New insights into the history of early Alwa: recent archaeological research in Umm Marrahi, Hosh el-Kab and Abu Nafisa forts (Khartoum Province, Sudan)

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ABSTRACT
A group of nine fortified sites, similar to Roman fortlets, occur along approximately 550 km of the Middle Nile Valley of Sudan between the Fourth Cataract and the confluence of the White and Blue Niles. Previous research indicates that these forts were built in Late Antiquity, i.e. between the second and seventh centuries AD. This was a time of profound changes in the region that included the disintegration of the Meroitic kingdom and the development of several medieval Nubian realms. Drawing on previous research and the results of two seasons of fieldwork at three of the forts in 2018, this paper provides an answer to the questions of who and why these forts were built. Small finds and radiocarbon samples from various contexts provide insights into their history and indicate that all three of the forts investigated were erected in a short period during the second part of the sixth century, a time of conflict between the Nubian kingdoms that is described by the contemporary historian John of Ephesus.

RÉSUMÉ
Un groupe de neuf sites fortifiés, semblables à de petits forts romains, s’échelonne sur une distance d’environ 550 km le long de la vallée du Nil moyen au Soudan, entre la quatrième cataracte et le confluent du Nil Blanc et du Nil Bleu. Des recherches antérieures indiquent que ces forts furent construits dans l’Antiquité tardive, c’est-à-dire entre le deuxième et le septième siècle après J.-C. Ce fut une période de profonds changements dans la région, y compris la désintégration du royaume méroïtique et le développement de plusieurs royaumes nubiens médiévaux. S’appuyant sur des recherches antérieures et les résultats de deux missions de terrain sur trois de ces forts en 2018, cet article apporte une réponse aux questions de l’identité des bâtisseurs de ces forts et de la raison de leur existence. Les objets recueillis et les échantillons de radiocarbone provenant de divers contextes donnent un aperçu de l’histoire des trois forts étudiés. Ils indiquent qu’ils furent érigés au cours d’un bref intervalle dans la seconde partie du sixième siècle, une période de conflit entre les royaumes nubiens qui est décrite par l’historien contemporain Jean d’Éphèse.

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Introduction

Upper Nubia is a vast desert and semi-desert region stretching along the Nile Valley between the Third Cataract and the confluence of the White and Blue Niles (Figure 1). It covers approximately 1000 km of Africa’s longest river and is today part of Sudan. The region is extremely rich in the remains of old defensive architecture. While no one has ever compiled a list of all the fortifications in Upper Nubia, their total number can be estimated at around 300. Most of are generally dated to the medieval and post-medieval periods. Only a few are of earlier origin. Several of these fortified sites have been the object

Figure 1. Map of the study region in Sudan showing the locations of places mentioned in the text. Black squares mark quadrilateral forts, red squares potential forts (prepared by Mariusz Drzewiecki).
of extensive research. Most however, have only been briefly surveyed. The result is a series of general assessments and wide chronological ranges for sites based on identification of surface materials and observable architectural features such as construction technique and layout. Their loose dating, as well as the sparse nature of the research undertaken on their architecture and small finds, causes difficulties in understanding the reasons behind the construction and utilisation of these defences.

The largest of these fortifications constitute the most substantial structures erected in the region (e.g. at Old Dongola and Bakhit), while the smallest might be nothing more than a tower or a castle-house (e.g. numerous late medieval sites in the vicinity of the Third Cataract). In this highly diverse set of fortified sites there is a group of distinctive and quadrilateral medium and small sized forts (Figure 2), similar in shape and size to late Roman fortlets built throughout the Roman Empire between the first and fifth centuries AD (Brun 2018: 11–34). We have identified nine such sites in Upper Nubia. They span approximately 550 km of the Nile Valley and broadly date to the period known as Late Antiquity (i.e. the second to seventh centuries AD), which in Upper Nubia was a time of major political change. At the beginning of this period, the long-lasting Meroitic authority of the kingdom of Kush was already disintegrating and smaller political structures were being created (Török 2011). In the fourth century Ezana, the ruler of Axum, sent his army from the Ethiopian Highlands to conquer the Kushites, fighting numerous wars (Eide et al. 1998: 1094–1099). At least one of these conflicts was against rebellious Nubians. In the fifth/sixth centuries, three Nubian kingdoms were created in the Middle Nile Valley with their capitals respectively at Faras, Dongola and Soba (Vantini 1975: 6–26). In the second part of the sixth century, these kingdoms were in open conflict with each other, having been converted by Byzantine missionaries to Christianity in both its Melkite (Makuria) and Monophysite Christological forms (Nobadia and Alwa)

Figure 2. The quadrilateral fort at the top of Jebel Umm Marrahi (photograph Mariusz Drzewiecki).
Within such a history, one can find many reasons and situations for building a group of forts of this kind. The aim of this paper is thus to present a hypothesis as to who and why these forts were constructed. Our argument combines information from previous research and new data on three forts obtained during two seasons of archaeological fieldwork conducted in 2018.

**Who and why?**

In this paper, the questions of who built the forts and why constitute an inquiry of an essentially general nature; we do not intend to examine the specific individuals who undertook the physical work of constructing their walls, bastions and gates. Instead, the focus is placed on identifying the authorities who governed, or sought to govern, a large section of the Nile Valley.

In our opinion three possibilities require consideration. One is that the forts were built on the initiative of late Meroitic administrators since they cover the geographical areas which remained in the hands of the rulers of Meroe for the longest period. A second option is that the forts are of later date and were commissioned by post-Meroitic Nubian rulers.

Makurian administrators are considered to stand behind the construction of the fortified sites in regions further downstream, i.e. between the Third and Fourth Cataracts, the defences of which were erected in a different way. Here, the forts are adjusted to local topography and are thus not so regular as elsewhere. In most cases they also have more massive and higher walls as well as an irregular distribution of gates, bastions and towers. The largest of these fortified sites was the capital of Makuria at Dongola, while much smaller defences are located on the outskirts of the realm at Shofein in the Third Cataract region.

The nine forts we discuss in this paper are not so diverse. The biggest (Hosh el-Kab) is only four times larger than the smallest at Wad Mukhtar. Their corners are reinforced with bastions, which in some of the forts can also be seen along the curtains (Figure 3). Most of the forts are built using a vertical masonry technique (Figure 4), something that is not recorded in the Makurian defences. Moreover, the forts reach deep into the heartland of the kingdom of Alwa, with the southernmost one at Jebel Umm Marrah lying just 50 km north of Alwa’s capital at Soba. It is for this reason that Derek Welsby (2014: 188–190) suggested that they were of Alwan origin.

The third possible is an amalgam of the first two hypotheses, namely that the Meroitic authorities built a few of the forts which were later included into Makurian and/or Alwan systems of settlement organisation. This consideration, in turn, brings us closer to our second research question, which is the chronology of the forts. The time when the defences were built needs to be narrowed down. If they were erected between the second and fourth centuries, then the Meroitic option is more possible. If, on the other hand, they turn out to be later then an Alwan origin is more likely.

To settle the issue, and establish a more precise dating for the forts, during our archaeological investigation of these sites we carefully considered all relevant contexts and small finds. Only materials and samples from the lowest layers within the forts and those from the layers below the foundations of the enclosures should be taken into account when establishing *termini ante quos* and *termini post quos* for the forts’ construction.
Additional materials can be obtained from the core of the curtain walls as well as from surface surveys, but they need to be interpreted cautiously keeping in mind changes and distortions connected with deposition, post-depositional processes and possible architectural modifications in subsequent years and centuries.

Stratigraphic consideration should also accompany our third question, which focuses on the daily life and activities of the forts’ first settlers. Here, studies can shed light on the reasons behind the construction of the enclosures. Materials and small finds from the layers associated with the beginnings of the forts must be analysed. Pottery sherds and organic remains can provide information about the character of the individual settlements. The presence or absence of luxury goods and variation in the types of vessels used, as well as in the faunal remains present, may be markers of consumption patterns and the way of life behind the walls. Architecture associated with the first settlement in the forts, if identified, can convey information on patterns of daily life and the

Figure 3. The Middle Nile forts (prepared by Mariusz Drzewiecki).
organisation of space. Were there barracks and large storage houses indicating the presence of a garrison or was the enclosed space covered with an irregular composition of houses and passageways, erected and developed in an organic manner through centuries of civil settlement? How long were the forts inhabited in their first phase? Was this a brief period when some kind of threat forced people to hide behind the walls or were the sites settled for generations? Obtaining answers to these questions will clarify our understanding of the purpose of the forts.

**A cluster of three forts**

The nine sites discussed here are, as previously stated, spread throughout some 550 km of the Nile Valley. While the defences themselves are highly regular, the distance between them is not and the three southernmost forts are grouped close to each other on the same bank of the river. Abu Nafisa is approximately 500 m from Hosh el-Kab and Umm Marrahi approximately 3.5 km to the south of the latter (Figure 5). It would seem improbably that all three forts were in use at the same time. This therefore seems to be a reasonable area in which to start research on the chronological issue. In the search for more information on the origins of the group of forts, a team from the Polish Academy of Sciences has conducted two fieldwork seasons in the area.

Previously not much research had been done on the forts in question. O.G.S. Crawford surveyed Umm Marrahi in 1951–1952 and proposed a Meroitic (fourth century BC – fourth century AD) chronology for it (Crawford1953a: 39–40; 1953b: 29). A test excavation was subsequently carried out there by a Khartoum University team in 1977–1978 (El-Hassan 2006: 17). The architectural remains on the top of the hill and a tumulus cemetery at its bottom were investigated at this time.

Pottery recorded in the 1970s in the fort located at Jebel Umm Marrahi was, according to the Khartoum team, similar to artefacts discovered during excavations of the cemetery. Both the cemetery and the defences on top were thus dated to a time span starting in the end of the late Meroitic and finishing at the beginning of the early Christian period. The fort would thus have been in use between AD 325 and 650 (El-Hassan 2006: 32). Radiocarbon dating carried out on one sample from the cemetery (Grave 18) provided a date 1200 ± 70 BP (HAR-2713: cal. AD 675–975 at 95.4% date modelled in OxCal v.4.3, using the IntCal13 calibration curve). The excavators interpreted this date as setting the final phase of the cemetery’s use. It did not provide, however, much clarity as to the chronology of the fort.

In the 1980s the top of Jebel Umm Marrahi was the location for research into a prehistoric settlement, with excavations limited to the southern part of the plateau (El-Amin
Figure 5. The location of Abu Nafisa, Hosh el-Kab and Umm Marrahi (prepared by Włodzimierz Rączkowski and Mariusz Drzewiecki).

and Mohammed-Ali 2004), but these left the dating of the fort itself open to question, Meroitic according to Crawford (1953a, 1953b), but a late Meroitic to early Christian according to El-Hassan (2006).
The two other forts we discuss have not previously seen regular research, although their chronology has been touched on by a few researchers. Patrice Lenoble (2006: 195) suggested that Hosh el-Kab had analogies with the late Meroitic enclosure at Hosh el-Kafir, while Mahmoud el-Tayeb (1995: Figure 30) included it in his thesis on the genesis of the kingdom of Makuria. Most recently Derek Welsby (2014: 188–190) has suggested an early medieval date for both sites.

**Our fieldwork**

In 2018, our first field season focused on Hosh el-Kab and Abu Na’fisa (Drzewiecki et al. 2018), while the second concentrated on Umm Marrahi (Drzewiecki and Cedro 2019). After initial surface surveys and interviews with residents of the nearby villages, most of the architectural features visible in the forts have been identified as being much younger than the defences and were thus erected during secondary use of the enclosures, some of them in the Islamic era. For example, an open mosque and surrounding buildings in Umm Marrahi were built for worship by a local Sufi brotherhood (see Figure 2), while the remains of an oval grave at Abu Na’fisa are considered to be the resting place of a Muslim holy man.

The only features that can be clearly associated with the origins of the forts in all three cases are the enclosure walls. Bearing that in mind, our trenches (two for each site) were located along the inner faces of the walls in corners or in the gates, these being the places where architectural modifications could most readily be identified. Given our research questions, we needed to identify the first architectural phase for each fort, understand the stratigraphic relations between the occupation phases and check if there were settlement remains older then the defensive architecture.

To make sure that we did not miss anything, a detailed surface pottery survey was conducted. In addition, looters’ excavations and parts of the sites cut by modern tracks or irrigation channels were inspected. Those that exposed architectural remains were cleaned in a search for any signs of structural changes (Figure 6).

Geophysical prospection was carried out to provide information on the organisation and state of preservation of buildings inside the forts (Ryndziewicz and Drzewiecki 2019). A Geoscan Research FM256 fluxgate gradiometer was used (cf. David et al. 2008: 20–21; Herbich 2019: 197). Measurements were collected using a sampling interval of 0.25 m along transects spaced 0.5 m apart within 20 × 20 m grids. The grid was set at a 35° angle to the north-south curtains of the forts. The survey covered available areas inside the forts and along the walls.

At Abu Na’fisa an area 0.74 ha was surveyed. The southeast corner was omitted due to the burial of Sheikh Abu Na’fisa, although the presence of vegetation also proved a major obstacle. At Hosh el-Kab the magnetic prospection covered an area of 1.33 ha, omitting only that part of the site already destroyed by modern irrigation works. Finally, at Umm Marrahi an area of 0.16 ha was surveyed. The reason for limited prospection in this last fort was the fact that bedrock was visible on the surface in numerous places, meaning that the magnetic survey was only executed locally to check if there were no regular man-made cuts in this that had been covered by windblown sand.
Fieldwork results

Abu Na’fisa is the closest of the three forts to the Nile and its remains are preserved in the worst condition. In the trenches, massive alluvial soil deposits were recorded. Our geophysical survey confirmed that this was the case for the entire area inside the fort. In Trench Area 2 we were able to identify settlement remains from the period before the fort’s construction (Figure 7). Charcoal samples were collected to provide a \textit{terminus post quem} for this.

The remains of the curtain walls were eroded to the lowest parts of the foundations, which in every place inspected were found to have been made using a vertical masonry technique. Most of the finds from Abu Na’fisa were collected from the surface or from the uppermost layers within the trenches and were dominated by Funj period pottery fragments (of sixteenth–nineteenth-century date). Only a few distinctive fragments (Figures 8a and 8b) were of earlier origin, dated to the post-Meroitic/transitional Christian period (sixth/seventh centuries). Relatively little material was recovered from the lowermost layers. It included a few beads and potsherds (Figure 8c) dated to the post-Meroitic/transitional Christian period (sixth/seventh centuries).

Hosh el-Kab is the largest of the forts and has an impressive number of bastions (13) that strengthen its corners and curtains (Figure 9). The site is close to Abu Na’fisa, but
located further from the river, at the edge of the desert. In 2013/2014 it was badly damaged by a 10-m-wide irrigation channel which cut through it from north to south (Figure 10). The remains of the walls are preserved to a height of approximately 0.7 m and are made of irregular stones bonded with mud mortar. Vertical masonry was not apparent.

Geophysical survey and excavations provide information on the remains of buildings inside the fort. These were erected mainly from mud brick. In general, not many finds were recorded in the trenches or on the site’s surface. Most materials are connected with Funj period or modern occupation of the area. A few post-Meroitic/transitional Christian and early Christian (sixth/seventh-century) potsherds (Figure 8d–f) were found, all in the lowest layers in the trenches and in an area where a church was standing (see Figure 9).

Umm Marrahi is the only one of the three sites located at the top of a hill. In the courtyard of the fort, plenty of stone structures are identifiable, but all are a result of the site’s relatively modern development as a religious centre. The fortifications were set directly

Figure 7. The fort at Abu Nafisa fort showing the location of our archaeological trenches (prepared by Mariusz Drzewiecki).
Figure 8. Samples of pottery associated with the beginning of the forts at Abu Nafisa (a–c) and Hosh el-Kab (d–f) (photographs and drawings by Aneta Cedro)
on the bedrock. Geophysical survey showed that this bedrock is just under the surface at the centre of the fort. However, during excavations along the inner faces of the curtains 1.4-m-thick deposits were recorded. The upper layers here contained a mix of materials from various periods (early Holocene, post-Meroitic, early Christian, Funj and modern). However, the lower layers contained a homogeneous set of potsherds, specifically fragments of cooking and storage vessels, as well as pieces of thin, black-burnished handmade bowls of post-Meroitic origin (for a more detailed description see below). In Trench 3B the lowest layers were sealed by stone debris from the curtain wall, indicating that after that period the fortifications were no longer maintained.

We did not find any distinctive Meroitic pottery sherds in either the trenches or during our surveys of all three forts. This clearly indicates that the forts were built when Meroitic pottery was no longer in use.
Of 22 organic samples sent to the Poznań Radiocarbon Laboratory, Poland, we are able to construct a chronological sequence from 19 (Figure 11; Table 1). The dates obtained start in the first half of the fifth century AD, approximately 70 years after Ezana’s inscriptions describing his wars on the Kushite territories. The highest probability for the dates from the lowest layers of all three forts points to the second part of the sixth century and the first years of the seventh as the most credible construction date for the defences.

Abu Naﬁsa has the most precisely dated terminus ante quem and terminus post quem of all. It was built between AD 561 and 574. The three dates from the lowest layers in Hosh el-Kab overlap between AD 571 and 604, making the larger fort a bit younger than Abu Naﬁsa. The dates from Umm Marrahi indicate AD 536–64 as the time span in which the defences on the hilltop there were erected. This is around 200 years after the collapse of Kushite authority in the region. Any possibility of this fort as well as the two others being Meroitic constructions should therefore be excluded.

In Hosh el-Kab and Umm Marrahi, the sequence continues into the early Christian period, followed by a hiatus until the Funj era. This is confirmed by the lack of ceramics or other finds from the Classic and Late Christian periods. In the case of Abu Naﬁsa, the fort was not in use during early Christian times, while structures from the Funj/modern period overlap the mostly eroded remains of the foundations of the fort.

The finds therefore suggest that the forts were occupied for only a short period of time, with Abu Naﬁsa most probably being abandoned soon after it was built. Considerable amounts of alluvium suggest that it had suffered from floods. Indeed, a few months after we finished our fieldwork, in September 2019, a large deluge hit central Sudan, devastating numerous districts of Omdurman and Khartoum. Abu Naﬁsa was also flooded at this time (Figure 12). It seems that the same situation could have happened in the second part of the sixth century. In this scenario, Abu Naﬁsa may have been abruptly abandoned and Hosh el-Kab built just a few hundred metres away. During
the flood of 2019, the largest fort was on the edge of the water, suggesting that its construction site was chosen carefully.

Abu Nafisa and Hosh el-Kab were most probably in that sequence, but vertical masonry was only used in the first of them. Umm Marrahi does not have vertical masonry and is approximately half the size of Hosh el-Kab. We suggest that it could have been built at the same time and used as an auxiliary observation point by a smaller garrison. Overall, the indications are that in the second part of the sixth century this region was a place of strategic importance.

Figure 11. The results of the radiocarbon analyses for the three forts conducted at the Poznań Radiocarbon Laboratory.
| Site and sample name | Laboratory number | Trench and Layer | Radiocarbon age BP | Calibrated dates AD 68.2% probability | Calibrated dates AD 95.4% probability |
|---------------------|------------------|------------------|--------------------|----------------------------------------|-------------------------------------|
| Umm Marrahi P_UM_27 | Poz-111697       | Area 1A Layer 2  | 195 ± 30           | 1662–1681 (15.4%)                      | 1648–1691 (23.1%)                   |
|                     |                  |                  |                    | 1739–1750 (7.0%)                      | 1728–1810 (52.3%)                   |
|                     |                  |                  |                    | 1763–1802 (31.0%)                     | post-1938 (14.9%)                    |
| Umm Marrahi P_UM_31 | Poz-111699       | Area 1A Layer 3  | 205 ± 30           | 1654–1679 (21.3%)                      | 1646–1686 (26.9%)                   |
|                     |                  |                  |                    | 1764–1801 (32.5%)                     | 1731–1809 (50.1%)                   |
|                     |                  |                  |                    | post-1939 (14.5%)                     | post-1927 (18.5%)                    |
| Umm Marrahi P_UM_33 | Poz-111692       | Area 1A Layer 5  | 1410 ± 30          | 560–620 (68.2%)                       | 542–645 (95.4%)                     |
| Umm Marrahi P_UM_36 | Poz-111698       | Area 1A Layer 5  | 1475 ± 30          | 434–453 (10.8%)                       | 428–499 (35.1%)                     |
| Umm Marrahi P_UM_43 | Poz-111700       | Area 1A Layer 5  | 1525 ± 30          | 470–487 (11.0%)                       | 504–604 (60.3%)                     |
|                     |                  |                  |                    | 534–585 (46.4%)                       |                                     |
| Umm Marrahi P_UM_46 | Poz-111693       | Area 1A Layer 6  | 1495 ± 30          | 435–452 (2.7%)                        | 471–471 (3.1%)                      |
|                     |                  |                  |                    |                                     | 534–641 (89.6%)                     |
|                     |                  |                  |                    |                                     |                                     |
|                     |                  |                  |                    |                                     |                                     |
|                     |                  |                  |                    |                                     |                                     |
|                     |                  |                  |                    |                                     |                                     |
|                     |                  |                  |                    |                                     |                                     |
| Umm Marrahi P_UM_40 | Poz-111713       | Area 3B Layer 4  | 1500 ± 30          | 543–602 (68.2%)                       | 432–489 (10.6%)                     |
| Umm Marrahi P_UM_45 | Poz-111704       | Area 3B Layer 5  | 1485 ± 30          | 551–610 (68.2%)                       | 474–485 (1.2%)                      |
| Umm Marrahi P_UM_49 | Poz-111712       | Area 3B Layer 5  | 1480 ± 30          | 556–615 (68.2%)                       | 536–646 (94.2%)                     |
| Umm Marrahi P_UM_42 | Poz-111702       | Area 3B Layer 6  | 1510 ± 30          | 536–604 (68.2%)                       | 430–494 (19.7%)                     |
|                     |                  |                  |                    |                                     | 511–517 (0.9%)                      |
|                     |                  |                  |                    |                                     | 529–622 (74.8%)                     |
|                     |                  |                  |                    |                                     |                                     |
|                     |                  |                  |                    |                                     |                                     |
|                     |                  |                  |                    |                                     |                                     |
| Hosh el-Kab P/HK1/13| Poz-102876       | Area 3A Top layer | 130 ± 30           | 1682–1707 (12.6%)                     | 1675–1778 (38.0%)                   |
|                     |                  |                  |                    | 1719–1737 (9.0%)                      | 1799–1894 (42.4%)                   |
|                     |                  |                  |                    | 1804–1820 (7.9%)                      | 1905–1942 (14.9%)                   |
|                     |                  |                  |                    | 1833–1883 (27.2%)                     | 1914–1936 (11.5%)                   |
|                     |                  |                  |                    |                                     |                                     |
| Hosh el-Kab P/HK1/7 | Poz-102875       | Area 3 Layer 4   | 1435 ± 30          | 604–646 (68.2%)                       | 571–655 (95.4%)                     |
| Hosh el-Kab P/HK1/9 | Poz-102982       | Area 2 Layer 4   | 1370 ± 130         | 410–902 (92.9%)                       | 920–963 (2.5%)                      |

(NB only 0.04mg of carbon)
| Site           | Sample No.  | Area/Layer       | Age ± Error | % of Total |
|---------------|-------------|------------------|-------------|------------|
| Hosh el-Kab P/HK1/8 | Poz-102873 | Lowest layer     | 1525 ± 30   | 539–778 (63.7%) |
|               |             |                  |             | 792–804 (1.9%) |
|               |             |                  |             | 842–860 (2.6%) |
|               |             |                  |             | 434–453 (10.8%) |
|               |             |                  |             | 470–487 (11.0%) |
|               |             |                  |             | 534–585 (46.4%) |
| Abu Naﬁsa P/AN/15 | Poz-103033 | Area 1 Layer 1   | 1510 ± 30   | 428–499 (35.1%) |
|               |             |                  |             | 504–604 (60.3%) |
| Abu Naﬁsa P/AN/17 | Poz-111714 | Area 2 Layer 4   | 1550 ± 30   | 430–494 (19.7%) |
|               |             |                  |             | 511–517 (0.9%) |
|               |             |                  |             | 529–622 (74.8%) |
|               |             |                  |             | 423–574 (95.4%) |
| Abu Naﬁsa P/AN/20 | Poz-102877 | Area 2 Layer 7   | 1450 ± 30   | 592–643 (68.2%) |
|               |             |                  |             | 561–651 (95.4%) |
| Abu Naﬁsa P/AN/19 | Poz-111716 | Area 2 Layer 7   | 1480 ± 30   | 556–615 (68.2%) |
|               |             |                  |             | 538–645 (95.4%) |
Who was living in the forts?

The results of our research show that the material culture of the first settlers in the forts was uniform. In comparison, even small civil settlements in the Middle Nile valley produce a higher variety of objects and irregular architectural remains developed in a more organic manner. See, for example, the fortified settlements at Ihmindi (Stenico

Figure 12. Abu Nafisa and Hosh el-Kab during the flood of 2019 (Google Earth).

Figure 13. Interpretation of the geophysical survey at Hosh el-Kab (prepared by Robert Ryndziewicz).
Centres of administration and trade hubs like Soba (Welsby and Daniels 1991: 126–259) and Dongola (Then-Obluska 2013; Danys and Łajtar 2016) tend to yield examples of luxury objects and regional or more distant imports. Such finds were also lacking in the forts we studied.

Geophysical prospection at Hosh el-Kab provided insights into the spatial organisation of buildings inside the fort. A regular layout of mud brick buildings was recorded along the southern and part of northern curtains (Figure 13). A small trench in the north-western corner confirmed the results of the magnetic survey. Remains of mud brick architecture abutting the curtain were uncovered and the structure was clearly erected in the first phase of the settlement. Indeed, the magnetic survey recorded fragments of free-standing buildings in all parts of the fort. In addition, surface survey identified a place where a small church was standing (Figure 9). Early Christian pottery materials, stone and red brick debris and numerous fragments of lime plaster were scattered in this area.

The original architecture inside the fort at Umm Marrahi was damaged and dismantled to make space for newer constructions in the nineteenth to twenty-first centuries, while Abu Nafisa is much more eroded. A few concentrations of stone on its surface nevertheless indicate that there might once have been some buildings inside the fort.
Pottery constitutes the largest part of the finds collected during our fieldwork (N = 1554 fragments). There are huge disproportions between the three sites, most probably linked to the operation of different post-depositional processes in each of the forts. Abu Nafisa has, as we have indicated, been periodically flooded, while trenches at Hosh el-Kab recorded numerous post-Medieval/ modern pits and Umm Marrahi later became a place of intensive religious activity. Perhaps because of this, its stone walls were preserved in much better condition as it seems that the residents of nearby villages were not taking any materials from Umm Marrahi. Ceramic assemblages from the earliest phase of the forts at both Hosh el-Kab and Abu Nafisa were scarce, while those from Umm Marrahi comprised many more fragments of a much wider variety of pottery types. Although this collection of pottery from the trenches is only a small and incomplete representation of the objects originally utilised in the fort, it can nevertheless provide some insights into the lives of the people who used them.

The most significant feature of the ceramic assemblage from the first phase of the Umm Marrahi fort is that it does not contain any wheel-made pottery. All vessels were handmade. They can be divided into two groups: coarse ware, with a crude outer surface and relatively thick walls and finer products with a well-executed smooth surface. The latter group consisted almost exclusively of bowls and dishes (Figure 14). They were well finished, usually slipped and burnished or polished and occasionally decorated with simple, incised geometric motifs. The majority of these vessels were fired in a reducing atmosphere, resulting in a black colour on both the surface and the profiles. The treatment of the surface, which resulted in its smooth and non-porous property, suggests that their function was connected with serving food and consumption; smaller bowls of a size suitable for fitting into the hand could have been used for drinking.

Large and medium bowls were present in the coarse fabric. The common feature of this group was a rather crude outer surface without slip and a smoothed or burnished interior. Quite distinctive was a group of relatively shallow open bowls with vertical or sloping walls, often thicker in the upper part, and with a characteristic decoration of fingerprints or diagonal cuts along the top of the rim (Figure 15a–c). Fragments of similar vessels with this characteristic decoration were also discovered at Abu Nafisa (Figure 8a) and Hosh el-Kab (Figure 8e), but are also well known from Soba (Welsby 1998: 92, Plate 41). On the external side of some of the bowls traces of soot were recorded, indicating contact with fire and thus a function in cooking process. Similar to the bowls, but with thicker walls and wide, flattened bases, were fragments of doka, a kind of vessel used for baking kisra (flatbread made from sorghum). The other types of coarse ware vessels appear to have been associated with the storage of liquids and dry products (Figure 15d–g). They present variable forms: large containers with thick walls, bottle-like vessels with short, wide-mouth necks and neckless plain jars. Very diagnostic as well were fragments of so-called beer-jars, with mat impressions on their globular bodies and slender, often burnished necks.

For most of the pottery from Umm Marrahi, the closest analogies can be found among the ceramics from Soba with similarities noticed in both forms and technology. Good examples of these parallels can be observed in the specific variant of thin-walled bowls with carinated walls (Figure 16a–c). In Umm Marrahi they were collected from the lowest strata and, apart from the predominant (reduced) black fragments (Figure 15a–b), they were also represented by a few red-slipped examples (Figure 16c). Similar
Figure 15. Examples of coarse ware pottery from the earliest phase of the Umm Marrahi fort (photographs and drawings Aneta Cedro).
vessels, in both red and black variants, were also recovered from the lower strata in the early domestic context in Soba during the British Museum’s excavations there (Welsby and Daniels 1991: 194, Figure 104; Welsby 1998: 112, Plate 46) and again in the most recent research (Figure 16f–g).1

It is worth mentioning at this point that, although in the lower layers of the trenches at Umm Marrahi only hand-made pottery was present, in the upper strata and especially on the fort’s surface some wheel-made pottery was recorded. All these fragments were dated to the early Christian period, including vessels inspired by Late Roman ceramics (Figure 16d) and Soba ware (Figure 16e). One may assume that they were produced locally (Welsby and Daniels 1991: 324) in the same workshops as the numerous similar vessels discovered at Soba (Figure 16h–i).

Among the pottery fragments from Umm Marrahi, some have signs of repair in the form of small holes, usually two or more of them in a row. They were noticed on both the coarse bowls and some storage jars, vessels that are usually not considered as valuable, although here some effort was clearly made to continue using them. Noteworthy too are potsherds cut into a circular shape and with a hole drilled in the middle so that they could be used as spindle whorls. Their presence is evidence of yarn production in the fort.

The analysis of the pottery from Umm Marrahi can be broadened by adding the results of the earlier excavations conducted at the fort in the 1970s by the archaeological team from Khartoum University. Among their finds were two complete vessels, a small bowl

Figure 16. Examples of bowls from the Umm Marrahi fort (left) and their parallels from Soba (right) (photographs and drawings on the left by Aneta Cedro, photographs on the right by Ewa Czyżewska-Zalewska).
and a globular cooking pot, and many fragments of black and red polished bowls, although most of the potsherds were of coarse ware (El-Hassan 1979: 170–174). Their collection corresponds well with the pottery from our recent research at Umm Marrahi, not only in terms of pottery types, but also with respect to decoration, quality and technology. The same practice of repairing vessels was also recorded on some fragments.

The striking feature of the pottery assemblages from Umm Marrahi, both from our own research and from the excavation of the Sudanese mission, is the absence of any ‘élite’ examples of pottery. Looking at the variety of identified vessels one sees only objects of strictly utilitarian function and ordinary quality, devoid of any status-demonstrating elements (cf. Wason 2004: 112). No markers of wealth or higher status whatsoever were noted among the material remains left by the first inhabitants of the forts. Even the best-executed pottery, like the small bowls with decoration or glossy surface which do display a high technological standard, cannot be considered luxury goods. All the ceramics used in the earliest phase of the fort most probably came from the local workshops and there is no evidence for the presence of amphorae, which could have suggested some trade connections. No imported vessels were identified at either Umm Marrahi or the other two forts nearby.

The second largest group of materials collected during our fieldwork comprised animal remains (562 fragments of animal bones and teeth). The majority of those from the earliest layers (dating to the sixth and seventh centuries) were remnants of small ruminants (sheep and goats), which constituted 66.2% of the total number of identified specimens (NISP). The second livestock species registered was cattle, the remains of which account for 26.7% of the NISP count. Additionally, pieces of bone from a hippopotamus and a rodent and a fragment of oyster shell were identified. The absence of species that were ‘not consumed’ or of negligible value in terms of meat supply (e.g. dogs, cats, donkeys, camels) and the lack of bone fragments of low consumer value (such as phalanges) suggest that these were almost exclusively consumer waste.

The main features of the osteological material recovered at the forts is thus its limited taxonomic breadth. This is especially noticeable when compared to Soba, which is the closest site in terms of both geography and chronology. The second major difference between the proportions of species recorded both in Soba as well as at early Makurian sites elsewhere in Nubia is the much higher percentage of small ruminant remains and significantly lower percentage of cattle at the forts. At early medieval Soba, for example, cattle accounted for as much as 55% of NISP, although in early medieval Makurian centres the percentage of cattle remains was lower. Soba also has clear evidence of rearing pigs for meat, but there were no remains of this species in the forts reported here. The image of the consumption model from the forts varies significantly in terms of both diversity and species proportions to sites of higher socio-political rank.

Small finds discovered during our fieldwork were not numerous: nine beads, 11 stone tools (querns and pestles) and one small piece of copper. No luxury objects and a lack of imports suggest that the settlements did not host élites. The uniformity and utilitarian character of the pottery assemblage indicate that the inhabitants of the forts all had the same sets of vessels at their disposal. They also used similar solutions for storing goods, meal preparation and consumption, while living space was arranged according to a regular plan, as seen at Hosh el-Kab.
Of course, the status of individuals might have been expressed in a different sphere. In the context of fortifications our observations can be explained by the presence of a garrison. In such a military unit, ranks are easy to identify and all the objects and spaces used by the soldiers are mainly of an utilitarian character. However, if the forts hosted regular garrisons, then one might expect some finds of weapons. No such artefacts were recorded in our research at the forts, although the explanation for this may be simple: in post-Meroitic Nubia weaponry is mainly encountered in burials.

**Why were the forts built?**

Written sources provide only a few insights into the political situation prevailing at the time when the forts were built. The most detailed accounts are those of John of Ephesus (Vantini 1975: 6–26). The second part of the sixth century was a time when the Nubian kingdoms of the Middle Nile were frequently in conflict and turning toward Byzantium in accepting the Christian faith. Nothing is known about the relations between Alwa and other neighbouring regions such as Kordofan or areas further up the Blue Nile and White Nile. However, the line of forts connected Alwa with Makuria and it thus can be suggested that the defences were part of the politics operating between the two realms. Due to their proximity the Beja were also highly involved in Nubian politics, as indicated by numerous written sources, and similar situations could have been the case with nomads crossing the Bayuda Desert, although no details concerning them are known.

The conversion of the three Nubian royal courts to Christianity was not simultaneous and the history of various plots reached the Byzantine emperor Justinian and his consort Theodora. The king of Alwa and his officials were baptised in 580 by the Monophysite bishop Longinus. The priest who undertook this rite was sent by the king of Nobadia through Beja lands as a gesture of goodwill. Parts of the royal correspondence between Nobadian and Alwan rulers are preserved (Vantini 1975: 18–23). They indicate that the two kings were engaged in forging an alliance against the third kingdom, Makuria, as suggested by one of the letters in which the Alwan ruler wrote:

‘For he is not thy enemy alone, but also mine: for thy land is my land, and thy people my people. Let not their courage therefore fail, but be manful and take courage: for it is impossible for me to be careless of thee and thy land, especially now that I have become a Christian’ (Vantini 1975: 19).

The written sources do not specify when and why this conflict started, how it developed or how long it lasted. In this situation, the garrison forts attributed to the Alwan rulers can nevertheless provide some insights into these events.

The kingdom of Alwa could have reached as far as the Fourth Cataract in the sixth century and the last of the nine forts was built at the upriver end of the cataract at El-Ar. This would mean that in the early years of the kingdom Alwan rulers attempted to control vast areas that included the central region of the former Meroitic empire. The Makurian kings were then able to push back their enemy to at least the area of the Fifth Cataract sometime in the end of the sixth century. Some of the Alwan forts in the region were abandoned (for example, Mikeisir; Rees et al. 2015: 187), while other were modified and settled during the next centuries (for example, El-Ar; Żurawski
2010: 203). Makurian irregular fortified sites were then erected in the region, for example at Karmel (Näser 2006: 109–114) and Ras el Gezira (Becker 2008).

The conflict between the neighbouring kingdoms may have lasted for a considerable time since both Hosh el-Kab and Umm Marrahi were still in use during the early Christian period. The mid-seventh century may have seen a breakthrough in the relations between the Nubian kingdoms. Makuria faced a new enemy, an Arab army under Abdallāh ibn Sa’d ibn Abī Sar marching up the Nile that went through the kingdom of Nobadia and reached the Makurian capital at Dongola (Vantini 1975: 65, 80–81). Perhaps these events created an atmosphere suitable for peace in the south so that the forts went out of use?

Many details of the conflict between Makuria and Alwa in the early medieval period are still unclear. Despite limited information from the written sources, systematic archaeological investigations into the fortified sites of the region are nevertheless gradually bringing some insights into these events.

Note

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