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RECENT RESEARCH AT JEBEL UMM MARRAHI (KHARTOUM PROVINCE)

INTRODUCTION

Jebel Umm Marrahi is a single hill in the flat landscape of Khartoum Province. It is located on the left bank of the Nile, approx. 30 km north of the centre of Omdurman (Fig. 1). The flat top of the hill is extensively covered with settlement remains. The oldest traces can be dated to the Mesolithic-Neolithic period and the youngest are from the 21st century. One of the features of this complex site is a regular stone fort dated by various researchers to the Meroitic and/or the early medieval period. This general chronology makes it hard to understand who built the fort and why. To obtain more precise data on the subject, fieldwork was conducted at Jebel Umm Marrahi in November and December 2018. The project was a joint effort of researchers from the Polish Academy of Sciences and Al-Neelain University. This article will present the scientific activities conducted during the fieldwork and discuss results.

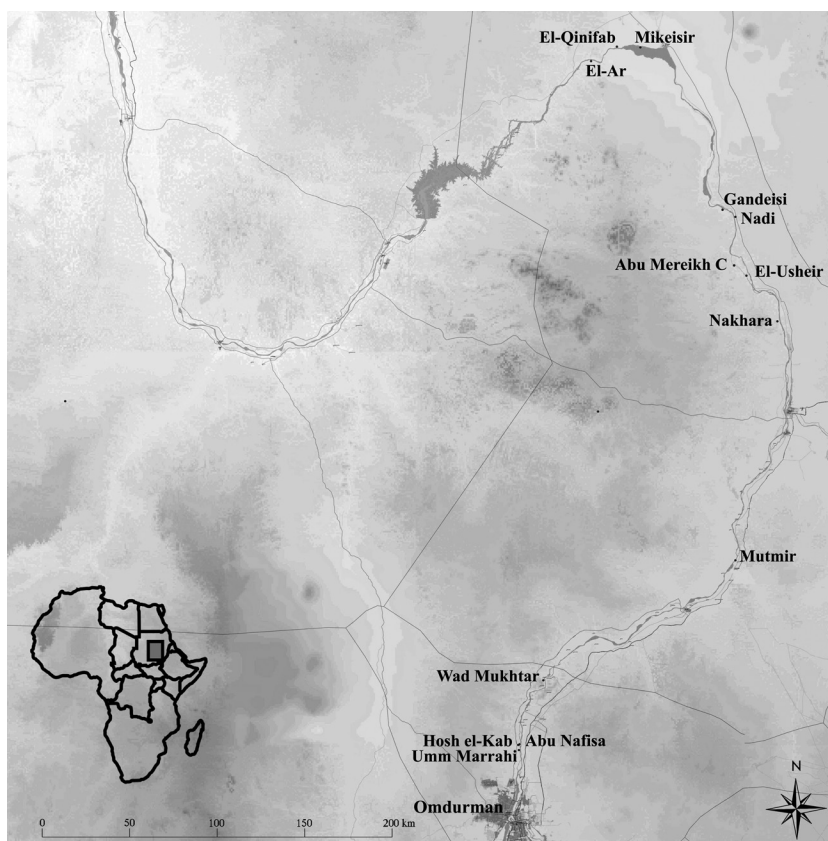


Fig. 1: Map with place names mentioned in the text (prepared by Mariusz Drzewiecki).

1980s³, the flat top of the hill is known for its complex and long-time habitation remains. The oldest traces of settlement have been excavated in the southern

BRIEFLY ON PREVIOUS RESEARCH

Due to O.G.S. Crawford's survey in the 1950s¹ and research conducted by archaeologists from the University of Khartoum in 1970s² and at the beginning of

Khartoum (unpublished M.A. dissertation, University of Khartoum, 1979), p. 115–142; A.A. El-Hassan 'Jebel Umm Marrihi: A Late Meroitic site in Khartoum Province', in R. Dehlin, T. Hägg (eds), *Sixth International Conference for Nubian Studies. Abstracts of Communications* (Bergen, 1986), p. 46–47; A.A. El-Hassan 'Jebel Um Marrihi: A Late Post-Meroitic and Early Medieval Site (c. 325–650 AD) in Khartoum Province (Sudan)', *Adumatu* 13 (2006), p. 32–36; Ahmed M.A. Hakem 'University of Khartoum Excavations at Sururab and Bauda, North of Omdurman', *Meroitica* 5 (1979), p. 151–155.

1 O.G.S. Crawford *Castles and Churches in the Middle Nile Region*, Sudan Antiquities Services Occasional Papers 2 (Khartoum, 1953), p. 39–40; O.G.S. Crawford 'Field Archaeology of the Middle Nile Region', *Kush* I (1953), p. 29.

2 A.A. El-Hassan *Cultural Characteristics and Adaptation in Late Meroitic Period: A Case Study from the Sarorab Area*.

3 Y.M.Elamin and A.S. Mohammed-Ali 'Umm Marrahi. An early Holocene ceramic site, north of Khartoum (Sudan)', *Sahara* 15 (2004), p. 97–110.

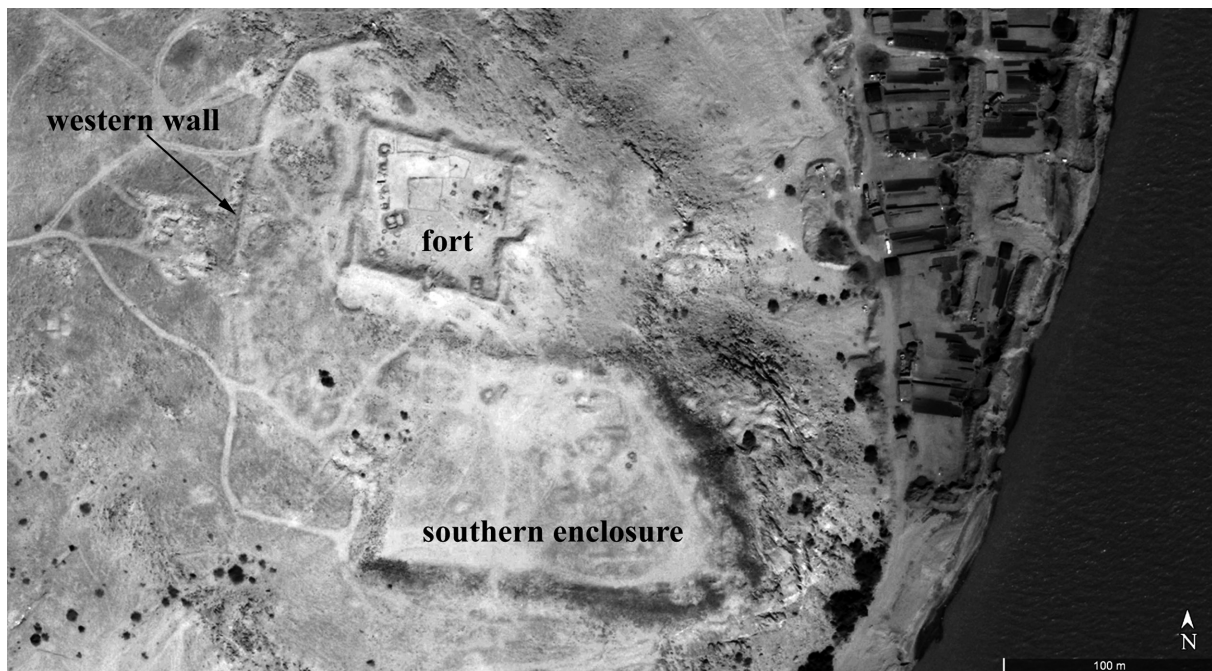


Fig. 2: Architectural remains visible on the surface of the plateau (Google Earth image).

part of the plateau, yielding a large collection of Neolithic pottery and fossilised faunal remains⁴.

Extensive architectural remains cover the entirety of the flat summit (Fig. 2), but they are not prehistoric in origin. They are a trace of much younger settlement. In the northern part of the plateau a regular fort dated from the Meroitic to early Christian period is clearly visible⁵. In the southern part of the plateau a large stone enclosure was identified. Its chronology is difficult to establish due to poor state of preservation, Crawford⁶ suggested the Neolithic period while El-Hassan⁷ advocated for a chronology similar to that of the fort. From the west, where the slope is the least steep, traces of an irregular stone wall following the edge of the plateau were noticed. It is

less substantial than the curtains of the fort and the southern enclosure, although El-Hassan suggested that it was built at the same time⁸.

The flat summit is an excellent observation point, that is why it was still in use during modern conflicts, in the Mahdiyya period and the Second World War⁹. In the 20th and 21st century the courtyard of the fort and the caves and rock shelters on the eastern river-side slope have been adapted for religious purposes by the members of local Sufi brotherhood (Tarika Tayibiyya). Residents of the nearby village of Sheikh el-Tayib say that Muhammad Ahmad ibn Abd Allah, Al-Mahdi, spent some time listening to the sheikh. According to some oral histories, one of the caves in the hill was the Mahdi's place of meditation. The cave and its surroundings are today covered with modern graffiti, bearing names and dates in Arabic. However, the oldest identified date is only from 1972 (Fig. 3).

MODERN THREATS TO THE SITE

The walls of the fort are standing to approx. 1.5 meters in height. They are mostly covered by stone debris crumbling from the eroded upper parts of the defences. Due to its location the fortified site is safe from urban development and agricultural expansion.

4 A. Gautier, V. Linseele and W. Van Neer 'The Fauna of the Early Khartoum Occupation on Jebel Umm Marrahi (Khartoum Province, Sudan)', in Jennerstrasse 8 (eds), *Tides of the desert. Contributions to the archaeology and environmental history of Africa in honour of Rudolph Kuper*, *Africa Praehistorica* 14 (Köln, 2002), p. 337–344

5 Meroitic period was suggested by O.G.S. Crawford *Castles and Churches in the Middle Nile Region*, p. 39; Ahmed M.A. Hakem *University of Khartoum Excavations at Sururab and Bauda, North of Omdurman*, p. 155.

The post-Meroitic and early Christian period was later suggested by A.A. El-Hassan *Jebel Um Marrihi: A Late Post-Meroitic and Early Medieval Site (c. 325–650 AD) in Khartoum Province (Sudan)*, p. 34–36.

6 O.G.S. Crawford *Castles and Churches in the Middle Nile Region*, p. 39.

7 A.A. El-Hassan *Cultural Characteristics and Adaptation in Late Meroitic Period: A Case Study from the Sarorab Area*. Khartoum, p. 141, 177.

8 A.A. El-Hassan *Cultural Characteristics and Adaptation in Late Meroitic Period: A Case Study from the Sarorab Area*. Khartoum, p. 177.

9 O.G.S. Crawford *Castles and Churches in the Middle Nile Region*, p. 39.



Fig. 3: The slope of the hill next to the caves and rock shelters are covered with modern graffiti (photo. Mariusz Drzewiecki).

Unfortunately, there are other threats to the site. The main one is posed by the amateur digging in search for gold. Traces of such recent activities are visible in the fort and around it. The illegal excavations disturb the stratigraphy as well as the architectural remains. Other risks are connected with stone extraction. There are numerous quarries visible on the top and slopes of the hill. Some of these disfigure and interfere with the archaeological remains. Various patinations indicate that some quarries might be ancient or medieval. However, most are relatively fresh sites where the exposed stones still have bright colour, in shades of yellow, not yet covered with patina.

Car tracks are visible inside the remains of the fort. They lead from a deep excavation in the southern curtain to the gate and beyond. It seems that at the southern curtain a large portion of stone was extracted and the remains of the defences were badly damaged in the process. The material was loaded into the vehicle which came and went at least several times through the gate, on the way destroying the more fragile parts of the entrance (Fig. 4).

FIELDWORK ACTIVITIES

This was the status quo when we started our fieldwork. It was conducted from the 13th of November to the 8th of December 2018. The team, supported by local residents, conducted an archaeological survey, geophysical prospection and excavations.

All of the modern disturbances and the current state of preservation prior to excavations was documented. We marked 35 ground control points in and around the fort, measured them with the total station using a local metric grid and took 703 low altitude vertical aerial photographs. The documentation, uploaded to Agisoft Photoscan, allowed for the creation of a three-dimensional model of the surface of the site (Fig. 5).

The second step in our methodology was to lay out the trenches. We were searching for traces connected with the construction and the oldest phase of the fort. This was challenging, since all of the interior was covered with recent stone structures and remains of modern buildings. In addition, bedrock outcrops were visible in many places on the surface, suggesting that the accumulated layers were not thick.

To verify this a geophysical test was undertaken by Robert Ryndziewicz, Rajaa Alamein Adam and Malaz Abdalfatah Fadalalseed. They used the magnetic method and were equipped with a Geoscan Research FM 256 Fluxgate Gradiometer. The survey area was divided into a 20 x 20 meter grid and the density of readings was set to 8 measurements per 1 sq. meter. The prospection covered the rubble-free area in the interior of the fort and a section of the northern curtain, altogether approx. 0.16 ha (Fig. 6). In the fort, under the thin layer of accumulated material, only bedrock formations have been detected. Various anomalies within the curtain were interpreted as a presence of stone and mud brick building material.

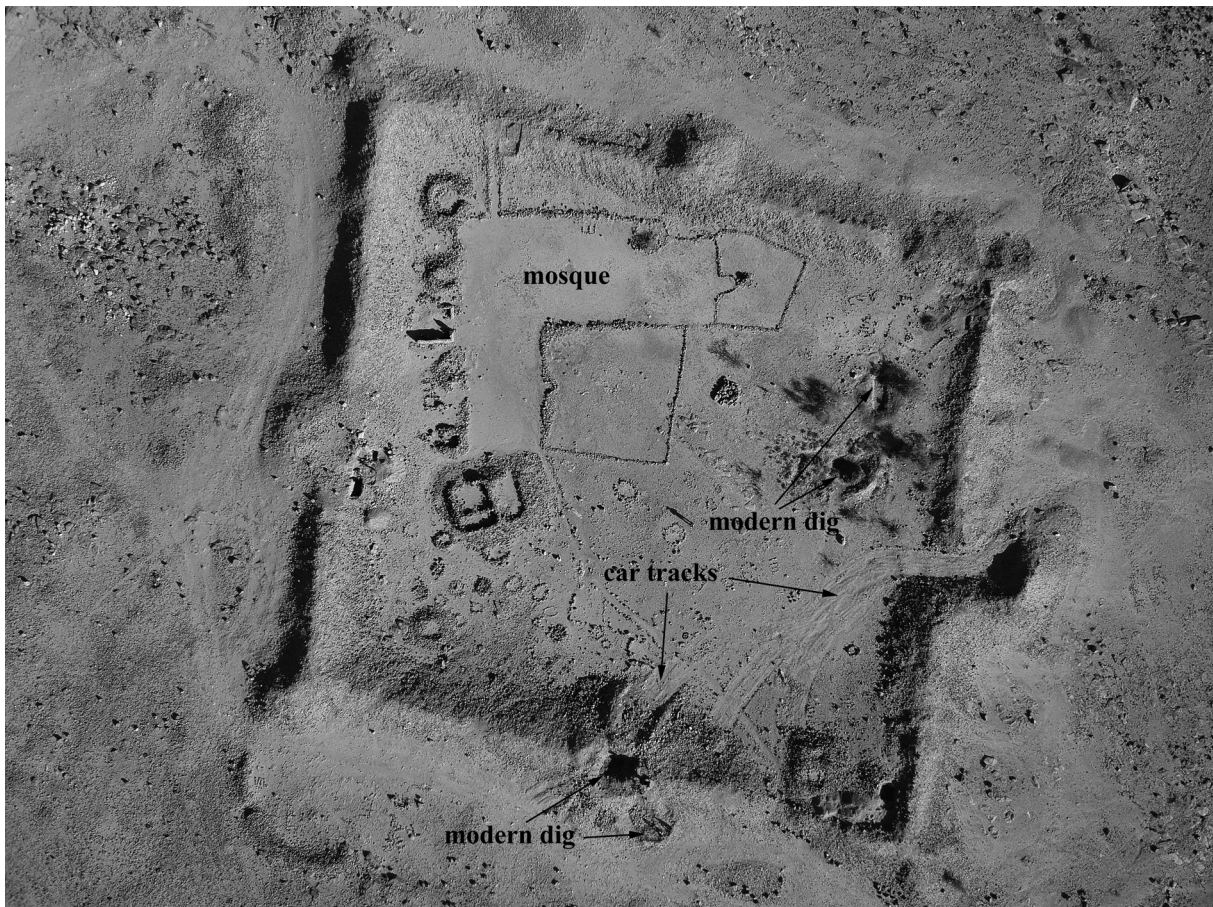


Fig. 4: Remains of modern activities in the fort (photo Mariusz Drzewiecki).

Previous excavations conducted by the team from the University of Khartoum in the 1970s were concentrated in the north-eastern corner and next to the outer face of the eastern curtain, halfway between the gate and the north-eastern bastion. These trenches were easy to identify in 2018 since they were only half-filled as a result of erosion. After analysis of the previous excavations and with the results of the geophysical prospection it became obvious that, traces of the older settlement could have survived only next to the inner and outer face of the curtains. The gate, normally one of the best places to identify settlement phases, was out of the question since most of it had been destroyed by the recent traffic.

We decided to start in one of the corners of the fort. It can also be a good place to identify architectural phases. The south-eastern inner corner was the best preserved. Ground level in that area was approx. 1 meter higher than in the other corners. In the south-western and north-western corners bedrock was visible on the surface, while the north-eastern corner was already excavated. Thus the south-eastern corner became our Area 1 (see Fig. 5, Colour fig. 2).

There was another place which attracted our attention, the western curtain halfway between the

corners. There, next to the outer face, a large stone structure was attached to the wall. At a first look it might have been interpreted as another mid-way bastion, and this is how it was described and understood by Crawford¹⁰ in 1950s and the team from the University of Khartoum in 1970s¹¹. However, upon closer examination it is a bit bigger than the other mid-way bastions in the fort and in contrast to the others it was not completely covered with stone debris. The central part was rubble free. Of course, it could have been a trace of another, not so recent dig. It also might have been a chamber or an empty space indicating that it is something more complex than a simple bastion. It could have been a second gate or, less likely, a tower. To verify this hypothesis, a trench was placed next to the inner face of the curtain where the inner passage of the potential gate was to be expected. Thus it become our Area 3.

The trenches measured approx. 2 x 2 meters. Exploration was organised by Mokhtar Maali Alden

10 O.G.S. Crawford *Castles and Churches in the Middle Nile Region*, p. 39

11 A.A. El-Hassan *Cultural Characteristics and Adaptation in Late Meroitic Period: A Case Study from the Sarorab Area*. Khartoum, p. 59–60.

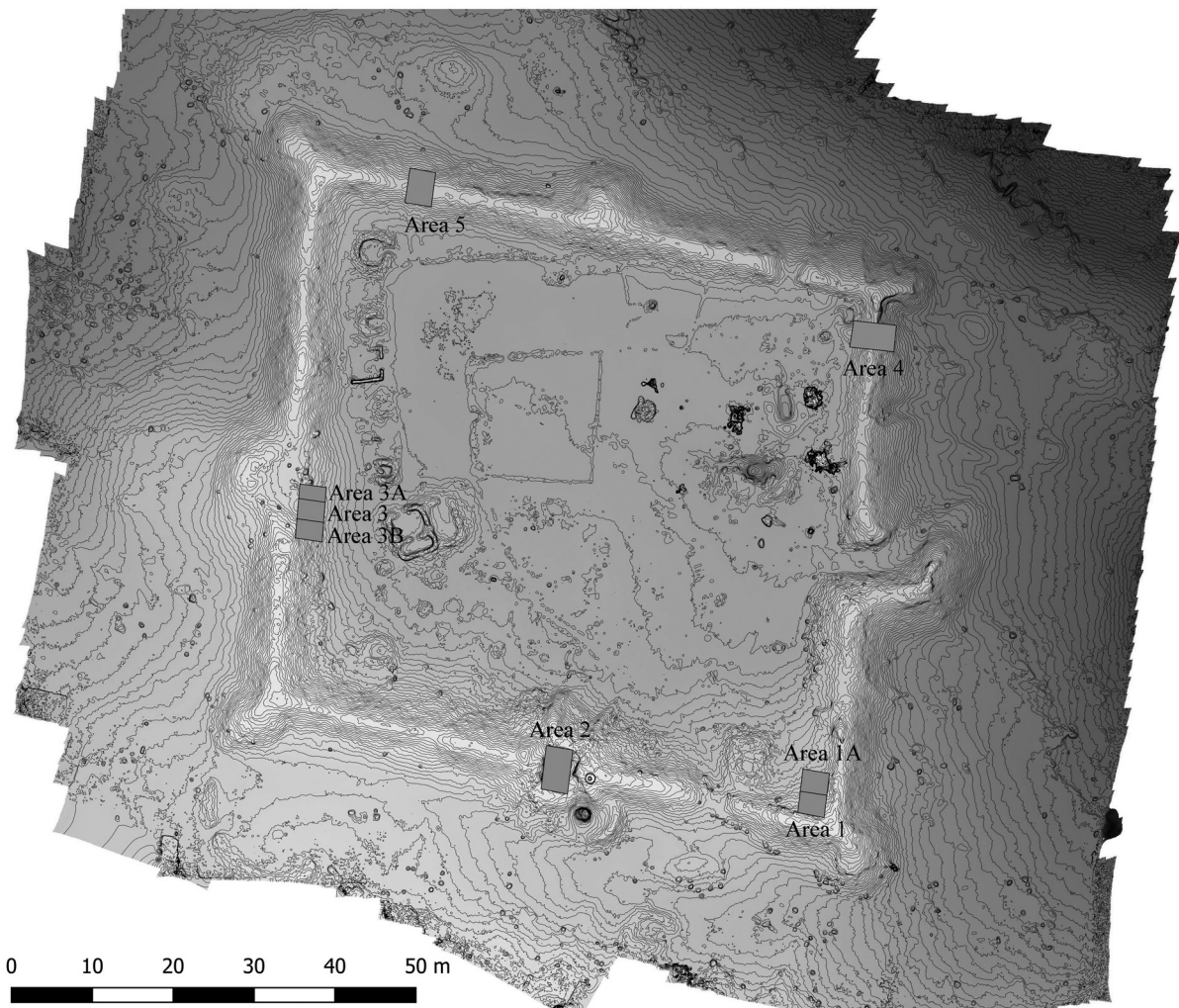


Fig. 5: Documentation of the surface of the site based on the three-dimensional modelling (prepared by Mariusz Drzewiecki).

Mokhtar Hassan and Mohammed Rageb Nolwata Isind in spits approx. 15 to 20 cm thick. Whenever possible our layers corresponded to anthropogenic and natural stratigraphy. Small finds from each layer were collected separately. Later they were inventoried and documented by Aneta Cedro. The most common were the pottery sherds (905 fragments). During excavations we came across faunal remains (152 bone fragments), shells (4 pieces), one modern copper (?) coin, one modern bullet case, one piece of metal too small to assess what the original object was, one stone bead and a fragment of a pottery figurine of a four-legged animal. In addition, we collected 28 charcoal samples, 3 samples of wood and one sample of seeds from a hearth recorded in the lowest layer in Area 3. A lack of grinders and pestles was surprising, given that they are usually common on settlement sites.

The bottom of each layer was recorded using a series of photographs with ground control points in the same local metric grid as the general model of

the site. Subsequently, a three-dimensional model was created for each of the layers, documenting the bottom levels as well as the colour and section of each

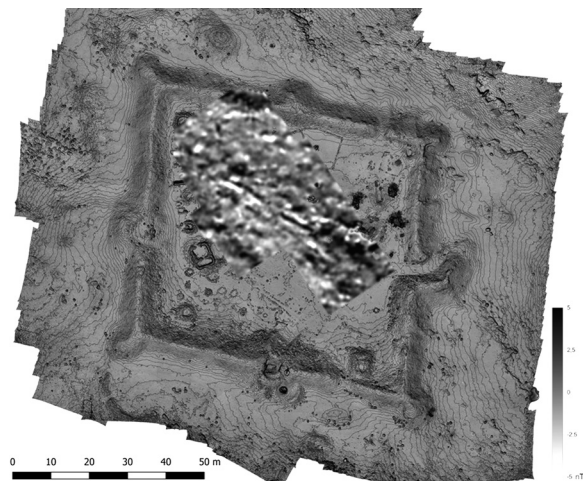


Fig. 6: Map of magnetic anomalies (prepared by Robert Ryndziejewicz).

layer. Thanks to the use of the same metric grid, the precise location of the trenches was immediately set by the GIS software on the general plan of the site.

When we started exploration in both trenches, we came across a problem with identifying the faces of the curtains. We excavated layer by layer systematically, but neither in the corner nor in the mid-way trench were we able to identify the line of the wall. Consequently, after exploration of the three upper layers we moved both trenches slightly away from their original locations. In the case of the mid-way trench we had to move twice before the identification of the face of the curtain was achieved. That is why the trench labelled Area 3 has also Area 3A and Area 3B next to it (see Fig. 5). Only in Area 3B we were able to identify the stone face of the curtain. Trenches in Area 1 are labelled Area 1 and 1A. Area 1A is the place where we identified the inner face of the curtain and were able to follow it down to the foundation course.

Due to the slight movement of the trenches (Area 1 and Area 3) we decided to carry out additional surface cleaning in order to understand the complexity of the fort's architectural remains. In Area 2 we investigated the modern excavation cutting through the southern curtain and the mid-way bastion. We cleared one of the sections of the trench (the western profile) and recorded the structure of the curtain core which was partly made of mud brick. In addition, we cleaned the top of the wall in Area 4 (eastern curtain, next to the north-eastern corner bastion) and Area 5 (northern curtain, next to a modern path going from the mosque through the wall). In those areas details of the wall construction were visible, with the faces built of stone while the core was of mud brick.

Throughout the entire field season, four graduates from Al-Neelain University participated in the research. Mohammed Rageb Nolwata Isind and Mokhtar Maali Alden Mokhtar Hassan joined us based on the cooperation agreement between Polish Academy of Sciences and Al-Neelain University. Malaz Abdalfatah Fadalalseed and Rajaa Alamein Adam were NCAM trainees. They participated in all research activities, that is archaeological survey, excavations and geophysical prospection. They were learning how to make various kinds of documentation, starting with drawings, regular photography of the excavation and small finds, aerial photography using a drone, total station measurements, inventorying techniques, sample collecting and GNSS device handling.

We were also joined by Selma Khogli Ali Ahmed from Al-Neelain University, who has a strong kinship relation to the leaders of Tarika Tayibiyya.



Fig. 7: The stone face of the eastern curtain in Area 1A (photo Mariusz Drzewiecki).

Thanks to this she was accepted by the local community upon the first meeting. Selma prepared an original research program, aiming to recognise oral histories connecting Jebel Umm Marrahi with the local community. During three days working in the village she was able to undertake several interviews. The results are being developed.

ARCHITECTURE

The fort is a regular quadrilateral enclosure. We were able to measure the thickness of the wall only in one place, in the southern curtain, where the inner and outer face are visible on the surface. At this point the thickness is 3 meters. The fort encloses approx. 0.4 ha. In the 1970s remains of a parapet walk were noted on top of the curtain, enabling the researchers to estimate the original height of the curtains to approx. 3.5 meters¹². In 2018, no remains of the parapet could be identified, but the architectural remains probably have eroded since the University of Khartoum excavations.

The defences were founded on bedrock. The faces of the curtains were made of irregular large stones with relatively wide spans in between, filled with mud mortar (Fig. 7). In trenches Area 1A and 3B we uncovered the stone faces down to the foundation. They are preserved to the height of 1.4 meters. The core of the enclosing wall was built of irregular stones up to approx. 1 meter (recorded in Area 2). Above that, the core was made up of mud brick and stone material bonded with mud mortar (Area 2, 4 and 5).

12 A.A. El-Hassan *Jebel Um Marrihi: A Late Post-Meroitic and Early Medieval Site (c. 325–650 AD) in Khartoum Province (Sudan)*, p. 32–33.



Fig. 8: Area 3: A - the stone face of the western curtain, B - remains of mud brick structure (photo Mariusz Drzewiecki).

No traces of pottery sherds nor any macro organic materials were noted in the mortar.

The enclosure is strengthened with four angle bastions and two mid-way bastions in the northern and southern curtain. These were all rectangular in shape, according to Ahmed Abuelgasim El-Hasan¹³. There is a large gate in the middle of the eastern curtain, equipped with an L-shaped outer wall protecting the entrance to the fort. On the opposite side of the enclosure, in Area 3, we identified a discontinuity in the structure of the inner face of the curtain. In Area 3B we came across the well-preserved stone face of the wall. In Area 3 and 3A, which are directly to the north, the stone face was not detected. Instead a heavily eroded mud brick construction fills the gap (Fig. 8). Further research is required to verify whether it is a blocked gate or maybe the remains of a staircase leading to the parapet walk.

The fort on top of Jebel Umm Marrahi bears similarities with other fortified sites in the region. Between the Fourth Cataract and the confluence of

the White Nile and the Blue Nile there is a group of distinctive fortified sites similar in shape, size and layout. They are generally dated to the late Antiquity period (2nd–7th century AD). They are: El-Ar, El-Qinifab, Mikeisir, Gandeisi, Jebel Nakhara, Wad Mukhtar, Abu Nafisa, Hosh el-Kab¹⁴ (see Fig. 1). Umm Marrahi is the southernmost site in the group and differs from the rest by the use of mudbrick in the construction of its defences. In other forts the preserved remains are made of stone only.

POTTERY

The pottery assemblage consists of potsherds collected from the surface of the entire plateau as well as materials discovered during excavations. While the final results are being processed, some observations made by Aneta Cedro can now be presented.

13 A.A. El-Hassan *Jebel Um Marrihi: A Late Post-Meroitic and Early Medieval Site (c. 325–650 AD) in Khartoum Province (Sudan)*, p. 33.

14 There are also other fortified sites in the region which might belong to the same type, however, more fieldwork is required to provide detail information about the architectural remains and their chronology. This situation refers to sites such as Nadi, Abu Mereikh C, El-Usheir South and Mutmir.



The pottery survey within the fort was conducted according to the following rules: a walking survey on the top of the enclosure wall, inside line-walking in 5-metre transects, marking pottery findspots on the map, photo-documenting and collecting samples of ceramic finds. For the rest of the plateau area, the lines of walking had to be adjusted to the natural obstacles on the rocky hilltop, so it was not as regular as inside the fort. Some special attention was also given to the architectural remains or places that suggested some more intense form of human activity. Potsherds were abundant across the whole plateau and thus, considering time limitations and the size of the area, it was impossible to map all spotted artefacts. The bigger concentrations of pottery, distinctive and diagnostic fragments as well as the farthest located finds, were given findspot-numbers on the map and were photo-documented directly at the site.

The survey resulted in a general overview of the distribution of the ceramics within the plateau. Placing this material in a rough chronological framework allowed us to distinguish four periods of the site occupation: prehistoric, possibly spanning from the Middle Mesolithic to the Neolithic, post-Meroitic, early Christian and Funj. Based on registered findspots for each recognised period, a map presenting a range of distribution and the highest density of corresponding archaeological surface material was created.

The single finds of prehistoric pottery were recorded in the most areas of the plateau, including the southern part of the fort, but their most significant concentration was noted in the north-eastern part of the large enclosure (Fig. 9). The post-Meroitic pottery was identified in the western part of the enclosure and throughout the entire surface of the fort and its immediate surroundings to the north and west (Fig. 10).

The early Christian materials were limited almost entirely to the fort and to the area outside the south-eastern corner (Fig. 11). The Funj period pottery was scattered throughout the plateau.

The preliminary analysis of pottery from the trenches revealed that finds from layer 0 to 3 contained mixed materials attributed to the periods identified also on the surface of the plateau. The lowermost layers, from 4 to 6, provided a relatively homogeneous group of potsherds of post-Meroitic / Transitional Christian origin (Fig. 12).

RADIOCARBON CHRONOLOGY

Samples for radiocarbon analysis were collected from all charcoal residues discovered during our exploration of Umm Marrahi fort. However, the most crucial came from the lowest levels, the foundations. Twelve samples from the most important contexts were sent to Poznan Radiocarbon Laboratory. The analysis was conducted on the spectrometer 1.5 SDH-Pelletron Model "Compact Carbon AMS" produced by the National Electrostatics Corporation, Middleton, USA. The results were provided for eleven samples with a range of +/- 30 years (Tab. 1, Fig. 13).

The analysed samples originate from consecutive layers from both trenches. They were accumulated on the bedrock which itself was not an even and flat surface. It was marked by numerous sometimes deep crevices filled with packed sand and small stones mixed with archaeological materials. The layers labelled no 6 were those directly above the bedrock and corresponded with the foundation of the fort. Altogether three samples from the layers no 6 were analysed providing dates from the second part of the 6th and the first half of the 7th century AD with 95.4% probability.

The same samples give a result for the second part of the 6th century AD with 68.2% probability.

Layers no 5 in both trenches provided similar dates, indicating that the fort was in use for some time. How long? The answer to the question can be suggested based on results of samples from layer no 4. In Area 3B the date from the layer 4 is similar to the layer 5 and 6. However, in Area 1A (samples P_UM_33) the result indicate occupation at the beginning of the 7th century.

Samples from layers 2 and 3 (Area 1A) provide 17th to 20th century dates, indicating secondary occupation of the site.

In conclusion, based on the radiocarbon analysis, a sequence of two occupation phases can be identified. The first falls into the last years of the post-Meroitic period, the official Christianisation of Alwa (580 AD) and the very beginning of the early Christian period. This is the time when the fort was built. After this period the enclosure seems to be abandoned until post-medieval times.



Fig. 9: The distribution of the Neolithic pottery of the plateau (prepared by Aneta Cedro).

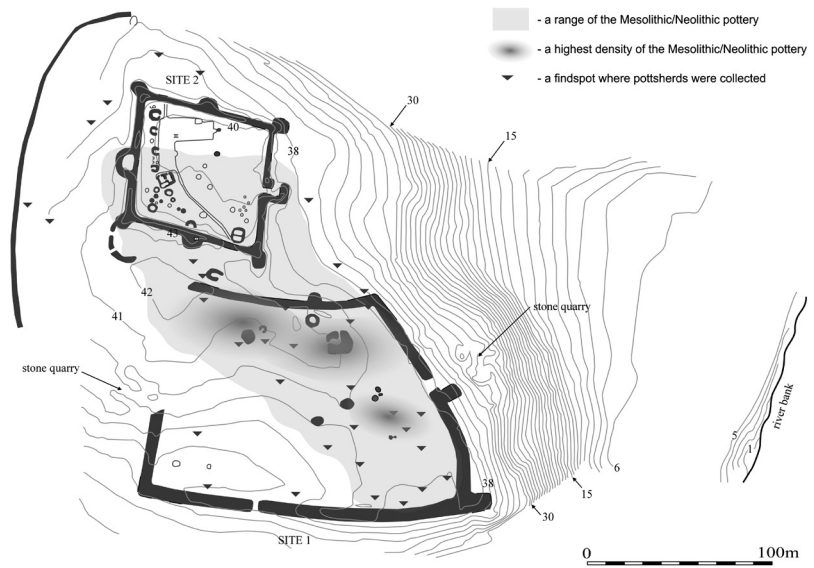


Fig. 10: The distribution of the post-Meroitic pottery of the plateau (prepared by Aneta Cedro).

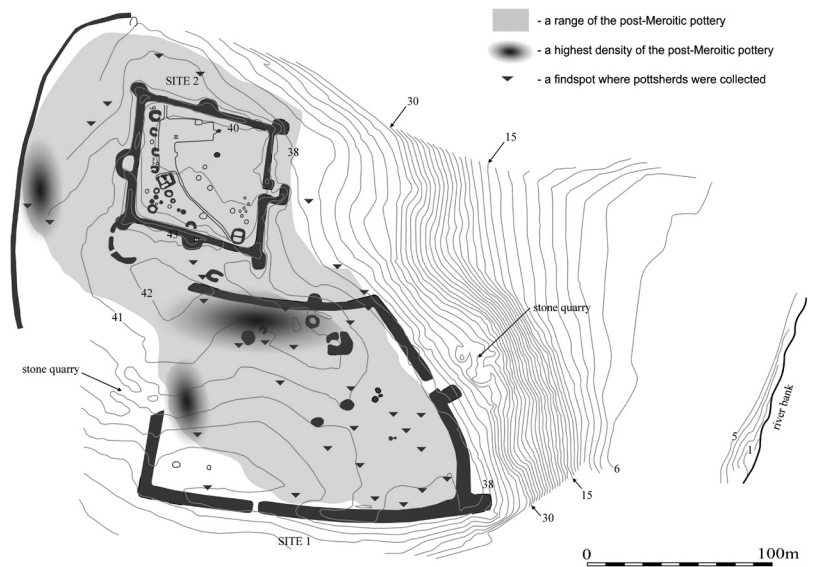
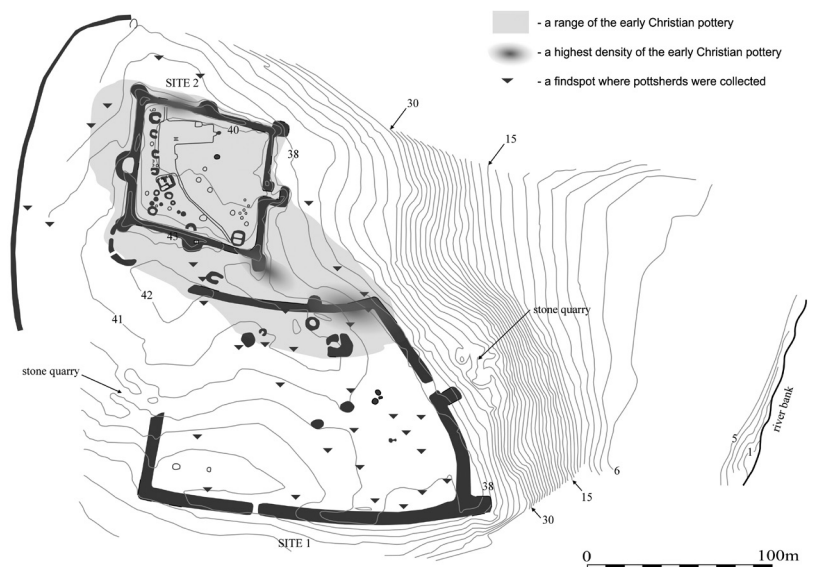


Fig. 11: The distribution of the early Christian pottery of the plateau (prepared by Aneta Cedro).



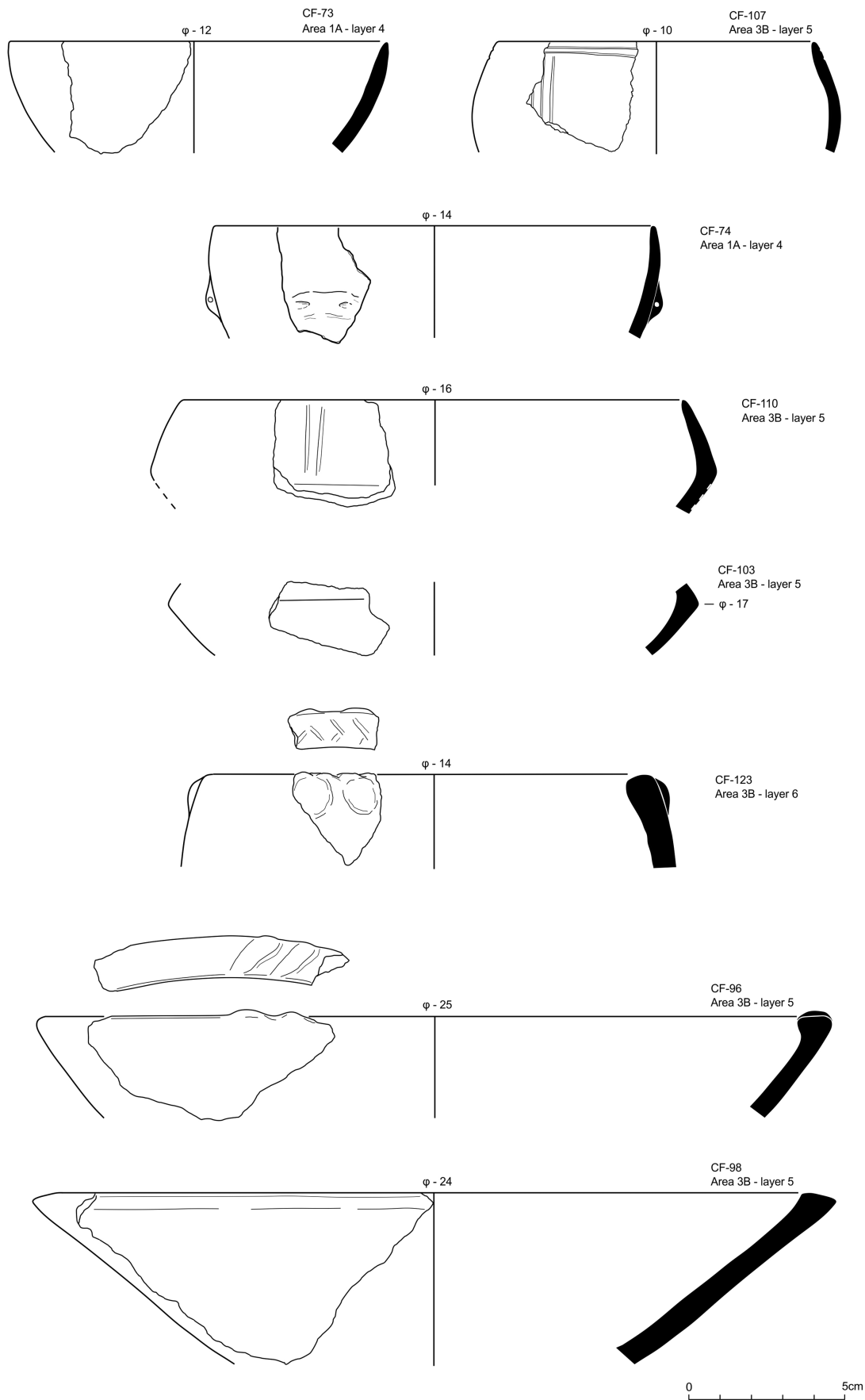


Fig. 12: Pottery from the trenches at Umm Marrahi, contemporaneous with the construction of the fort (prepared by Aneta Cedro)



sample name	lab no	trench and layer	age 14C	calibration 68.2% probability	calibration 95.4% probability
P_UM_27	Poz-111697	Area 1A layer 2	195 ± 30 BP	1662AD (15.4%) 1681AD 1739AD (7.0%) 1750AD 1763AD (31.0%) 1802AD 1938AD (14.9%) ...	1648AD (23.1%) 1691AD 1728AD (52.3%) 1810AD 1925AD (20.0%) ...
P_UM_36	Poz-111698	Area 1A layer 5	1475 ± 30 BP	560AD (68.2%) 620AD	542AD (95.4%) 645AD
P_UM_33	Poz-111692	Area 1A layer 4	1410 ± 30 BP	615AD (68.2%) 655AD	590AD (95.4%) 665AD
P_UM_31	Poz-111699	Area 1A layer 3	205 ± 30 BP	1654AD (21.3%) 1679AD 1764AD (32.5%) 1801AD 1939AD (14.5%) ...	1646AD (26.9%) 1686AD 1731AD (50.1%) 1809AD 1927AD (18.5%) ...
P_UM_43	Poz-111700	Area 1A layer 5	1525 ± 30 BP	434AD (10.8%) 453AD 470AD (11.0%) 487AD 534AD (46.4%) 585AD	428AD (35.1%) 499AD 504AD (60.3%) 604AD
P_UM_46	Poz-111693	Area 1A layer 6	1495 ± 30 BP	545AD (68.2%) 603AD	435AD (2.7%) 452AD 471AD (3.1%) 487AD 534AD (89.6%) 641AD
P_UM_42	Poz-111702	Area 3B layer 6 (fire place)	1510 ± 30 BP	536AD (68.2%) 604AD	430AD (19.7%) 494AD 511AD (0.9%) 517AD 529AD (74.8%) 622AD
P_UM_47	Poz-111703	Area 3B layer 6	1485 ± 30 BP	551AD (68.2%) 610AD	474AD (1.2%) 485AD 536AD (94.2%) 646AD
P_UM_45	Poz-111704	Area 3B layer 5	1485 ± 30 BP	551AD (68.2%) 610AD	474AD (1.2%) 485AD 536AD (94.2%) 646AD
P_UM_49	Poz-111712	Area 3B layer 5	1480 ± 30 BP	556AD (68.2%) 615AD	538AD (95.4%) 645AD
P_UM_40	Poz-111713	Area 3B layer 4	1500 ± 30 BP	543AD (68.2%) 602AD	432AD (10.6%) 489AD 532AD (84.8%) 639AD

Tab. 1: Results of radiocarbon analysis and calibration made using OxCal v. 4.3.2, r. 5 IntCal 13 atmospheric curve¹⁵.

15 Reimer, P. J., Bard, E., Bayliss, A., Beck, J. W., Blackwell, P. G., Bronk Ramsey, C., Grootes, P. M., Guilderson, T. P., Hafli-dason, H., Hajdas, I., HattŽ, C., Heaton, T. J., Hoffmann, D. L., Hogg, A. G., Hughen, K. A., Kaiser, K. F., Kromer, B., Manning, S. W., Niu, M., Reimer, R. W., Richards, D. A., Scott, E. M., Southon, J. R., Staff, R. A., Turney, C. S. M., & van der Plicht, J. 'IntCal13 and Marine13 Radiocarbon Age Calibration Curves 0-50,000 Years cal BP.' Radiocarbon 55/4 (2013).

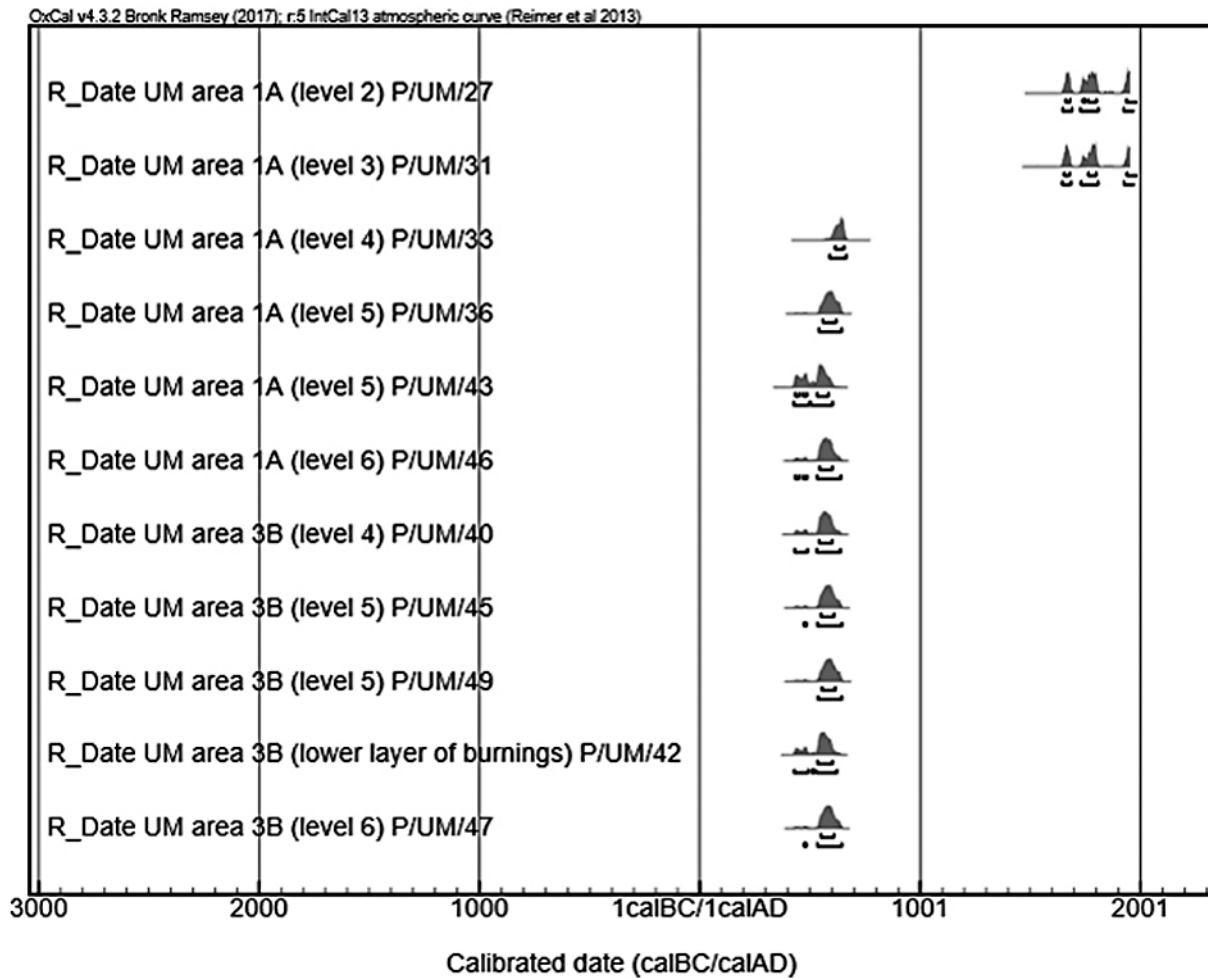


Fig. 13: Calibration of the radiocarbon dates for Umm Marrahi fort (prepared by Mariusz Drzewiecki).

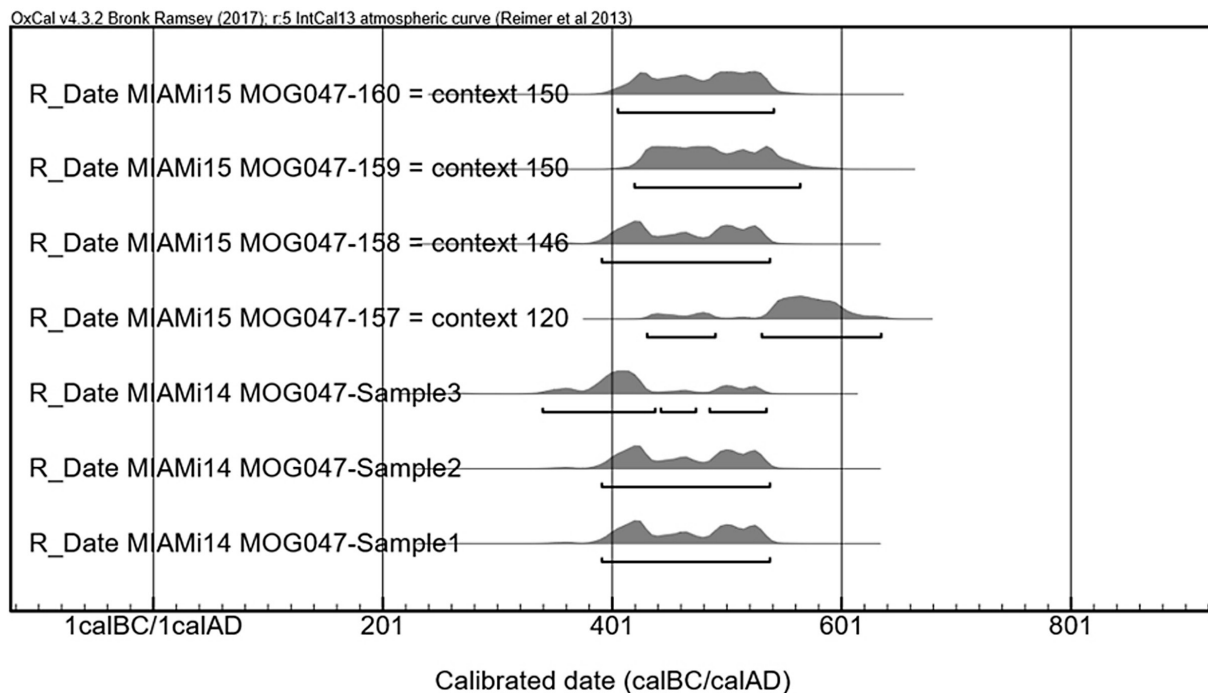


Fig. 14: Calibration of the radiocarbon dates for Mikeisir fort (prepared by Mariusz Drzewiecki).



CONCLUSION

The combined results of the architectural analysis, preliminary pottery studies and radiocarbon chronology give new insights into the history of the site and provide some hints for the general understanding of the purpose behind the construction of the group of forts in the Middle Nile valley.

The chronological sequence of the fort can be constructed on the basis of the radiocarbon analysis of eleven samples. The earliest remains connected with the defences are dated to the second part of the 6th century AD. The occupation continued for a relatively short time, until the first years of the early Christian period. Afterwards, Funj period dates have been obtained suggesting a long settlement hiatus.

Pottery studies of the materials from the trenches and the surface survey confirm this observation. In the fort there were post-Meroitic, early Christian and Funj period sherds recorded with single pieces of prehistoric material on the surface and in the upper layers in the trenches. There was no classical nor late medieval pottery. The lowest layers contained exclusively post-Meroitic and early Christian sherds, confirming the 6th–7th century occupation of the fort.

The radiocarbon dates obtained from Umm Marrahi are comparable with results of the 14C analysis of seven samples from Mikeisir fort on Mograta Island¹⁶. Mikeisir is one of the defences similar to Umm Marrahi. Both can be dated to the post-Meroitic period, but the radiocarbon chronology suggests that Mikeisir is slightly older than Umm Marrahi (Fig. 14). The fort on Mograta was most probably built before the Alwan rulers accepted Christianity (before 580 AD) while Umm Marrahi could have been erected at the approximate time of the arrival of Longinus in Soba.

The narration of John of Ephesus, reporting the conversion of Alwa, gives an insight into a conflict between the kingdom of Makuria on one side and an alliance of Nobadia and Alwa on the other side¹⁷. In this context, the group of forts between the Fourth Cataract and the confluence of the Niles may be crucial for the understanding of the events and actions undertaken by the adversaries.

Derek Welsby¹⁸ has suggested that the forts were built by the Alwan rulers. Our research on the chro-

nology of the southernmost forts provide data confirming this hypothesis. Umm Marrahi, similarly to Mikeisir, Hosh el-Kab and Abu Nafisa was used for a relatively short time, suggesting that the conflict might have been resolved or that the military actions were suspended. More systematic research of the other regular forts in the region might bring further insight into the story.

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ZUSAMMENFASSUNG

Im November und Dezember 2018 wurde das Gebiet am Jebel Umm Marrahi archäologisch untersucht. Das weite Hügelplateau wurde bereits im Mesolithikum und Neolithikum besiedelt. Umfangreiche architektonische Überreste, die viel jünger sind als die prähistorische Siedlung, bedecken die gesamte Oberfläche der flachen Spitze des Hügels. Das Areal wurde von O.G.S. Crawford in den 1950er Jahren und Archäologen der Universität Khartoum in den 1970er und Anfang der 1980er Jahre untersucht.

Der Schwerpunkt unserer Forschung lag auf den Überresten des steinernen Kastells, das von Craw-

16 G. Rees, M. Lahitte and C. Näser 'The Fortresses of Mograta Island Project', *Der Antike Sudan, Mitteilungen der Sudanarchäologischen Gesellschaft zu Berlin e.V.*, Heft 26 (2015), p. 181–194.

17 G. Vantini *Oriental Sources Concerning Nubia* (Heidelberg and Warsaw, 1975), p. 8–26.

18 D. A. Welsby 'The Kingdom of Alwa', in J. R. Ander-

son and D. A. Welsby (eds), *The Fourth Cataract and Beyond. Proceedings of the 12th International Conference for Nubian Studies*. British Museum Publications on Egypt and Sudan 1 (Leuven–Paris–Walpole, M.A., 2014), p. 188–190.



ford in die meroitische Zeit und von El-Hassan in die spät-meroitische / frühe mittelalterliche Zeit datiert wurde. Unser Ziel war es, Daten zu erhalten, die es ermöglichen den Bau des Forts zu datieren.

Ein detaillierter Oberflächensurvey, eine geophysikalische Prospektion und Ausgrabungen wurden durchgeführt. Die Keramik aus den untersten Schichten wurde auf die post-merotische/ frühchristliche Zeit datiert. Die oberen Schichten enthielten Funj-zeitliche und moderne Funde, die mit den frühmittelalterlichen und einigen prähistorischen Scherben vermischt waren.

Radiokohlenstoffdaten für elf Proben, die aus verschiedenen Kontexten innerhalb unserer Schnitte genommen wurden, bestätigen diese Abfolge und verwiesen auf die zweite Hälfte des 6. Jahrhunderts n. Chr. als die wahrscheinlichste Zeit der Errichtung.

Die detaillierte Keramikstudie erstreckte sich über die Umfang des Forts hinaus über das gesamte Plateau. Im Ergebnis wurden Verbreitungskarten der Keramik für die aufeinanderfolgenden Besiedlungsphasen (mesolithisch-neolithisch, post-merotisch, frühchristlich und funj-zeitlich) erstellt.