: NPWI – number of potsherds without impressions; NPI – number of potsherds with impressions; NPSI – number of potsherd samples with seed impressions

To make casts, a small paintbrush was used to clean the potsherds. Next, casts of the impressions were made using air-drying latex,[18] a flexible mould compound, and left for 1 hour to dry. Next, the latex mould compound was mixed with Indian ink to direct observation of the casts and dilute the compound. Finally, the material was photographed and casts with clear impressions were selected for further examination using M6C-10 and SMART 5MP PRODELTA/optical microscopes. The procedure for identifying the plant casts was mainly based on comparing external morphological features (i.e. shape, size and surface pattern) with reference collections.

Results and Discussion

From our general physical observations, 1,032 potsherd surfaces show plant impressions. Plant materials might have been mixed with clay to form the fabric or accidentally incorporated while shaping the vessels. These include stem fragments. Casts range between 1.5 and 30 mm in length and between 1 and 3 mm in width, and whole-fruit casts are of different shapes and sizes.

Plants identified from their impressions are wheat (*Triticum* sp.), barley (*Hordeum* sp.) and bitter apple (*Citrullus colocynthis*). These were identified by their fruit casts. Identifications are based on comparison with the reference collection of fresh samples obtained from cultivated and wild plants from northern Sudan. Comparative measurements such as fruit lengths and embryo scar angle on both fresh samples and the positive casts reveal that all the plant materials had been embedded while fresh **(Fig. 2)**.

Table 1
The pottery samples examined.
Note: H.M. – hand-made vessels; C.W. – coarse ware, wheel-thrown vessels; T.W. – tableware; NPI – number of potsherds with impressions; NPSI – number of potsherds with seed impressions

18 Hamdeen, Madani, Tahir 2018.

Sample no.	Inv. no.	Sector	Area	Layer	Number of sherds					Dating of pottery
					HM	CW	TW	NPI	NPSI	
1	BA-19-2468	NECH	33	312	81	137	57	100	1	Classic Christian period (tenth–eleventh c.)
2	BA-19-2460	NECH	29	551, 556–557	15	10	16	12	1	Early Christian/Classic Christian period
3	BA-19-2461	NECH	33	284	138	149	34	91	4	Late Christian period
4	BA-19-2456	NECH	29	551	64	95	62	70	3	Early Christian/Classic Christian period (eight–tenth c.)
5	BA-19-2470	NECH	33	300	35	64	33	29	1	Classic Christian period (tenth–eleventh c.)
6	BA-19-2469	NECH	45	405	3	139	6	40	2	Possibly end of Classic Christian period (end of the eleventh c.)
7	BA-19-2459	NECH	33	554	35	39	7	30	0	Possibly Classic Christian period (tenth–eleventh c.)
8	BA-19-2457	NECH/1	–	430	28	8	17	13	0	Classic Christian period (possibly tenth–first half of the eleventh c.)
9	BA-19-2454	NECH	33	502A	27	37	3	11	0	Possibly Classic Christian or beginning of Late Christian period (tenth–twelfth c.)
10	BA-19-2467	SSCH	4	1.2–19.20	9	14	6	5	0	Possibly Classic Christian or beginning of Late Christian period (tenth–twelfth c.)
11	BA-19-2475	NECH	33 (90)	315	77	590	47	131	4	Classic Christian period (ninth–tenth c.)
12	BA-19-2477	NECH	45	1	27	51	13	55	1	Late Christian period
13	BA-19-2492	NECH	43	Mixed	16	19	16	35	0	Mixed – mostly Late Christian period
14	BA-19-2490	NECH	45	435	7	15	4	19	0	Late Christian period
15	BA-19-2493	NECH	45	1	9	26	4	26	0	Late Christian period
16	BA-19-2491	NECH	43	418	9	37	10	31	0	Beginning of the Late Christian period (eleventh/twelfth–twelfth c.)
17	BA-19-2494	WWCH	1	1, 1a	98	89	19	183	0	Mixed
18	BA-19-2557	NECH	45	434	58	48	6	61	3	Possibly from the end of the Classic Christian period to the beginning of the Late Christian period (eleventh/twelfth–twelfth c.)
19	BA-19-2495	NECH	45	404	15	29	6	30	0	Late Christian period
20	BA-19-2556	NECH	43	418	43	57	16	60	0	Beginning of the Late Christian period (eleventh/twelfth–twelfth c.)
Total number					**794**	**1,653**	**382**	**1,032**	**20**	

Fig. 2
Potsherds with seed impressions (top and middle) and positive casts (bottom) of (a) *Triticum* sp.; (b) *Hordeum vulgare*; (c) *Citrullus colocynthis* (L.)

Wheat (*Triticum* sp.) and Barley (*Hordeum vulgare*)

The first definite signs of wheat and barley cultivation appeared in the Near East 'Fertile Crescent' towards the end of the eighth millennium B.C. Later, grains of these cereals constituted the bulk of plant remains retrieved from Near Eastern Neolithic and Bronze Age contexts. Wheat and barley were also the main domesticated plants that made possible the explosive expansion of Neolithic agriculture from its 'core area' to the vast territories of West Asia, Europe, and North Africa – from the Atlantic coast to the Indian subcontinent and from Scandinavia to the Nile Valley in Nubia.[19]

The remains of these cereal grains, *Triticum* sp. and *Hordeum* sp., as grains, spikelets, phytoliths, etc., have been reported at many archaeological sites in Sudan. The analyses of phytoliths and starch grains from human dental calculus

19 Zohary, Hopf 1988: 13.

of Early and Middle Neolithic Sudanese cemeteries of Ghaba in the Shendi Reach and R12 in the Dongola Reach in Northern Sudan provide evidence for the exploitation of wild and domesticated grasses. The evidence of wheat and barley from R12 indicates these domesticated taxa were introduced into Africa in the earlier Neolithic. The pillow-like grave deposits provide information about the role of plants in the burial ceremony.

Fruits of wheat and barley were reported from the storage pit at Site 8-B-52-A on Sai Island, dating back to the pre-Kerma period.[20] Also, the remains of wheat and barley were reported as grains, spikelets, rachis nodes and chaff at the pharaonic town at Amara West dating to 1250–1070 B.C.[21]

Spikelet base fragments of emmer *Triticum* cf. *dicoccum* were recovered at the Napatan site HP736 in the Wadi Umm Rahau at the Fourth Nile Cataract.[22] A grain and spikelet of *Hordeum vulgare* and *Triticum dicoccum*, dating to the Napatan period (750–400 B.C.), were also recovered at the Egyptian and Napatan site of Kawa.[23] From the same period outside the Nile Valley at Gala Abu Ahmad, located about 110 km west of the river in Wadi Howar, *Triticum dicoccum* was reported.[24] Wheat and barley were amongst the plant macro-remains at Meroë.[25]

Wheat and barley were reported as seed remains at Christian sites. At Soba East on the Blue Nile, Marijke Van der Veen reported remains of *Hordeum* sp.[26] Dorian Fuller and David Edwards reported the presence of wheat and barley at Nauri, a medieval/post-medieval site in the Third Cataract region.[27] Ikram Madani, Yahia Tahir and Hamad Hamdeen noted the remains of *Triticum aestivum* and *Hordeum vulgare* in the Christian complex at el-Hamra in the El-Ga'ab depression, suggesting a significant role for both kinds of cereal in the economy of the Christian period and indicating their importance as a food source for humans in Sudan during the medieval period.[28]

Domestic cereals constitute the primary source of calories for mankind. Cereals thrive in open ground and complete their life cycle in less than a year. The nutritional value of their grains is generally high, and their seeds can be stored for long periods. The kernels of most cereals are packed with starch, and in some, such as in wheat and oats, they also contain an appreciable amount of protein. Food production in the Mediterranean basin, Europe, the non-tropical parts of Asia, and (to some extent) the highlands of Ethiopia, was based primarily on wheat and barley.[29] The evidence of wheat and barley from Banganarti and other Christian sites, such as Soba[30] and Nauri, promises to elucidate the basis of the agricultural economy in this region in the past.[31] These are common crop plants in this region today and provide vital proteins for people and animals.

20 Geus 2003.
21 Ryan, Cartwright, Spencer 2016.
22 Badura 2012.
23 Fuller 2004.
24 Jesse 2014.
25 Shinnie, Anderson 2004: 366.
26 Van der Veen 1991.
27 Fuller, Edwards 2001.
28 Madani, Tahir, Hamdeen 2015.
29 Zohary, Hopf 1988: 13.
30 Cartwright 1998; Van der Veen 1991.
31 Fuller, Edwards 2001.

The positive cast of wheat and barley from Banganarti indicates the agricultural importance of these two crops during the Early, Classic and Late Christian periods at Banganarti and the Old Dongola area. Therefore, evidence suggests the original agriculture in Nubia focused on winter cultivation, based on receding Nile floods. Consequently, the summer season of the low flood would not have been conducive to cultivation without irrigation, except over minimal land areas or very tolerant crops.[32] However, all this changed when the *saqiya* was introduced to Sudan in the Meroitic period.[33] As a result, more land was created, and more crops could be produced. This has important implications for population density, as more land requires more labour, and the two seasons of cultivation (winter and summer) tie labourers to the land for most of the year, thus possibly removing some of their potential to be part-time specialists during the non-agricultural seasons as potters.[34] This was confirmed by the high density of potsherds, kilns, and several houses noted and documented at Banganarti.

Clear evidence of *saqiya* agriculture in this area comes from Selib, a few kilometres from Banganarti, according to Bogan Żurawski et al.[35] A complex of *saqiya* was reported connected with a well (*matara*) near the church at Selib. The well depth is 12.00–12.50 m below the surviving top of the red-brick facing wall. The sand sediment contained fragments of red brick, broken *qawadis* (*saqiya* wheel pots; sing. *qadus*) and some fragments of window grilles of a pattern similar to those found near the church. The internal diameter of the well was 3.50 m. It was built of brick, averaging 34 × 19 × 8 cm in size, set in a regular pattern of stretchers and headers. At a depth of 2.70 m, the regular brick pattern was interrupted by a roll of stretchers set on edge, followed, looking down, by a zigzag decorative pattern made of stretchers laid on edge.

The evidence of *qadus* sherds at Banganarti also suggests the appearance of *saqiya* in this site, probably used for irrigation of the high agricultural lands up to 15 m.[36] This indicates that the area around the Banganarti church was irrigated by *saqiya* and used as agricultural and garden lands during the Christian period, as it is nowadays in the two seasons of agriculture in this region. It is probably the same area registered in the 2008 geophysical prospection at the site of Selib.[37] Moreover, evidence of soil suitable for planting trees or vines was obtained, suggesting *saqiya* watered a garden in the southeastern sector of the enclosure.

Bitter Apple (*Citrullus colocynthis* (L.))

The taxonomy of the genus *Citrullus* is complex, and no complete agreement exists, though four or five species are usually distinguished: *Citrullus colocynthis*, *C. ecirrhosus*, *C. naudinianus*, *C. rehmii*, and *C. lanatus*. *Citrullus colocynthis* is a desert vine that grows in sandy, arid soils. The species grows wild on sandy habitats in desert and semi-desert areas of North Africa, Europe, the Near East and Southwest

32 Fuller 2015.
33 Adams 1977; Trigger 1965.
34 Fuller 2015.
35 Żurawski et al. 2013; 2014.
36 Tothill 1952.
37 Żurawski et al. 2013.

Asia as far as India.[38] It is also cultivated on a small scale.[39] Ecologically, it is an annual or perennial plant in the wild in the arid zone and has an excellent survival rate under extremely xeric desert conditions. It can tolerate annual precipitation of 250–1500 mm and mean annual temperatures of 14.8–27.8 °C and grows from sea level up to 1500 m.a.s.l. on sandy loam, sub-desert soils, and sandy sea coasts, with a pH range of 5.0–7.8.[40]

Fruits of bitter apple are scarce on Sudanese archaeological sites. However, seeds of *Citrullus colocynthis* were reported from the pharaonic site at Amara West.[41] In addition, seeds of *Citrullus colocynthis* were found at Site 04\57 on Boni Island in the Fourth Cataract, dated to the Late Christian period,[42] and also in a narrow-neck jar from a cemetery dated to the post-Meroitic era in the same region.[43] Thus, based on the literature, the impression evidence of bitter apple from Banganarti represents the first time this species was recorded on an archaeological site from its cast.

In religion, however, the colocynth's characteristic bitter taste and poisonous properties seem to be consistent with the 'wild gourd' mentioned in the Old Testament: 'And one went out into the field to gather herbs, and found a wild vine, and gathered thereof wild gourds his lap full, and came and shredded them into the pot of pottage: for they knew them not. So they poured out for the men to eat. And it came to pass, as they were eating of the pottage, that they cried out, and said, O thou man of God, there is death in the pot. And they could not eat thereof' (2 Kings 4:39–40; King James Version). Also the Book of Mormon associates the 'gall of bitterness' with those who sin and are without God in the world (see Alma 41:11; Mosiah 27:29; Mormon 8:31; Alma 36:18; Moroni 8:14). Some mentions of Tar, the liquid made from bitter apple, are known in Islam. The Qur'an says: 'In the day (of judgment) they will be bound together in fetters and their garments are of Tar liquid with their faces covered with fire' (Ch. 13, *sura* 14, *aya* 50). Also, Abu Musa Al Ash'ari reports that Muhammad (Peace be upon him) said: 'The example of a believer who recites the Qur'an and acts on it, like a citron which tastes nice and smells nice. And the example of a believer who does not recite the Qur'an but acts on it, is like a date which tastes good but has no smell. And the example of a hypocrite who recites the Qur'an is like a Raihana (sweet basil), which smells good but tastes bitter. And the example of a hypocrite who does not recite the Qur'an is like a colocynth which tastes bitter and has a bad smell' (Book 61, *Hadith* 579; Bukhari & Sahih Muslim). These references to bitter apple in holy religious sources add to the characteristics of this plant. It may have prompted some clerics and those who practised spiritual and herbal remedies to consider using it as medicine for different diseases as part of a cure for those who came to them for incubation at holy places.

Much evidence is presented in the incubation practices of the Raphaelion church at Banganarti. The sacral therapy within the church must have been performed orderly and under the strict supervision of individuals designated

38 Zohary 1983; Jeffrey 2001.
39 Jeffrey 2001.
40 Lloyd 1898; Schafferman et al. 1998; Althawadi, Grace 1986; Sen, Bhandari 1974.
41 Ryan, Cartwright, Spencer 2016.
42 Nussbaum, Darius 2012.
43 Mohammed-Ali, El Hassan 2015.

for the task by the church hierarchy. Pilgrims came to pilgrimage centres for the treatment of diseases by physical contact or by staying within the range of its spiritual exudation, touching the saint's or martyr's graves, and taking some sand, dust, or powdered plaster,[44] but not all diseases were cured in this way, and probably for that reason medicinal plants were used as part of incubation practices that sometimes took a long time.

Concerning these pilgrims, there were officials whose duty was to maintain order amongst those undergoing incubation and those waiting in the queue outside the church, and staying in houses and rooms around the church. Probably, based on the inscriptions and graffiti at Banganarti, pilgrims seeking a cure in the upper church skipped this practice that elsewhere was deemed the most effective measure against diseases of the body and mind and maybe the soul.[45] Based on the evidence, the church of the Archangel Raphael certainly seemed to be a place of the patron saint of a healing resort. He was a healing doctor, a patron of medicine, and the angel of strength and good health in Christian scripts.

At this point, it could be suggested that, at that time, two types of disease, physical and non-physical, existed. For the latter kind, soul and mind were cured by divine power when the patient stayed in the holy places, and probably this was the way Banganarti was used – by touching the saint's or martyr's graves, taking some sand, dust, or powdered plaster to eat or mix with water for drinking. The other type of disease was of the body, and here maybe plants, specifically medicinal plants, were used in the Banganarti church. The first observation of the analysis of plant remains from the Banganarti church was that plant species such as *Acacia nilotica*, having medicinal properties, were used.[46]

The archaeological evidence for plants employed for medicinal purposes in Sudan is not clear. However, physical anthropological analysis of human bones shows many diseases during the Kerma and post-Meroitic periods, such as dental disease, osteoarthritic, trauma and anaemia,[47] and according to ethnobotanical and laboratory studies some of these diseases could be cured by certain plant species.

According to Abdullah Hussain et al., traditional medicinal uses for *Citrullus colocynthis* include 'diabetes, leprosy, common cold, cough, asthma, bronchitis, jaundice, joint pain, cancer, toothache, wound, mastitis, and in gastrointestinal disorders such as indigestion, constipation, dysentery, gastroenteritis, colic pain and different microbial infections'.[48] In addition, *Citrullus colocynthis* has properties indicating multiple biological active compounds, including antidiabetic, anticancer, cytotoxic, antioxidant, antilipidemic, insecticidal, antimicrobial and anti-inflammatory.

The archaeological evidence from the post-Meroitic graves in the Al-Haraz cemetery indicates that *Citrullus colocynthis* seeds were used to make Tar (*Qut'ran*), a thick, dark, oily liquid used by today's nomads as a preventative and curing treatment for a wide range of diseases, for both humans and animals. It was known in ancient times and might have been used by the ancient Egyptians

44 Żurawski 2014.
45 Żurawski 2014.
46 Hamad Mohamed Hamdeen, personal observation.
47 Judd 1999; 2004.
48 Hussain et al. 2014: 58.

and Kushites in mummification.[49] The archaeological evidence indicates the oily liquid extracted from the *Citrullus colocynthis* seed was used in Sudan at least from post-Meroitic times (350–500 A.D.). This evidence is confirmed by some laboratory studies showing that *Citrullus colocynthis* seeds contain edible oil, 56% of which contained linoleic acids and 25% of which contained oleic acids.[50] Bioactive chemical constituents include glycosides, flavonoids, alkaloids and terpenoids and 'curcurbitacins A, B, C, D, E, I, J, K, and L and Colocynthosides A, and B' have been isolated.[51] Several accessions have shown resistance to some viruses and diseases.[52] There is no evidence for making Tar and other medicines from plants at Banganarti, but the results of human bone analysis at Banganarti presented some palaeopathologies, such as oral diseases, osteophyte and osteoporotic changes, and others.[53] These diseases suggest that microbes, viruses, and other microorganisms were common in the environmental conditions during the Christian period and may have contributed to the deterioration of the population's public health. To protect and cure themselves of these diseases, people in medieval Banganarti used wild and cultivated plants. Based on the ethnographic study of the nomads in the Fourth Cataract area, human and animal diseases can be cured by the liquid from the *Citrullus colocynthis* seeds, called Tar or *Qut'ran*.[54] It is effective for dermatitis (skin diseases), dermatophyte infections (albinism), leucoderma, eczema, leishmaniasis, otitis media, poisonous stings and internally, coloenteritis, colic and gastritis – in all these cases the liquid is to be applied on the affected parts. It is applied on the nose for the common cold and, for dental and oral disease, as drops on the affected tooth. For animals (sheep, goats, donkeys, horses and camels), the common diseases cured include bursa, scabies and acarid, and the liquid is also applied to the affected parts.

In Sudan, until now, there is no evidence for the cultivation of *Citrullus colocynthis* for any purpose. It would have been gathered in the wild in Banganarti, as it has a wide distribution across desert oases and Nile bank environments in Sudan. The plant evidence for the Christian period in Sudan[55] suggests environmental conditions were little different from today in northern and central Sudan, and vines such as *Citrullus colocynthis* were grown on sandy soil in the desert and the area of the Nile river. In the later period of the Holocene, aeolian dunes appeared in this region, and archaeological surveys show that buildings and lands were covered by sands during at least four millennia in northern Sudan at Amara, Kawa, Faras, Meinarti,[56] and Old Dongola.[57] In this environment only some species could survive, such as bitter apple and barley, as they possessed a higher ecological adaptation to salinity and drier conditions than wheat, which may be the reason for their consumption by humans during dry periods.

49 Mohammed-Ali, El Hassan 2015.
50 Sawaya, Daghir, Khan 1983; Zohary 1983.
51 Hussain et al. 2014.
52 Dabauza et al. 1997.
53 Piasecki 2014; Bury 2016.
54 Mohammed-Ali, El Hassan 2015.
55 Fuller, Edwards 2001; Cartwright 1998; Van der Veen 1991.
56 Adams 1965; Spencer, Macklin, Woodward 2012; Welsby 2000; 2002.
57 Godlewski 1990.

Conclusions

In this study, *Citrullus colocynthis*, *Triticum* sp. and *Hordeum vulgare* have been identified from their casts at the Christian site of Banganarti. *Citrullus colocynthis* is identified for the first time in Sudan in this way. The presence of wheat and barley at the site indicates their importance as food sources for humans in the past. Barley possesses a higher ecological adaptation to salinity and drier conditions than wheat, which may be why it was consumed during dry periods. Finally, *Citrullus colocynthis* is well known for its multiple medicinal uses due to its anti-diabetic, antioxidant, antimicrobial and anti-inflammatory effects.

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Exploring Textile Production at Medieval Banganarti: A Preliminary Report about Spindle-Whorls

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Abstract:

Although archaeological textiles are not preserved at Banganarti, numerous spindle-whorls retrieved here attest to vivid textile production during the medieval period. The present paper presents the huge informative potential of spindle-whorls, an often underestimated and unconsidered artefact type. The Banganarti assemblage counts 83 spindle-whorls, divided into four types – discoid, conical, square and spherical. Discoid and square whorls are recycled potsherds, while conical and spherical types are modelled in clay. The lack of data about their weight significantly limits analysis at present, but the variety of shapes is of great interest as few (conical) or no (spherical) parallels are known for the clay types from other medieval sites. Moreover, preliminary observation of their on-site distribution reveals the domestic scale of textile production.

Keywords: medieval Nubia, spindle-whorls, domestic textile production, pottery recycling, clay modelling.

Introduction

Thanks to exceptional environmental conditions, Sudan's numerous archaeological sites have delivered dozens, hundreds, and sometimes thousands of textile fragments and abundant textile implements attesting to the dense distribution of activities related to textile production in the Middle Nile Valley.[1]

In the pre-industrial era, the acquisition of a garment had to be planned, requiring time and work. Only the wealthiest in medieval Nubian society could afford finished products available on the market. For commoners, the first step is to obtain the raw material: vegetal fibres (flax or cotton – both imply sewing, harvesting and processing) or animal wool/hair (sheep, goat and dromedary – implying pasturage space). Then the fibres must be spun to transform them into thread. When enough thread is produced, it must be carefully mounted on the loom to start the weaving process. Four to six spinners are usually considered to produce sufficient yarn to supply one weaver. While few medieval loom implements are documented in Sudan, spindle-whorls are the most common and numerous textile tools encountered at settlement sites.

The first excavation seasons at Banganarti focused on its sacral architecture, with the discovery and conservation of vibrant paintings in the upper church dedicated to the Archangel Raphael. Research over the years also extended to areas surrounding the church buildings, revealing a densely distributed settlement within the fortification walls and temporary shelters and open kitchens outside. Unfortunately, due to frequent flooding episodes, organic material is not preserved at Banganarti. Thus, textiles have not yet been retrieved to date, but their presence is attested, e.g., by various impressions on pottery – generally thick and coarse fabrics used for utilitarian purposes.[2] Another group of artefacts attesting to textile production at Banganarti is the growing corpus of spindle-whorls, now numbering 83 items. Most of them come from houses built within the ramparts and date from the seventh to the sixteenth century, a collection unprecedented for this period in this region of Sudan.[3]

Typology of Spindle-Whorls

Spinning consists of drawing out and twisting fibres. The thread can be spun by hand but, to speed up the process and obtain a more even and regular thread, the spinner uses a spindle, stick and whorl, the last a usually circular object perforated through the middle.[4] In Sudan, the whorl traditionally is fixed at the top of the spindle. First, a thread length is twisted from the raw fibre with the fingers and wound around the spindle under the whorl. Then, the spinner twirls the spindle and proceeds to draw it out **(Fig. 1)**. At regular intervals, the spinner

1 For the medieval period, the main reference is Qasr Ibrim, for which see Adams 1996; 2010; Crowfoot 2011; Alexander, Adams 2018.

2 Phillips 2010 convincingly demonstrates the importance of proper recording and study of impressed pottery for both ceramic and textile studies. I do thank Jacke Philips for bringing this important reference to my attention.

3 The author would like to thank Bogdan Żurawski for the opportunity to study this material.

4 See Crowfoot 1931 for a complete description of the various hand-spinning methods.

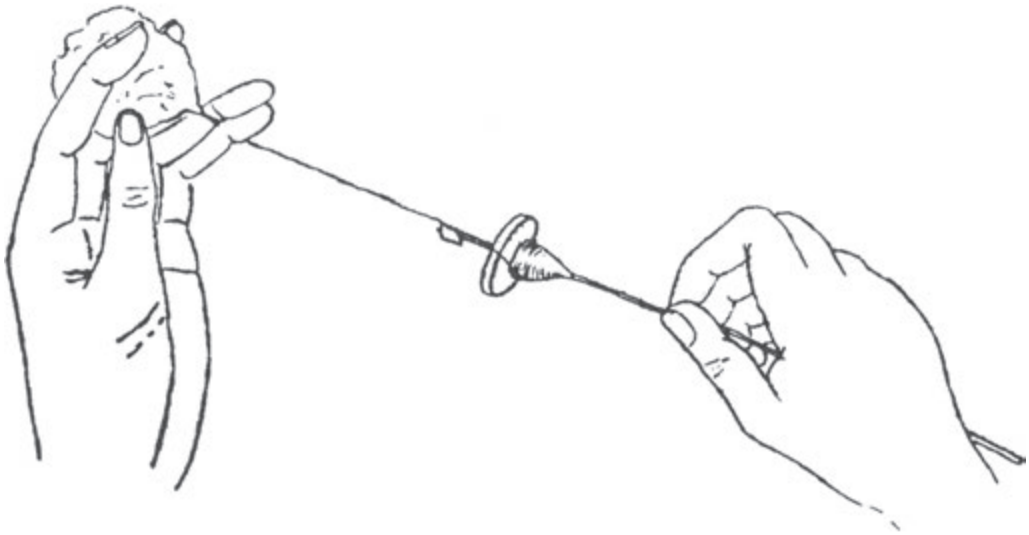


Fig. 1
Drawing thread with a spindle equipped with a whorl, placed on top. After Crowfoot 1931: fig. 11

catches the thread and drops the spindle to twist a length of thread. Finally, when enough thread is produced, the spinner catches the spindle and winds the spun thread below the whorl. A spindle-whorl's weight is ascertained according to the fibre length and desired thickness of the yarn.[5] The author has analysed pictures and/or drawings of 66 inventoried spindle-whorls **(Table 1)** at Banganarti.[6] So far, four types have been identified: discoid, conical, square, and spherical.

The **discoid type** is the most common spindle-whorl type at Banganarti, and in medieval Nubia in general. It represents 77% of the material analysed so far, but it can be assumed the other 17 pieces are also this type, as it is precisely this shape that usually leads to the identification of spindle-whorls by archaeologists.

Discoid spindle-whorls typically are produced using broken potsherds abraded to a circular form. This ceramic roundel is then perforated in the centre. Perforation is achieved by progressively drilling with a sharp tool, rather than beating it perpendicularly on the sherd surface to break the pottery fragment. Closer observation shows perforation often starts on the original potsherd's interior surface, where the clay is softer, and progresses towards the more demanding exterior surface. In this process, the perforation diameter is usually more prominent at the softer interior and narrower at the exterior.[7] The Banganarti collection attests to a selection of various potsherd types **(Fig. 2)**: coarse cooking pots, amphorae and delicate tableware and especially plate and bowl bottoms, sometimes ornamented with stamped patterns. In some cases, ordinary ceramic spindle-whorls bear traces of scratched lines added after shaping the whorl.

5 Cf. Andersson 2003; Andersson Strand 2015; Märtensson et al. 2006; Grömer 2005 for textile tools and spindle-whorls in particular.

6 The author planned to visit Banganarti but the field season did not take place due to pandemic restrictions. Hopefully, the spindle-whorls will be examined and weighed on site during the next season.

7 These observations are based on experimental perforation of medieval sherds conducted by the author and Katarzyna De Lellis-Danys at Old Dongola in February 2020. It is more demanding and time-consuming to perforate thinner but harder sherds than thicker but softer ones. Experimentation will continue next season to determine the kind of tool that could have been used for perforation in the medieval period.
Jacke Philips (personal communication) also observes the exterior sherd surface is directly resting on the working surface below when perforating, i.e. applying direct, highly localised pressure onto the sherd (when drilling) from the interior surface, so the sherd is highly unlikely to break. Whereas perforating the exterior surface would make the sherd more prone to breakage as there is a minimal but very significant empty space between the sherd curvature and the working surface that causes stress at the sherd edges.

Table 1
Inventory of the textile tools from Banganarti, as established from available documentation (pictures, drawings, inventories).
T.b.c. = To be completed
Diameter, perforation, and thickness are given in centimetres; weight is given in grams.

	Season	Inv. No.	Shape	Material	Diameter	Perforation	Thickness	Weight	Provenance	Documentation
1	2002	02/12	Disc	Reused pottery sherd, decorated	5.8	0.8	0.5	T.b.c.	T.b.c.	Drawing
2		02/13	Disc	Reused pottery sherd	5.5	0.7	0.5/0.8	T.b.c.	T.b.c.	Drawing
3	2003	2003/30 (a)	Disc	Reused pottery sherd	5.2	0.8	T.b.c.	T.b.c.	T.b.c.	Picture
4		2003/30 (b)	Disc	Reused pottery sherd	3.3	0.7	T.b.c.	T.b.c.	T.b.c.	Picture
5		2003/30 (c)	Disc	Reused pottery sherd	5.2	Not perforated	T.b.c.	T.b.c.	T.b.c.	Picture
6	2004	BNG 04/61	Disc	Reused pottery sherd	4.5	0.7/0.8	0.7	T.b.c.	Bng 1, West 2	Drawing
7		BNG 04/113	Disc	Reused pottery sherd	6.5/7	0.8	1.2	T.b.c.	Bng 1, West 4	Drawing
8	2005	BNG 05/171	Disc	Reused pottery sherd	3	0.5/0.7	0.8	T.b.c.	T.b.c.	Drawing
9		BNG 05/245	Discoid	Reused pottery sherd	5.5 x 4.5	0.7/0.9 (not centred)	1	T.b.c.	T.b.c.	Drawing
10	2006	# 18/2006	Disc	Reused pottery sherd	3.5 x4	0.8 (not centred)	0.8	T.b.c.	T.b.c.	Drawing
11		# 120/2006	Square	Reused pottery sherd	4 x4.5	0.6	1	T.b.c.	BNG. WB. Room?	Drawing + picture
12	2008	BNG 09/2008	Disc	Reused pottery sherd, decorated	4.5	0.6/0.9 (not centred)	0.4	T.b.c.	Upper church	Drawing CB 142 + picture
13		# 1/XI/2008	Loom weight, broken	Clay?	9.5	Oval, 1 x 1.3	5.5	T.b.c.	BNG1	Drawing
14		# 2/XI/2008	Disc	Reused pottery sherd	4	0.7/0.9	0.9/1.1	T.b.c.	BNG1	Drawing
15		# 4/XI/2008	Disc	Reused pottery sherd	3/3.5	0.4/0.8	0.8	T.b.c.	BNG1	Drawing
16		# 8/XI/2008	Vaguely rectangular, half-processed	Reused pottery sherd	8 x 6.5	0.7/1	0.8	T.b.c.	BNG1	Drawing
17		# 9/XI/2008	Disc	Reused pottery sherd	5.3	0.5 (not perforated)	1/1.4	T.b.c.	BNG1	Drawing
18		BNG/2008/7	Disc	Reused pottery sherd	3.3	0.4–0.5	0.8	T.b.c.	Bng 1, Sect. E, test trench 1	Picture
19		BNG/2008/8	Disc	Reused pottery sherd	5	0.5	0.7/0.8	T.b.c.	Bng 1, Sect. S/08, space 6	Picture
20		BNG/2008/14	Disc	Reused pottery sherd, 3 vertical lines scratched on the rim – notches?	6.5	1	0.7/0.8	T.b.c.	Upper church, NS1, on top of the wall	Picture

(continued)

21	2010–2011	BNG 08/2010	Disc?	Reused pottery sherd?	1.3	0.4	T.b.c.	T.b.c.	Trench 2, sect. III	Picture Inw. Zab. 15/2010
22		BNG/V/02/2011	Disc	Reused pottery sherd	2.5	0.4/0.8	1	T.b.c.	House SW, S of wall/surface	Inv. 2011 + Drawing 306/2011, W/BNG/41/2011
23		BNG/V/03/2011	Disc	Reused pottery sherd	4.6	0.7	1.4	T.b.c.	House SW, room 4	Inv. 2011 + Drawing 96, W/BNG/39/2011
24		BNG/V/03/2011	Disc	Reused pottery sherd	4.5	0.3/0.7	0.8	T.b.c.	House SW, room 4	Inv. 2011 + Drawing 97, W/BNG/40/2011
25		BNG/V/04/2011	Disc	Reused pottery sherd, decorated	4.6	0.7	1	T.b.c.	House SW, room 8	Inv. 2010 + Drawing 306/2011 W/BNG/41/2011
26		BNG/V/06/2011 (a)	Conic	Clay	2.3	0.3	2.7	T.b.c.	House SW, room 1	Inv. 2011 ('loomweights') + Drawing 307/2011, W/BNG/60/2011
27		BNG/V/06/2011 (b)	Conic	Clay	2.1	0.3	2.2	T.b.c.	House SW, room 1	Inv. 2011 ('loomweights') + Drawing 128/2011
28		BNG/V/06/2011 (c)	Conic	Clay	2.5	0.3	2.5	T.b.c.	House SW, room 1	Inv. 2011 ('loomweights') + Drawing 129/2011
29	2011–2012	77/2011-2012	Disc	Reused pottery sherd, bottom of amphora	8/10	0.5/1	1.2	T.b.c.	Building NE, room 9	Inv. 2011 + Drawing nb 210/11-12, W/BNG/152/11-12
30	2013	BNG 16/2013	Square	Reused pottery sherd	4 x 4.5	0.7	T.b.c.	T.b.c.	Trench 4, from fill of kiln Nb. 1	Picture
31	2014	BNG/V/02/2014	Disc	Reused pottery sherd	6	0.7/1.4	T.b.c.	T.b.c.	Sect. NW	Picture
32	2015	BA/15/12	Spherical SW or bead	Clay	2.5	0.45	2.8 (height)	T.b.c.	Building I/2015, area 7, layer 1	Picture
33		BA/15/170	Disc	Reused pottery sherd, bottom	6.5	0.6	1	T.b.c.	Area 5, layer 54	Inv. 2015-2020, Drawing 09/15
34		BA/15/214	Disc	Reused pottery sherd	4	0.9	1	T.b.c.	Area 3, layer 34	Inv. 2015-2020 + Drawing 06/15, WB/67/15
35		BA/15/266	Square	Reused pottery sherd	3.5 x 3.5	0.6	0.7	T.b.c.	Area 15, layers 27, 47	Inv. 2015-2020 + Drawing 05/15, WB/71/15
36		BA/15/316	Disc	Reused pottery sherd	4.5	0.5	0.8	T.b.c.	NECH Area 5, layer 46	Inv. 2015-2020 + drawing
37		BA/15/353	Disc	Reused pottery sherd	4.8	0.8	1.2	T.b.c.	NECH Area 8, layer 1	Inv. 2015-2020 + Drawing 07/15, WB/69/15

(continued)

38		BA/15/366	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH Area 8, layer 42	Inv. 2015-2020
39		BA/15/380	Disc	Reused pottery sherd	5	0.6	1	T.b.c.	NECH Area 8, layer 42	Inv. 2015-2020 + Drawing 08/15, WB/68/15
40		BA/15/390	Disc	Reused pottery sherd	3	0.4	0.6/0.8	T.b.c.	NECH SW from Area 20, layer 1	Inv. 2015-2020 + Drawing 04/15, WB/70/15
41		BA/15/406	Disc	Reused pottery sherd	2.5	0.3/0.7	0.5	T.b.c.	NECH Area 21, layer 76	Inv. 2015-2020 + Drawing 02/15, WB/74/15
42		BA/15/417	Disc	Reused pottery sherd, bottom	3.5/3.8	0.5	0.8	T.b.c.	NECH Area 9, 9a	Inv. 2015-2020 + picture
43		BA/15/451	Disc	Reused pottery sherd	4.5	0.7 (no. centred)	1	T.b.c.	NECH Area 8, 16	Inv. 2015-2020 + Drawing 03/15, WB/75/15
44	2016	BA/16/564	Disc	Reused pottery sherd	5	0.7	T.b.c.	T.b.c.	NECH Area 5, layers 115, 115a, 115b	Inv. 2015-2020 + picture
45		BA/16/633	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH Area 2, layer 145	Inv. 2015-2020
46		BA/16/683	Disc	Reused pottery sherd, bottom	5	0.7 (broken)	T.b.c.	T.b.c.	NECH Area 5, layer 157	Inv. 2015-2020 + picture
47		BA/16/683	Disc	Reused pottery sherd	3.5/4.2	0.4/0.8	T.b.c.	T.b.c.	NECH Area 5, layer 157	Inv. 2015-2020 + picture
48		BA/16/729	Disc	Reused pottery sherd	3.3	0.6	T.b.c.	T.b.c.	NECH Area 5, layer 170, 171	Inv. 2015-2020 + picture
49	2017	BA/17/1043	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 7, layer 237	Inv. 2015-2020
50		BA/17/1064	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	SCH, Area 4a, E. part, layer 35	Inv. 2015-2020
51		BA/17/1133	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 4, layer 239	Inv. 2015-2020
52		BNG/17/66	Disc	Reused pottery sherd	3.5	0.6	1	T.b.c.	SCH1, Area E/17/3, layer 2	Drawing
53		BNG/17/80	Spherical SW or bead	Clay	2	0.5	2.5	T.b.c.	SCH4, Area E/17/3, layer 2	Picture
54		BNG/17/106	Disc	Reused pottery sherd	4.7	0.9 (not centred)	T.b.c.	T.b.c.	SECH 3/6, Area E/17/4	Picture
55		BNG/17/108	Disc	Reused pottery sherd, decorated bottom	4.8	0.9 (not centred)	T.b.c.	T.b.c.	SECH/3,6, Area E/17/4-1, layer 1	Picture

(continued)

56		BNG/17/136 (a)	Disc	Reused pottery sherd	4.6	0.7	0.8	T.b.c.	SCH4, Area E/17/3, layer 2	Drawing
57		BNG/17/136 (b)	Disc	Reused pottery sherd	6	0.8/1	1.1	T.b.c.	SCH4, Area E/17/3, layer 2	Drawing
58		BNG/17/163	Disc	Reused pottery sherd	4.5	0.5	0.8	T.b.c.	SCH 4/7, Area E/17/3, layer 1	Drawing
59	2018	BA/18/1400	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 15, layer 274	Inv. 2015-2020
60		BA/18/1646	Disc	Reused pottery sherd, decorated	4.2	0.3/0.5	0.4	T.b.c.	NECH, Area 23, layer 292	Inv. 2015-2020 in 'other' category + picture
61		BA/18/1764	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 29, layer 294, level 2	Inv. 2015-2020
62		BA/18/1790 (a)	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	SECH, Area 1, layer 34	Inv. 2015-2020
63		BA/18/1790 (b)	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	SECH, Area 1, layer 34	Inv. 2015-2020
64		BA/18/1839	Disc	Reused pottery sherd	10	1	1	T.b.c.	NECH, Area 30, layer 1	Inv. 2015-2020 + picture
65		BA/18/1845	Disc	Reused pottery sherd	3.5	0.7	0.8	T.b.c.	NECH, Area 27, layer 271, level 5	Inv. 2015-2020 + picture
66		BA/18/1911	Conic	Clay	3 (base)	0.35 (not centred)	2.5 (height)	T.b.c.	SSECH, Area n.d., layer 1 (cleaning of the fortification wall)	Inv. 2015-2020 in 'beads' category + picture
67		BA/18/2533	Spherical SW or bead	Clay	2	0.4	2	T.b.c.	NECH, Area 33, layer 315-300	Inv. 2015-2020 + picture
68		BNG/18/106	Conic	Clay	2.8 (base)	0.3	2.8 (height)	T.b.c.	SCH, Area 10	Picture
69		BNG/18/336	Disc	Reused pottery sherd	6.3	0.8	0.9	T.b.c.	SCH, Area 146	Picture
70		BNG/18/467/47	Vaguely rectangular, half-processed	Reused pottery sherd, decorated and perforated	6 x 4	0.9	1.2	T.b.c.	NCH/E, Area 1, 2nd arbitrary level	Picture
71	2019	BA/19/2002	Disc	Reused pottery sherd	3	0.5	1.2	T.b.c.	NECH, Area 29, layer 294	Inv. 2015-2020 + picture
72		BA/19/2174	Disc	Reused pottery sherd	5.5	0.7/1	1.2	T.b.c.	NECH, Area 18a, layer 398	Inv. 2015-2020 + picture

(continued)

73		BA/19/2175	Disc	Reused pottery sherd	5	0.8/1	0.9	T.b.c.	NECH, Area 18c, layer 388	Inv. 2015-2020 + picture
74		BA/19/2209	Disc	Reused pottery sherd	3.7	0.8	1.2	T.b.c.	NECH, Area 37, layer 1	Inv. 2015-2020 + picture
75		BA/19/2218	Disc	Reused pottery sherd	4.7	0.7	0.8	T.b.c.	NECH, Area 33, layer 300	Inv. 2015-2020 + picture
76		BA/19/2579	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 20, 229	Inv. 2015-2020
77		BA/19/2580	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 36, layer 1	Inv. 2015-2020
78		BA/19/2581	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 45, layer 450	Inv. 2015-2020
79	2020	BA/20/2759	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 38	Inv. 2015-2020
80		BA/20/2085	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 45, layer 453	Inv. 2015-2020
81		BA/20/2859	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	T.b.c.	NECH, Area 45, layer 621	Inv. 2015-2020
82		BA/20/3068	Disc	Reused pottery sherd, decorated	7.7	0.8	0.5/1.5	T.b.c.	SECH, Area 13a	Inv. 2015-2020 + picture
83		BA/20/3069	Disc	Reused pottery sherd	6.5	0.8/1	0.5/0.8	T.b.c.	SECH, Area 13	Inv. 2015-2020 + picture
84		BA/20/3070	Disc	Reused pottery sherd, bottom	7.5	0.7	1.8	T.b.c.	SECH, Area 13a	Inv. 2015-2020 + picture

At this preliminary stage, the spindle-whorls have only been measured using photographs and/or drawings, and are not yet weighed. Consequently, our conclusions as yet are somewhat limited. The diameters of 55% of the specimens measure 4–6 cm, while 30% are less than 4 cm and the last 15% over 6 cm. In the absence of information about their weight, we may only say whorls 77/2011-2012 and BA/18/1839, the largest examples, are relatively thick sherds of 1–1.2 cm and 10 cm in diameter, both indicating a heavier weight **(Fig. 3)**. Their substantial weight would break the thread when processing short fibres, so these whorls instead would have been used to ply – twisting together two or more threads to make a thicker one. Alternatively, these heavier whorls were used to spin long fibres, such as flax. Whorls BA/20/3068 and BA/20/3070 could also belong to this category. However, without reliable weight data, these assumptions must remain hypothetical.

The next spindle-whorl group, the **conical type**, stands out in the assemblage both in shape and the raw material used to create it.[8] Five examples have been

8 The conical clay spindle-whorls are attested at Meroitic and post-Meroitic sites; cf. Yvanez 2015, vol. I, 152–153; vol. II, pl. 6.

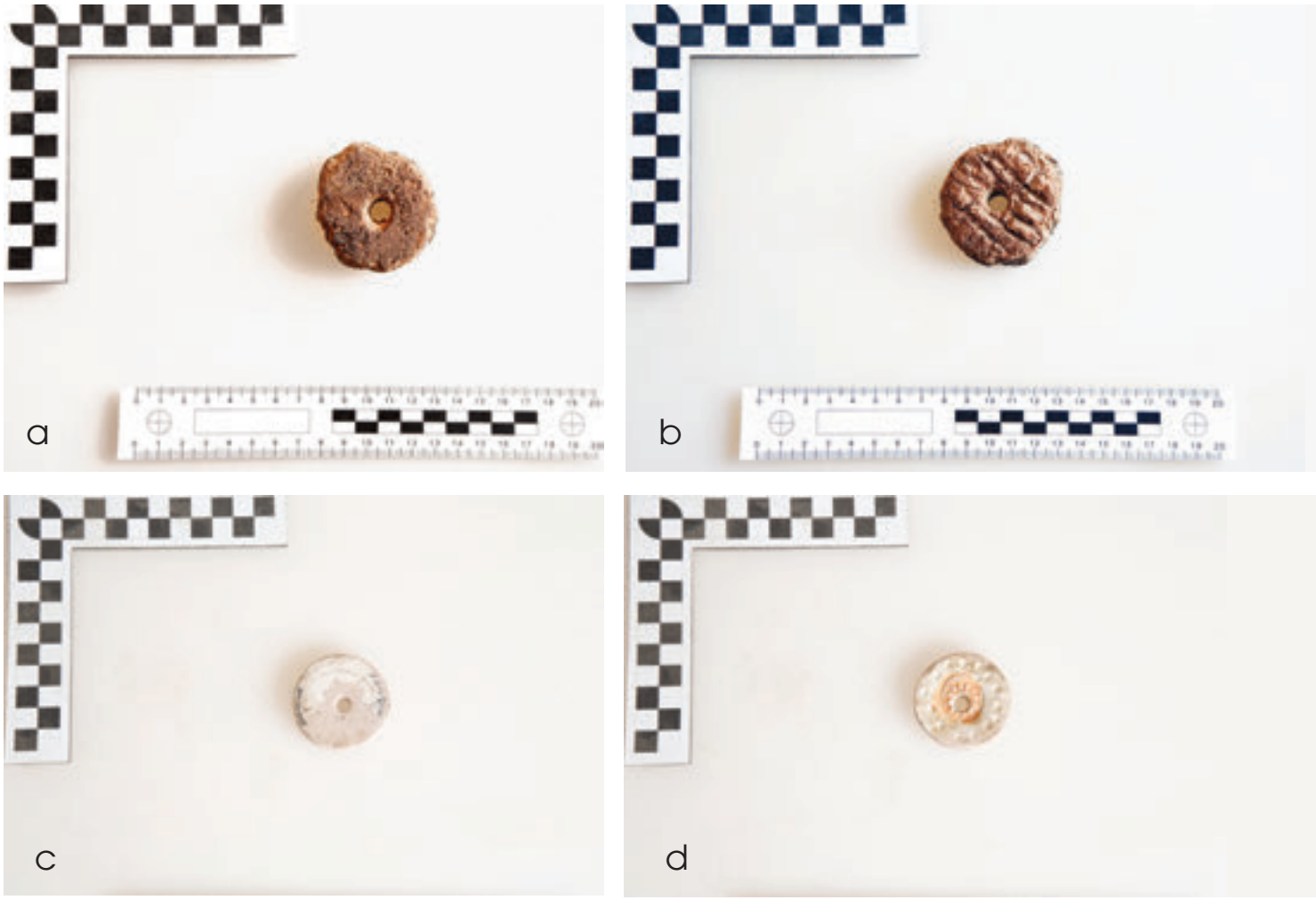
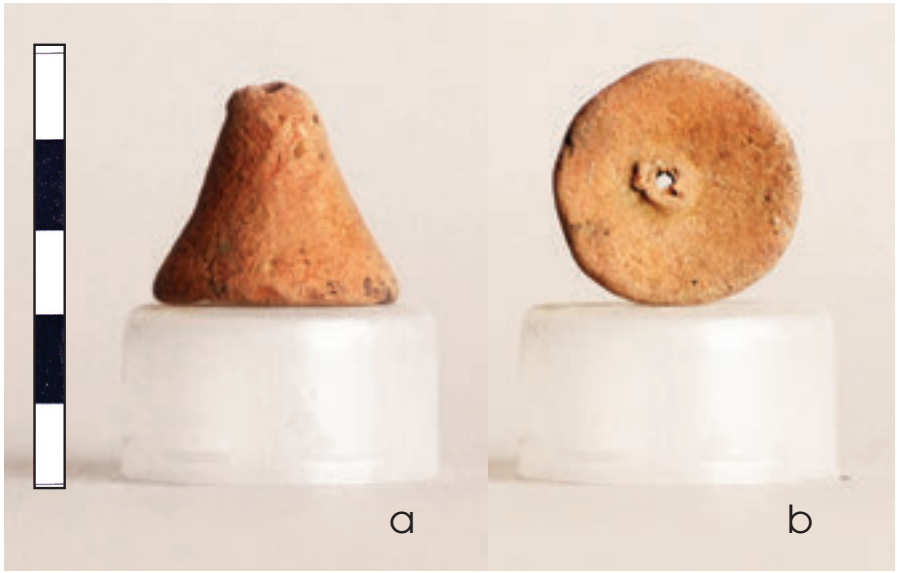


Fig. 2
Discoid (BA/16/564.a–b) and decorated (BNG/09/2008.c–d) spindle-whorls. Photo courtesy of Banganarti Archaeological Mission

Fig. 3
Heavier disc-shaped spindle-whorl (BA/18/1839), made from an amphora sherd. Photo courtesy of Banganarti Archaeological Mission



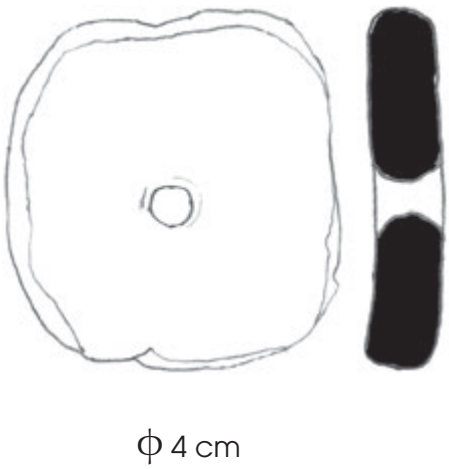


Fig. 4 (a, b) Conical clay spindle-whorl (BNG/18/106), view from profile (a) and bottom (b). Photo courtesy of Banganarti Archaeological Mission

Fig. 5 Drawing of square spindle-whorl (120/2006). Drawing courtesy of Banganarti Archaeological Mission

retrieved at Banganarti so far. It is a delicate, elongated, bell-shaped form, modelled entirely in clay. The perforation, therefore, is designed at the beginning of the modelling process. A group of three whorls (BNG/06/2011) found in House SW displays homogenous traits, the bases measuring 2.1–2.5 cm with a 0.3 cm perforation and heights of 2.2–2.7 cm. The other two conical whorls (BA/18/1911 and BNG/18/106 – **Fig. 4**) were found more recently in Sectors SSECH and SCH. They present very similar features, with slightly larger bases of 2.8 cm and 3 cm, 0.3 cm and 0.35 cm perforations and heights of 2.5 cm and 2.8 cm, respectively. Thus, the Banganarti group constitutes interesting comparanda[9] for the only other two conical spindle-whorls so far known, found in the Southern Church at Faras at the beginning of the twentieth century. Based on the pottery published by G. S. Mileham,[10] the Faras spindle-whorls could be from the tenth–eleventh centuries. The contexts of Sectors SSECH and SECH with whorls are from undated sandy surface layers. House SW functioned in the eighth–twelfth centuries, but closer investigation of the specific context of the three spindle-whorls undoubtedly will provide a more precise dating for their use.

Compared with the Faras spindle-whorls, we can assume they are very lightweight, under 10 g. Such a weight is well adapted to spin short fibres, such as cotton and wool, as sheep in Sudan are short-haired.[11] Furthermore, the average diameter of yarn spun on such a whorl would be very fine to fine, between 0.3 mm and 0.7 mm.[12]

Square spindle-whorls in the assemblage are limited. In this small group, whorls 120/2006 **(Fig. 5)** and BA/15/266 have a clearly defined square shape, while

9 Conical clay spindle-whorls were also found at Selib 1 (Aneta Cedro, personal communication).

10 Mileham 1910: pl. 19. These spindle-whorls are now in the Sudan National Museum collection, SNM 425 [c, d]. Technical data can be found on the Nubian Textiles Database website:http://nubia.iksiopan.pl/en/entry/spindle-whorl-snm-425-d-79bb13b033b6 and http://nubia.iksiopan.pl/en/entry/spindle-whorl-snm-425-c-90c0cb663395 (accessed 2 December 2021).A conical clay spindle-whorl is also mentioned at late medieval Qasr Ibrim; cf. Adams 1996: fig. 23.

11 We have no zooarchaeological evidence of sheep breeding for wool production in Nubia as yet (Marta Osypińska, personal communication). See also Crowfoot 1931: 13 on the tradition of spinning short-hair wool in Sudan.

12 Grömer 2005.

Fig. 6
Perforated sherd (BNG/18/467/47). Photo courtesy of Banganarti Archaeological Mission

Fig. 7
Spherical spindle-whorl (BA/18/2533). Photo courtesy of Banganarti Archaeological Mission

whorl BNG/16/2013 may represent the intermediary stage of a square-shaped fragment having corners scratched to obtain a more circular shape. As for the other two spindle-whorls (BNG/18/467/47 and 8/XI/2008) classified as rectangular, their shape results from breakage, not scratching the sherds. The present state of analysis cannot allow any estimation of the degree of intention in the breakage process, but the perforation process on whorl 8/XI/2008 certainly is deliberate. Closer examination of whorl BNG/18/467/47 shows that it displays at least three perforations, all produced before firing.[13] Therefore, it remains possible this sherd was selected precisely because one of its perforations is completely preserved, which would have sped its transformation into a functional spindle-whorl **(Fig. 6)**. Both sherds should then be considered unfinished spindle-whorls.

The last three whorls, BA/15/12, BNG/17/80 and BA/18/2533, are identified as spherical spindle-whorls **(Fig. 7)**. All are of clay and present a 2–2.8 cm diameter and a central perforation of approximately 0.4–0.5 cm. While spherical spindle-whorls are known at Meroitic and post-Meroitic settlements,[14] to the author's knowledge, the type is documented for the first time on a medieval site in Sudan. Therefore, their possible function as beads cannot be excluded, but the perforation diameter is compatible with mounting a spindle and spinning activity. However, the lack of weight data invites caution at this initial stage of the study.

Distribution

Spinning, as opposed to weaving, needs no fixed installation. In the most basic definition, it requires only fibre and the spinner's hands. As we saw, spinners use a spindle and a whorl to speed twisting the fibre. A whorl is

13 I would like to thank Aneta Cedro, ceramologist, for her observations and fruitful discussion about this object.

14 Yvanez 2015: vol. I, 138–141; vol. II, pl. 6.

not complicated to produce, as broken sherds were indeed readily available.[15] Once equipped, the spinner may sit anywhere, in her/his[16] house, preferably the courtyard, to benefit from daylight, but also in the street or marketplace if part of the thread is produced to be sold. This easy transportation of spinning equipment certainly explains the presence of spindle-whorls throughout the site. Each sector investigated since 2001 attests to spinning being practised at Banganarti for centuries. Although some spindle-whorls were found devoid of context in surface layers, a significant number was retrieved inside various buildings on site. The general impression is that many Banganarti inhabitants were engaged in fabricating thread, most probably in a domestic context.

As we have seen, the most common spindle-whorl type at Banganarti is discoid. However, we cannot predict if the fibre type processed is the same everywhere in the absence of weight data. As mentioned, some discoid whorls exhibit important size features that may indicate their use for plying yarn or spinning long fibres, such as flax. Interestingly, these bigger whorls are found with more numerous smaller whorls, as in Sector NECH. In such contexts, using a heavier spindle-whorl to ply together thinner threads produced on the more common spindle-whorls makes more sense. Furthermore, systematic recording of these heavier tools may help map specific places dedicated to making strings and cords or identify locations where different fibres were processed.

Still, in Sector NECH, where 35 spindle-whorls have been found so far, it is interesting to note that some spaces (Areas 5, 8, 29 and 33) produced more than one spindle-whorl.[17] At least two spindle-whorls are documented in the same layer in Areas 8, 29 and 33. Area 5, layer 157, produced more than one whorl, but one also is recorded in five other layers (46, 54, 115, 170 and 171). A correct reading of the stratigraphy is central to interpreting why multiple spindle-whorls functioned in the same architectural units and chronological phases. In the specific case of Area 5, it appears to have functioned as an open occupational space (e.g. courtyard) in Phases II (layers 170, 171), III (layer 157) and V (layers 115a, 115b), but was transformed into a storage room in Phase VI (layers 54 and 46). The recurrent presence of spindle-whorls in the open courtyard illustrates long-term continuity of practice over centuries and the generations occupying House A.

Another interesting assemblage deserving further investigation is House SW, where three discoid spindle-whorls were found in Rooms 4 and 8, and three conical spindle-whorls in Room 1.[18] The presence of two different spindle-whorl types in the same building is intriguing, but it should first be established if all are from the same occupation phase. Our preliminary estimate of the lightweight conical spindle-whorls indicates the fibre processed was short, and the thread produced would be relatively thin. We must wait for complete data to assess if discoid spindle-whorls are heavier than conical ones or belong to the

15 For cotton spinning, we must also consider the use of lightweight whorls in organic materials such as gourd; cf. Crowfoot 1931: 40. Some specimens from the Grace Crowfoot collection are now kept in the Textile Research Centre, Leiden: https://trc-leiden.nl/collection/?trc=&zoek=gourd&cat=&subcat=&g=&s=24&f=0&id=9562&trc=TRC%202014.0778a (accessed 2 December 2021).

16 Burckhardt 1819: 298 mentions women and grown-up children as well as men spinning cotton in the Shendy area.

17 For a general plan, cf. Dzik 2017: figs. 1, 3. My sincere thanks to Michał Dzik for his help in navigating through the complex stratigraphy of this building.

18 For plan of House SW and preliminary data, cf. Żurawski et al. 2014: 326–330, fig. 2.

same lightweight (= 10–20 g) spindle-whorl category. A tempting hypothesis is to read the spatial distribution of spindle-whorl types as reflecting a spatial division of fibre types, e.g. cotton processed in Room 1 and wool in Rooms 4 and 8. However, we cannot exclude the possibility that both spindle-whorl types were used to produce different yarn qualities – fine and medium – in the same fibre. However, to address these and other questions, full spindle-whorl documentation must be completed.

Concluding Remarks

The presence of spindle-whorls at medieval sites, although well attested, remains largely unconsidered in Sudanese archaeology. Perhaps the apparent homogeneity of these tools, usually made from recycled undecorated pottery sherds, makes them less than appealing to archaeologists. This brief report aims to present a rich body of information such assemblages can bring and help elucidate environmental resources, technical skills, economy, social practices and other aspects.[19] Complete documentation is needed to gain insights into the scale of on-site textile production, including information on weight, of paramount importance for determining fibre and thread types processed. Observing variation and/or permanence in spindle-whorl weights and/or shapes over the *longue durée* will be very informative for changing environmental and social conditions at Banganarti.

Further investigation of spindle-whorl distribution at Banganarti can confirm the domestic scale of textile production and may also lead to the identification of places more specifically dedicated to spinning practices within the urban net. Collaboration of textile specialists and archaeologists is essential at this stage for interpreting the stratigraphy and functions of spaces where spindle-whorls are found. The chronology established for the Banganarti spindle-whorls will constitute an excellent reference base for further research into regional textile production. A parallel study of other textile production traces, such as clay and pottery impressions, and collaboration with other specialists (zooarchaeologists, archaeobotanists) certainly will enhance this initial picture of textile production in medieval Banganarti.

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19 For an insight about integrative studies for textile material, cf. Yvanez 2020.

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Banganarti in the Recent Past: Some Aspects

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Abstract:

The past is the key to understanding Sudan's present and vice versa – the present allows a better understanding of its past. For this reason, research on contemporary rural communities in and around Banganarti was included in a project whose main task was to reconstruct daily life in a medieval Nubian pilgrimage centre. Hopefully, interviews with contemporary Banganarti residents, especially those who remember something of the past, will contribute to a better understanding of the reality in which their ancestors lived in the period when the nomadic Arab tribes settled in the lands already partially inhabited by the Nubian population, creating the modern face of the studied region.

The observations presented in this paper are intended to encourage young researchers to examine the problems of rural communities in Sudan. The discerning eye of the ethnographer will undoubtedly see more of the problems of the Sudanese countryside worthy of deeper investigation than the eye of the Arabist who has described what he has seen or heard as accurately as possible.

Keywords: Nubiology, ethnology, the modern history of Sudan, folk medicine, divination, Sudanese Arabic, rural culture, popular Islam.

An ethnoarchaeological case study was conducted during the 2015–2019 Polish archaeological excavation seasons at Banganarti. The aim was to examine how sociocultural behaviour contributes to patterning in material culture. To investigate how patterns in material culture are linked to sociocultural behaviour, the study examines how a shifting population affects and is affected by location in the landscape. As the villages are deeply embedded within an agrarian economy, the construction of domestic space, the house layout and use are examined. Historical documents are examined to trace land acquisition through a central administration, while informants are questioned on family origins. Finally, folk medicine is examined to understand how these practices are accepted, acknowledged and integrated into daily life in these Muslim communities.

The case study was conducted in the Northern State (*Al-Wilāya aš-Šimāliyya*), with Ad-Dabba functioning as the administrative centre encompasisng also the larger administrative unit, Tanqasī. Located within this region, except for Banganarti (*Banqanārtī*) itself, are the communities of Ḥammūr, Bukubūl, Al-Ghaddār, Tanqasī, Ǧabarūna and Rūmī Bakrī, which are the main focus of this research. The study uses informant interviews to collect ethnographic data on the local population's sociocultural conventions and socio-economic behaviours. As these communities are integrated within a highly localised agrarian economy, preserved traditional crafts, traditions surviving in everyday activities in agriculture, household, culinary practice, traditional medicine, and religious issues **(Fig. 1)**, the contemporary history of the studied region is explored. Craft and subsistence practices have long been vital to the archaeological study of social processes, environmental interactions, and general cultural development **(Fig. 2)**. The study was designed to provide material and non-material artefacts searching for links between a traditional way of life and contemporary transformations. It was also possible to determine several tools and activities related to past everyday life in the Sudanese countryside.

In the interviews, people often claimed their origin from the Funǧ. For example, the family of the last *ʿumda* of Tanqasī and Al-Ghāba, Saʿīdʾ Aḥmad Saʿīd Muḥammad Farāḥ (1889–1974) **(Fig. 3)**, as well as several other families in Banganarti (e.g. ʿAlī Muḥammad Aḥmad Dirār or Muḥammad Ḥasan Sināda) and the surrounding area (Tanqasī), trace their lineage to the Funǧ. It corresponds to what was reported by Wallis Budge, who wrote in 1897: 'On Tanḳâsi Island, near Dabba, are said to dwell some of the Fûng people who migrated thither from Sennaar'.[1] Of note is the festival of Sudanese culture and folklore organised in 2017 in the village of Karmakūl **(Figs. 4, 5)**, the home of the late Aṭ-Ṭayyib Ṣāliḥ (1929–2009), one of Sudan's and the Arab world's most outstanding authors of the twentieth century.

The Funǧ tended to associate themselves with the Arabs and thus adopted an Arab ancestry,[2] but were, in fact, African in origin with uncertain etymology of their name.[3] Thus, when speaking about Funǧ, we refer mainly to descendants of the former nineteenth-century Arab or generally Muslim administration from Turkish times. The British changed this administrative system after establishing a condominium as the Anglo-Egyptian Sudan. The Turkish title of *āghā* was then replaced by *ʿumda*.

1 Budge 1986, II: 372.
2 Fadl Hasan 2012: 174.
3 See, e.g., Hartmann 1869.

Fig. 1
Al-Ghaddār (27.11.2017), *Mawlid*, a celebration of the Prophet Muhammad's birthday, festive procession. Photo by Andrzej Chojnacki

Fig. 2
Bukubūl (26.01.2019), a typical dovecote, which usually consisted of two parts, with a hen house at the bottom. Photo by Andrzej Leligdowicz

Fig. 3
Banganarti (2.12.2017), courtyard of the last *ʿumda*'s house. Photo by Andrzej Chojnacki

Fig. 4
Karmakūl (23.02.2018), fragment of the residence of a former *ʿumda*. Photo by Andrzej Leligdowicz

Fig. 5
Karmakūl (23.02.18), fragment of the residence of a former *ʿumda* – the inner part. Photo by Andrzej Leligdowicz

For centuries, ecological conditions shaped the North Sudanese settlement geography. The river and the desert constitute the ancient, natural boundaries of the ecumene of the societies and so the settlement pattern. The constant interaction between man and his environment affects the development of community attitudes and behaviour, forcing people to use specific tools and modify their lifestyles. There is a clear historical dependence on the river, the amount of cultivable land it provides, and where agriculture is possible, sedentary lifestyles predominate **(Fig. 6)**. Much of the landscape is undomesticated away from the riverbanks as the Nile flood determines the extent of cultivation. The floodwater provided fertile silt, critical in developing highly productive agricultural land **(Fig. 7)**. However, catastrophic flooding altered the existing settlement pattern **(Fig. 8)**. The contemporary settlement of Banganarti consists of two parts: Qiblī – southern, which is older – and Baḥrī – northern. Ḥammūr and Bukubūl owe their foundation to a large extent to catastrophic floods, particularly in 1946 and 1988. The flooding forced the people living close to the river, in the arable-land zone, to move to the higher, inherently desert areas where the current villages are located, building houses with high courtyard walls.

The founding of the modern village of Selib has a slightly different history. According to one of its residents, ʿIṣām ʿAlī ʿAbd al-Laṭīf, the village was founded

Fig. 6
Tanqasī (2.12.2017), traditional landscape of the Ǧazīra area with a building of unknown purpose, perhaps of a storage type. Photo by Andrzej Chojnacki

Fig. 7
Ǧazīra Tanqasī (25.01.2019), a typical irrigation canal (*ǧadwal*) for Ǧazīra's cultivated areas on the way to Tanqasī. Photo by Andrzej Leligdowicz

Fig. 8
Ǧazīra Tanqasī (2.02.2018), the remains of houses ruined by the great flood in 1988. Photo by Andrzej Leligdowicz

Fig. 9
Al-Ghaddār (25.11.2017), a hoe for making *taqnad* – raised sand strip separating arable field plots or seed-beds. Photo by Andrzej Chojnacki

around 1880 by ʿAbd al-Ǧalīl, a *šayḫ*, the head of a group coming from the tribe Bidayriya Daḥmašiya. It is claimed that all Selib residents come from one family and that after the floods, no new families settled in Selib. The village has about 600–700 inhabitants, claiming close familial relationships. The current head of the tribe is *šayḫ* Aḥmad ʿAbd al-Ǧalīl, recognised as the most significant authority in the village. During a visit, he claimed that his family originated from Binna Island near Dunqulā al-ʿUrdī (New Dongpola) and that his grandfather was involved in the Mahdist uprising.

Information obtained during interviews allowed a partial reconstruction of the earlier settlement in this region and its most essential transformations. A report was obtained from the owner of a large estate in Banganarti Qiblī, ʿAbdallāh ʿAbd ar-Raḥmān Ṣāliḥ (called by locals ʿAbdullāhi), on the distribution of land and the possibilities of acquiring arable land in earlier periods. During the British administration, taking any land without limitation was possible. Initially, *ʿumda* and *šayḫ al-balad*, as representatives of the administrative authorities, were responsible for land allocation. He claims his grandfather took ten feddans[4] of land and built the first house in 1938–1940. According to Abū l'Qāsim Ḥasan Ziyāda of Al-Ghaddār, it is of crucial importance to build a house on a family-owned piece of land. The *ʿumda* was responsible for allocating land when *ʿumdiyāt* were functioning. The owner of another house in Al-Ghaddār, ʿAwad Muḥammadʾ Aḥmad, stated that the land was allocated to him in 1967 by the *ʿumda* to build a house. The division into *ʿumdiyāt* continued after Sudan regained independence in 1956. The*ʿumda* exercised authority on behalf of the British administration as a military presence and settled courthouses over several villages. The *ʿumdiyāt* were abolished by President *Ǧaʿfar Mu*ḥammad an-Nimayrī in 1972. The *šayḫ al-balad* stayed initially as the executor of state power in the countryside until 1992 when they were finally discontinued by President ʿUmar Ḥasan Aḥmad al-Bašīr, who then introduced the system of People's Committees – *Al-Laǧna aš-Šaʿbiyya*.

Maǧdī ʿUṯmān of Ḥammūr, Dean of the Electrical Department of King Khalid University in Ad-Dabba, gave some pertinent information on the subject. His father, Aš-Šayḫ ʿUṯmān, became *šayḫ al-balad* in 1971, during the rule of Saʿīd Aḥmad Saʿīd Muḥammad Farāḥ (1889–1974) who served as *ʿumda* in Al-Ghāba and Tanqasī and later became the supervisor of six former *ʿumdiyāt*. A council (*maǧlis*) with 12 members was formed in each of them and was primarily involved in settling legal issues. ʿUṯmān's father assumed office as a *šayḫ al-balad* in

4 A feddan (*faddān*) is a unit of area. It is used in Egypt, Sudan, Syria and the Sultanate of Oman. In Classical Arabic, the word means 'a yoke of oxen'. 1 feddan = 0.42 ha.

Fig. 10
Ḥamūr (23.11.2017), small fireplace for preparing *kisra*. Almost all houses in the Sudanese countryside have a special place for baking *kisra*, often in a separate open building in the yard called *tukul* in the Nubian language. Photo by Andrzej Chojnacki

Ḥammūr, exercised administrative power until 1992, and then was Chairman of the People's Committee for one term until 1994.

After the great flood of 1988, a large group from Tanqasī Ǧazīra relocated to Banganarti. The significant increase in population resulted in the great market (*sūq*) in Tanqasī also moving to Banganarti. The collected information suggests that it was also a critical time when the previously used kitchen tools and equipment fell out of use and were quickly replaced with new tools. This was commonly confirmed during interviews. Respondents claim they no longer own any tools from their previous farms, except a few agricultural implements, as manual-hoe cultivation continues in some areas **(Fig. 9)**. After the relocation, the residents chose to purchase modern equipment. Currently, household furnishings consist of metal and plastic products and electrical equipment from 2007–2008. Traditional bread ovens can still be found in a few households. A traditional clay bread oven has an opening on the side to insert dough moulds and an opening at the bottom to add fuel. This chamber was closed during baking. One can still find separate rooms with old baking fireplaces for making traditional thin bread – *kisra* **(Fig. 10)**. However, bread is now commonly baked on metal plates connected to electricity **(Fig. 11)**. It can be said that today the way of life is mainly being modernised, and traditional craft activity is declining.

The transformations changed the region and influenced residents' attitudes towards the ongoing processes. Not all are felt to have improved living conditions. A farmer from Banganarti Qiblī, ʿAbd al-Wahī al-Ḥasan, recalls the old days differently. He came to the present place with his whole family in 1946. Previously, they lived in the Al-Ǧazīra area,[5] where his father had three feddans of land that he still farms. The house built by his father in 1946 was demolished in 2015, and numerous changes were made in its layout and construction. In the opinion of ʿAbd al-Wahī, the old days, when *sawāqin* (Persian waterwheels) were still in operation (he had a *sāqiya* himself until 1971), were better; people went to work for the whole day, and life had a set quiet rhythm. The advent of the small diesel-driven pump (*bābūr al-mūya* – irrigation pump) and finally electricity has resulted in socio-economic changes; television is now standard, and with irrigation pumps, there is, in his opinion, not such an interest in agriculture as before.

5 *Ǧazīra* (island) – until today this is the name of the strip of arable land that stretches along the Nile between Tanqasī and Bukubūl. Part of this area was formerly periodically cut off from the mainland during the Nile inundations, becoming an island. The primary settlement of the studied area was concentrated mainly in this area. A part of Tanqasī is still called today Tanqasī Ǧazīra.

Fig. 11
Banganarti (24.11.2017), herd for making *kisra* in an additional room next to the kitchen. Owner: ʿAbdallah ʿAbd ar-Raḥman Ṣalāh (ʿAbdullahī). Photo by Andrzej Chojnacki

In the past two decades, crop cultivation has changed significantly. The study region's most important crops are onions and broad beans (*fūl*). According to some informants, climate change has had a noticeable impact as warmer winters disrupt the vegetative cycle of broad beans, which in such conditions ripen too quickly without yielding the desired quality. The role of cereal crops decreased, and poor harvests were noted for years, making these crops unprofitable. The date palm, which dominates the banks of the Nile in almost every village, has become a profitable crop with the result that many farmers are switching to date palms and other fruit trees. The date is valuable both as a cash crop and for local consumption and is grown wherever conditions permit. Due to the growing livestock farming and trade, alfalfa (*barsīm*) cultivation has recently become very profitable. A large animal market is located in nearby Ad-Dabba. ʿAbd al-Wahī also believes that crafts have collapsed, and most craftsmen have died. Moreover, even if his opinion appears to be a somewhat isolated voice, entering the modern age did not come so smoothly for everyone.

House and Household in the Sudanese Countryside

Aspects of domestic space such as the construction of living space, house layout, the potentially gendered division of space, and individual room function were examined in conjunction with the agricultural economy. Information was also collected on the history of settlement, the administrative division of the area studied, and the local population's origin. Also documented but sporadically preserved are objects or tools

Fig. 12
Selib (13.12.2017), *ghāfir* Yūsif ʿAlī Yūsif having a meal in the men's part of the house with some family members and guests. Photo by Andrzej Chojnacki

formerly used in agriculture or households. Many of them are no longer usable – they have been photographed. It was also possible to photograph the inner rooms of several houses. The primary occupation of the residents in the area of Selib, Banganarti and Al-Ghaddār is agriculture. According to informants, 95% of Banganarti residents are engaged in farming. In the past, this was based on irrigating fields with *sawāqin*.

A house in Arabic has various terms. The most common of these are *bayt*, *dār* and *manzil*. The word *bayt* does not always refer to a home as a physical structure. It can also mean a wife or family. The word *dār* deriving from the verb *dāra* – to turn, rotate, make a circular motion – in addition to a house, building, seat, or residence, can also mean a region, area, or country. Customarily, the term describes the land as being divided into discrete territories inhabited by cultivators and nomads, each of which appertained to a corporate group of people or tribe.

On the other hand, *manzil* from the verb *nazala* – to dismount, descend, go down and stop, take up quarters, take lodgings, lodge, room – describes a stopping place, camp site, flat or apartment. Bayt remains the most critical term as it can be understood as the women's domain within the house. According to Amira Osman, 'This is probably due to the fact that this is the centre of their world, whereas the public spaces are the domain of men. Houses are built by men yet inhabited mainly by women as they spend the most time in them and carry out most activities within the confines of their own houses or houses of relatives, neighbours, and friends. Women maintain the daily rhythm of life within the house'.[6]

6 Osman 2004: 95.

Fig. 13
Bukubūl (9.12.2017), entrance to an abandoned old building. Photo by Andrzej Chojnacki

As there is scant information on architecture in the area, research into the traditional Sudanese-Nubian household must focus on modern aspects of daily life that could provide the basis for creating patterns of use and organisation of space. Amira Osman notes that 'space is associated with a lack of intimacy. The perception of time and space are strongly related, as well as elements of the natural landscape'. After the mosque or the saint's mausoleum, the house is one of the holiest places for a Sudanese Muslim. Inside, rituals of family life are celebrated. The home is primarily the world of women and children, and the high wall provides them maximum intimacy. A house repeats the basic structure of the environment – it becomes a microcosmos. The use of space is also influenced by the lifestyle of the people concerned.[7]

Such a picture would assume the more extended existence of a remarkably stable, static situation in traditional Sudanese households. Meanwhile, many factors also introduce dynamics to the settlement processes. Apart from political and economic factors, one cannot ignore the environment, which strongly impacts culture and life outlook. Amira Osman'si central hypothesis assumes that 'a more possible and relevant interpretation of the architecture of the Sudanese northern riverain region will be achieved through the construction of an eco-systematically based interpretative framework that incorporates essential and relevant dimensions of the tangible and intangible culture of the region'. The human response to climate and other environmental changes and the relationship between agriculture and sedentary lifestyles must be carefully examined as the presence of people is integral to the ecosystem and not overlaid onto it.[8] 'Due to the sands of the desert, and in particular the river activity, the rural buildings are in constant motion'.[9] Ethnographer Maciej Kurcz points out that little attention has been paid to the Sudanese village. 'The interest in the landscape of the North Sudan village was sporadic and to a small extent'.[10]

7 Osman 2004: 34.
8 Osman 2004: 30.
9 Kurcz 2011: 257.
10 Kurcz 2011: 258.

Fig. 14
Bukubūl (9.12.2017), the same building seen from the courtyard. Photo by Andrzej Chojnacki

In Banganarti, the houses are similar to the buildings in Al-Ghaddār and other villages investigated. The primary construction material continues to be sun-dried brick. The brick is made of soil (*turāb*), water, with a small addition of various types of plant elements and is mixed by hand and then formed using wooden moulds and is called mud brick or 'green brick' (*ṭūb aḫdar* – unfired brick). An example of adapting the construction to the environment's impact is indicated in Selib with a linear development, constructing houses next to each other in a row. This, according to ʿIsām ʿAlī, was to prevent sand from entering the yard.

Social expectations that influence the organisation of domestic space are underpinned by religious convention. Much importance was and still is, attached to the cardinal points. This is evident in house construction as everything to be blessed[11] is done with the person facing east. East – *dār ṣabāḥ* or *bilād ṣabāḥ* – may mean *qiddām* – front, the front part, implies *qibla* direction. Sometimes it may be northeast. *Dār aṣ-ṣabāh* also refers to the country on the Nile, which is called the 'land of the morning'. West is seen as the back – *dār al-gharīb*. North is also *sāfil* (low, below), and south would be *ṣaʿīd* – above, up-river.[12] This is likely to be related to the direction of the Nile. An eastern orientation of the house is generally preferred, and the placement of toilets on a neutral axis. Observing the spatial division according to the compass directions has gradually faded due to the increasingly complex house plans and greater emphasis on formal planning.

However, the layout and actual use of space or rooms within the house continue to be adjusted to respect the division of male (*diwān*) **(Fig. 12)** and female (*niswān*) areas. *Niswān*, intended for the reception of women, was also present in former tiny houses typical of the agricultural areas of the Tanqasī Ǧazīra. The children›s rooms were outside the *niswān*. The *diwān* is *bayt ar-riǧāl* (men's house) and is also used to

11 The *baraka*, meaning blessing, benediction, is used at various occasions and in different contexts. It is a blessing power that can be found within physical objects, places, and people, as chosen by God. God is the sole source of *baraka* and has the power to grant and withhold *baraka*.

12 Osman 2004: 101.

receive and overnight guests and thus has a public function. The women can use the *diwān* when the men are away. An essential aspect of house layout is connected to the time of the day and related activities. The *diwān* becomes the domain of women at certain times when the man is supposed to be working outside the house.[13]

Islamic religion permits four wives. A household means that four separate houses must be built in this case. The arrangement of the place and space becomes, in this case, particular and more complicated. Muḥammad Aḥmad Rawāh, a farmer from Bukubūl, now over 90 years old, has three wives. In 1988, they came from the Ǧazīra area. There they had a large house constructed of mud blocks formed by hand (*ǧalūs*), the old building method characteristic of the region. It consists of layers of mud blocks being built up, and the walls rise as the mud dries. It was divided into three *ḥarīm* parts (*ḥarīm* means a married woman, in this case also her place to live). Each of them had three interior rooms and a kitchen and bathroom. The women only went out shopping, otherwise staying at home. In front of this three-part house, there was a much smaller separate *diwān* where guests could spend the night. There was no wall surrounding the buildings. The owner lived alternately in three houses next to each other. He has three large separate houses in Bukubūl, built for three wives according to a new concept – walled and with a courtyard. However, he permanently lives in one of them with one wife who looks after him.

Fig. 15
Bukubūl (9.12.2017), old water jars, still used for keeping water or as storage vessels. Photo by Andrzej Chojnacki

Fig. 16
Ḥammūr (23.01.2018), water jars in the courtyard of the visited ʿAlī ʿAbd ar-Raḥīm Ḥammūr. Photo by Andrzej Leligdowicz

13 Osman 2004: 97.

Fig. 17
Bukubūl (9.12.2017), *mazyāra* – a special place for keeping water jars (*azyār*). Photo by Andrzej Chojnacki

Fig. 18
Bukubūl (9.12.2017), traditional *rākūba*, sun shelter, especially during the hot summer days. Photo by Andrzej Chojnacki

In the past, gender separation was more strictly observed. Now the harem part can be visited in most of the houses in the area. However, the observance of the former custom is commonly adhered to in more traditional families, and these families derive mainly from nomadic traditions as in houses inhabited by members of the Šāyqiya or Kabābīš tribes. The blacksmith ʿAbd ar-Raḥīm ʿUṯmān, who lives in Bukubūl, is a descendant of a nomadic group who came from Kurdufān in 1921. They were mainly engaged in breeding animals – cattle, camels, goats, rams – and trade. ʿUṯmān's grandfather could not adapt to the new living conditions and returned to Kurdufān.

His sons settled down, and, initially, they only practised stock breeding. The first house was built in 1946 when only four to five houses were built in Bukubūl **(Figs. 13, 14)**. A new one was built in 1960. Minor repairs are carried out regularly, with the floor in the courtyard being refilled each year with a particular type of mortar – a mixture of earth (*turāb*) with cement. A particular resting place is intended for men and women; they eat their meals separately. Such traditional divisions are now rare and are a specific feature of the descendants of nomads.

Changes in the forms of construction and spatial layout of houses appeared in the 1950s when the houses began to grow. They included more separate buildings surrounded by a wall and a courtyard (*ḥūš*) with subdivisions. This bounded space plays a central role in daily life. According to David R. Lee,[14] the courtyard

14 After Osman 2004: 99.

Fig. 19
Banganarti (22.11.2017), the beginnings of building a new house. The crushed material from the demolished old building is poured over with water, and the muddy substance formed in this way is used to produce unfired bricks for a new one. Photo by Andrzej Chojnacki

Fig. 20
Banganarti (22.11.2017), Dafaʿ Allah, the majordomo of the Banganarti archaeological mission shown with one of the workers carrying mud (to make bricks) on a wooden stretcher. Photo by Andrzej Chojnacki

was brought to Nubia by the Arabs after the thirteenth century. It was designed primarily to provide seclusion for the women of the family and was probably adopted by the Nubians for this reason. However, Amira Osman states that the non-tangible influence of migratory patterns is still evident at all levels and in a traditional sedentary pattern of life. In the Banganarti, Ḥammūr and Bukubūl regions, the emergence of *ḥūš* was also related to the environmental conditions. Moving the settlement to an uninhabited desert area initiated new impulses for the organisation of domestic space. The need to manage economically valuable, fertile land is less critical here.

A significant increase in house construction occurred when the residents relocated from the flooded areas, particularly in 1946 and 1988. In principle, the old houses were rebuilt, expanded, and surrounded by an enclosing wall

Fig. 21
Banganarti (29.11.2017), a Nubian family's traditional kitchen, located in the northern part of the house. Only wood is used as fuel. Photo by Andrzej Chojnacki

Fig. 22
Banganarti (29.11.2017), fireplace for making *kisra* in the house of a Nubian family. Photo by Andrzej Chojnacki

Fig. 23
Banganarti (29.11.2017), fireplace in the kitchen of a Nubian family. Photo by Andrzej Chojnacki

Fig. 24
Banganarti (29.11.2017), a Nubian woman is presenting how to use a quern. ʿAšā ʿAbdullahī is the only one in the village that uses traditional stone querns, which were used by her grandparents. Photo by Andrzej Chojnacki

from the beginning of the 1960s. These courtyard houses had two entries – from the east and the south. Beyond this basic layout with entrances, the internal organisation of the space is quite diverse.

There is also a designated location for placing water jars **(Figs. 15, 16)** (a*zyār*) with cold water (the so-called *mazyār*) **(Fig. 17)**. Previously, *azyār* were placed inside the house. The *rakūba* **(Fig. 18)**, a summer veranda serving for rest on hot days, was often constructed in combination with a shade-giving tree, especially a *nīm* tree[15] or a *lālūb* tree.[16] There can also be other small trees or shrubs, such as the henna tree (*Lawsonia inermis*) or *nibq* (or *nabaq*; *Ziziphus spina-christi*). The older, traditional form of *rakūba* could be covered with palm leaves. The second veranda used for winter rest is always connected with another room beside it. Usually, the kitchen and the bathroom are placed within the fence in the southern location.

We were told that building a new house can be started from any part. No rules apply **(Figs. 19, 20)**. However, the current needs often dictate it – e.g. a room for the wife and children was needed first. The main entrance is situated chiefly in the east, sometimes in the south. A family from the Danagla tribe living in Banganarti reported that the entrance to their house was on the latter side. The farm consists of several parts. The house was built 45 years ago from dried mud (*ǧalūs*). The male part is in the east, the female part in the west and the kitchen in the north. Only wood is used for cooking and baking, as in the former traditional kitchen (*ṭukul*) **(Figs. 21–23)**. The woman who lives here, ʿAša ʿAbdullāhī, is the only one in Banganarti who still uses a manual stone grinder to grind peanuts (*fūl sūdānī*) daily **(Fig. 24)**. According to ʿAša ʿAbdullāhī, these querns, made of a particular stone, were brought from Ǧabal Barmīl and were used by her grandparents **(Fig. 25)**. Some traditional household appliances are still in use in her family **(Figs. 26–31)**.

15 *Nīm* tree – a powerful tree with small leaves.
16 *Lālūb* – kind of sour fruits from thorny shrubs.

Fig. 25
Banganarti (29.11.2017), traditional stone quern, now mainly used for grinding peanuts. Photo by Andrzej Chojnacki

Fig. 26
Banganarti (29.11.2017), traditional straw basket and covers for *kisra* in the house of a Nubian family. Photo by Andrzej Chojnacki

◀◀ **Fig. 27** (far left) Banganarti (29.11.2017), an iron censer with a handle in the house of a Nubian family. Photo by Andrzej Chojnacki

▲ **Fig. 28** (above right) Banganarti (29.11.17), earthenware censer, handmade, unfired, in the house of a Nubian family. Photo by Andrzej Chojnacki

◀◀ **Fig. 2** (far left) Banganarti (29.11.2017), iron-brick mould in the house of a Nubian family. Photo by Andrzej Chojnacki

▲ **Fig. 30** (above right) Banganarti (29.11.2017), a donkey saddle at the house of a Nubian family. Photo by Andrzej Chojnacki

◀ **Fig. 31** (above) Banganarti (29.11.2017), *wāsūq* – board with ropes for levelling the soil while making *ṭaqnad* at the house of a Nubian family. Photo by Andrzej Chojnacki

The gates of all new homes are made of metal, very impressive and decorative. The old ones were often made of *nīm* wood and had a unique wooden lock operated by a wooden key (*al-kūša*). The gate signifies that the house is beautiful and rich, while the colour does not have a special meaning; it is only a decorative element. Traditional gates made of Nile acacia wood (*sunuṭ*) are rare and are more a memory of the region's inhabitants, today usually found in the courtyards of abandoned houses. Such gates were found in the abandoned house of the grandfather of Ḫaydar Šayḫ ʿAwwūḍa of Ḥammūr Wasaṭ (Central) and were being used as an entrance door to the courtyard (*ḥūš*) **(Fig. 32)**.

During the interviews, much important information was obtained about the farms under construction. During a visit to Ḥammūr, the owner of the house, ʿUṯmān ʿAlī Ḥamad, said that the house was built in 1947 by his father. The choice of the site was determined by proximity to the cultivated land. The location of the house depends on the weather conditions. Winds generally blow from the north – the so-called Egyptian wind. Therefore, the main entrance is on the east side, and the windows face north. In the southern part are the kitchen, bathroom and dining room. In the northern part, there are living quarters for men, women and children in any arrangement with a kind of gazebo situated in the middle of the courtyard for water jars.

A nearby house, owned by Tarīq Ḥasan, was built in 2010 on a purchased plot, 400 m^2 and, against tradition, all the rooms are located in one building. In front of the entrance is a traditional bread oven, which can still be found on Nubian farms **(Fig. 33)**. On some farms, bread was also baked for profit.

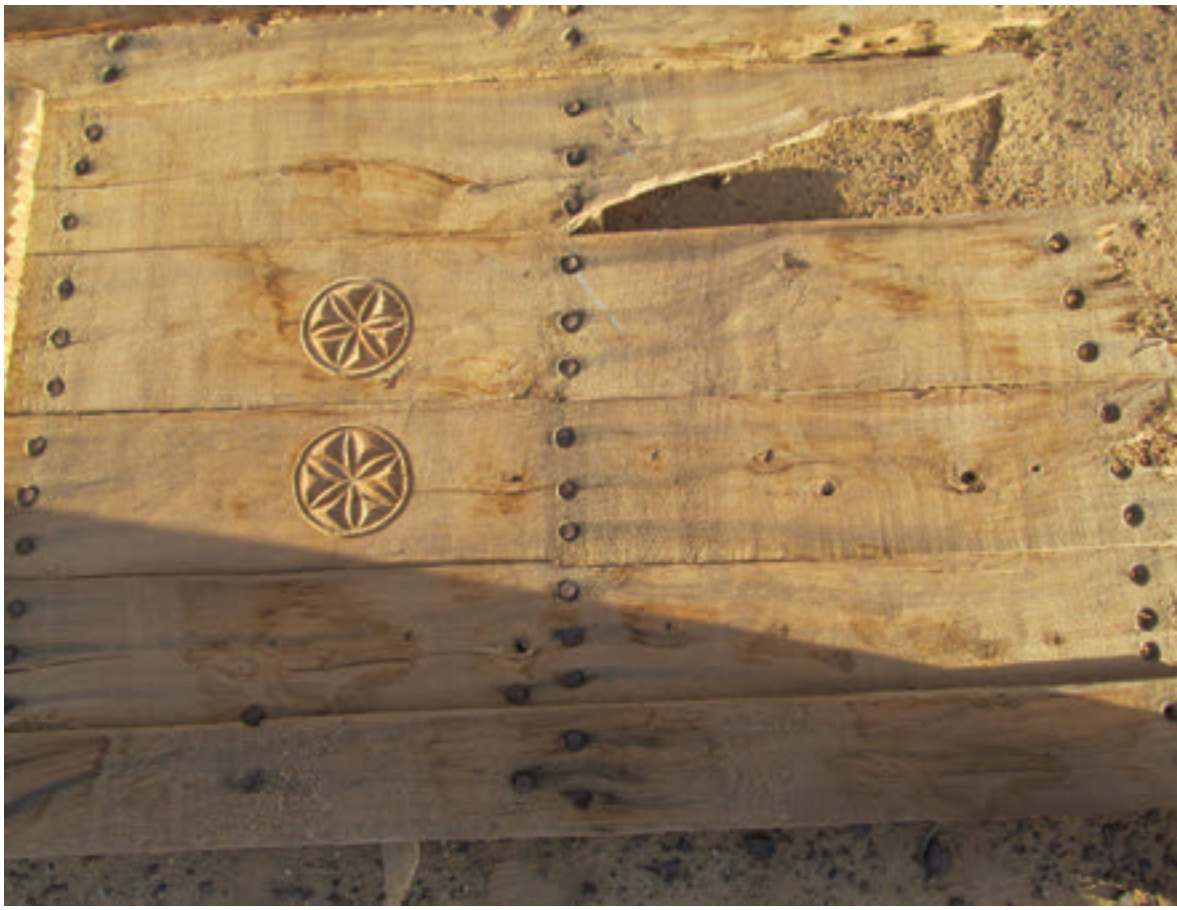

Fig. 32
Ḥammūr Wasaṭ (16.02.2019), the old door to the courtyard (*ḥūš*) belonging once to the farmer Ḫaydar ʿAwwūḍa's grandfather's house. Photo by Andrzej Leligdowicz

Fig. 33
Ḥamūr (23.11.2017), bread oven at the entrance to the house belonging to Ṭāriq Ḥasan, representing a kind of small, private bakery. Photo by Andrzej Chojnacki

Fig. 34
Tanqasī (2.12.2017), new complex of Sufi mosque with *qubba* of the *šayḫ* in Tanqasī Ǧazīra area. Photo by Andrzej Chojnacki

For example, Sittʾ ʿAnīsa Muḥammad ʿUṯmān from Banganarti, said that they used to have a small clay oven for baking bread in their house. They sold baked wheat bread – big for one pound, small for half a pound.

Finally, one should ask what conclusions can be drawn from the research on the traditional Sudanese house. For many reasons, the differences between buildings in the Christian and Muslim periods will always be crucial. In the case of rural construction, there is no comparative material, and no archaeological research has been conducted on rural settlements from the Nubian Christian period.
In Islam, religion plays a significant role and is considered the foundation of life itself. Therefore, the present-day Sudanese household assessment will generally proceed in three overlapping or complementary layers. Firstly, the role of religion is essential, imposing a specific pattern on the use of space in the development of a rural household and determining everyday behaviour and all ceremonies and celebrations within each farm. Secondly, the environmental conditions, climate and location in the landscape affect even the orientation of the holding to the world, considering the constant wind directions, access to water, etc. Thirdly, technological advances transform the present, e.g. the introduction of electricity, and have a definite influence on the many everyday matters governed so far by the principles of religion, while, on the other hand, allowing a better adaptation to the demanding characteristics of the environment.

The Muslim tradition strictly adhered to gender division, assigning women a separate living space within each family. This continues even though the accessibility of all rooms in the house is now much more significant. The possibility of having four wives is less common, but it was noticeably reflected in the buildings. Another critical factor is the close relationship with agriculture. The village begins where the fields end. The complete lack of archaeological research on the former buildings of the Nubian countryside makes it impossible to make any comparisons. Some accounts of former travellers also convey the image of a sparsely populated landscape, even near Old Dongola. About 1700, Franciscan missionary Theodoro Krump[17] visited Old Dongola on the route to Ethiopia; he wrote: 'After a two-hour march we pitched camp in an open field, for along the river Nile here is no formed city or village, but rather one house stands next to another'.[18] This description does not afford grounds for recreating the former settlement network, and it is even more difficult to relate it to the appearance of a modern village in this region. In future research on settlement changes in the region, the focus should be on some vital factors – ecological and environmental, imposing specific subsistence patterns depending on irrigated cultivation, mutual relations between the sedentary and the nomadic populations, and the impermanence of buildings due to the kind of materials formerly used in a rural environment. Currently, settlements occur in dispersed clusters along the river; however, modern villages include many communities. Generally, contemporary rural construction is dominated by a type of one-storey building with the repetition of all the essential elements that make up the house of the Sudanese family in this region.

Historical archaeology, Islamic archaeology and ethnoarchaeology in research on the Funǧ period in the Dongola region have been discussed for some

17 Krump's account of Sinnar between 1700 and 1702 is a very important written source concerning the precolonial history of Sudan. It was compiled and translated by Spaulding (1974).
18 Spaulding 1974: 236.

time.[19] The author addresses several key issues, pointing out that the influence of Islam on the local culture **(Fig. 34)**, visible in the layout of the household, becomes apparent only in the second half of the twentieth century.[20] The ethnographic interviews forming part of the project confirm this state of affairs. First, however, the overall context of the settlement changes taking place at that time should be considered. In the area studied, a decisive change in settlement and the emergence of new villages were a response to natural factors – catastrophic floods and an expanse of undeveloped free space, allowing the appearance of new layouts in households constructed and variation in the arrangement of space within them.

Furthermore, the interviews indicated that oral accounts only evoke images from the past. Therefore, our view of any past culture is conditioned and limited by the surviving historical sources that describe it. For this reason, an ethnographic account can only provide the basis for inference to a certain extent, alongside archaeological evidence from carefully identified contexts.

During this research, several older buildings were identified, such as *ʿumda*'s residences or structures formerly having religious or administrative functions. They are primarily buildings of Qurʾānic schools (*ḫalāwī*) in Banganarti and Tanqasī, the former courthouse in Banganarti, and *ʿumda*'s residences in Tanqasī and Ad-Dabba but also in Karmakūl. Information on the impressive *ʿumda*'s residence in Karmakūl was obtained during an interview with ʿAlī ʿAbd ar-Raḥīm Ḥammūr, who, at present, lives in Hammūr. His family originates in Old Dongola, where his grandfather, Aḥmad Āgha Ḥammūr, had a large house known as Qaṣr Ḥammūr, now uninhabited. In 1882 he became an *ʿumda* in Ḥammūr with extensive powers reaching as far as Kūrtī. Then, in 1919, he moved to Karmakūl, where he built a large residence. The buildings mentioned above, which can be in some cases associated with the descendants of the Funǧ, are late, however, dating from the beginning of the twentieth century. Therefore, a careful architectural investigation would be needed to find the source of inspiration for these constructions.

19 Wyżgoł 2017.
20 Wyżgoł 2017: 127.

Traditional Bread Baking

Bread baking in rural Sudan has taken many forms, but it has always been a priority in daily life. Bread prices have been able to shake up the country's political system and even bring down the government. Bread baking used to be a daily activity on many farms, and some of the baked goods were sold to local residents **(Fig. 35)**. With the development of transportation and road networks, urban bakeries emerged, dominating the market over time. Nevertheless, the traditional village bakeries have not disappeared entirely and still play an essential role in the life of rural settlements **(Fig. 36)**.

In Banganarti, two bakers supply residents with traditional bread. Yāsir Ḥamīda (visited on 24 November 2015), the bakery owner, provided information about the oven's construction and his baking method. It comes from the old Nubian tradition and is not different from the Arab tradition. His oven has been operating at its current location for three years, moved from its previous location. It was built from scratch using traditional kiln-building methods. The kiln is built directly on the ground – in this case, on the sand. First, a layer of small stones, several centimetres thick, is laid down, followed by a layer of broken glass, also several centimetres thick. Next, salt – in this case, 150 kg – is poured on top of this prepared substrate, and then a single layer of fired bricks is laid down to form the bread-baking surface. The salt causes the heated bricks to maintain the high temperature needed for baking. The diameter of the oven base is 2.5 m. The dome of the oven is made of clay mixed with donkey dung. The addition of this ingredient protects the oven dome against rain water. The dome is topped with an iron pipe for smoke discharge, several dozen centimetres long. In the centre of the oven is an opening about 40 cm wide, through which the bread is inserted into the baking chamber. A kind of long wooden tool resembling a shovel, called *ṭāwla* (*ṭawīl* – long), is used to insert the bread.

The fire burns directly on the bricks, inside the oven chamber, on its left side. The fuel is only wood; a small amount is sufficient to heat the bricks. After the bread is placed inside, the opening is closed with a metal plate, additionally sealed with bricks to prevent heat loss. The baking process itself takes 2–3 min.

For one cycle of bread baking, the dough is prepared from 25 kg of wheat flour and yeast mixed with water. The flour is mixed in a wooden vessel called *maʿǧūna*, using a wooden mixer called *ḥalṭa*. The bread is formed by hand and then put into the oven on a wooden paddle.

Similar ovens can also be found in the immediate area. The ovens in Bakubūl and Tanqasī were also photographed. In Al-Ghāba, a working bread oven was found just off the main road. On 16 December 2015, during an occasional brief visit, information was obtained from the bakers about it. It is smaller than the oven described in Banganarti (its dome is lower). However, it is constructed similarly – a layer of small stones is placed on sand, then a layer of broken glass, and salt is poured on top. In this case, up to 200 kg of salt was used. At the top of the dome, there are no excess pipes for smoke removal. However, a closed aperture in the dome (left side) can be opened when excess smoke needs to be let out. The fire (inside, to the right of the entrance hole) creates a high temperature in the bricks on which the bread is baked. This lasts a very short time, half a minute or 2 min. if the fire is weaker. The fuel here is also traditionally just wood.

Fig. 35
Bukubūl (26.01.2019), bread oven in the house of ʿAbd Fāḍil as-Siyy. Photo by Andrzej Leligdowicz

Fig. 36 (far right) Bukubūl (26.01.2019), our driver Walīd showing a small bread oven on the farm of ʿAbd Fāḍil as-Siyy. It is several dozen years old and is still used today, only renewed by covering the surface with lime. Photo by Paulina Terendy

While in Banganarti, we were able to get additional information about home baking of cakes and other types of bread. In the past, an exciting method of baking pies called *malel* (*malīl*) was used in desert conditions. They are made from a variety of sorghum called *marīq*. The cut heads of this plant are dried for several days. Then the seeds are crushed on a stone and mashed in a vessel, thus obtaining flour mixed with salt dissolved in water. The dough obtained in this way has a firm consistency. It is used to form flatbreads called *malel*. To bake them, a small hole is usually made in the sand. A layer of charcoal is placed at the bottom and set on fire. When the coals are glowing, they are covered with sand, on which the prepared cakes are placed. Then they are completely covered with sand. The heat of the glowing coals causes them to bake. After taking them out, it is enough to shake off the sand and ashes lightly, and they are ready for consumption.

Nomadic peoples inhabiting the Sahara, northern Sudan, and Egypt use *sāǧ* (thin iron slabs)[21] or heated stone slabs for baking bread made from wheat and sorghum. The Tuareg also bake millet bread in preheated pits in the sand or earth, covering the dough with sand, glowing coals, or wood.[22] Bedouins in Sudan and Egypt also use sand or earth ovens, some of which have a floor of heated pebbles or pottery shards, to bake sorghum or millet bread.[23]

On 30 November 2019, in Selib, Maḥǧūb Ḥasan and his cousin Muḥammad ʿAlī of the Ḥawāwīr tribe demonstrated the technique of baking millet scones on the sand. Twenty years ago, they came to Banganarti from Kurdufān and settled there permanently. From time to time, they prepare such cakes at home. This is an old tradition from Bedouin times. However, it is also important to remember that 'Bedouin' has specific connotations in time and space. Moreover, although pastoralism in Sudan is a traditional way of life resulting from climatic and environmental factors and has become a mode of using and managing natural resources, it is often combined with some form of agricultural activity.

21 Adams 1977: 586.
22 Nicolaisen 1963.
23 Dirar 1993.

Fig. 37 (far left) Maḥǧūb Ḥasan of the Ḥawāwīr tribe prepares a place to bake a cake. He is assisted by the *ghāfir* of the Selib archaeological site, Yūsuf ʿAlī Yūsuf (left). Photo by Roman Łopaciuk

Fig. 38 Maḥǧūb Ḥasan and Yūsuf ʿAlī Yūsuf wait for the fire to burn out. Photo by Roman Łopaciuk

Fig. 39 (far left) Maḥǧūb Ḥasan prepares a millet flour dough to bake a cake. Photo by Roman Łopaciuk

Fig. 40 Maḥǧūb Ḥasan pours a handful of millet flour into the bottom of the depression with prepared embers. Photo by Roman Łopaciuk

Fig. 41 (far left) Maḥǧūb Ḥasan has already placed the millet flour cake on the embers. Photo by Roman Łopaciuk

Fig. 42 On the prepared embers, Maḥǧūb Ḥasan places a formed round cake made of millet flour. Photo by Roman Łopaciuk

Fig. 43 (far left) Maḥǧūb Ḥasan covers the prepared millet flour cake with embers. Photo by Roman Łopaciuk

Fig. 44 The round millet flour cake has been buried in embers and sand by Maḥǧūb Ḥasan. Now it will take about half an hour to bake the cake. Photo by Roman Łopaciuk

Fig. 45
Halfway through the baking, Maḥǧūb Ḥasan has to turn the cake over. Photo by Roman Łopaciuk

Fig. 46 (far right)
Maḥǧūb Ḥasan takes out the finished cake. Now it will have to be cleaned of any adhering remnants of heat and sand. Photo by Roman Łopaciuk

Fig. 47
Maḥǧūb Ḥasan cleans the surface of the cake from ash and sand dust residues. Photo by Roman Łopaciuk

Fig. 48 (far right)
Maḥǧūb Ḥasan blows ash and sand dust from the surface of the cake. Photo by Roman Łopaciuk

Fig. 49
Maḥǧūb Ḥasan cuts off a piece of cake after baking. Photo by Roman Łopaciuk

Fig. 50 (far right)
The *ʿaṣīda* is almost ready. Maḥǧūb Ḥasan and *ghāfir* Yūsuf ʿAlī Yūsuf are waiting. Photo by Roman Łopaciuk

Fig. 51
Maḥǧūb Ḥasan mixes the millet flour dough while making *ʿaṣīda*. Photo by Roman Łopaciuk

Fig. 52 (far right)
The *ʿaṣīda* was completed with total success from millet flour in a pot set on three legs (*ʿidāya*), between which a small fire was lit. Photo by Roman Łopaciuk

A small depression is made in the sand where a fire is lit, using wood as fuel **(Fig. 37)**. The fire burns for about 20 min. **(Fig. 38)**. Meanwhile, Maḥğūb prepares the dough by pouring about half a kilogram of millet flour per litre of water **(Fig. 39)**. When the fire burns out, the burnt, still smouldering pieces of wood are pushed aside. A handful of flour is poured into the bottom of the pit **(Fig. 40)**, and the dough is laid out **(Fig. 41)** in the form of a round cake about 30–35 cm in diameter and then covered with embers **(Figs. 42, 43)**. The cake is baked in this way for about half an hour **(Fig. 44)**. Halfway through the baking, the dough is turned to the other side and covered with sand **(Fig. 45)**. After taking it out, the cake is cleaned of the adhering grains of sand **(Fig. 46)** and is ready to eat **(Figs. 47, 48)**. It is best eaten with milk **(Fig. 49)**.

Fig. 53
Banganarti (15.12.2015), *ḥiwār*, the traditional cake prepared on the occasion of a visit to the tomb of a *šayḫ* (*qubbātu-aš-šayḫ*), made with sorghum or oat flour and baked on a flat dish (made by ʿAṭiyāt Ğādū Manṣūr, Dafa ʿAllah's wife). Photo by Andrzej Leligdowicz

A similar method of preparing food in desert conditions (in this case, *ʿaṣīda*)[24] was also demonstrated in Selib on 1 December 2019. They used dough previously made from millet flour and water to prepare it. They put salt, small twigs from nearby bushes, and a few pieces of wood into a small handmade depression in the sand. Over the fire, they placed three clay bases called *ʿidāya* that they had brought from home. These legs, made of river clay, are still often used in households **(Fig. 50)**. Next, a pot filled with about 1 litre of water was placed over the fire. They then dropped the prepared sorghum dough by handfuls into the boiling water **(Fig. 51)**. It was stirred with a stick until it thickened. It took about a quarter of an hour to prepare *ʿaṣīda* in this manner **(Fig. 52)**.

Occasional dishes are prepared for special occasions, including different types of pancakes. Many publications have described this.[25] Perhaps it is worth citing one compelling case here. The traditional cake prepared on the occasion of a visit to the tomb of *šayḫ* (*qubbātu-aš-šayḫ*) is *ḥiwār* in the shape of a disk, about 30 cm in diameter, with seven ears (or horns) **(Fig. 53)**. It is made with sorghum or oat flour and baked on a flat dish.

Charcoal Burning

The demand for charcoal, widespread in households, including for cooking or baking food on simple metal stoves called *kanūn*, is considerable. Consequently, charcoal burning has become a profitable business. For example, in Banganarti,

24 *ʿAṣīda* is a typical Sudanese dish. It is stiff porridge made with sorghum or millet flour, sour dough and water. Usually eaten with a souce (*mulāḥ*) having a great variety of types.

25 See, e.g., Zabek 1993.

Fig. 54
Banganarti (1.12.2015), a charcoal burning site in the courtyard of Muḥammad Uṯmān's house. Photo by Andrzej Leligdowicz

several producers are burning on a large scale, distributing charcoal in the immediate vicinity and supplying considerable quantities to Ad-Dabba, Khartoum and Umdurmān.

The largest producer is believed to be ʿUmar Ḥusayn from Ḥammūr, whom we visited on 28 November. He is now an older man, active for decades in this business. He burns charcoal in Ǧazīra, a green agricultural area by the Nile, rich in tree species that provide good quality material for burning. The felled trees dry for 15 days before being burned, which takes 3–7 days, depending on the species and amount of wood. After burning, the charcoal is buried in the ground (sand) for several hours to two days to cool. Then, it is bagged and prepared for transport. From the Ǧazīra area, it is transported to the storage area, usually on camels.

More information about charcoal burning technology was obtained from the brother of the owner of a nearby store in Banganarti, Muḥammad ʿUṯmān, who was visited on 1 December 2015.

Muḥammad ʿUṯmān has been burning charcoal for six to seven years, also on a large scale. He has his transport to deliver the charcoal to Khartoum and Umdurmān. He carries out the firing in his homestead, including the living area, outbuildings, his store, and a large yard. The wood for burning comes from Ǧazīra. The best tree species suitable for burning are Nile acacia (*sanṭ*, called *sunuṭ* in Sudan), tamarisk (*tarfāʾ*), *nīm* tree, *as-salām* tree (*Acacia ehrenbergiana*), *ḥarāz* (*Faidherbia albida*), *sayāl* (*Acacia tortilis*). In addition, various types of animal dung (except camel dung) are used as fuel for burning. The mound kiln (*kamīna*) is set directly on the surface, in a slight depression.

First, a layer of manure, preferably sheep or calf dung, is placed on the surface, followed by a stack of pieces of wood for burning. Next, branches and pieces of wood up to about 2 m are placed on a circular base about 6–8 m in diameter. The stack of wood is covered all around and on top with earth and clay, and

Fig. 55
Banganarti (1.12.2015), a pile of wood covered with goat manure, prepared for burning in the yard of the house of Muḥammad Uṯmān, brother of the owner of a nearby shop who has been firing charcoal for six to seven years. A small hole is left at the bottom to set fire to the lower layer of manure. Once set on fire, the hole is sealed to reduce oxygen access. Therefore, the wood must char, not burn, inside the pile. Photo by Andrzej Leligdowicz

Fig. 56
Banganarti (1.12.2015), when the burning is finished, the charcoal is buried in the sand and allowed to cool for one day. Photo by Andrzej Leligdowicz

Fig. 57
Banganarti (1.12.2015), charcoal product, prepared in bags for transport in the courtyard of Muḥammad Uṯmān's house. Photo by Andrzej Leligdowicz

an additional layer of manure is placed on top of it **(Fig. 54)**. A small hole is left at the bottom to set fire to the lower layer of manure **(Fig. 55)**. Once set on fire, the hole is sealed to reduce oxygen access. Carbonisation can only occur with insufficient oxygen and lasts two to four days. When finished, the charcoal is buried in sand and allowed to cool for one day **(Fig. 56)**.

After this time, the charcoal is separated from the unburned pieces, which are collected for the second burning, which usually takes two days. Another mound is piled with smaller dimensions, about 2–3 m in diameter and about 1 m in height. Similarly, the charcoal, after burning, is buried in sand in a different place and left for one day until it cools down.

The charcoal is packed into large bags (*šawwāl*, pl. *šawālāt*), weighing about 60–70 kg **(Fig. 57)**. A bag of charcoal costs 150 Sudanese pounds (in 2015). It is also sold by middlemen. In front of the house of one of them, Ašrāf ʿAbdallah, visited on 28 November, a significant number of bags weighing ca. 65 kg (according to information received) were photographed being prepared for transport.

A second visit to Muḥammad's store occurred on 17 December 2015. The burning was finished, the yard cleaned up, and the charcoal packed in bags prepared for transport. Muḥammad ʿUṯmān said that he does eight to nine firings per year.

Charcoal is also burned using another method, called *difin*. It requires an earth kiln. The wood is placed horizontally in the pit and covered with a layer of manure and earth to ensure an airtight seal. Burning takes about two days. Then in a separate pit, the charcoal is buried in the sand (or soil) for one day to cool.

The use of this method was recorded on 16 December 2015 during a visit to Ǧabarūna village. The women who produce ceramics there also produce charcoal. They use small pits for the purpose, sufficient for the small scale of their production. Pictures of the pit kiln were taken.

Various Crafts

The current activities of local artisans in the Banganarti area are limited to a few, often quite haphazardly operating, workshops of an eminently domestic nature that provide the most essential services to the residents in the immediate vicinity. Most of the provisioning has been taken over by the mass production of household goods, clothing and groceries available in well-stocked stores in Ad-Dabba. For more essential purchases, one travels to Khartoum.

Some specialists serve a larger area beside the traditional artisans who provide the villagers with the necessary tools and equipment. One of them was visited (on 14 February 2019) by ʿAbd Allah Aḥmad Ummāra, a local tailor in Ḥammūr who started working in 1967 **(Fig. 58)**. He learned the profession from his uncle (his mother's brother). He has two sons and four daughters currently living in Khartoum. He tailors men's clothes (mainly traditional *ǧalālīb*, sing. *ǧallābiya*) from a material containing 35% cotton and 65% artificial fabric. He receives most of his orders before various holidays – he occasionally does minor repairs throughout the year. Women use the help of a seamstress in these situations, but these are nowadays mostly minor adjustments. As a result, women now only buy ready-made clothes from neighbouring stores, mainly in Ad-Dabba.

Fig. 58
Al-Ghaddār (25.11.2017), blacksmiths working in the local *sūq*. They perform simple tasks, such as sharpening knives, dressing sickles and knives, and reforging axes. Photo by Andrzej Chojnacki

ʿAbd Allah lived in Ǧazīra Tanqasī until 1975, and after the great flood, moved to the present site, where he built a new house as early as 1972. He also owns several palm trees. The season of palm pollination is in February, and he performs this activity in the courtyard (*hūš*) of his house. He also has a dovecote there. Such dovecotes are a common feature of the Sudanese household, but most of them now stand empty. Until recently, he also used a bread oven built from unfired clay. It is now ruined, and he uses a gas stove instead. In his household, he uses several old earthenware jars (*azyār*), most of them from a workshop in Ǧabarūna but also one made by ʿAbd aṣ-Ṣādiq's father, a well-known potter of more than 60 years ago. In the past, he also used *qussība* in his household, but that was when he still lived in Ǧazīra Tanqasī.

The profession of blacksmithing was an essential and common occupation in the countryside in the past **(Fig. 58)**. Today, fewer and fewer people are engaged in such services. In an interview, a blacksmith, Muḥammad ʿAbd ar-Raḥīm ʿUṯmān from Bukubūl **(Fig. 59)**, said that in Ǧabarūna, in addition to the very well-known pottery production, there was also an important centre for blacksmithing services. At least five of them were operating, producing some of the tools used by the blacksmiths in their work. For example, he has tongs for holding glowing iron (*kallūba*) made by them **(Fig. 60)**. He bought some tools at the *sūq* in Al-Ghāba and some in ʿUmdurmān, such as the hammer (*šākūš*), the hoe (*tūriyya*), the axe (*farrār*), the anvil (*sindāla*) **(Fig. 61)** and the round metal ring (*qālib*) used as a mould. When he started working in his profession, he set up an elementary workshop at home with bellows made of sugar sacks ending in a wooden ring (made of *ḥarāz* wood –

Fig. 59
Bukubūl (9.12.2017), blacksmith Muḥammad ʿAbd ar-Raḥīm ʿUṯmān with a traditional Sudanese dagger that once belonged to his grandfather. Photo by Andrzej Chojnacki

Fig. 60 (far right above)
Tongs for holding glowing iron (*kallūba*). Photo by Andrzej Chojnacki

Fig. 61 (far right below)
Tools and products of the blacksmith's workshop. Photo by Andrzej Chojnacki

Acacia albida)[26] with a metal tube inside. Such a hand-operated bellows was sufficient to keep the desired temperature. He used charcoal as fuel **(Figs. 62–65)**.

There is also a blacksmith working in Banganarti, representing the next generation **(Fig. 66)**. He has continued his father's work in the past for almost 20 years. In a small workshop in the courtyard, he makes minor repairs, mainly sharpening various kinds of knives and tools **(Fig. 67)**, and also produces small metal objects, such as horseshoes.

One characteristic of Sudanese products is the traditional beds with a wooden frame tied with a braid of rope or leather (*ʿanaqrīb*). These have been greatly supplanted by metal ones, but a few carpenters still make them from wood. One of them is Ibrāhīm Šunkal, who lives in Bukubūl and makes them from *sunuṭ* (*sanṭ*) wood.

One maker of traditional beds also lives in Banganarti. We visited him on 8 December 2015. Ibrāhīm ʿUṯmān came to Banganarti from Al-Ghaddār and has been making traditional beds there since 1969. This is his secondary occupation, as his primary occupation, as with most locals, is agricultural work. He produces 30–40 beds every year. The frame and legs are wood and joined without metal parts. He produces beds in two sizes. It takes him one day to make both the smaller and larger ones. It takes the same time to make the braided rope for one bed. He uses different types of wood for production, including mango wood.

26 Haraz trees (proper name *ʿas-sunṭ al-ʿabyaḍ*) grow widely across Sudan, with preference for sandy soil. The strong haraz timber is used in house building and roofing and is also used in boat building. A similarly important role in construction is played by wood of the species known as *ʿas-sunṭ al-ʿarabī* or *ʿas-sunṭ an-nīlī* (*Acacia nilotica*).

Fig. 62
Bukubūl (9.12.2017), the old wooden door of a house in the courtyard of the blacksmith Muḥammad ʿAbd ar-Raḥīm ʿUṯmān's house. Photo by Andrzej Chojnacki

Fig. 63
Bukubūl (9.12.2017), the way of using *wāsūq* demonstrated by Dafa ʿAllah and the blacksmith ʿAbd ar-Raḥīm ʿUṯmān. Photo by Andrzej Chojnacki

Fig. 64 (far left below)
Bukubūl (9.12.2017), *mazyāra* – a special place for keeping water jars (*azyār*) in the courtyard of Muḥammad ʿAbd ar-Raḥīm ʿUṯmān's house. Photo by Andrzej Chojnacki

Fig. 65
Bukubūl (9.12.2017), boys are presenting the goatskin sack used for storing and transporting water. Photo by Andrzej Chojnacki

Fig. 66
Banganarti (29.11.2017), workshop of the local blacksmith. Photo by Andrzej Chojnacki

Fig. 67
Banganarti (26.11.2017), a special kind of knife (called *munǧal*) used primarily for harvesting dates. Photo by Andrzej Chojnacki

This bed is used primarily in summer when it can be placed in the garden. Such beds do not heat up as much as metal ones and give a comfortable rest. However, they are not durable products. Moreover, their life span is only a few (two?) years. In addition, Ibrāhīm ʿUṭmān produces low stools called *banābir* (sing. *bambar*). These are made using the same technology of wood and braided rope.

A local carpenter was also interviewed during a visit to Al-Ghaddār on 25 of November 2017. Sayf ad-Dīn Ḥasab Allah worked as a carpenter in Khartoum, and for the past eight years, he has been running a very modest carpentry workshop for himself in Al-Ghaddār. He has a small house in which he lives and works simultaneously. He makes cheap furniture for home furnishings, for the bedroom – closets, beds, hangers with hooks (*šanākil*, sing. *šankal*). The material is made of wooden boards, plywood, and the beds are wood. Sometimes he receives orders from not very wealthy customers, contrary to what one might suppose. For example, it is customary for the bridegroom to furnish the bedroom before the wedding.

Folk Medicine

The progressive modernisation of the country has also affected the medical sphere. A modern hospital funded by Qatar has recently opened in Banganarti. However, some therapeutic methods that have been used since time immemorial have retained their efficacy, at least in the popular opinion of the people interviewed. When asked about the current use of folk medicine, interviewees generally stated that it has lost its former importance and is not often used. However, almost everyone had specific knowledge about the various plant medicines used in treatment. Thus, it was possible to collect information about folk medicine in conversations on other topics. Moreover, much of the information obtained by chance was confirmed and explained in greater detail by ʿAṭiyāt Ǧādū Manṣūr, wife of Dafa ʿAllah ʿAwaḍ Muḥammad ʿAlī, majordomo of the Polish Mission in Banganarti and Selib, who was repeatedly asked about various issues related to folk medicine.

According to ʿAṭiyāt's account, a widespread tree – *al-ḥarāz* (*Acacia Albida*) growing to a height of 15 m or more has seeds from which a decoction is prepared. The dried seeds (*qarad*) are boiled in water and can be drunk as medicine for an upset stomach or fever. The boiled bark, roots or leaves of *ḥarāz* are used to treat diarrhoea, cough, fever, bleeding, and cold. The fruits of this tree are also taken as an antidote for diarrhoea. They can be boiled and used as an infusion for a cold, sore nose, pharyngitis and similar ailments. Crushed *qarad* is used as a powder to heal wounds. A little bit of the powder is applied to the wound and wrapped for three days. This is enough to heal the wound. Mixed with oil, *qarad* powder can be used to rub all over the body for various skin diseases. It is rubbed on the skin usually for three days. The leaves of the *ḥarāz* tree are eaten by camels and the fallen seeds by cattle and goats. They are excellent fodder for animals, especially since it is available during the dry season.

The leaves of the *sidr* tree (lotus tree, Nub. *nabak*, *Ziziphus spina-christi*) are used for various purposes. *Mašāyiḫ* (plural from *šayḫ*) – a group of elders, holders of dignity – know all the secrets of this tree, which is even mentioned in the Holy Qurʾān. Dried leaves mixed with oil can be applied to injured areas or to lubricate the whole body for various skin diseases. An infusion can be made from them, drunk as a multi-purpose medicine. Also, the fruit is eaten especially for painful conditions caused by gout (*qāwt*). There are two types of *sidr* tree – *balādī*, which has small round fruits that are very sour when unripe, and *fārsī*, with large, delicious fruits that can be eaten even unripe. Specially prepared dried leaves – mixed with oil, fragrances, black cumin and cloves are used to wash the dead (*hanūt*) before burial. It has a purifying and protective significance – it is used for health and well-being and to ward off all devils and evil spirits that disturb life and the hereafter. As a sacred tree, it is not allowed for official treatment – it can only be used in folk medicine at home. Leaves of trees with holes in the trunk (e.g. after insects) should not be picked.

The leaves, along with the stems of a herbaceous plant (*nabat ʿušbī*) called *damsīs*, are used as a medicine to lower blood glucose levels. The dried leaves are crushed into a fine powder and taken dry and sipped with water or as an infusion drunk cold. Cloves have a similar effect and are commonly used.

Fig. 68
Selib (5.12.2017), Muḥammad Ḫayr during magic rituals. Photo by Andrzej Chojnacki

The dry seeds of the *ʿaradīb* tree were used to remedy malaria in the past. They were poured into water, sometimes heated, set aside for two to three hours, and drunk several times a day for about five to seven days.

The resin of some trees – like *al-hašāb* (*Acacia senegalensis*), *aṭ-ṭalḥ* (*Acacia seyal*), *as-sanṭ* (*Acacia nilotica*) – is used to treat kidney stones (*al-ḥaswa*) as well as various disorders of the digestive system. A little resin is poured into either cold or warm water and drunk. A herb called *umm šufīka*, commonly found in the study area, is used as a remedy for nephroliths and urinary tract stones. The whole plant (without the roots) is dried and then ground to obtain a yellowish powder. An infusion of one teaspoon per glass of water is drunk twice a day for at least ten days, three to four times for stomach ailments.

Another herb – *maharīb* of the grass plant species – is sometimes grown in the household. The dried plant is used as an infusion drunk for menstrual problems. Interestingly, many women have an appetite (*waham*)[27] to eat Nile mud (*kūrkūtī*)

27 The Arab verb *wahama* means to imagine, fancy, guess, think, believe.

during pregnancy. This is presumably due to the lack of essential elements in the diet. Therefore, they can often be seen going to the river bank and eating river mud there.

A small herbal store has also began operating in Ad-Dabba recently. It was visited on 25 February 2018. Its owner, a specialist in herbal medicine (*ḫabīr ʿišāb*), Ḫālid Bā Bikr at-Tūm Ibrāhīm, is from the southern part of Al-Jazira Governorate. He was born in Al-Manāqil and initially lived with his family in Sinnār before moving to Khartoum. He was interested in herbs from an early age and completed a six-month course in herbal medicine in Khartoum, becoming certified. His store offers many herbal medicines and mineral specifics for various ailments.

When asked about a plant randomly growing near his store, he explained that it is a very popular colocynth called *ḫanẓal*.[28] It has fruits that are not edible, but when dried, they can be crushed into a powder and mixed with oil and can be used as an ointment for rheumatism and sacrodynia. It is also used to treat gonorrhoea. 'The fruit is emptied of its seeds through a rounded opening at one end. The resulting cavity is filled in the evening with milk, left overnight, and drunk the next morning. One fruit is sufficient for three days'.[29]

For cosmetic purposes, women use *henna*. Small *henna* trees can be found growing in the backyards of many homes. Their leaves are dried and then ground in mills (*sahāna*). The powder mixed with water makes a paste that women use to dye their bodies, especially their hands. First, the hands are lubricated with an aromatic essence called *maḥlabiyya* (made from *maḥlab* seeds).[30] Then a *henna* paste is applied. This treatment is used both daily and on other, more festive occasions.

Some Esoteric Aspects: Magical Treatment and Divination

The folk medicine practice in Sudan is well documented with a significant monograph by Dr Aḥmad Al-Sāfī[31] and numerous other publications. However, during this ethnographic study, a compelling case of the use of religious and magical treatments was discovered in Selib. Muḥammad Ḫayr, a 54-year-old (in 2019) resident of the Ḥalawiyīn tribe from the Wad Madanī region, practised the art of magic, which was taught to him by his grandfather **(Fig. 68)**. This tradition was cultivated in the family for several generations. Four of his grandfather's ancestors applied this method in treatment. The first was a certain Aḥmad. Muḥammad's father, who refused to continue this family tradition, died in 1984. His grandfather had the religious function of a *šayḫ*. Muḥammad started learning from him at five and studied at home for five to six years. At 80, his grandfather passed magic utensils and handbooks to him. Sudanese healers had access to several books of occult sciences popular in medieval Islamic countries. Muslim scholars prepared extensive and detailed books that served as guides to physicians who wished to treat their patients in a manner that remained within Islamic practices and law parameters.

28 *Citrullus colocynthis*, has many common names as e.g. bitter apple, bitter cucumber. It has been widely used in Arab traditional medicine for centuries, also to treat skin eruptions in camels.

29 Al-Sāfī 2006: 235.

30 *Prunus mahaleb*, its fruit has a bitter taste and is usually not eaten. The flesh (kernel) is ground after removing the hard shell. Its flour is one of the favourite spices in the Arab East. Its wood was also used to make musical instruments.

31 Al-Sāfī 2006.

Fig. 69
Selib (11.12.2019), Muḥammad Ḫayr shows a book he uses as a handbook for magical treatments. Photo by Roman Łopaciuk

Several modern editions can be purchased from Umdurmān's bookstores. Among the handbooks that Muḥammad uses daily, one can find such works as *Kitāb ar-Raḥma fī al-Ṭibb wa-al-Ḥikma* [The Book of Mercy Concerned with Medicine and Wisdom] by Ǧalāl ad-Dīn aṣ-Ṣuyūṭi,[32] *Šams al-Maʿārif al-Kubra* [The Great Sun of Gnoses] by Aḥmad ibn ʿAlī ibn Yūsuf al-Būnī[33] or *Ḫazīnat al-Asrār* [The Treasury of Secrets] by Muḥammad Ḥaqqī an-Nazīlī.[34] Traditional healers in Sudan easily acquire these books, which become indispensable references in their everyday practice.

32 Ǧalāl ad-Dīn Abū al-Faḍl ʿAbd ar-Raḥmān ibn Abī Bakr aṣ-Ṣuyūṭī (1445–1505) was an Egyptian jurist and philologist, writer and teacher whose works deal with a wide variety of subjects, the Islamic religious sciences predominating.

33 Aḥmad ibn ʿAli ibn Yūsuf al-Būnī (d. 1225) was an Algerian mathematician and philosopher and a well-known Sūfī and writer on the esoteric value of letters and topics relating to mathematics, *siḥr* (sorcery) and spirituality. He is considered a key figure in Muslim magic.

34 Muḥammad Ḥaqqi an-Nazīlī (d. 1884) was amongst the most important Muslim scholars in the nineteenth century. Despite his Turkish origin, he spent most of his life and career as a resident scholar in Mecca specialising in the fields of *al-ḥadīṯ* and Sufism. Apart from teaching, he also published a number of important religious works written in Arabic. His opus entitled *Ḫazīnat al-Asrār* is of high importance and significance.

Muḥammad calls himself *ḫaddām* – a servant who carries out a ministry to the needy. The most essential services are related to treating diseases, including mental ones, which are pretty numerous. He can also help, e.g., in choosing a spouse or profession. On designated days, there are queues, often of young men, in front of Muḥammad's house during his reception hour. In addition to inquiries related to searching for a suitable wife, men often seek help related to sexuality. The most critical problem is undoubtedly the treatment of infertility. Women come with similar problems. Having a child is the most crucial goal for a woman, and one who might be infertile has virtually no chance of getting married.

Muḥammad bases his healing practice on applying the humoural theory, a system of medicine detailing the supposed makeup and workings of the human body known from ancient times, according to which man has the nature of one of the four elements – fire, water, air or earth. Hippocrates is usually credited with applying this idea to medicine, which Galen developed further. Hippocrates suggested that humours are vital bodily fluids (blood, yellow bile, phlegm, and black bile). The theories of humours and temperaments described by Galen were fully absorbed within the circles of Muslim medicine by the end of the ninth century. The system was based on the four humours (body fluids) principle compared to the four elements. They were combined in pairs according to the following scheme: blood with heat and moisture, lymph with cold and moisture, bile with heat and dryness, and black bile with cold and dryness. The balance of humours (*iʿtidāl al-mizāǧ*) was a sign of good health.[35] However, always one of the humours prevailed in some way. This led to a division into four basic human behaviours: sanguine, phlegmatic, choleric, or hepatic, and melancholic. The man began to fall ill when the balance of humours was disturbed in relation to his initial state.[36] It was believed that each individual had his temperament based upon the balance, or imbalance, of all these elements. Diseases were associated with particular humours, so if one were suffering from a disease which affected the yellow bile, which is hot and humid, they were to be treated with dry and cold things, such as certain foods, herbs, and medications.

Undoubtedly, it is quite intriguing that this ancient system continues to be used in the Sudanese countryside, where it is applied practically by Muḥammad in treating local farmers. He can find a detailed description of how this system works in his reference books. However, Muḥammad is undoubtedly unaware of the fact that the work of Aṣ-Ṣuyūṭi he uses daily comes from a completely different author. Namely, this treatise on prophetic medicine was written by Aṣ-Ṣanawbarī[37] and has been printed several times, often under the name of Aṣ-Ṣuyūṭi, falsely attributed to him. T. Nünlist writes that Pseudo-Ṣuyūṭi's work expresses the close relationship between healing practices, religion and magic. In his opinion, this work is based on the scientific approaches of Greek medicine, primarily humoural pathology, but also owes much to the magic theories known from Al-Būnī's tradition. We are dealing

35 Savage-Smith 2005: 171.
36 Savage-Smith: 171.
37 Aṣ-Ṣanawbarī (d. 945), Muslim poet, a classic exponent of the descriptive style.

here with something like a practical book of prescriptions, which first takes up ideas from folk magic.[38] One especially influential book was the *Ṭībb al-Nābī* [Medicine of the Prophet] by Ǧalāl ad-Dīn aṣ-Ṣuyūṭi, one of the authors dealing with this subject, who mentions Ḥāǧǧī Ḫalīfa[39] in his encyclopaedia. He composed two works on prophetic medicine, one containing the sayings and practices of Muḥammad in general and a second work entitled *Sexual Relations as Ordered by the Prophet*.[40] Unfortunately, Aṣ-Ṣuyūṭi is unanimously looked upon as the last person who can be relied upon when it is a question of the authenticity of a statement. There are many collections of the traditional sayings of the Prophet Muḥammad on the subject of medicine. According to At-Tirmīḏī,[41] the Prophet said: 'He who wakes up in the morning healthy in body and sound in soul and whose daily bread is assured, he is as one that possesses the world'.

However, Muḥammad also has a wealth of practical knowledge to achieve healing effects using magic. However, the most important thing is first to recognise which humour can be ascribed to a given patient. Muḥammad straightforwardly approaches this. To establish the nature of a given patient's humour, he first uses evocation: *Ya ǧinn! Ya šayṭān!* – 'Oh spirit, oh Satan!' Then he touches an amulet and tries to 'see' the disease in the patient's eye pupil. He may also use a rosary (*sibḥa tanzīl* – revelation's rosary). The procedure is simple. Muḥammad writes nine letters of the fire element on pieces of paper that the patient should burn in a censer for three days, once a day. The head should then be covered with a scarf, and the patient should inhale the smoke from the censer. When a patient is mentally ill, some cumin (*kamūn*) and olibanum (*lubān*) are wrapped in paper, which should be burned twice daily, morning and night. In addition, another set of nine letters (three by three in a square) is used for this purpose, written with a sharpened piece of wood in red ink from saffron oil. For stomach problems, he recommends drinking rose water. After this, the patient vomits, expelling the disease.

Muḥammad undoubtedly applies the knowledge contained in the work of Al-Būnī's. As for the content of *Šams al-Maʿārif*, it is essentially devoted to the magical power of letters. It contains many excursions into astrology, alchemy, or divination, but the vast majority tirelessly return to the main issue: how to use the supernatural force in letters and names to influence the course of events.[42] The use of squares, numbers and seals is an ancient practice derived from numerology, which gave numbers intrinsic and mystical values and later extended to the alphabet letters **(Fig. 69)**. A set of magical astrological tables used in divination are called *az-zāʾirǧa*.[43] Al-Būnī has dealt with the subject

38 Nünlist 2015: 389.

39 Ḥāǧǧī Ḫalīfa (A.D. 1609–1657), a celebrated Ottoman-Turkish polymath and leading literary author of the seventeenth-century Ottoman Empire. He compiled a vast universal encyclopaedia, the famous *Kašf al-Ẓunūn ʿan ʿAsāmī al-Kutub wa al-Funūn* [The Removal of Doubt from the Names of Books and the Arts].

40 Elgood 1962: 42.

41 Abū ʿĪsā Muḥammad ibn ʿĪsā as-Sulamī aḍ-Ḍarīr al-Būghī at-Tirmīḏī (824–892), a Persian Islamic scholar and collector of *hadīṯ* from Termez (early Ḫurasān and in present-day Uzbekistan).

42 Lory 1987–1988: 99.

43 Al-Sāfī 2006: 112.

and describes it as an honourable science when mastered.[44] Muḥammad uses special magic squares, produced by combinations of letters, in his practice. He presented an example of a square to treat eye disease. Under such a square, he places a set of different signs opened and closed by a five-pointed star, a pentagram with magical associations and was used symbolically in ancient Greece and Babylonia.

Protection with words and numbers has a long tradition. The person in need usually went to the *fakī*.[45] The *fakī* used the ritual of etching specific numbers into a square, later to be worn in the form of a ring. Such magic squares serve as interpreters of the cosmic order that reigns over every existence. The mathematician Al-Ḫuwārizmī[46] begins his work with a quotation from Muḥammad: 'Praise God the Creator, who has bestowed upon the man the power to discover the significance of numbers'. The ritual most often requires the numbers 7, 14, and 40.

Muḥammad has devoted himself to magic, and it is not a rare phenomenon in the Sudanese Muslim environment. In Banganarti Qiblī, Ibrahīm Muḥammad Ibrahīm ʿAlī Warāq ʿAbd ar-Raḥmān Muḥammad Ad-Dawīğī from the Aš-Šāyqiya tribe from the village of Darīm Wadnāğ near Marawī is involved in similar activities. His grandfather, Ibrahīm, settled in the family's present residence, where he founded a *ḫalwa*[47] in 1918 and led it until 1932; his father managed it between 1932 and 1986. Ibrahīm's brother has been running the *ḫalwa* since 1986. His distant ancestor ʿAbd ar-Raḥmān Wadḥāğ founded the third *ḫalwa* in Sudan in 1521 in the village of Dawīğ. The family roots are traced back to the family of Muḥammad.[48]

Ibrahīm Warāq deals with treatment based on a specific type of amulet in the form of pieces of paper with *āyat (sing. āyah)* verse from Al-Qurʾān, appropriate for a given disease – mental illness, paralysis, addiction, etc. It is a different form of an amulet, which is particularly protective. These amulets are worn by people and livestock and are prescribed to avert the evil eye, evil spirits, and other malicious powers. They acquire their unique power from the holy inscriptions they contain. The ones used by Ibrahīm are separate from the protective type. The treatment procedures he uses are straightforward. For example, in the case of an alcoholic, he writes the appropriate *āyah* on a piece of paper, rinses it in a bowl and then the patient drinks the water used for this purpose. One such procedure will be enough. For various diseases, such a paper amulet is washed in a bucket of water with which the patient then washes the entire body. He also deals with drug addiction treatment, which has long been commonplace. He has many patients from all over the area and remote parts of Sudan – Kurdufān and Dārfūr. He heals both adults and children. There is a particular procedure in the case of an insane person. The patient kneels on a rug while Ibrahīm reads the appropriate *ʾĀyah* from Al-Qurʾān, touches the patient's head and symbolically hits him on the back with a whip (*sūṭ*).

44 Al-Sāfī 2006: 113.

45 *Fakī*, traditional healer who uses verses of Al-Qurʾān or charms as a form of magic, also a holy man and religious teacher.

46 Al-Ḫuwārizmī, *Al-Kitāb al-muḫtaṣar fī ḥisāb al-ğabr wa-l-muqābala*, also known as *The Algebra*.

47 The *ḫalwa* as an educational institution has continued up to the present day.

48 Ibrahīm's family is one of the richest and, like most families in the area, they work as large-scale farmers. They have a lot of arable land in Banganarti, Al-Ghaddār, Tanqasī, Lattī Basin, Karabī. Everywhere he has people to cultivate the land from planting and harvesting to transporting and selling the crops.

He uses a paper cone filled with a small number of caraway seeds (*kamūn*) for all kinds of pains – headaches, joints, and heart disruptions. The patient burns the paper cone together with incense for 14 days before going to bed and inhales the smoke. Ibrahīm works all week except Fridays. Patients come in the morning and evening. The only remedy for the evil eye is, according to him, amulets and quotes from Al-Qurʾān.

Specific procedures Ibrahīm uses have a lot to do with what Al-Sāfī describes as the 'erasure method' (*al-mibāya*).[49] This is carried out by a drink the Muslim healers prepare by writing certain Qurʾānic verses in *amar*[50] ink using a durra-cane pen on a *lauḥa* (wooden tablet). The writing is then washed, and the 'holy' fluid is given to the client to drink.

In addition, Yūsuf ʿAlī Yūsuf, the *ghafīr* at excavations at Selib, recounted another form of using magic procedures in the treatment of diseases, as well as an aid in solving fundamental life problems. A woman lives there, called a fairy in the popular local nomenclature. She practises a particular form of sand (*raml*) divination known as geomancy (*ʿilm ar-raml*). Al-Sāfī writes that this kind of divination is practised throughout Muslim Sudan.[51] This type of divination is believed to have originated in Berber circles and entered Muslim practice in Morocco, spreading throughout Muslim Africa.[52] It was described by At-Tūnisī, an Egyptian traveller, and the historian Aḥmad Amīn.[53] While referring in his *Qamūs* to *ar-raml* in Egypt, the latter mentions that the practitioners were mainly Takarna (Nigerians) and Sudanese.[54] The process of divination is called *ḫaṭṭ bi-r-raml* or *ḍarb ar-raml*, and the diviner is called *ḫaṭṭāṭ* or *rammāl*. Al-Sāfī notes that too few documents are available to enable us to trace *ar-raml* back in history. However, Ibn Ḫaldūn[55] has described *ar-raml* in Al-Muqaddīma as an established Arab practice.[56]

As it turned out, another fairy also lives in Ḥammūr, and she uses a set of seven cowrie shells for divination. The house owned by Mūsa ʿAbdallāh al- Al was built in the 1940s or 1950s and is one of the oldest in the area. Mūsa ʿAbdallāh al- Al bought it two years ago (visited in 2017) as an old house inhabited by the previous occupants for a long time. They come from the Kabābīš tribe and previously lived in Banganarti. The wife of Mūsa ʿAbdallāh al- Al, Bahīta Mūsa al- Al, makes predictions for clients based on cowrie shells.[57] She

49 Al-Sāfī 2006: 126.

50 *Amar* ink is a mixture of soot, gum Arabic, and water containing a tuft of hair soaked in a *dawāya* (ink pot); or is prepared by the *fukaya* for writing in *ḫalāwī* (see Al-Sāfī 2006: 242).

51 Al-Sāfī 2006: 108.

52 Fahd 1966: 34–35.

53 Aḥmad Amīn (1878–1954), an Egyptian historian and writer. He wrote a series of books on the history of Islamic civilisation as well as an important dictionary of Egyptian folklore, *Qamūs Al-ʿĀdāt wa At-Taqālīd wa At-Taʿabīr Al-Maṣrīyya* [Dictionary of Egyptian Customs, Traditions and Expressions; 1953].

54 Al-Sāfī 2006.

55 Abū Zayd ʿAbd ar-Raḥmān ibn Muḥammad ibn Ḫaldūn al-Ḥaḍramī (1332–1406) was an Arab sociologist, philosopher and historian.

56 Al-Sāfī 2006: 109.

57 Divination with cowrie shells, originated by the Yoruba people, is distributed broadly throughout West Africa. See Zolrak 2019. Specialising in esoteric problems, Zolrak is a long-time practitioner of cowrie-shell divination. According to him, there are many variants using from 8 to 21 cowrie shells. West African-derived forms most commonly use 16 cowrie shells on a prepared table or on a mat on the ground. An expert on Arab civilisation, Toufic Fahd, in his dissertation *La divination Arabe*, describes the use of similar practices under the slogan of cleromancy, which has subdivisions according to objects used for throwing, such as pebbles or various types of grains. However, he does not mention cowrie shells. The use of shells in esoteric treatments is also known from other areas, e.g. in South India the custom of ritualistically tossing sea shells (*sozhi*) and interpreting the results based on the positions of the shells is prevalent, predominantly in the state of Kerala.

discovered her fairy abilities in a prophetic dream that she had some seven to eight years ago. Her activity is mainly focused on solving all kinds of problems in everyday life and does not include healing. The significant number of clients visiting her testifies to the effectiveness of her divination.

As recounted and observed during ethnographic interviews, the preservation of folk tradition was focused on health beliefs. In Sudan, folk medicine is an integral component of the cultural patterning of society arising from the general praxis of everyday life. These communities believe in the presence of supreme powers who control all aspects of human life, either punishing or rewarding human activities on earth, and other powerful supernatural beings, spirits (*ǧinnī*, *ǧinnīyya*), which influence human beings and affect their health. The task of *fakī*, healers or fairies of various kinds, is to engage this supernatural force and their resources of esoteric knowledge and the ability to use the power that this knowledge gives them to meet the health needs and to solve social questions of the inhabitants of the village, region, and even those who come from distant parts of the country. This is a convention, a social norm accepted without question, especially when considering the practice within the context of compliance with the principles of the Muslim faith.

Protection against the influence of evil forces and spirits has always been an essential and inseparable element of everyday life in Islam. Help was sought in the sacred texts contained in Al-Qurʾān. An English teacher from Al-Ghaddār, Al-Fādil Ḥasan, reported traditional protection against the evil eye. According to the principles adopted in Islam, such protection was provided by reading two suras of Al-Qurʾān – *An-Nās* and *Al-Falaq* – after the evening prayer. Then it was necessary to blow lightly on the text read, and rub or wash the body with its holy words. This was also to be communicated to the family and was a practice to encourage throughout daily life. This traditional activity is no longer practised and has completely disappeared.

Fascinating reflections on folk beliefs in the context of the role of the Sudanese woman were collected by Maciej Kurcz during his research. He writes, among other things: 'Every woman engages in the more or less magical activity. Belief in magic is born out of enormous psychological pressure associated with, for example, marriage and having children. These issues are of paramount importance to her life. Without them – realistically speaking – she does not count in society'. Kurcz continues: 'This is why the Sudanese woman often resorts to magical practices. She is a quack, fortune teller, and even a witch, believing that thanks to these activities, she is the guardian of the home hearth'.[58]

It has been possible here only to outline a compelling and often, for religious reasons, somewhat hidden aspect of the daily life of the Sudanese countryside, indicated by the ethnographic interviews, one which is worthy of a fully developed robust case study.

58 Kurcz 2009: 134. He also describes the rites used in the event of an exorcistic *zaar*. Performing such rituals as *zaar* is associated with the belief that supernatural forces hostile to man can act on him from the inside, i.e. various kinds of possession are possible. The ghosts of *zaar* are a category of beings who visit human beings (Kurcz 2009: 136). This profoundly important element of traditional beliefs is beyond the scope of this ethnoarchaeological case study and requires further in-depth research.

Agriculture

The primary employment of almost all the villagers in the researched area is agriculture. About 95% of Banganarti residents are engaged in farming to a greater or lesser extent. Even people with permanent employment in the health service, education or state administration, as a rule, spend at least a part of their day working on cultivating crops. As part of the ethnographic interviews, this topic could not be missing. Accounts concerning this subject matter were collected whenever possible. In this way, much valuable information was obtained, showing the size and pace of changes in agriculture that are taking place in the region. Generally, the traditional soil cultivation based on hand hoeing ceases yearly, becoming an element of local folklore **(Fig. 70)**. Present conditions in Sudan agriculture are vastly different from those registered only a few years ago. Modern agricultural machinery manufactured in China or India is already a common sight in the fields of the discussed area. Of course, the changes in the country's agriculture are also the subject of analyses carried out by government agencies and scientists specialising in this topic. Scholars and researchers have written numerous studies and scientific articles about different agricultural aspects.[59]

Recently, changes took place in the settlement, the way of life in the Sudanese countryside, and farming habits. As a result, the nature of the crops has changed. Cultivated plants, which once played a significant role in the agricultural economy of the Sudanese countryside in the discussed region, either ceased to be cultivated or their significance underwent significant transformations. In the previous period, when the population inhabited the fertile region of the Tanqasī Ǧazīra, sorghum (*ḏura*), broad beans (*fūl maṣrī*) and wheat (*qamḥ*) were grown on a large scale. Currently, sorghum is no longer grown on the same scale as before, and from the crops maturing in autumn, *fūl maṣrī* (to a limited extent) and wheat (also less than before) are planted. Large sorghum crops currently occur in the south, in the Blue Nile area.

Naturally, the farmers of the region follow all changes in agriculture; they comment on them in their way, subjectively; they evaluate both their positive and negative sides. They take their observations into account when planning future crops. According to an assessment of the current situation, every farming household tends to, e.g., grow a defined species of dates to be less vulnerable to annually changing market prices and diseases affecting only specific types. It is interesting that according to information obtained from *šayḫ* Aḥmad ʿAbd al-Ǧalīl in Selib (5 December 2017), all agricultural work is carried out based on the Coptic calendar by using the Coptic names of the months.

The paramount issue always was and still is irrigation. Memoirs to which today's inhabitants of the region return are illustrated by a picture of numerous *sawāqin* irrigating fields in their unhurried rhythm. These times are so firmly memorised that they know not only how the *sāqiya*-based irrigation system functioned, but some of them are even able to describe the exact structure of such a waterwheel, and already mentioned ʿAbdullāhī named several dozen elements

59 See, e.g., Mahgoub 2014.

Fig. 70
Tanqasī (2.12.2017), despite the increasing mechanisation of agriculture, the old method of oxen ploughing is still fairly common. Photo by Andrzej Chojnacki

of *sāqiya* without the slightest problem and accurately described their functions. During conversations conducted on various occasions, he also expressed his opinion about the changes in agriculture. He stated that there was more land accessible for cultivation in the past than today, while the acreage used for the cultivation of the date palm is still increasing. It has been visible for some time now as the cultivation of palm trees comes closer and closer to the area of archaeological research. ʿAbdullāhī also confirms that the crops of sorghum, wheat and *fūl maṣrī* have decreased.

On the other hand, many onions and potatoes are now grown. The latter appeared around 20 years ago. Initially, these were small crops growing significantly for several years. Until now, potatoes have been grown mainly in the Khartoum region and the area of the Al-Jazira state (*Wilāyat Al Ǧazīra*) and Atbara (ʿAṭbara). In the Banganarti area, many fruit trees are growing – mainly citrus and mango. The cultivation of alfalfa (*barsīm*) is also growing all the time. Large deliveries are made to the market in Ad-Dabba, and individual sales are carried out directly from producers. In Ad-Dabba, there is a large market for animals brought even from far away, from Kurdufān and Dārfūr. The staple food for animals, alfalfa, has a large market outlet there.

Today's farmers are fully aware of the subsequent development stages of crop irrigation in their region and nationwide. Previously, water from the Nile was simply carried by women on their heads. Later, the *šādūf* (pl. *šawādīf*), a kind of crane, came from Egypt, where it was invented back in ancient times. It was a device that allowed water to be poured directly from the Nile into irrigation canals (*ǧadāwil*) or for direct irrigation of gardens. Then, *sāqiya*, a mechanical water-lifting device, a kind of waterwheel, traditionally made of wood, with clay pots (buckets) attached directly to the vertical wheel, moved by the power of an ox, drew water from the Nile by pouring it into irrigation channels. It consists of a long wooden beam attached to an ox on one end and a tool for raising water on the other. One *sāqiya* served 20 feddans of the land. It worked around the clock, in three shifts. This system existed according to various interlocutors in some cases up to the beginning of the 1980s, but most stopped functioning at the turn of the 1960s and 1970s. The number of *sawāqin* given by interlocutors depended on the acreage of arable land in a given area and ranged from three in Selib to about fifty in Al-Ghaddār.

The Nile is rich in excellent fish species, but they do not play a significant role in the dietary habits of the region's inhabitants. Farmer and fisher ʿAlī Ṣāliḥ al-Ḥāmī, visited on 3 March 2019 in Bukubūl Baḥrī, owned four feddans of arable land and lived mainly from agricultural activities. He grew wheat, *fūl maṣrī*, sorghum, alfalfa, potatoes and onions, vegetables such as tomatoes, cucumbers and others, and fruit trees – date palm, orange and mangos. On the other hand, the fishing season falls during the winter period. Therefore, fishing takes place at night with relatively low temperatures this time of year, making the work extremely hard.

The land has been family-owned for generations. Also, after moving to a new place after the great flood in 1988, families continued cultivating their former fields. These fields are not large and generally have an area of three to five feddans. Often, a part of the plants is cultivated on a piece of land near the house. For example, ʿAlī Muḥammad Aḥmad Dirār from Funǧ, who, after the death of his wife recently remarried at the age of 75, owns two feddans of land and only grows the date palm, all its species. When encountered outside a shop (30 November 2019), ʿAbd al-Wāhī Ḥasan of the Šāyqiya tribe, born in Banganarti, the son of a farmer, said that they had been farming until recently and that he had given the land to his sons three years ago. Initially, they grew sorghum, wheat, and *fūl maṣrī* like most farmers, but nowadays, little wheat, potatoes, and onions. He found that wheat growing in the area was significantly reduced when a Saudi company launched a major wheat-growing project in the Al-Ghāba area.

This should be seen as a new trend emerging in Sudan's agriculture. There are significant agricultural investments made by acquiring large tracts of most fertile agricultural lands by international companies that belong to Saudi Arabia or other countries interested in investing in agriculture in Sudan. A similar activity begins to be practised by local investors of the studied region. The last interviewee was ʿUmar Ibrahīm al-Badrābī, from the Bidayriya Daḥmašiya tribe, who lived in Tanqasī until 1946. His father and brothers were given 12 feddans of agricultural land as an inheritance. Now he has much land, 17 feddans of the palm grove and 300 feddans which he got from the state in a desert area, 7 km from the road leading

to Al-Ghaddār. He fenced all owned acreage with barbed wire and bought four oil-powered pumps and a solar-powered one. This is the first application of solar energy – certainly can be considered historical in the area under study – which, due to the virtually cloudless weather, should soon find wide application. The condition for the success of such an economy is good water quality. A type of brown soil in this area is very fertile when adequately irrigated. On the other hand, one should also remember that the water obtained from deep wells often contains mineral salts, which are not favourable for all crops. The important thing is that water sprinklers are already widely used and are generally recognised as the best form of water use.

Date palm cultivation plays an important role – harvest takes place from 15 September to the end of October. In February, there is a period of pollination of palm trees. For seed formation, pollen from male flowers transfers to female flowers, which develop fruit with a seed inside. Fertilised female flowers produce fruits that grow and ripen over about six months. The best species of dates is called *gundeila* – *qundīl*, especially *qundīl maḫṣūṣ* (special). Other local species are *barakāwī* and *ǧāw*. In addition to its economic importance, the date palm has a permanent cultural significance in the history of its cultivation as one of the inseparable elements of the landscape in which the inhabitants of rural Sudan regions live. Few plant species have developed into an agricultural crop so closely connected with human life as has the date palm. The date palm provided a concentrated energy food, which could be easily stored and carried along on long journeys across the deserts, and it also created a more amenable habitat for the people to live in by providing shade and protection from the desert winds.

Moreover, changes in the infrastructure of the studied region also favour the cultivation of the date palm. The construction of roads and a bridge in Ad-Dabba have become additional factors in promoting these crops. A short visit to the great date collection point in Ad-Dabba, where local farmers bring their harvest, gives an idea of the scale of these crops.

One of the visited farmers, Muḥammad Ibrahīm al-Ḥāǧ (on 3 February), who at the same time is acting as imam at the mosque in Bukubūl, worked during his whole lifetime (now being 80 years old) in agriculture. He lives in a house built by his father in 1920. He possesses a land acreage of five feddans, cultivating two feddans of *fūl masrī*, two feddans of wheat (*qamḥ*) and some sorghum (*ḏura*). Additionally, he has a considerable number of palm trees and grows two sorts of dates – *barakāwī* and *ǧāw*. For three years now, Muḥammad Ibrahīm has been using machines made in India and China. Before, the harvest was made using a traditional method called *nūrīq*. His wife always helped him in all agricultural activities. His three sons living in their own houses not far from him are helping him in all field works. For the harvest of *fūl* are now enough three men. He also used a *qussība*, a big grain container hand-formed from unfired clay **(Fig. 71)**. Containers of this kind were used for keeping loose goods, like dried dates (*al-balaḥ an-nāšif*), grains or *fūl*. Some were relatively large, more than 2 m high. He had three such containers in his household, but he stopped using them about 15 years ago. This kind of storing crops was widespread and practically in every household *qussība* found use. The essential crops (grain and dates) are kept in big sacks (*šawwālāt*) with a strictly defined capacity. His old tools used in the past for handwork in agriculture have not been preserved, but some are still used on farms where traditional land cultivation is ongoing. In the courtyard of Ba Bikr Muḥammad

Fig. 71
Bukubūl (26.01.2019), on the farm of ʿAbd Fāḍil as-Siyy, there is a *qussība* – big grain container – that is several dozen years old and is now used for storing various rubbish. Photo by Andrzej Leligdowicz

Fig. 72
Ḥammūr Wasaṭ (16.02.2019), two old containers for grain (*qussība*) in Ḫaydar ʿAwwūḍa's grandfather's abandoned house. They were made in 1934 by a woman named Allah Maʿnā Kiǧab, who specialised in their production. According to ʿAwwūḍa, they were used for 74 years. Photo by Paulina Terendy

Ḫayr's house (the owner has not been interviewed), there is an old (about 40–50 years old, as it was told), no longer used *qussība*. Two old *qussība* were photographed and measured in the courtyard (*hūš*) of the old empty house (built in 1928) belonging once to Ḫaydar ʿAwwūda's grandfather. According to Ḫaydar's account, they were made in 1934 by a woman named Allāh Maʾnā Kiǧāb, who specialised in making such *qussība* for residents on request **(Fig. 72)**. The use of *qussība* in the past to store agricultural products is known to virtually all farmers today. Many of them remember well using them in their households. This type of container is also confirmed by excavations from the Christian period at sites within the Kingdom of Makuria, indicating its Nubian origin and continued use during the Muslim period.

The work in agriculture usually lasts from daybreak to dusk. During the work, all meals are eaten in the field, where in some places arranged are also permanent shelters, sometimes with an accompanying pen for farm animals, such as goats or sheep, kept outside the home. For cooking, they use *idāya*, a kind of small cooker, homemade of unfired clay, composed of three cylindrical supports (*fire-dogs*) about 20 cm high and 10–12 cm in diameter. They can be put in any place directly on the ground. It serves to prepare different dishes in a metal pot that can be put directly over them. Small pieces of wood lighted between them are used as fuel. The main fieldworks fall mainly in August, September and October when new cultivations

Fig. 73
Farmers met on the road to Tanqasī with a load of alfalfa (*barsīm*) – a daily view of a Sudanese village in the study region. The cultivation of alfalfa has become one of the priorities. Photo by Andrzej Leligdowicz

Fig. 74
Ḥammūr (23.01.2018), ruins of the first school in Ḥammūr, built in 1946 after the big flood. Photo by Andrzej Leligdowicz

are sown. Different new field works also take much time from the beginning of December. Crops of *fūl maṣrī* are harvested in March and wheat in April.

The farmer Aḥmad Muammad Rābā (visited on 9 February 2018) works simultaneously as a driver, bringing the children to school and going to Khartoum. He was living at the beginning in the area of Ḥammūr al-Ǧazīra. Then, after the flood of 1988, he moved to his father's house in Ḥammūr Baḥrī. His father had three wives and 25 children (12 sons and 13 daughters). In 1991 he married and moved to his own house. His wife comes from Dunqula al-ʿUrḍī (New Dongola). He has three feddans of land and is cultivating the fruit trees – mango, oranges, grapefruits, palm trees, and some *fūl* and alfalfa (*barsīm*) **(Fig. 73)**. In their house, they are still using some traditional household utensils. In use are some mortars (*funduk*, pl. *fanādik*), among them an old one, made from a heavy sort of wood, a metal round container (*qirāṭ*[60]) to measure dry items like wheat, *fūl*, etc. It was used as a measure in the sale of some products – e.g. five *qarārīṭ* of wheat or three *qarārīṭ* of *fūl*, etc.

Some traditional tools used in agriculture in the past find everyday use nowadays. For example, for irrigation of palm trees and other fruit trees, *wasūk* is used, and a large scraper is used to make *taqnad* – a depression in the earth retaining water longer, surrounded by a circle of sand. It is used, e.g., by Ǧaʿfar Muḥammad Dirār (interviewed on 21 February 2018), who works in the hospital as a male nurse but also cultivates some date palms and other fruit trees. To cut off the dates from the palm tree, he uses a sizeable traditional *munǧal* – a sickle.

*Sometimes the o*wners of the houses have in their farmyards (*ḥūš*) small gardens used for the cultivation of some small fruit trees, like guava (*ǧawāfa*), and vegetables, like, e.g., *bāzinǧān* (aubergines), *fūl*, *bamyā*, *lūbyā* (black-eyed beans), and spices, like ginger (*ǧanzabīl*) and others. Such a small patch possesses farmer ʿAbdullāhī in Banganarti. His daughter studies agriculture in Khartoum at the Agriculture College. In the first year of studies, there are about 500 students – most of them are women.

Mudaṯṯir Amīn ʿUmar is a teacher and chief education officer in Ad-Dabba, responsible for a large area of schools **(Fig. 74)**. In addition to holding an important official function, he is also a farmer. He has three feddans of arable land in the Al-Ǧazira area, not far from his home – he grows date palms, oranges, and mangoes. In the past, these were traditional crops – *fūl maṣri* and wheat, as well as onions and *bamya*. Eleven to twelve years ago, he started planting fruit trees in their place. Back then, it was more profitable, now less. The vegetative cycle of a palm tree lasts one year, while *fūl* and wheat give a harvest after four months. The climate and the current weather affect the crops. It is very cold, fruit trees bear little fruit, and orange trees lose the blossom heavily in strong winds.

On the other hand, the cultivation of *fūl* pays off even with a poor harvest. Wheat and *fūl* benefit from coolness during the ripening period, but it cannot be too cold. With higher temperatures, which are now often present in winter, *fūl* matures too quickly, and its quality deteriorates. Fluctuating weather conditions are a factor that affects the agricultural sector significantly. Also, other interlocutors confirmed that the weather has significantly influenced crops in the given year.

60 A *qirāṭ* (pl. *qarārīṭ*) – in Sudan a dry measure, $^{1}/_{32}$ *qadaḥ* = 0.064 litres.

Some Historical Data

The area covered by ethnoarchaeological research encompasses the famous archaeological sites of Old Dongola, Banganarti and Selib. Therefore, a part of fascinating modern history was revealed during meetings with residents. In conversations, attention was paid to the facts related to the contemporary history of the studied area. The conducted interviews confirmed, on the one hand, the long-known fact that genealogy and family's origin still retain their pivotal importance and the modern inhabitants can trace their lineage since the very distant past, and, on the other hand, they showed that these people also have much knowledge about their most recent times, among others of some known personalities born or temporarily resident in their region. Based on the collected information, it is possible to reconstruct the history of the emergence of individual settlements, villages, current problems in education, administration and economy, religious issues and others. In addition, some residents know the history of Mahdia and keep souvenir photos from this period, such as the visited ʿUmar Ibrahīm al-Badrābī, in whose house on the wall next to the photos of his grandfather and father, there are portraits of Al-Mahdī and his follower ʿAbdullah ibn Sayyīd Muḥammad al-Ḫalīfa.

Fig. 75
Ad-Dabba (9.03.2019), the outer part of the former residence of the last *ʿumdā* in Ad-Dabba with a wall surrounding the entire complex. Photo by Andrzej Leligdowicz

Historical information concerned the time of arrival of individual tribal groups to the studied settlements (i.e. Banganarti, Selib, Bukubūl), local administration, and the genealogy of some families. The interlocutors had an excellent memory of past events, typical of people who mainly use oral traditions passed down from generation to generation. Interviews allowed us to go back in time to the period of the Funǧ. This period was represented in northern Sudan almost exclusively by representatives of the authorities who performed administrative functions in this territory (in Turkish times, the administrator was *āghā*, under the British *ʿumda*), but there was no Funǧ settlement here. A descendant of the region's governor, or *ʿumda*, of the Funǧ, lives in Banganarti. Our interlocutor was Waʿīl Sayf ad-Dīn Aḥmad Saʿīd, the grandson of the last *ʿumda* Aḥmad Saʿīd Fāraḥ Muḥammad Fāraḥ. He exercised power over the so-called *Farʿī al-Fūnǧ* (Funǧ section), residing in Tanqasī in the years between 1904 and 1972 as the main *ʿumda*. His sovereignty was under the *ʿumda* of Kušābī, Al-Ǧabriya, Al-Ghāba and Karmakūl. His father, Saʿīd Faraḥ Āghā, a general in the Turkish army, served as *šayḫ* and *zaʿīm*, i.e. head of administration and military commander appointed by the Turkish authorities, residing in Tanqasī.

Fig. 76
Banganarti (2.02.2018), the residence of the last *ʿumdā* Aḥmad Saʿīd Fāraḥ Muḥammad Fāraḥ. Photo by Andrzej Leligdowicz

The relations between the discussed region and the State of Funǧ in the interviewees' accounts go back to the eighteenth century. Around the middle of the eighteenth century, the ruler of this country, Badi IV (1724–1762), also known as Badi Abu Shilluk, a ruler of the Kingdom of Sinnār, sent his son Nāṣir (1762–1769) with a troop to ensure the safety of caravans transporting gold to Egypt from attacks organised by the Šāyqiya tribe. He was then stationed with his unit in Kušābī. According to the information obtained (Azhārī Muḥammad Ḥasan, 23 February 2018), he became the founding father of this line of governors – the *āghawāt*, the *šuyūḫ* who ruled the Tanqasī region in Turkish and later British times, who had roots from the Funǧ. They were subsequently Misnid, Sināda, Muḥammad Fāraḥ, Aḥmad Āghā and Aḥmmad Saʿīd Fāraḥ. Aḥmad Āghā had

Fig. 77
Banganarti (2.02.2018), the court building, which operated under the British administration, where sentences were passed by the last *ʿumdā*, Aḥmad Saʿīd Fāraḥ Muḥammad Fāraḥ. Photo by Andrzej Leligdowicz

the function of *az-zaʿīm*. In 1886, he defended Ad-Dabba against an attack by the Mahdists. The so-called Battle of Al-Kayqār was the battle for the arsenal located in Ad-Dabba. Currently, this building does not exist. However, it was located near the new courthouse. He was helped by Muṣṭāfa Ǧawūr, the Turkish governor (*ḥākim*) from Dongola, at the head of a detachment armed with cannons and rifles. Together they repelled the Mahdist attack.

Aḥmad Āgha remained in Tanqasī, still exercising power. He had a second house in Ad-Dabba. It has survived to this day **(Fig. 75)**. He also owned a house in Abū Qūsī. Together with Tanqasī, he managed the area designated as *Manṭāqa* or *Farʿī al-Fūnǧ*, also including Kušabī, Karmakūl, Ad-Dabba, Al-Ǧabriya and Al-Ghāba. Eight years after defending Ad-Dabba, ʿAbdullahī Ḫalīfa sent him a conciliatory letter, claiming he was letting go of past hostility and inviting him to Umdurmān. Aḥmad Āgha accepted the invitation and went on his way. However, on the spot, when he finished praying, he was arrested and taken by boat to Ǧabal ar-Riǧah near Kūsṭī. There he was executed. His grave has been preserved to this day. Meanwhile, his pregnant wife fled Tanqasī for fear of the Mahdists to Al-Kirid near Ad-Dabba, where Aḥmad Saʿid Fāraḥ Muḥammad Fāraḥ was born in 1896. He had four sisters. He was appointed as *ʿumda* by Sir Douglas Newbold, British Administrator (Administrative Director) at Marawī, in 1904. Initially, the adolescent *ʿumda* was supervised by his uncle Sināda. He performed the function of *ʿumda* until 1972 **(Fig. 76)** when President An-Nimayrī abolished the office. Aḥmad Saʿīd died in 1974.

Aḥmad Saʿīd was considered a mild-mannered man who patiently resolved local disputes. Meetings were held at his home, during which important decisions were also made. There was also a court – the building in Banganarti is preserved but is in ruins **(Fig. 77)**. *ʿUmda*, who had military power, was at the same time a judge, and he decided all matters personally. He also had a writer to help. Azharī Muḥammad Ḥasan's father had this function for 35 years (interview 23 February 2018). Financial penalties were imposed for minor law violations, but if the punished person could not pay the penalty, it was exchanged for 25 lashes. He appointed Ḥaṣaballa ʿAbd al-Fātaḥ as executor of punishment (*ǧallād*). The punishment was administered in court or public in the *sūq*. Currently, the police in Ad-Dabba is executing it.

The Banganarti area has been inhabited by several known personalities throughout the area and once performed essential functions. One of them was ʿUṯmān Raba of the Bidariya tribe, progenitor of the Rabaʿ family, who settled in the part of Banganarti Qiblī called Rabʿāb. Muḥammad Tanqasawī, who played an essential role in activating the Banganarti region, came from this family. His family was from Abū Qūsī. They had much arable land there, which they still own today. His father, Muḥammad Diab, was a *šayḫ al-balad* there. Later, the family moved to the Tanqasī Ǧazīra area, where they had a small house.

Muḥammad was born there. This fact contributed to his receiving the nickname Tanqasawī. He moved to Egypt around 1930 and worked for many years in Alexandria as a hotel manager. In 1936, he built a large house in Banganarti, now in ruins **(Fig. 78)**. During his stay in Egypt, he often came to Banganarti, where his wife lived permanently. They were a childless marriage. The wife had a boy to help with the house and girls from the family to help her

Fig. 78
Tanqasī (2.02.2018), ruins of an old school building where the famous Sudanese poet Idrīs Ğamāʿ (1908–1983/84) taught for a short time. Photo by Andrzej Leligdowicz

with the household. Tanqasawī began to carry out various types of investments in Al-Ğazīra itself, which were to raise the level of the economy in the Banganarti area. He was the first to import cement from Egypt for use in construction. He built the first mechanically operated mill in Tanqasī Ğazīra, and he brought an oil press for pressing sesame and peanut oil, the first mechanical water pump with a diesel engine, the so-called *babūr*. Unfortunately, all these investments fell victim to the great flood of 1946. Muḥammad Tanqasawī worked in Alexandria until 1965. He invested the earned money and funds from various companies (e.g. cement companies) in the bank account. He had little arable land. In 1965 he came to Wad Madanī, where he was the Continental Hotel manager for a few more years. He returned to Banganarti two to three years before his death. He probably died in 1972. His wife lived in their large house until she died in 1993. After that, the house was to be taken care of by a property manager from Khartoum, but he could not fulfil his duties. The house, systematically devastated, eventually fell into disrepair.

From the close surroundings of Banganarti and Selib come several other famous and influential persons, like the outstanding Sudanese writer Aṭ-Ṭayyīb Ṣāliḥ who was born in Karmakūl a few kilometres from Ad-Dabba. This fact is known to the region's inhabitants, and some of them know his works. Many can quote a verse from a work by the famous poet Idrīs Ğamāʿ (1908–1983/84). He began his career as a primary school teacher and, for a short time (1937–1940), was appointed as a teacher also in Tanqasī al-Ğazīra **(Fig. 78)**. The primary school opened in 1936 as a four-year school; from 1970, it was a six-year school, and now it is an eight-year school.

He was the first man in Tanqasī who wore the now commonly found white *ğallābīya*, red *tāqiya* and small white turban (*ʿimma*) (according to the relation of 17 February 2019 from Aḥmad Ḥasan Aḥmad Sināda, born 17 November 1925,

Fig. 79
Tanqasī (2.02.2018), an old building of a *ḫalwa* (Qur'ānic school) from the beginning of the twentieth century. Photo by Andrzej Leligdowicz

who had the opportunity to see him several times). Before, the men there were wearing *ʿarāqiya* – white cotton skullcap – and *sirbādūq* – a kind of white, wide cotton pantaloons which are nowadays worn under the *ǧallābīya*. *Ǧallābīya*, as an everyday garment today, comes from Yemen, and the first man in Sudan who wore it was, according to tradition, the Sudanese religious leader Muḥammad Aḥmad ibn ʿAbd Allāh al-Mahdī. The researcher ʿAbd al Qādir Šayḫ Idrīs prepared a doctoral thesis on Ǧamāʿ's poetry entitled *Sudanese Poet Idris Ǧamāʿ, His Life and Poetry*.[61]

Tanqasī had significant meaning in the past **(Fig. 79)**, and being permanently inhabited, it is still an important centre of local living culture, while the uninhabited Old Dongola has become a world-famous monument. The history of Tanqasī dates back at least to the Christian period, which is testified by preserved foundations of the former church on which the present mosque was built and the significant number of ceramics dated to this period **(Fig. 80)**. Tanqasī is also a place where the very venerated *šayḫ* Kandimār once lived. According to tradition, his birthplace had magical properties. Unfortunately, the big flood destroyed his *qubba* (tomb) in 1988. In its vicinity (this place could not be determined during an on-site visit), a famous potter, Ṣabāḥ al-Ḫayr, was firing ceramics, known for his extraordinary veneration of this saint. He was a very popular figure in Tanqasī, working for several dozen years at school as a *saqqāʾ* (water carrier). There was a large Wednesday market (*sūq al-arbaʿāʾ*) near the school for many years, and it operated until around 1983–1984. The large Sunday *sūq* operated in an area called Tanqasī Baḥrī and was transferred to Banganarti after the floods in 1988. In the area called Tanqasī al-Munawarāb, near a dilapidated post office building **(Fig. 81)**,

61 Published in Arabic: *Idrīs Muḥammad Ǧamāʿ, ḥayātihi wa šiʿrihi, Ad-Dār as-Sudāniya lilkutub*, Khartoum 2017.

Fig. 80
Tanqasī (2.02.2018), ruins of the old mosque behind the new one currently functioning as the village's main centre of religious worship. Photo by Andrzej Leligdowicz

Fig. 81
Tanqasī al-Munawarāb (26.02.2019), former post office. In the era of electronic mail, it has become a redundant institution. Photo by Andrzej Leligdowicz

Fig. 82
Tanqasī al-Munawarāb (26.02.2019), former English school building. Only three such schools have been established in Sudan in the frame of an educational project, and one of them is in Tanqasī. Photo by Andrzej Leligdowicz

there is the building of the former Egyptian school **(Fig. 82)**. It operated from 1954 to 1980. Currently, the building houses an art school (it was closed during the visit). Three such schools were founded by Egyptians in Sudan to support the Sudanese educational system. One of them was opened in Tanqasī, which proves its importance throughout the country.

In Tanqasī also lived *šayḫ* As-Sayyīd Anwar as-Sayyīd Mirghānī as-Sayyīd Muḥammad Aḥmad ibn Idrīs, a religious leader, lecturer, a descendant of the *ʿašrāf* (sing. *šarīf* = highborn, celebrated – title of the descendants of Muḥammad). His empty house is still preserved in Tanqasī. His grandfather Muḥammad as-Sayyīd Mirghānī, born in Mecca, went first to Egypt to the town of Darāw (in the Aswan Governorate), well known for its camel market existing there to this day. Then, he stayed in Arqū and Dongola until he reached Tanqasī at the end of the nineteenth century, where he decided to settle down and get married. Coming from a noble house related to the rulers of Jordan, Libya and Morocco, he received there a large acreage of arable land in the form of a donation.

His grandson As-Sayyid Anwar, originating from the descendants of Muḥammad, became an important figure in Tanqasī from where he moved to Banganarti. He then married in Al-Kirid near Ad-Dabba and later moved to Al-Ghāba. There he was a religious teacher, preaching and undertaking agricultural projects in Tanqasī, Al-Ghāba, as well as a major project aiming to convert a desert area extending from Al-Ghaddār towards Nāwī into farmland that covers, among others, the Basin Lattī area, which has, however, been abandoned. Thus, the Al-Ghāba project was implemented instead. As-Sayyid Anwar died in Al-Ghāba. After his death, the *ḥūliya* – anniversary celebration – took place yearly at his tomb there, the last one in 1981.

In turn, Sāttī Māǧid,[62] a personage known in the Islamic world, was born in Al-Ghaddār in 1883. In 1893 he began to attend a Qurʾānic school (*ḫalwa*[63]) in Rūmī Bakrī and later went to Egypt, where he continued his education at the Al-Azhār university in the second part of the 1890s. He did not graduate from the university, but while studying there, he had heard tales of an Italian Catholic priest in North America who was said to make speeches sharply attacking the faith of Islam. Inspired by his stories, he decided to go to America to answer his accusations. He encountered numerous difficulties trying to leave, but ultimately he arrived in America in 1904. First, he learned the English language and started his activity after that. He published articles calling people to convert to Islam in newspapers and magazines, revealing its advantages. He tried to draw a possibly significant number of people to the religion of Islam. For this purpose, he held many meetings presenting its principles in several American cities, like New York, Washington, Boston, Detroit and Cleveland. He was supported by the Red Crescent organisation both financially and through protection. Sāttī attempted to have himself recognised and appointed as Al-Azhār's official missionary or *daʿāwī*

62 See Abu Shouk, Hunwick, O'Fahey 1997.

63 The term *al-ḫalwa* seems to be unique to Sudan for this kind of educational institution which emerged during the Funǧ era. It is the traditional Islamic school in Sudan and generally implies a school for learning Al-Qurʾān, but at present it also includes other material. *Aš-šayḫ* is the Sūfī superior of *al-ḫalwa*, while a teacher of Al-Qurʾān is called *al-faki*. In the past, a *ḫalwa* was designated the retreat of a single dervish, frequently a cell situated around a mosque square. The original meaning of the word is solitude, seclusion, hermitage, also assembly hall of the Druses.

(propagandist) to North America. However, in 1929 Al-Azhār stopped his activity, arguing that he had never been the university's envoy. Having failed to gain Al-Azhār's approval, he was prevented from returning from America.

For this reason, he was trying to get to Egypt secretly with the help of the Italian Embassy but was met with a refusal. So he was forced to stay longer in America. He was helping some organisations and associations (not only the religious ones) in Egypt finance different building projects. Then, sometime in the 1940s, he returned to Sudan. Here he was living in Al-Ghaddār, supporting some local projects in agriculture. He died on 17 March 1963 in Old Dongola.[64] His empty house is still preserved there. One of his sons and his daughters still live in Al-Ghaddār. His biography has been published in Sudan (according to the account of Abūʾl Qāsim).

In Ḥammūr Qiblī, one of the people visited was Mağdī ʿUṯmān ʿAlī Ḥamad, son of ʿUṯmān ʿAlī Ḥamad, an electrician and electronics engineer, a lecturer and dean at the King Khalid University in Ad-Dabba. He provided information on the historical administrative division of the researched territory. The most important administrative centres in the twentieth century were Tanqasī and Ḥammūr. ʿUṯmān ʿAlī Ḥamad, his father, held the office of *šayḫ al-balad* from 1971 until 1992 in Ḥammūr. Afterwards, he became the Chairman of the people's committee (until 1994). To his tasks in both offices belonged, among others, collecting taxes and appointing *ghufarāʾ* (sing. *ghafīr* = guard, watchman) for archaeological sites. During this time, Ḥammūr, with Al-Ghaddār, was subject to his power. To Ḥammūr belonged the whole territory of Old Dongola. In 1999, when Az-Zubayr Muḥammad Ṣāliḥ,[65] a native of Al-Ghaddār, was appointed Sudan's vice-president, he decided to incorporate Old Dongola into Al-Ghaddār. The border between Ḥammūr and Al-Ghaddār was established 360 m behind the old mosque in Dongola.

According to the account of Abūʾl Qāsim in Al-Ghaddār, since the 1960s, Dirār was *šayḫ al-balad*, and before him, his father. They were also, among others, responsible for collecting taxes. At that time, the residence of *ʿumda* was in Amintogo (*Amintuğū*), and the *ʿumdiyya* comprised Al-Ghaddār and Nāwā as well. The last *ʿumda* (in office until 1972) was Mīrghanī ʿUmar ʿAlī. He died some years ago, but his wife still lives in their old residence. However, the office of *šayḫ al- balad* was maintained for longer. It was abolished only in 1992 by the president of Sudan, Bašīr ʿUmar. Since 1992 the local authority in every village has been represented by the people's committee (*al-laǧna aš-šaʿbiya*). ʿAlī ʿAbd ar Raḥīm Ḥammūr, who lives in Ḥammūr, comes from a family to which the village of Ḥammūr once belonged, and its representatives performed critical administrative functions in the region. His grandfather owned a house in Old Dongola, known as Qaṣr Ḥammūr, now standing empty. He performed the function of *ʿumda* in Ḥammūr and then in Karmakūl.

Interesting is the history of the empty house standing on the top of the hill – Ǧabal Ḥammūr – and the history of its owner. It was built after 1956 by

64 Abu Shouk, Hunwick, O'Fahey 1997: 151.

65 Major General Az-Zubair Muḥammad Ṣāliḥ Aḥmad (1944–1998) was a Sudanese soldier and politician. He was the deputy of Omar al-Bashir in the military government from 1989 to 1993 and then he continued as Al-Bashir's vice-president.

Maḥağub Ziyāda, a native of Ḥammūr who graduated from Khartoum. During his studies, he interfered in oppositional activity and, threatened with arrest, left Sudan and went to Yemen. He married a local woman in Hadramaut and was even appointed (the circumstances under which it happened could not be established) minister of education in the Republic of Yemen. He returned to Sudan after the recovery of independence in 1956 and, living in Khartoum, worked in Port Sudan, being involved in educational activities. During this time, he also built the house in Ḥammūr and married there his second wife. She lived all the time in today's empty house. He died (according to the account of Mağdī ʿUṯmān from 2 February 2018) about 40 years ago. His son is the uncle of Mağdī and now lives in Khartoum, visiting him occasionally. The brother of Maḥağūb Ziyāda, Muḥammad Ziyāda, was an industry minister from 1968 to 1969 during the presidency of Ismāʿīl al-Azhāri.[66] One of the interviewed interlocutors (on 19 February 2018), *šayḫ* of the *zawīya* in Bukubūl, Saʿīd ʿAbd ar-Raḥmān, worked later as his driver from 1985 to 1989. At that time, he had a house and a large acreage of cultivations in the area of Ḥammūr al-Ǧazīra. Unfortunately, the house was destroyed by the flood in the year 1988. He died in 1991. His only son, Ḥammūr Muḥammad Ziyāda Ḥammūr, born in 1975, sold both the land and the house in Khartoum and, around the year 2010/11, moved to Egypt.

During the visit to Ḥammūr Qiblī Ǧabal (on 23 February 2018), at a meeting with Mudaṯṯir Amīn ʿUmar, teacher and the general school superintendent of education in the local administration – *maḥalliyya* (administrative district of a town municipality) – in Ad-Dabba, information was acquired on the subject of the organisation of the system of primary education in the investigated region. The local department of education in Ad-Dabba is subject to authorities of the governorate (*wilāya*) in Dunqulā al-ʿUrḍī and is divided into three sections (units – *wiḥda*, pl. *wihdāt*) –Ad-Dabba itself, Al-Ghāba and Aṭ-Ṭadāmūn (to the south from Ad-Dabba). Mudaṯṯir works in the Ad-Dabba section. Before, he was a teacher in several localities in this area. At present, his duties include the inspection of schools in the area stretching from Ḥammūr to Ǧiqirnārtī. There are schools in two schools in Ḥammūr, two in Banganarti, two in Tanqasī al-Ǧazīra, one in Abkūr, three in ʿArqī, two in Affād and one in Ǧiqirnārtī. In addition, a general inspection (*riḥla ṭawīla*), taking 15 days, is carried out twice a year. As part of the inspection, Mudaṯṯir drives around the area in the Education Department's car, always accompanied by seven inspectors.

Mudaṯṯir has briefly described the history of Qurʾānic schools operating in the region. The first one was established in Tanqasī al-Ǧazīra around the year 1920 – *ḫalwa* Wad Aḥmad's, a little later the *musīd*[67] of Aš-Šayḫ Muṣṭafā and in the 1940s functioned the *musīd* of Al-Ḥatīb. In Banganarti Qiblī, there were two *ḫalawāt* – the *musīd* of Wad Ḥāǧ Bašīr,[68] founded in the first quarter of the twentieth century

66 Ismāʿīl al-Azhāri was a Sudanese nationalist and political figure. He served as the first Prime Minister of Sudan between 1954 and 1956, and as President of Sudan from 1965 until he was overthrown by Ǧaʿfar Nimayrī in 1969.

67 *Musīd* is also a Qurʾānic school.

68 Also Al-Badrābī spoke about the school founded by Wad Ḥāǧ Bašīr. Those eager to learn about Al-Qurʾān came to him. There was also active Al-Warārīq teaching Al-Qurʾān. According to him, in Banganarti there were three such schools.

Fig. 83
Banganarti Qiblī (2.03.2019), the oldest preserved buildings are located in this part of the village. One of them is a building that was used to receive guests (the so-called *maḍyāfa*), which once belonged to the *šayḫ* Al-Badawī, the founder of a *ḫalwa* in Banganarti (according to his grandson Ṣalāh Muḥammad ʿUsmān al-Badawī). Photo by Andrzej Leligdowicz

(the building is ruined and currently unused), and the *ḫalwa* of Al-Badāwī (according to the account of the founder's grandson Ṣalāḥ Muḥammad ʿUṯmān al-Badāwī) founded in the 1930s. Aś-Šayḫ Al-Badāwī died in the year 1970, and his son continued the activity of the *ḫalwa* until the 1980s. The building of the *ḫalwa* is now used as a place of prayer (*muṣallan*). Across from the *ḫalwa* exists the old guesthouse (*madyāfa*) **(Fig. 83)** of Aš-Šayḫ Al-Badāwī. In old times it was a separate building outside the house for having guests.

Some background information on the history of Qurʾānic schools in the region was obtained during a visit to Banganarti Qiblī on 12 December 2019 from Ibrahīm Muḥammad Ibrahīm Alī Waraq ʿAbd ar-Raḥman Muḥammad ad-Dawīğī of Aš-Šāyqiya tribe from Darīm Wadḥāğ in the Marawī area. His grandfather settled in the place where Ibrahīm now lives. He founded a *ḫalwa* in 1918 and ran it until 1932. After that, Ibrahim's father took it over and led it until 1986. Since 1986, Ibrahīm's older brother has been running it.

Banganarti Qiblī is the oldest part of the village. All historical buildings were located here. Some of them fell into disrepair. Others were dismantled. The old mosque Awlād al-Fakī Abdad al-Karīm in Banganarti, a photo of which can still be found in the book *Khalāwī al-Irāqāb fī As-Sūdān* – 'The Khalwas of the (Family) Al-Irāqāb in Sudan', written by Aš-Šarīf ʿUthmān Muhammad Ḫayr az-Zākī – has been pulled down and in its place has been built another, which is a lot greater, with a very high minaret. However, the new mosque maintained the former name.

Learning in *ḫalwa* usually begins at the age of five to six, but one can start at any age. *Ḫalwa* has been traditionally founded by a teacher who, from his inspiration, organised everything, becoming the *šayḫ* by himself and providing the school with the books indispensable to learning and tablets

for learning to write. The teacher of the Qurʾānic school is entirely independent in his activities, and in this case, the consent of the Education Department is not required to conduct classes, possessing only the spiritual (mental) patronage from the *šayḫ* of local *zāwiya*.[69]

Nowadays, the Qurʾānic school in Al-Ghaddār gathers approximately 200 schoolboys. The learning lasts three months. The old *ḫalwa* functioned here until the year 1973 when Aš-Šayḫ Muḥammad Aḥmad ʿAwūd died. The empty building is still preserved. Then, three people started the construction of new *ḫalwa* on their initiative: Ba Bikr Ḫalīfa (local religious leader), Al-Fādil Ḥasan (a teacher of English) and a certain Ṭalīb. In the beginning, this was a very provisional building made of wood, leaves and palm branches. Later, more wealthy inhabitants financed the building of bricks. Finally, the new *ḫalwa* opened in the year 1995. Its leader is nowadays *šayḫ* Muḥammad Maḥabūb Imām. During Ramadān, the men come with their sons to the *ḫalwa* to pray. Women on this occasion prepare a special drink called *ḥilu murr* and tea, coffee and sugar and serve these at the *ḫalwa*.

Conclusions

The interviews, talks, and meetings conducted showed clearly that the present inhabitants are not only aware of their tribal and geographic origin but also show great interest in history, both of which are evidenced by ancient monuments, world-famous archaeological sites, but also that from the recent past, occurring now before their eyes. The cultural importance of the region is also reflected in the big international cultural festival Open Sudan, organised in December 2017 in Karmakūl as a platform for Sudanese and international cultural exchange. It also manifests in the activity on Facebook, where information is exchanged on new facts from their local history. A former *ʿumad* (pl. from *ʿumda*) family association has been established. A list of former *ʿumad* was compiled from the immediate vicinity and other areas, such as Šandī or Zūma. Such information can be obtained immediately without tedious searching in the archives. It is also one of the phenomena of fast changes taking place on the scale of the entire country but also in the immediate vicinity. The information collected during the interviews allows us to get a picture, though not complete, of other aspects of everyday life in the modern Sudanese rural community. The picture of agriculture in the region under study probably does not differ much from the situation in similar riverain regions in North Sudan. The recorded statements show how local farmers perceive climate change, differences in quality of the Nile water and that obtained from deep wells, the related qualitative and quantitative effects in the obtained crops, the demand for specific products, technical possibilities (agricultural machinery, transport, communication, the use of new technologies) and draw conclusions from them, based on which they make deci-

69 A *zāwiya* (corner) is a building and institution associated with Sufis. The Islamisation and Arabisation of Sudan took place through the activities of the Sufis, with which Qurʾānic schools are inseparably connected, in the past as places where the local population received the first basic knowledge of the Muslim religion, and now providing teaching in the Qurʾan and the Islamic faith for children and adults of both sexes. The šayḫ himself was originally the teacher.

sions as to the type of crops, the area intended for specific crops, react to state policy and the activities of foreign companies interested in agricultural investments. Various aspects can be considered in the research conducted by agricultural scientists in Sudan performing ecological-economic analyses, e.g. impacts of climate change and its variability on agricultural production. Researchers noted that rising temperatures would also expand the range of many agricultural pests and increase their ability to survive the winter and attack spring crops, requiring appropriate preventive steps.[70] This is just a small example of a rich topic related to agriculture, dealt with by specialists in many fields. Local farmers, although not equipped with a scientific apparatus, are able to see the most important enviromental changes on an ongoing basis and react adequately.

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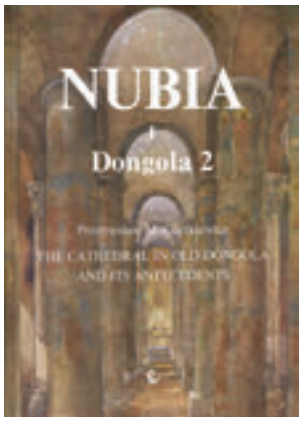

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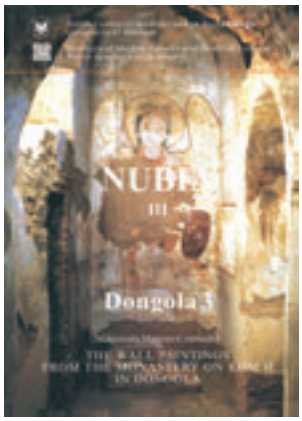

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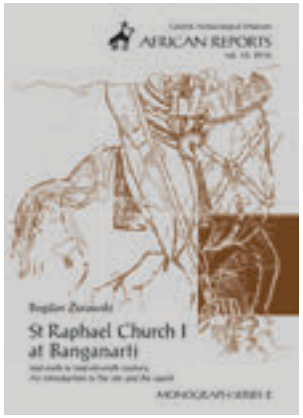

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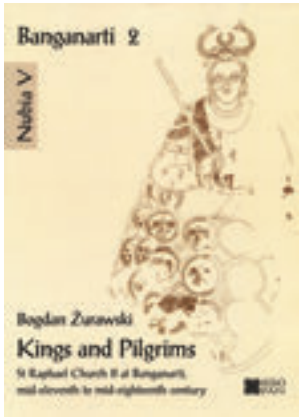

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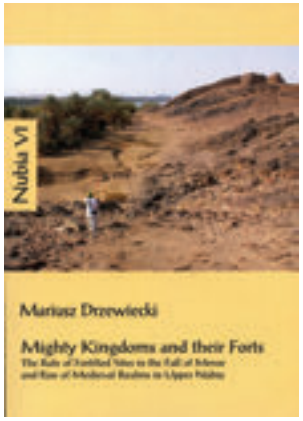

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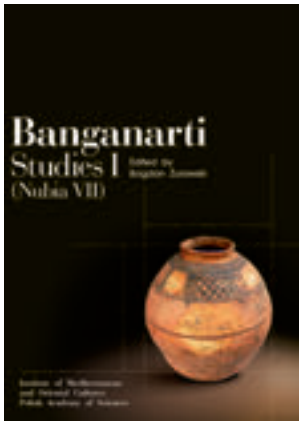

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Edited by Bogdan Żurawski

Articles by Bogdan Żurawski, Adam Łajtar, Marta Osypińska, Joanna Then-Obłuska, Laure Dussubieux, Jonathan Mark Kenoyer, Randall Law, Michał Dzik, Aneta Cedro, Sylwia Wajda, Agata Momot, Roman Łopaciuk

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