



GARETH REES, MIRIAM LAHITTE &amp; CLAUDIA NÄSER

# THE FORTRESSES OF MOGRAT ISLAND PROJECT

## INTRODUCTION

The island of Mograt lends itself both in location and topography to the construction of fortifications, and it may be for this reason that Mograt and its surroundings contain the highest density of fortresses of any part of the Middle Nile Valley (fig. 1). This paper will set out the scope of the Fortresses of Mograt Island Project and outline the work to-date before reporting in-depth on the results of fieldwork carried out during the spring 2015. The project is one of a number of thematic and chronologically focused subprojects of the Mograt Island Archaeological Mission (MIAMi), embedded in the Qatar Sudan Archaeological Project (QSAP), which build on the previous work by the Humboldt University Nubian Expedition (H.U.N.E.) in 2006 and 2008.<sup>1</sup>

## BACKGROUND

Despite being the most prominent man-made structures in the region, the fortresses have been noted and recorded by the ‘early travellers’ only in a very limited way. Linant de Bellefonds,<sup>2</sup> upon traveling up the Nile by boat, chose the ‘western’ river channel, reportedly the calmer one, to circumnavigate Mograt, but he still risked wreckage. He spent the night of 28th October 1821 in a village called Carmi – without mentioning a fortress. On his way back he travelled together with Cailliaud on the ‘eastern’ river bank. Unfortunately, their diaries contradict each other in terms of dates and events in the critical days. According to Linant,<sup>3</sup> the travellers passed the upstream tip of Mograt and reached Abu Hamed on 16th April 1822. From there they continued on

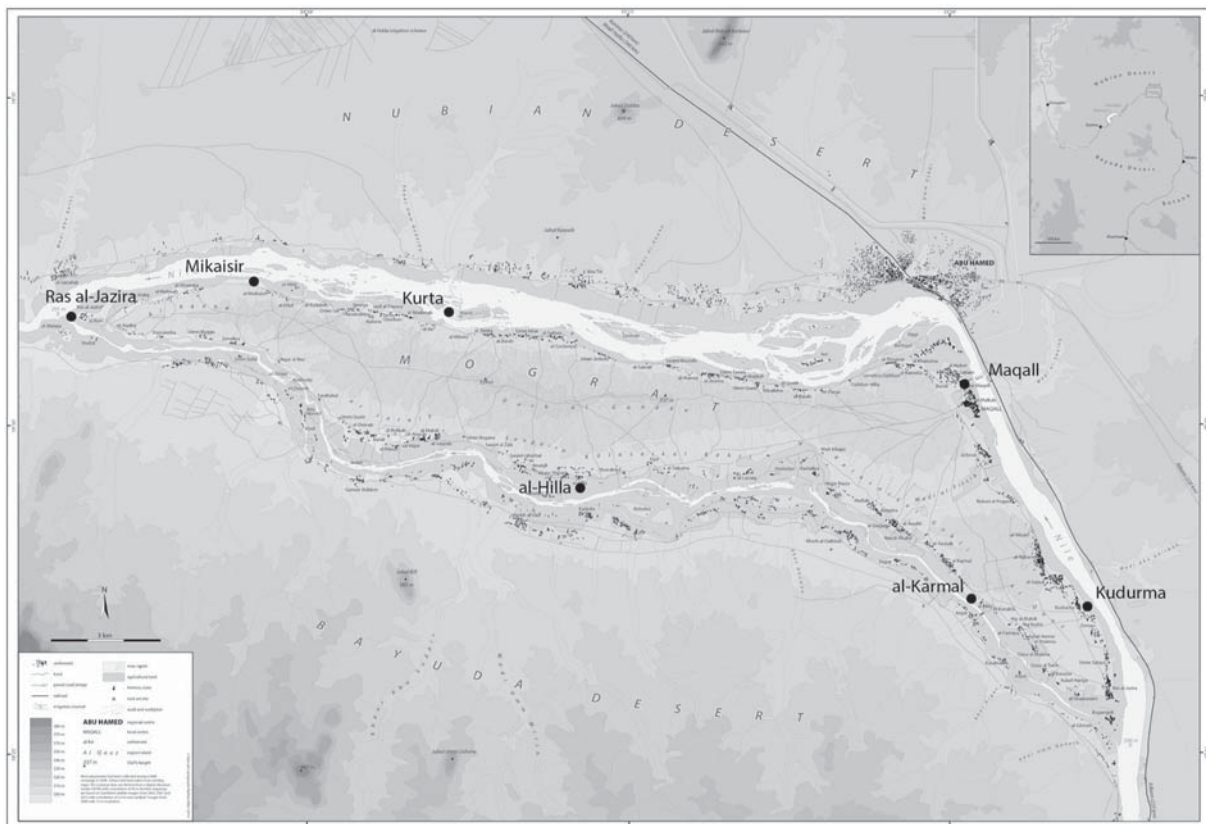


Fig. 1: Fortresses on Mograt Island discussed in the text (after: Ritter 2014)

1 Näser 2006, 2008. See also [www.mogratarchaeology.com/our-projects/mograt-island-fortress-project/](http://www.mogratarchaeology.com/our-projects/mograt-island-fortress-project/).

2 In Shinnie 1958: 66–68.

3 In Shinnie 1958: 160–161.



Fig. 2: The eastern wall and towers of Ras al-Jazira fortress, facing southeast (photo: Gareth Rees)

the morning of 17th April, with Linant's dragoman reporting of having been told "de ruines qui sont un peu plus bas". The party duly visited the site, which Linant describes as "le reste d'un fort bati en briques crues et quelques maisons dedans". He further reports that they enquired about antiquities in the area, with a negative result, and concluded that "seulement sur l'île de Mogratte, il y a les restes d'un couvent ou château que l'on nomme el Carma, et c'est une ruine en terre dans l'intérieur de laquelle il y a des maisons". Whether he had gone to visit this site or not, he does not mention, which suggests that he had not.

According to Cailliaud,<sup>4</sup> the party passed the upstream tip of Mograt on 15th April and continued to Abu Hamed. On the 16th, they reached the hamlet el-Gouba or Qâbâ, about one hour from Abu Hamed, from where Cailliaud continued for one hour to visit a ruined fortress called el-Karmel. He describes it as "construite en grosses briques crues, sur un rocher de granit élevé, près du fleuve. On reconnaît de gros murs extérieurs en style pyramidal et dans l'intérieur, des murs de refend formant beaucoup de chambres". Valorising his excursion, he mused whether this was the place whence the Candace withdrew when fleeing upstream from

Napata from Petronius' armies. According to Cailliaud, when the travellers continued downstream the next day, still alongside Mograt, they came across "les ruines d'un grand édifice nommé encore *Karmel*; c'étaient de grosses murailles en pierres brutes et en briques crues, qui peuvent avoir appartenu à quelque couvent Chrétien, ou plutôt à une forteresse bâtie à une époque plus ancienne". Upon continuing from this site, they reached "ab-Tyn" – which still today is the name of a village only 10km downstream from Abu Hamed (fig. 1). They passed the downstream end of Mograt on the same day, with Cailliaud registering "les ruines d'une forteresse ou d'un château ancien" – that is the fortress of Ras al-Jazira – at the tip of the island. From this account we cannot be sure<sup>5</sup> that the first of the two fortresses which Cailliaud visited was the one on Mograt, since his record is not conclusive in this respect, however it seems most likely to have been the fortress at al-Karmal. In contrast, Linant clearly refers to a fortress of that name on Mograt, but he may not have seen it. Crawford<sup>6</sup> suggested that Linant's second Karmel actually is Kuweib, a fortress situated on the east bank about 8 miles downstream from Abu Hamed.<sup>7</sup>

5 Contra Ahmed 1971: 2 with note 1.

6 Crawford 1953: 5.

7 Cf. *ibid.*: 28, fig. 1.

4 Cailliaud 1826: 183–190.



After this episode, the fortresses on Mograt did not receive any attention until H. C. Jackson, governor of Berber, undertook a short survey of the Abu Hamed district in the 1920s, also taking note of archaeological remains. He mentions:

- the fortress at Ras al-Jazira describing it as “the remains of a stone village encircled by walls”,
- the fortress at al-Karmal, “a red brick fortress on a granite rock”,
- “remains of stone villages [...] at [...] Magal and El Karmel”; whether this refers to the respective fortresses or other sites is unclear.<sup>8</sup>

O. G. S. Crawford investigated the region on behalf of the British Academy in winter 1951/52. He spent the Christmas days on Mograt, setting up camp in Maqall.<sup>9</sup> From there, he visited “a village of stone huts (Site 4) about a mile to the west”, apparently a different site from the fortress at Maqall,<sup>10</sup> and he also reports of the rock art site at al-Saihan.<sup>11</sup> On 7th February 1952, on his return journey down the river on the ‘western’ bank, he noticed the fortress of al-Karmal, his Site 32. He tried to cross the river, but unable to find a boat, he had to contend himself with a look and a photograph from the other bank. He describes it as “a splendid castle [, ...] a complete surprise, [...] a plum for some future traveller to pick”.<sup>12</sup>

It was almost twenty years until the next fieldwork was carried out on the island. Following a brief visit by a party of the Department of History of the University of Khartoum in April 1969, Abbas Sid Ahmed spent two weeks in the region in September that year.<sup>13</sup> He recorded over thirty sites on Mograt, the small islands around it and the adjacent banks. His survey provided the basis for a first chronological classification of the sites and highlighted the archaeological importance of Mograt, also drawing attention to the significance of this part of the Nile for the Medieval populations. In terms of fortifications Ahmed discussed:

- al-Karmal (Ahmed 1971: 1–5, 17–18, plan 1)
- Ras al-Jazira (Ahmed 1971: 5–7, 17–18, plan 2)
- Kurta (Ahmed 1971: 7–9, 17–18, plan 3)

8 Jackson 1926: 25, 31. Crawford 1953: 5–6, 28 reports of a “village of stone huts”, his Site 4, about a mile from Maqall. This could be the site which also Jackson saw; cf. Ahmed 1971: 9.

9 Crawford 1953: 5–6.

10 Ahmed 1971: 14 with note 1.

11 Crawford 1953: 5–6, 28, pls. 2–3.

12 Ibid.: 18, 29. Cf. Crawford 1961: 35, pl. 28a. The place name Kelesaikal which Crawford attaches to the site refers to the territoriality of Kalasaikal Gubli (see fig. 1).

13 Ahmed 1971.

- Maqall (Ahmed 1971: 9, 18–19 – called al-Hajar)
- Mikaisir (Ahmed 1971: 9–10, 18)
- Kudurma (Ahmed 1971: 10, 18–19)
- al-Hilla (Ahmed 1971: 11, 18–19)

Meanwhile, nineteen fortresses have been recorded on islands and the banks overlooking the river between the Fifth Cataract and Mograt Island, ten of which are on or adjacent to Mograt Island itself.<sup>14</sup> Excavations have taken place at the Medieval fortress at Kurgus to the south,<sup>15</sup> whilst surveys have been carried out at Abu Mekeikh B and C, Ab-Sideir and Karni.<sup>16</sup> The Fortresses of Mograt Island Project currently encompasses six structures dating from the fifth to the nineteenth century AD, three of which have been subject to excavations prior to the current season of fieldwork.<sup>17</sup> An expansion of the activities, also encompassing the fortress at Kudurma, is planned for the upcoming project years.

#### THE FORTRESSES

##### **Ras al-Jazira (MOG048; 19.52736°N 33.10648°E)**

Located on the western tip of the island, approximately 10m above the winter river level, the up-standing remains of this fortress, locally known as Tanta, consist of four segments of wall, two linear to the north and two curvilinear to the east, and six bastions (fig. 2). These surface features were recorded in 2008,<sup>18</sup> whilst excavations in the same year partially uncovered the remains of a church north of the centre of the enclosure.<sup>19</sup> The church was orientated north-east to southwest, whereas the fortress appeared to have been aligned with reference to the local topography, having a straight wall facing northeast and a convex curved wall facing east-southeast. The walls and bastions were constructed using mudbrick faced with stone.

The predominant surviving feature is the eastern bastion, measuring over 11m in diameter and standing up to 4m high. It is abutted by the northeastern and east-southeastern walls, both of which include substantial defended entrances.<sup>20</sup> A series of upright stones outside the main eastern entrance is thought to

14 Davies and Welsby Sjöström 2002; Drzewiecki and Rączkowski 2008; Drzewiecki, Maliński and Rączkowski 2008.

15 Haddow and Nicolas 2014.

16 Drzewiecki 2012.

17 See next paragraph.

18 Becker 2008.

19 Billig 2008.

20 Becker 2008: fig. 1.



Fig. 3: Mikaisir fortress, facing southeast, with the 2015 excavation area at the background (photo: Rizwan Ahmed)

represent *chevaux de frise* designed to stall enemies approaching the main entrance from the landward side.<sup>21</sup> Excavations of the church uncovered two main phases, with an earlier mudbrick building of the Classic Nubian Tamit type, dated by comparisons between 800 and 1250 AD, being later replaced by a stone-built structure.<sup>22</sup> Pottery data indicate that the mudbrick church was built in the first half of this chronological range.<sup>23</sup>

#### **Mikaisir (MOG047; 19.53704°N 33.15361°E)**

The stone-built fortress at Mikaisir is located on the north side of Mograt (fig. 1). This structure, measuring c. 61 x 56m, was built on a north-northeast to south-southwest orientation on a bedrock outcrop lying c. 6m above the winter river level with walls surviving up to 3m wide and 2m high (fig. 3). Although the fortress was clearly well planned, with towers at each corner and a defended entrance on the landward side, it was located specifically to take advantage of the natural foundation and protection offered by the outcrop.

Initial site visits were carried out in 2006, 2008 and 2013,<sup>24</sup> followed by preliminary mapping and

trial excavation in January and February 2014.<sup>25</sup> A dense scatter of artefacts was located on the surface within the fortress. This consisted predominantly of pottery, but also comprised beads, lithics and stone artefacts including thumb rings, grinding stones and pestles. In general terms, the surface finds can be dated to the Late Meroitic or early post-Meroitic period.

Three areas were selected for excavation in spring 2014, with the primary focus being on an area of accumulated aeolian sands in the southeastern corner of the fortress. A structure interpreted as a ramp was uncovered there. It measured 5.96m east to west by 1.36m north to south and consisted of six courses of mudbricks layered in alternate courses up to 1.10m high.<sup>26</sup> This structure may have been designed to provide access to the southeastern tower and has comparisons with features uncovered in the Late Meroitic fortification of Umm-Ruweim I in Wadi Abu Dom, in this case made of stone.<sup>27</sup> Two post-holes were uncovered directly under the ramp in a layer seen to run under the main wall of the fortress.

21 Ibid.: 65–66.

22 Billig 2008.

23 Weschenfelder 2009.

24 Näser 2006: 15–16, 2008: 50–51.

25 Initial mapping of the fortress was conducted by Annett Dittrich and Kerstin Gessner, whilst trial excavations were undertaken by Michael Flache and Miriam Lahitte as part of the MIAMi field season in spring 2014.

26 Lahitte and Flache 2014.

27 Eigner and Karberg 2011: 78.



Fig. 4: The southern wall of Kurta fortress, facing east (photo: Gareth Rees)

Three samples of charcoal taken from these features for <sup>14</sup>C dating provided dates from the second half of the fourth to the sixth century AD, placing the fortress of Mikaisir in the post-Meroitic period:

518AD ( 4.6%) 528AD  
95.4% probability  
**340AD (69.6%) 438AD**  
443AD ( 5.6%) 474AD  
486AD (20.1%) 535AD

POZ-63331 (MIAMi14 MOG047-Sample1):

1610 ± 30 BP

68.2% probability

400AD (29.5%) 433AD

461AD ( 3.2%) 466AD

489AD (35.5%) 532AD

95.4% probability

**392AD (95.4%) 538AD**

POZ-63332 (MIAMi14 MOG047-Sample2):

1610 ± 30 BP

68.2% probability

400AD (29.5%) 433AD

461AD ( 3.2%) 466AD

489AD (35.5%) 532AD

95.4% probability

**392AD (95.4%) 538AD**

POZ-63334 (MIAMi14 MOG047-Sample3):

1635 ± 30 BP

68.2% probability

382AD (55.0%) 430AD

493AD ( 8.5%) 510AD

#### **Kurta (MOG089; 19.52857°N 33.22775°E)**

The small island of Kurta, measuring 1.6km long and 250m wide, is located in the river channel north of Mográt, about 10km to the east of Ras al-Jazira (fig.1). The fortress is situated on the western tip of the island, on the edge of a rock promontory 6m above the winter river level (fig. 4). It consists of four stone and mudbrick walls surviving in excess of 2m in height. Two to three towers can be identified on the ground as well as a possible defended entrance facing inland to the east. The eastern wall measures 80m from north to south whilst the fortress encloses an area 45m wide from east to west. Initial survey of the site and its surroundings in January 2014 recorded Medieval graves as well red bricks on the surface thought also to date from this period.<sup>28</sup> Local oral history records a large brass key being found in the fortress within the last fifty years.<sup>29</sup> The fortress of

<sup>28</sup> Dittrich and Gessner as part of the MIAMi 2014 Late Prehistoric Survey.

<sup>29</sup> Tully, during the community archaeology project in January 2014; cf. Ahmed 1971: 9.



Fig. 5: The southeastern and northwestern walls of al-Hilla fortress, facing northwest (photo: Gareth Rees)

Kurta also seems to date from the Medieval period, but further fieldwork is required to ascertain the exact dating and whether the structure is contemporary with other fortified Medieval sites in the area.

#### **Maqall (MOG039; 19.5059670°N 33.3396379°E)**

This fortress is situated in the modern-day village of Maqall (fig. 1), the local hub on the island from where the ferry to the ‘eastern’ mainland leaves. The site, which was reported by Ahmed<sup>30</sup> under the name al-Hajar, is encroached by modern habitation and acts as a rubbish dump, which complicated the recording of its surface features during first visits by the H.U.N.E. and MIAMi teams in 2006 and 2013. The fortress has a square layout, its interior space measuring c. 42 x 42m. The lower parts of the enclosure walls are constructed from stone, up to a height of c. 2m, with *jalus* appearing in some places preserved above this height. At the southeastern corner of the enclosure, a bastion is still recognisable, and there is a mudbrick or *jalus* wall in the fortress’ interior running against the enclosure wall in this area. Because of the high sedimentation, no traces of gates or entrances can be discerned, but it is likely that they lie underneath the parts where modern tracks cross the enclosure into the interior of the fortress.

30 Ibid.: 18–19.

#### **Al-Hilla (MOG112; 19.48206°N 33.23862°E)**

This fortress is located 15km to the east of Ras al-Jazira at the southern bank of Mograth (fig. 1). The site was originally recorded by Ahmed<sup>31</sup> in 1969 and subsequently visited by the MIAMi survey team in Spring 2014.<sup>32</sup> Three *jalus* walls were found to be standing over 3m in height enclosing a roughly square area 32m northwest to southeast by 36m northeast to southwest (fig. 5). The remains of towers were located on the north and west corners. No remains of the riverside wall were evident on the ground, but it is possible that it had been eroded or removed, due to a steep terrace down to a field in this area. In winter, the river is 75m to the southeast of the fortress which lay on ground at the 315m contour. It is notable that when Ahmed visited the site 45 years earlier that the river came within 3m of the walls indicating that a large amount of deposition had taken place since.

At the time of the initial survey, parts of the internal space were being used as fields and date palms had been planted extensively inside the fortress. There was also a large amount of encroachment from palms and undergrowth outside of the fortress which made detailed recording difficult. Dating of pottery recov-

31 Ibid.: 11, 18–19.

32 Dittrich and Gessner as part of the MIAMi 2014 Late Prehistoric Survey.



Fig. 6: The fortress of al-Karmal, locally known as Jebel al-Hilla, viewed from the northeast (photo: Claudia Näser)

ered from the wall construction material proved inconclusive, but was thought to originate in the Medieval or Islamic era. This was supported by two 14C dates from shell and bone taken from within the make-up of the wall:

POZ-63637 (MIAMi14 MOG112-Sample08):

**495 ± 30 BP**

68.2% probability

1415AD (68.2%) 1439AD

95.4% probability

1400AD (95.4%) 1450AD

POZ-63310 (MIAMi14 MOG112-Sample08B):

**305 ± 30 BP**

68.2% probability

1521AD (45.9%) 1578AD

1583AD ( 5.0%) 1591AD

1621AD (17.3%) 1644AD

95.4% probability

1489AD (71.3%) 1604AD

1610AD (24.1%) 1651AD

These dates, which would place the fortress in the Late Medieval to early post-Medieval period, have to be treated with caution due to their provenance from samples derived from *jalus* wall material which is traditionally recycled back into new bricks, with older material thought to be stronger and more reliable for new constructions.<sup>33</sup> Further work (described below) was carried out here in spring 2015 in order

to better understand how al-Hilla fortress fits into Mograt's history.

#### **Al-Karmal (MOG004; 19.45707°N 33°33'12E)**

The fortress of al-Karmal, locally known as Jebel al-Hilla, lies about 5.4km south from Maqall, directly upstream of the village of al-Karmal (fig. 1). Being the most prominent fortress on Mograt, it has been recorded by each of the previous expeditions to the island, but it was investigated in detail for the first time only by the H.U.N.E. team in 2006.<sup>34</sup> Built on a steep outcrop rising sharply from the fields below (fig. 6), it encloses an area of c. 80 x 52m. The walls which still stand up to 4.5m high are constructed from stone and mudbrick with towers surviving at the northwest, northeast and southeast corners. The northern, eastern and western walls have been built on the steepest part of the outcrop whilst a mudbrick compound extends down the slope to the south towards the river. The construction method of the walls and towers, similar to that of the fortress at Ras al-Jazira, along with surface finds from within the fortress are indicative of a construction in the Medieval period. The presence of a high status Medieval cemetery 250m to the northeast of the fortress<sup>35</sup> tends to support this dating. Two test trenches in the interior of the fortress revealed substantial disturbances and re-depositions down to a depth of c. 1.0m, while layers attributable to the primary Medieval occupation of the site could not be ascertained.<sup>36</sup>

<sup>34</sup> See the previous section, above p. 177–179, and Näser 2006: 112–114.

<sup>35</sup> Cf. *ibid.*: 108–111.

<sup>36</sup> Cf. *ibid.*: 112–114.

<sup>33</sup> Pers. comm. Stefania Merlo, also see Kleinitz and Merlo 2014: 170–171.

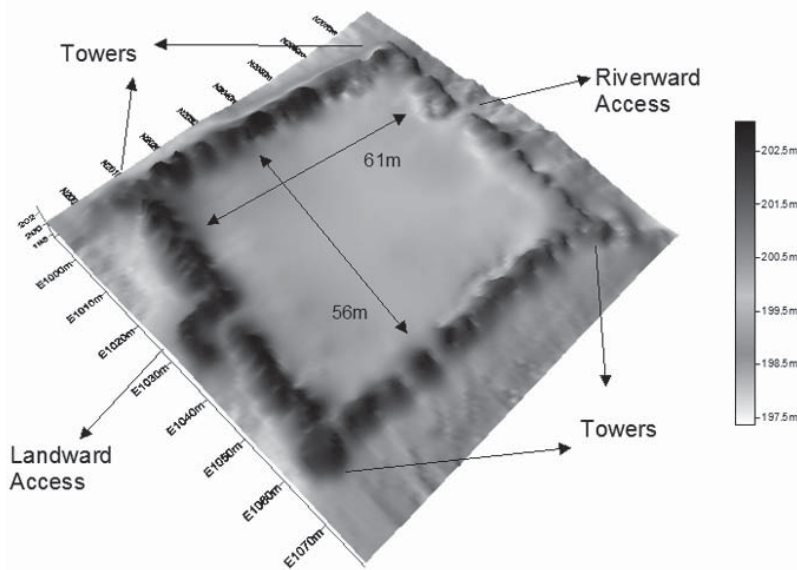


Fig. 7: Digital terrain model of Mikaisir fortress showing the main features, using local datum (image: Gareth Rees)

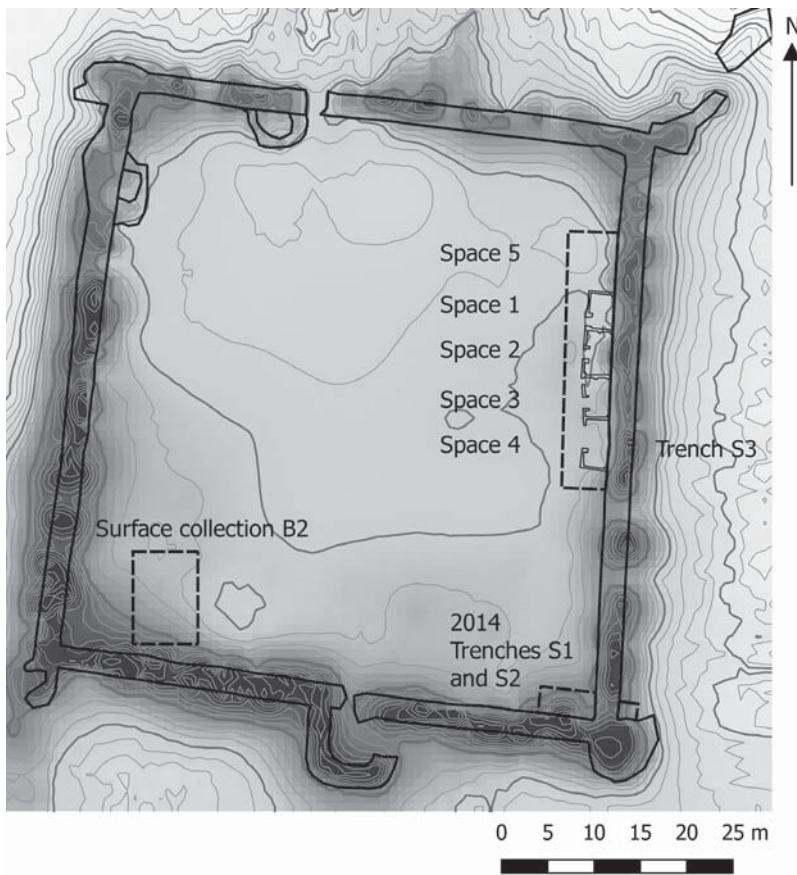


Fig. 8: Plan of Mikaisir fortress showing trench locations and topography (image: Gareth Rees)

## 2015 FIELDWORK AT MIKAISIR

### Introduction

Following on from the first excavations at this fortress in January and February 2014 (summarised above) it was decided that a detailed digital survey and a large-scale excavation would take place in order to further define the character, depth and dates of construction, use and abandonment of the structure.

Particular emphasis was put on defining internal structures to elucidate on activities within the fortress and the internal building plan. Fieldwork took place over three weeks between 3rd and 25th February 2015.<sup>37</sup>

### Survey

Initial survey of the fortress in 2014 produced detailed recordings of the construction of the walls and towers. The main walls were built as two shells in vertical stone masonry (partly resembling *opus spicatum*). Three building episodes were identified, with the four towers, each of different type, thought to have been constructed before adding the walls. The survey also included an intensive collection of surface artefacts within a 60m<sup>2</sup> area the first results of which are detailed below. The high density of surface artefacts across the majority of the internal space of the fortress is of particular note and the means of deposition is of particular interest to this project. The aims of the 2015 surveys were to record as far as possible the character, extent and preservation of the remains of the fortress. The total station survey recorded all surviving masonry of the fortress as well as the internal and external topography (fig. 7).

<sup>37</sup> Fieldwork was conducted by Gareth Rees, Rizwan Ahmad and Miriam Lahitte with the assistance of Hassan Mustafa Alkhdhir (NCAM) and members of the local community.





Fig. 9: Excavation of Trench S3 (Spaces 1–5) at the eastern wall of the fortress (photo: Gareth Rees)

### Excavation

A trench (S3), measuring 28m from north to south and 5m from east to west, was located inside of the eastern wall of the fortress in an area where mudbrick appeared to lie *in situ* on the surface (fig. 8). Excavations uncovered five occupation spaces (1–5). They comprised a suite of rooms (Spaces 1–4), measuring 19m long in total, built from mudbrick, with the

walls being a single course thick and surviving up to nine courses i.e. 0.8m high (figs. 9–10). These rooms, each measuring between 3.6m and 4.6m long and 2.9m wide, abutted the main eastern fortress wall and appeared to have been contemporary with it. All of the walls were founded directly onto natural alluvial deposits. An additional open space (5) was uncovered to the north of these rooms.



Fig. 10: Mudbrick wall between Spaces 1 and 2, facing south (photo: Gareth Rees)

### *Architectural features*

Several distinct architectural features were uncovered in these rooms. Each had a raised threshold formed from two courses of mudbrick up to 0.2m high. These were associated with small internal entrance structures protruding one to two courses into the rooms (fig. 11). These entrance features may have been designed in order to stabilise the narrow walls, but may also have had a function to keep wind and sand out of the rooms. The entrances were located both in the centre and at the southern end of the rooms.



Fig. 11: Space 2, showing entrance features and buttress against northern wall, facing east (photo: Gareth Rees)



Fig. 12: Space 4, post-excitation, showing possible flue structures (left), facing east (photo: Gareth Rees)

The problem of stability was also addressed by buttresses located on the southern face of walls in Spaces 1, 2 and 3. These were constructed up to two bricks wide roughly in the centre of the walls. Their location on the southern faces of the walls may be an indication that the buttresses were a response to pressure from the prevailing winds. A question raised from this is how high the original walls were and whether this structure was roofed. It is possible that a roof over the entire suite of rooms would have added stability to the structure, however the lack of any foundation or widening at the base of the walls tends to suggest that only a light covering could have been supported. No evidence of roofing material of any sort was uncovered during the excavations. A small amount of mudbrick rubble was present in the upper

layers of the rooms which may have added one or two courses on to each of the walls, however this may not be a reliable indicator since the bricks erode readily when subjected to wind and rain. Evidence from Space 5, where only the southern wall was uncovered, may indicate that temporary structural material such as tents or palm fronds may also have been used.

Space 4, which remains only partially excavated, may have had two flues built into its northern wall, although further excavation is required to define these hollow mudbrick features (fig. 12). It is possible that flues would have been added to this room in order to raise the temperature of an oven, possibly for baking bread.

#### *Use of space*

With the exception of Space 4, all of the rooms had a similar internal layout. The surfaces were formed from the pre-existing land surface with a slightly raised area located in the southeast corner adjacent to the stone fortress wall. In each of the rooms a pit was dug in this corner into which an inverted vessel was placed. In Space 2, a beer jar was found in this position (fig. 13). Vessels

were uncovered *in situ* in Spaces 2, 3 and 5. Burned deposits as well as a large amount of ash and charcoal around these vessels indicate that they were probably being reused as ovens. A large amount of animal bones and charred remains were recovered from contexts associated with these ovens leading to the assumption that they were used for small scale food preparation. Analysis of the faunal remains from these spaces is currently ongoing, however the results of the previous excavations recovered mammalian bones predominantly from sheep/goat, with some cow remains and only two examples of pig.<sup>38</sup>

<sup>38</sup> Assessment of MOG047 Trench S1 and S2 faunal remains by Nadine Nolde, Universität zu Köln.



Along with these ovens in Spaces 1, 3 and 5 were several 'firepits', sub-circular cuts in the surface filled with ash and charcoal, which may have been the location of more temporary fires, perhaps for boiling water. Excavation of similar features elsewhere has led the excavator to conclude that these pits were often lined with upturned ceramic vessels which were later removed and recycled.<sup>39</sup> The differing layout of the features in Space 4 has already been mentioned above. Here, a near complete vessel was located in the northwest corner of the room and was associated

with the flue-type structures in the northern wall of the space. Further excavation is required in this room to clarify the function of this installation.

#### *Abandonment*

There was evidence for only a single phase of activity in these rooms excavated during the current field season, however the possibility of temporary use of the ruins in later periods cannot be discounted. The occupation deposits and the *in-situ* vessels were covered with aeolian sands and mudbrick rubble after abandonment. The relatively small amount of stone and mudbrick rubble in the rooms may indicate that this was a relatively quick process. As with the rest of the fortress a large number of artefacts were recovered from the upper layers, with grinding stones being particularly frequent on the surface in unstratified contexts.

#### **Finds**

The finds of the seasons 2014 and 2015 from the trenches S1, S1-W, S2 and S3, and the surface survey in B2 (fig. 8) comprised pottery, lithics, stone artefacts, animal bones, archaeobotanical remains, small amounts of burnt clay, slag, metal objects and beads. Most of the finds are still in the process of study and analysis. In the following we present a summary of the small finds of the 2014 field season and a more detailed overview of the finds of the 2015 field season.



Fig. 13: *In-situ* occupation deposits in Space 2 with inverted vessel used as oven, facing southeast (photo: Gareth Rees)

#### *Summary of the small finds of the 2014 field season*

The small finds from the excavations S1, S1-W, S2 and the surface collection in the southwestern area of the fortress (B2) comprise 59 beads as well as a fragment of a truncated granite object (archer's loose or mace head ?) with a biconcave perforation (h. c. 40mm, Ø c. 38–50mm; figs. 14a–c) and two very corroded iron objects, namely one nail with flat elliptical head (l. c. 55mm, fig. 15) and one thin elongated flattened object/spatula/rod with a wide center and thinner ends (l. c. 67mm, fig. 16). The beads comprise one blue glass bead (globular/barrel bead with one irregular collared end, Ø c. 5.5mm), four beads of white stone (barrel beads, Ø c. 2–6mm), fourteen beads of quartz ceramics (mainly short barrels and cylinders, Ø 3.5–5.5mm) and 40 beads of ostrich eggshell (discs, usually with Ø ca. 4–6mm and twice Ø > 10mm). The glass bead and the stone beads were found in the excavation trenches of the southeastern ramp (trenches S1 and S1-W) together with beads of quartz ceramics and ostrich eggshell. The surface collection (B2) produced only quartz ceramic and ostrich eggshells beads, but additionally ten pieces of ostrich eggshell. In a first approach the material was classified by eye, as archaeometrical analyses have not yet been undertaken.

#### **Small finds of the 2015 field season**

From the excavation of Trench S3 near the eastern wall of the fortress three metal objects, several pottery whorls or weights, an archer's loose, a polishing tool as well as 397 beads were recovered.

<sup>39</sup> Rees et al. 2011: 329. Cf. also similar findings from Musawarat reported by Näser and Wetendorf, this volume.



Fig. 14a



Fig. 14b



Fig. 14c

Fig. 14a-c: Archer's loose/mace or mace head (?), #MOG047-2014-L1



Fig. 15

Iron nail, #MOG047-SF1a



Fig. 16

Iron spatula/rod (?), #MOG047-SF1b



Fig. 17

Iron rod/khol (?), #MOG047-309



Fig. 18

Iron arrowhead, #MOG047-310

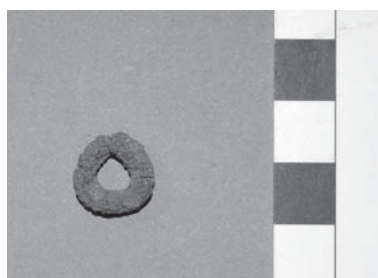


Fig. 19a

Fig. 19a-b: Green corroded metal ring, #MOG047-311



Fig. 19b

### *Catalogue of metal objects*

#### Iron rod/khol stick (?) (broken into two pieces) (fig. 17)

Corroded thin elongated flattened object/rod/khol stick (?) with one pointed end, broken in two parts, elliptical (?) square section.

Dimensions: l. c. 78mm, w. c. 13mm, h. c. 12mm

Weight: 3.6g

Context: 155, #MOG047-309

This object was found in a mixed layer of wind-blown sand and occupation deposits of Space 3. For a comparison see Abdu and Gordon 2004: 985, fig. 2(b) 1,562.

#### Iron arrowhead (broken in two pieces) (fig. 18)

Corroded arrowhead, broken in two parts, round/elliptical (?) square section.

Dimensions: l. c. 47mm, h. c. 9mm, th. 3–5mm

Weight: 2.1g

Context: 112, #MOG047-310

This object was found in the occupation layer of Space 2. For comparisons see for example Zielinski 2014: 383, fig. 5, type 1a and Edwards 1998: 127, 136, fig. 5.12, <7204>.

#### Green corroded metal ring (fig. 19a–b)

Corroded ring made of a metal string/rod (?)

Dimensions: Ø c. 13mm, th. 4.2–4.6 mm

Weight: 1.4g

Context: 133, #MOG047-311

This object was found in a layer of windblown sand and charcoal, possibly representing an occupation horizon with 'firepits' in Space 5. Adequate comparisons are still investigated.

### *Catalogue of ceramic objects*

#### Whorl/weight (fig. 20a–b)

Biconical, vertically perforated whorl or weight; the upper side of the object is decorated with incised lines forming a geometric pattern composed of double-hook-like lines ordered along four axes.



Fig. 20a

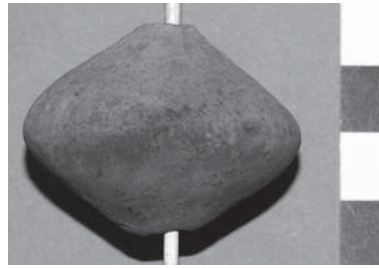


Fig. 20b



Fig. 21

Fig. 20a-b: Whorl/weight, #MOG047-304

Weight/'net sinker', #MOG047-308

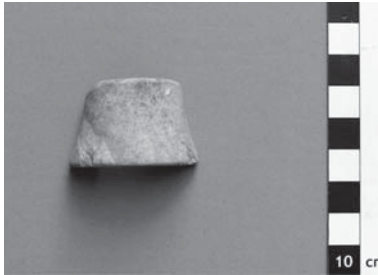


Fig. 22a



Fig. 22b

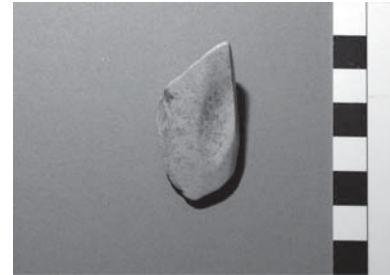


Fig. 23

Fig. 22a-b: Archer's loose/thumb ring, #MOG047-306;

Polishing tool, #MOG047-305



Fig. 24

Tentative reconstruction of a bracelet of beads of quartz ceramics and ostrich eggshell, #MOG047-303

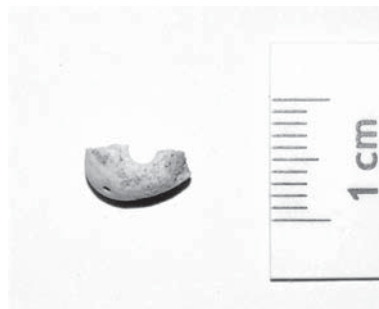


Fig. 25

Fragment of an eye bead of quartz ceramics, #MOG047-280

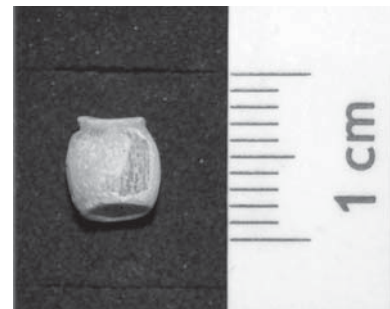


Fig. 26

Single-segmented metal-in-glass bead, #MOG047-266

(Photos figs. 14-26: Miriam Lahitte)

Dimensions: h. c. 30mm, Ø c. 40mm

Weight: 31.3g

Context: 143, #MOG047-304

Incised, but flatter whorls of the Meroitic period have been found e.g. at Meroe (see for example, Näser 2004: 255–257, figs. 122–123, nos. 5038, 5054, 5055, 5088) and Hamadab, although the latter are of quartz ceramics and seem to be mould-made (Wolf 2002: 107, fig. 4).

Weight/'net sinker' (fig. 21)

Rounded and perforated thick pottery disc

Dimensions: h. c. 74mm, w. c. 66mm, th. c. 11–13mm

Weight: 53.35g

Context: 107, sq. 2-5 (Space 5), #MOG047-308

This ovoid weight with a central perforation is made from a reused pottery sherd. It comes from a layer of

aeolian sand accumulated in Space 5. Several similar pieces have been noted in the pottery corpus from the site which is still under study.

### *Catalogue of stone objects*

Archer's loose/thumb ring (fragmentary) (fig. 22a–b)

One half of an archer's loose of a beige stone

Dimensions: h. c. 27mm, Ø c. 30–40mm

Weight: 16g

Context: 110, #MOG047-306

This fragment of an archer's loose was found in Space 1, on a spread of degraded mudbrick with lenses of ash and charcoal. For comparisons from another fortress context see, for example, Lenoble 2004: 139, pl. 3.

### Polishing tool (fig. 23)

Irregularly shaped object with a smooth surface and concave grooves.

Dimensions: l. 47mm, h. 16mm, w. 24mm

Weight: 16g

Context: 133, #MOG047-305

This object was found in a layer of windblown sand and charcoal, possibly representing an occupation horizon with 'firepits' in Space 5 (like the metal ring #MOG047-311).

### *Bead finds of the 2015 season*

In the excavations of spring 2015 the picture of bead distribution changed. We found a large number of glass beads including coloured drawn glass and metal-in-glass beads. Ostrich eggshell beads were mainly of medium size (Ø around 4mm). The material, here classified as ostrich eggshell, still needs a comprehensive archaeometrical and archaeozoological study, as some of the beads have a different appearance in patina or show a change of colour in the core material, which might be explained by the dark Nile mud, the production technique or another type of shell; traces of secondary thermal influences have not been identified. Of the total of 397 beads, 164 are of ostrich eggshell, 170 of quartz ceramics, 56 of glass and 7 of stone (table 1, see p. 15). Space 5 showed the highest concentration of beads (42%), followed by Space 3 (27%), from where most of the glass beads derive. The amounts in Space 1 (19%) and Space 2 (11%) are smaller, and in Space 4 only four ostrich eggshell beads were found (1%).

One *in-situ* find from a layer (context 147) in the northern part of Space 5 near the enclosure wall, allowed the tentative reconstruction of a bracelet of 43 ostrich eggshell beads and 40 beads of quartz ceramics (fig. 24). While beads such as these have often been found in funerary, temple and foundation contexts,<sup>40</sup> it remains open whether the current find represents a deliberate deposit of a comparable type. Apart from the bracelet, no individual pieces of jewellery could be reconstructed. Only one fragment of an oblate-annular eye bead of quartz ceramics (fig. 25) can be interpreted as part of a bead-string or bracelet with an apotropaic function.<sup>41</sup> While the composition of the bead material has still to see a more in-depth analysis, the find contexts indicate that the beads in MOG047 were deposited in small amounts, as intentional deposits or bead-strings or bracelets.

40 For foundations deposits in el-Ar, see Then-Obłuska, in prep.

41 Cf. for example Then-Obłuska 2014a: 1070, pl. 2-212, 2014b: 108, fig. 5.

The quartz ceramic and ostrich eggshell beads from Mikaisir can be compared to beads from the transitional Late Meroitic/post-Meroitic period. Good examples are the finds from the GAME excavations, where barrel and tubular beads of blue quartz ceramics were mentioned as major male adornment in graves of the post-Meroitic period.<sup>42</sup> The beads from MOG047 show a more balanced distribution of quartz ceramics and (ostrich egg-)shell, and thus do not reflect the fashion of post-Meroitic grave owners in the Fourth Cataract region in quantity, but the beads of quartz ceramics correspond in form and material. However, the general distribution of the bead material in Mikaisir seems to be roughly comparable with the range at the post-Meroitic cemetery of Missiminia.<sup>43</sup>

A very special category are drawn opaque glass beads, of which the current assemblage from Mikaisir comprises five pieces of blue, green or yellow colour, and a few glass beads of red-brownish colour. Such beads derive from either the Roman world<sup>44</sup> or the Indo-Pacific region.<sup>45</sup> To specify their exact origin is difficult, as they were traded widely and can be found in the whole Mediterranean, the Near East, Europe and up to China.<sup>46</sup> Some other beads from Mikaisir have been identified as metal-in-glass beads, which had been produced in the form of segmented beads. The segmentation is made by forming the bead glass in special stone models. Workshops for this type of beads are known from Rhodes and Alexandria (Kôm el-Dikka) in the fifth to seventh centuries AD.<sup>47</sup> The implementation of gold foil between two layers of glass was a popular feature, also found in beads from post-Meroitic contexts at the Fourth Cataract.<sup>48</sup> In Mikaisir, there are examples of single-segmented beads with metal foil (for example, segmented bead: Ø 5.5mm, l. 6.5mm; fig. 26) as well as one double-segmented metal-in-glass bead (Ø 3.5mm, l. c. 8mm). All segmented glass beads from Mikaisir are hollow inside and have a globular, globular-barrel or oblate form.

### *Summary of the small finds of the 2015 field season*

Preliminary analysis of the small finds, presented above, shows that the finds from the fortress Mikaisir can be attributed to Late Meroitic and post-Meroitic times. Although we tried to find comparable features

42 Then-Obłuska 2014a: 1075.

43 Cf. Then-Obłuska 2014a: 1047, pl. 3.

44 Spaer 2001: 30–32, 39, 46–77.

45 Francis 2002: 13.

46 Dubin 2006: 55.

47 Francis 2002: 15; Rodziewicz 1984: 242–243.

48 Then-Obłuska 2014a: 1072.



MOG047-S03-2015	Space 5 (towards northeastern corner)												Room 1 ('Space 1')					Room 2 ('Space 2')					Room 3 ('Space 3')					Room 4 ('Space 4')							
	WBS	WBS	WBS	WBS (bracelet)			WBS-occ.	WBS-occ.	Occ.	Occ.	Upon modern pit	WBS under occ. h.	Pit	WBS	WBS	WBS	WBS	WBS	WBS	WBS	WBS	Occ.	Occ.	WBS	WBS	WBS	Mudbrick rubble	Surface	Surface/occ.	Surface/occ.	Occ.	Rubble/WBS	Rubble/WBS	Total	% **
				K107	K147	K124																													
Bead material *)	K107	K147	K124	K134	K133	K142	K144	K149	K156	K101	K105	K108	K127	K110	K113	K102	K106	K109	K112	K103	K139	K143	K170	K155	K173	K152	K128	K179	Total	% **					
Ostrich eggshell	7	10	43	2	20	1	2		1	4	3	2		8	6	1	1	6	5	6	2	2	1	13	2	12	2	2	164	41%					
Quartz ceramics	6	2	40	3	5	3	4	1	7	5	2	4	4	13	10	6	3	8	7	8		4	1	8	1	15		170	43%						
Glass	2	2		1	3				1	4	1	1		4	2			2	3	1	1	3	4	12	1	9		56	14%						
Stone					1	1			1	1	1			1	1			1	1						1			7	2%						
Total of complete beads	15	14	83	5	28	5	6	1	10	13	6	7	4	26	19	7	4	17	15	15	3	9	6	33	4	37	2	397	Total						

Fragments:

	Total																													
Ostrich eggshell																														12
Quartz ceramics	2				4					4	7			4	9			6	14	7		4							61	

Total number of beads in spaces/rooms (MOG047-S03-2015):

Space 5	168
Room 1	75
Room 2	43
Room 3	107
Room 4	4

General description of forms:

Ostrich eggshell beads:  
 Beads of blue quartz ceramics:  
 Glass beads:  
 Stone beads:

cylinder disc, irregular shaped disc  
 short barrel, barrel, cylinder, tubular  
 short barrel, barrel, globular form  
 barrel, globular form

Abbreviations:

WBS Windblown sand  
 Occ. Occupation horizon

\*) The beads have not yet undergone archaeometric analysis; the classification of materials is tentative.

\*\*\*) Not including fragments.

Table 1: MOG047-S03. Overview of beads from the season 2015 (compilation: Miriam Lahitte)



and objects from fortresses or at least other sites of the post-Meroitic period, e.g. el-Ar (1st phase, vertical masonry), el-Zuma (arrowheads compared to el-Ar 1 and 2) and Gabati, all the discussed objects are also known from sites of the Late Meroitic or Transitional Late Meroitic period, like Hosh el-Kafir (el-Hogabi). The biconical spindle whorl can generally be compared to objects from Meroitic settlement contexts, despite the Mikaisir specimen is specific in height and decoration. The occurrence of this whorl, the metal ring and the polishing tool in Space 5 might indicate workshop activities in this area. Usually – as also in Mikaisir – metal objects are relatively rare in post-Meroitic contexts.<sup>49</sup> To differentiate post-Meroitic lithic finds, like mace heads, from material of much earlier periods, is still a challenge, not least since a preliminary analysis of the Mikaisir material indicated the existence of a Neolithic knapping site, few Mesolithic traces as well as Palaeolithic finds on the spot.<sup>50</sup> The bulk of the pottery is still under investigation. A potential distinction between the often highly abraded material recovered from the surface and the stratified excavation finds will be one of the foci of this analysis. A reuse of pottery vessels is indicated by the beer jar which had been installed as an oven.

### Dating

While the evidence of the small finds is inconclusive with regard to a Late Meroitic or early post-Meroitic dating, 14C dates clearly point into the early post-Meroitic period. In addition to the three dates discussed in the previous section, four more dates were obtained from samples collected during the most recent excavations in spring 2015. These were taken from four contexts associated with occupation deposits in the investigated rooms. Context 120 was the fill of the inverted beer jar *in situ* in Space 2, which is likely to have entered the vessel after abandonment. Context 146 was an occupation layer accumulated against the southern wall of Space 5, whilst context 150, from which two samples were taken, was the fill of a ‘firepit’ (151) under the occupation in Space 5, cut into the underlying surface deposits:

POZ-72733 (MIAMi15 MOG047-157 = context 120): **1505 ±30 BP**  
 68.2% probability  
     540AD (68.2%) 601AD  
 95.4% probability

431AD (14.9%) 491AD  
**531AD (80.5%) 635AD**

POZ-72735 (MIAMi15 MOG047-158 = context 146): **1610 ±30 BP**  
 68.2% probability  
     400AD (29.5%) 433AD  
     461AD ( 3.2%) 466AD  
     489AD (35.5%) 532AD  
 95.4% probability  
     **392AD (95.4%) 538AD**

POZ-72736 (MIAMi15 MOG047-159 = context 150 [dung?]): **1560 ±30 BP**  
 68.2% probability  
     430AD (52.6%) 493AD  
     510AD ( 5.4%) 518AD  
     528AD (10.2%) 541AD  
 95.4% probability  
     **420AD (95.4%) 565AD**

POZ-72737 (MIAMi15 MOG047-160 = context 150): **1590 ±30BP**  
 68.2% probability  
     420AD (11.5%) 435AD  
     448AD (16.7%) 472AD  
     487AD (40.0%) 535AD  
 95.4% probability  
     **406AD (95.4%) 542AD**

These dates are broadly in agreement with those obtained from the 2014 excavations,<sup>51</sup> indicating a period of occupation between the later fourth and the mid-sixth century AD. The slightly later date from context 120 may be in keeping with this fill accumulating after the abandonment of these rooms. This would suggest that abandonment had occurred in the middle to late sixth to early seventh century AD.

### Discussion

Of all of the fortresses known in this part of the Nile, that at Mikaisir is the only one conclusively dated to the post-Meroitic period. Three other fortresses in the region around the Fourth and Fifth Cataracts show architectural features comparable to Mikaisir. This primarily concerns the technique of vertical masonry which is also present in el-Ar (first period), Gandeisi Island and the fortress near the Jebel Nakharu.<sup>52</sup> The fortress of Gandeisi also shares other architectural features with Mikaisir such

49 See for example Abdelrahman 2011: 400–402, and most recently Humphris 2014: 127.

50 Pers. comm. K. Geßner, A. Dittrich and J. Schäfer.

51 See above p. 181.

52 Żurawski 2010: 202–204, 2013: 124. For a statistical approach see Drzewiecki 2013.





as the 'bent' landward entrance and the protruding corner towers.<sup>53</sup>

Excavations at Mikaisir, which to-date have only uncovered less than five percent of the total internal area, have revealed a fortress constructed in a defensible location with evidence for only a single phase of occupation. A vast amount of resources must have gone into the construction of the outer walls, with a considerable amount of specialist knowledge used to lay out the square design on the top of a rock outcrop. The steep drop of the outcrop towards the river would have acted as a defense against attack from there whilst the angled, or 'bent' entrance to the landward side would have also made an attack from this direction difficult. If the fortress was built to protect Mograt from a river-borne invasion then its location mid-way along the length of the island is questionable; however if its aim was to provide a defensible access onto the island at a point where the topography allowed an easy landward movement to the east it was well chosen. The architectural features, and the location, along with the uniformity seen in the suite of rooms excavated this season tend to suggest that the primary function of this fortress was as a military stronghold; there is no evidence so far of the kind of organic development of architecture and space that one may expect in a defended settlement.

#### 2015 FIELDWORK AT AL-HILLA

##### Introduction

The first season of fieldwork was conducted at the fortress MOG112 south of the village of al-Hilla between 11th January and 1st February 2015. This consisted of metric, photographic, photogrammetric and total station (TST) survey as well as excavation of five trenches.<sup>54</sup> This report will detail the methods

53 Crawford 1961: fig. 8; Drzewiecki, Maliński and Rączkowski 2008: 9–10, fig. 7.

54 Surveys and excavations were conducted by Gareth Rees, Rizwan Ahmad and Gemma Tully with assistance from Hassan Mustafa Alkhidir (NCAM) and members of the local community.

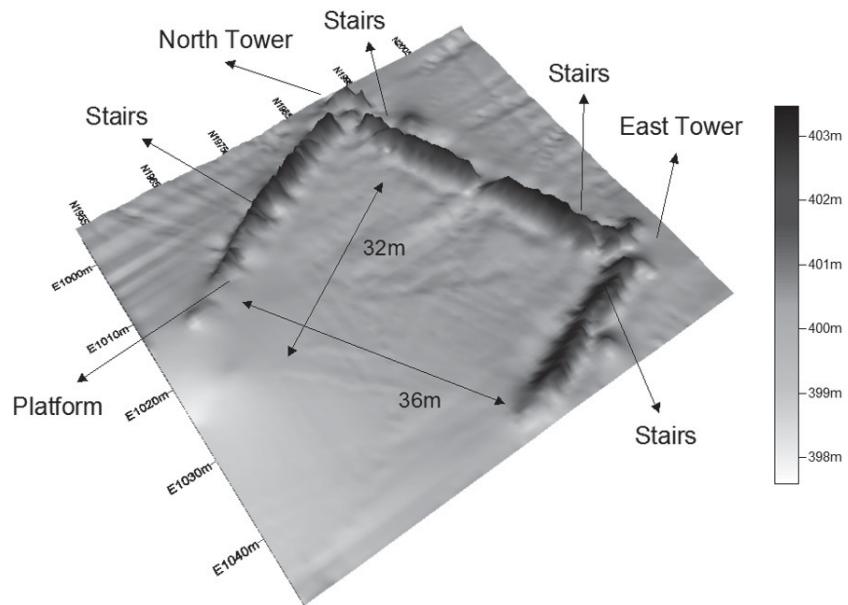


Fig. 27: Digital terrain model of al-Hilla fortress showing the main features, using local datum (image: Gareth Rees)

and results of each aspect of the work beginning with the various surveys.

Initial examination of the fort was hampered by the trees and bushes which grew inside and around the walls. Arrangements were made early on to have all of the non-commercial undergrowth removed from the inside and from a boundary of 2m around the outside of the walls. This clearing allowed detailed recording of the structure, but also will help in the long term preservation by minimising bioturbation and erosion to the walls caused by over-hanging leaves and branches.

##### Surveys

A measured and photographic survey of all features was carried out to accurately map the fort and its surroundings. Subsequent to this, a photogrammetric survey was conducted in order to produce a 3D photographic reconstruction of the fortress in its current state of preservation.<sup>55</sup> The aims of the surveys were to record as far as possible the character, extent and preservation of the remains of the fortress. The survey identified eight features that comprised the standing remains of the fortress, namely walls, towers and installations (fig. 27).

##### Walls

The primary remains of the fortress were three walls, one to the southwest, one to the northwest and one to the northeast (fig. 28). No wall survived on

55 Full methodologies can be found in Rees 2015.



Fig. 28: The northwest wall of al-Hilla fortress during excavation of Trench 2, facing northwest (photo: Rizwan Ahmed)



Fig. 29: Remains of staircase at northeastern end of the northwest wall of al-Hilla fortress, facing north (photo: Lisa Seelau)

the side that would have faced onto the river. The southwestern wall, measuring 32.5m long, 2m wide and 3.3m high, was constructed from at least of nine courses of *jalus* blocks with dimensions 400 x 250 x 250mm. The wall had partially collapsed at the northern end where it was joined by the western

tower. The remains of a staircase were located internally at the southern end of the wall. The staircase, which rose from north to south, was preserved as a sloped incline with no individual steps remaining. The northwestern wall, measuring 36.2m long, 2m wide and up to 3m high, had up to nine courses of *jalus* blocks surviving. The remains of two staircases were located internally one at either end on the wall (fig. 29). A large opening in the centre of this wall was initially thought to be an entrance into the fortress.

The eastern wall measured 24m long, 2m wide and 2.6m high.

The wall survived highest at

the northern end, whilst at the southern end it was evidenced by a low rubble mound. It was also constructed from *jalus* blocks, with up to eight courses surviving. Two adjacent staircases were located at the northern end of the wall, one rising to the south and one rising to the north. No individual steps survived. A large opening was located in the centre of this wall. This opening may have been the location of a doorway into the fortress, however it is equally likely that the opening was caused by erosion and collapse.

The walls were constructed on a compacted clay and grit foundation with alternating courses of large and small blocks in the core of the wall and larger blocks on the faces. A series of small openings, measuring 0.15m to 0.2m square, were built into the walls 0.7m above ground level and spaced c. 2.5m apart. These features are likely to be beam slots used for the construction of the wall and maintenance of the ramparts. A feature, referred to as a 'platform', was built into the internal face of the southwestern wall. It was located 0.42m above the current ground level and measured 2.29m wide and 0.4m high. The remains of a similar but highly eroded feature were identified in the opposite wall. The function of these platforms is unclear at present.

### Towers

Two towers appeared to abut the walls. These were located at the western and northern corners of the structure and were constructed using similar techniques and material to that of the walls. Neither of these features was complete and both are currently used as entrances into the fort by the local farmers. The western tower survived as three angular



walls protruding beyond the outer faces of the fortress and surviving up to 2.7m high and 1.2m thick. Eight beam slots are located in the walls, spaced 0.6m to 0.8m apart (fig. 30). An entrance to the fort may have been located in the northeastern corner of this tower. The tower may have been semicircular in plan when originally constructed. Only the southwestern wall of the northern tower survived to any great height. Six beam slots are located in this segment of the tower wall. The exact size and shape of this tower remains unclear due to its poor preservation, although it could be assumed to mirror that to the northwest.

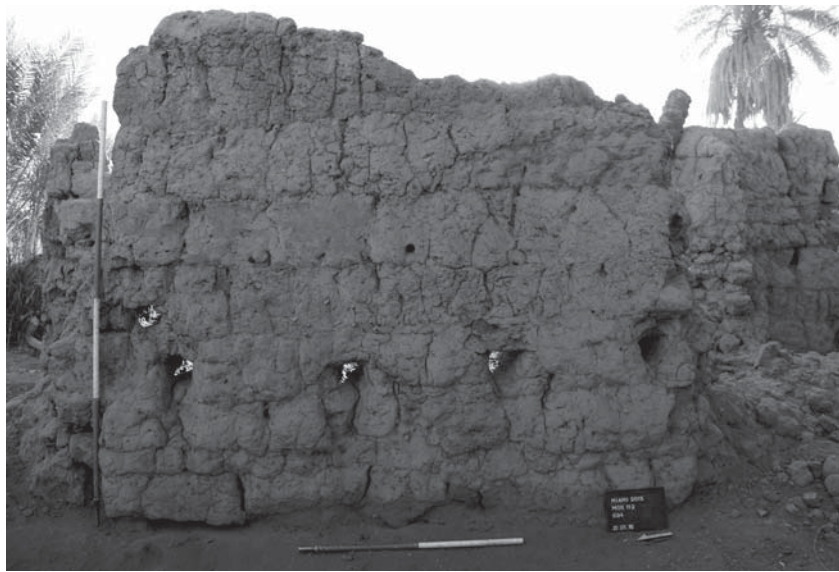


Fig. 30: The western tower at al-Hilla fortress showing beam slots, facing southeast (photo: Rizwan Ahmed)

### Excavations

Five trenches were excavated within the fortress in order to provide dating evidence for the construction, use and abandonment of the structure as well as to investigate the construction methods of the walls (fig. 31). Trenches were also targeted in areas likely to preserve occupation deposits.

### Wall Construction

Excavations in Trenches 1 and 2, located adjacent to the northwestern wall, uncovered only a single course of *jalus* blocks overlying a 0.35m deep deposit of compacted foundation material. A foundation trench could not be seen, however it is likely that the ground was levelled prior to construction. This levelling may be evidenced by a shallow cut recorded under the foundation material in Trench 2. A modern truncation in the centre of the northwestern wall provided an opportunity to examine the internal construction of the wall (fig. 32). Alternating courses of large and small blocks of *jalus* formed the core of the wall with the faces finished with larger flat blocks laid end-to-end. The smaller blocks in the core appeared to have

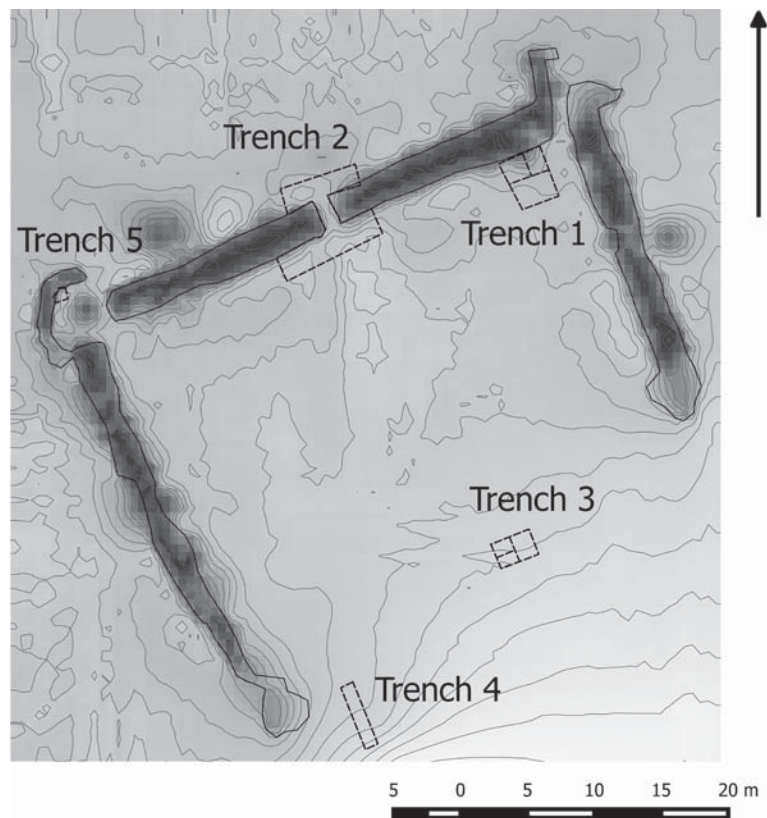


Fig. 31: Plan of al-Hilla fortress showing trench locations and topography (image: Gareth Rees)

been pieces of broken *jalus* or mudbrick and may have been recycled from an older building. Given this construction method, the fact that beam slots survived in the walls may indicate that the wood in these slots was integral to the construction and remained in the wall during the process, possibly supporting scaffolding.



Fig. 32: Trench 2, showing construction method of the northwestern wall of al-Hilla fortress, facing east (photo: Garth Rees)



Fig. 33: The deposit of cobbles and artefacts forming context 37, Trench 2, facing northwest (photo: Gareth Rees)

Trench 4 was located at the end of the southwestern wall in order to establish whether any remains of the riverside wall were preserved. No evidence of wall or foundation material was uncovered. If a wall did exist, it may have been eroded into the river or recycled into later buildings.

#### *Evidence of occupation*

Trenches 1 and 3 were located inside the fortress to try and identify evidence of internal structures. No deposits relating to the fortress were uncovered in these trenches, excavated to a depth of 1.2m, with any evidence of occupation having been truncated by modern terracing and ploughing. Excavations in these trenches demonstrated that the standing remains of the fortress formed the majority of the surviving archaeology and that sub-surface deposits relating to occupation were not present in this area.

A test pit (Trench 5) was located in the western tower in order to assess the state of preservation in this ground which had not been subject to ploughing. Unfortunately this area had been extensively truncated by animal burrows and a modern pit.

The only area where deposits that may have related to the occupation of the fortress were uncovered was in Trench 2, located at the centre of the northwestern wall. This trench, spanning a gap in the wall and encompassing both internal and external areas, was intended to clear the entrance to the fortress. However, it was quickly

established that the gap in the wall in this area was a modern feature. Several deposits of fine gritty silts, measuring up to 0.1m deep, were uncovered abutting the wall both inside and outside of the fortress. These deposits may have been the original surfaces associated with the occupation of the fortress. Surface context 41 was the only stratified surface to be uncovered within the fortress in any of the excavation areas. A deposit of cobbles (context 37) was uncovered overlying this surface (fig. 33). These cobbles may have been a dump of construction material representing the only evidence of activity within the fortress possibly associated with its use. Pottery, animal bone and a quern stone were recovered from this layer indicating that both domestic and agricultural activities may have been taking place here.

#### *Pre-fortress occupation*

A considerable quantity of pottery was recovered from below the construction level in all of the trenches. Artefacts were recovered from up to 1m deep in Trenches 1 and 3 (fig. 34). Provisional analysis of this material suggests it is Medieval or Islamic in date. Pottery, bone and stone artefacts were recovered from under the wall in Trenches 1 and 2 (contexts 14, 48 and 49) whilst Trenches 3 and 4 also produced large quantities of artefacts, predominantly pottery, that most likely pre-dated the fortress.

#### **Finds**

The bulk of the finds from MOG112 consists of pottery, lithics and animal bones; analysis of this material is still ongoing. Only two other finds were recovered: one slightly fragmented cylinder bead of



blue glass (h. max. 7.5mm, Ø 6mm) and one perforated clay bowl/whorl/loom (?) (Ø c. 2.8mm). Bead #102 was found in a layer interpreted as a former surface, findspot 23, Trench 2. Although blue glass beads are common in Islamic times,<sup>56</sup> the presence of one isolated bead in a layer near a present-day irrigation channel is of limited interpretational value. The bowl/whorl/loom (?) #103 was found in Trench 2 in a silt accumulation just below the ground surface, together with pottery, burnt clay, some lithics and animal bones. The scarceness of small finds, together with the fact that the pottery excavated was covered with a coating of hard mud might be explained by the intense use of the inner fortress area for agricultural purposes including systematic and intense flooding nowadays.

### Dating

Post-excavation work is ongoing with the pottery still subject to thorough analysis. There is very little evidence available to date the fortress. The two 14C dates obtained in spring 2014<sup>57</sup> were taken from the material used to construct the walls. This material is innately unreliable due to the fact that it will have been excavated locally at the time of construction and could quite easily contain material from any period prior to construction. This is emphasised by the large amount of pottery uncovered up to 1m below the construction level of the fortress indicating a long history of occupation at the site. Local people informed us that the river is very deep adjacent to the fort location and suggested that this may be due to building material for the fortress having been taken from there. If this is the case the dating samples must be considered unprovenanced and provide only a *terminus post quem* for the fortress construction.

Two further charcoal samples were taken during the recent excavations. Material for sampling was limited by the low number of stratified contexts and the small amount of uncontaminated charred material recovered. Samples were taken from the foundation material (context 52) and from a layer (context 39) sealing this material:



Fig. 34: Trench 1, post-excavation, showing depth of pre-fortress deposits from which pottery was recovered, facing northwest (photo: Rizwan Ahmed)

POZ-72730 (MIAMi15 MOG112-90[1] = context 39): **195+/-30BP**

68.2% probability

1662AD (15.4%) 1681AD

1739AD (7.0%) 1750AD

1763AD (31.0%) 1802AD

1938AD (14.9%) ...

95.4% probability

1648AD (23.1%) 1691AD

1728AD (52.3%) 1810AD

1925AD (20.0%) ...

POZ-72731 (MIAMi15 MOG112-91[2]) = context 52): **170+/-30BP**

68.2% probability

1668AD (11.3%) 1685AD

1732AD (34.3%) 1783AD

1797AD (6.8%) 1808AD

1928AD (15.8%) ...

95.4% probability

1659AD (17.3%) 1699AD

1721AD (50.5%) 1818AD

1833AD (8.0%) 1880AD

1916AD (19.6%) ...

Both of these samples appear to have been formed in the post-industrial period leading to innate unreliability.<sup>58</sup> If these dates are correct the fortress may have been constructed sometime between 1650 and 1810AD. It is hoped that further analysis of the pottery will help to refine this dating. Other clues to the age of the fortress may be found by studying the extent to which the walls have eroded.

<sup>56</sup> Dubin 2006: 93–99.

<sup>57</sup> See above p. 7.

<sup>58</sup> Taylor and Bar-Yosef 2014: 62.



The nature of the *jalus* building material means that a fortress such as this is unlikely to survive for long after it has stopped being maintained. Whilst working in the fortress local people told us that the walls were considerably higher in the recent past and it is possible that the migration of the village inland, in the past century, and the spread of fields in and around the fortress have accelerated its erosion and collapse. This is borne out by the large amounts of loose unconsolidated rubble that was present all around the fortress and the relatively shallow build-up against the base of the walls, inside and out. Based on the radiocarbon dates, discussions with local people, and the archeological evidence, it seems unlikely that the fortress is more than 350 years old. It could perhaps date to late Funj times, prior to the onset of the Turkiya in the 1820s.

### Discussion

During his survey in 1969, Ahmed<sup>59</sup> identified two other fortresses that were similar to al-Hilla, namely Abu Sideir, a little downstream from al-Hilla on the opposite mainland bank, and Kudurma on Mograta, 3.3km southeast of al-Karmal (fig. 1). Both fortresses have similar dimensions and construction techniques, with lines of beam slots described for Abu Sideir as being like those at al-Hilla. It seems likely that Abu Sideir fortress at least is contemporary with that at al-Hilla and comparison of the two may aid their dating. Ahmed speculated that Abu Sideir fortress was still occupied by King Abu Hujil in the early 1820s, when Linant de Bellefonds passed by,<sup>60</sup> and this would tie in with a projected date for al-Hilla fortress in the eighteenth or early nineteenth century AD.

The function of the fortress remains unclear due to the dearth of evidence from excavations. It is unlikely that it originally stood alone as it does now, more likely it was surrounded by the village of al-Hilla until developments in pumping technology and the movement of the river forced the village inland. The size of the fortress and perhaps its occupation by a local sheikh may have led to its preservation in its current state to the present day.

### THE FUTURE OF THE PROJECT

The results presented above have summarised the work to-date of the Fortresses of Mograta Island Project. Excavations and surveys have raised new ques-

tions in Mikaisir and al-Hilla, whilst fieldwork is yet to begin at other fortresses introduced here. There are several broad research questions that this project aims to address. Whilst study of the fortresses alone is inevitably biased towards the large-scale social and economic themes, it is not possible to properly contextualise these structures without consulting the wider environs. Future research hopes to record the chronologically specific landscape setting of these structures in order to establish the purpose of the defences. Further work is also needed to confidently date most of the fortresses on Mograta Island, with particular focus on the relationship of the four supposed Medieval strongholds. Groupings of possibly contemporary fortresses, like those of Ras al-Jazira, Kurta, Maqall and al-Karmal in the Medieval era, and al-Hilla, Abu Sideir and Kudurma in the post-Medieval era, are of regional significance due to their potential to control trade routes up and down the Nile. Continuity of land use and strategic locations is also a focus of research for this project. Dating evidence from the excavations undertaken so far at Mikaisir and Ras al-Jazira suggests that there was a minimum hiatus of two hundred years between these post-Meroitic and Medieval fortifications. If this is the case, further investigations need to clarify what was happening in this gap and potentially close it.

### ACKNOWLEDGEMENTS

The authors would like to thank the National Corporation for Antiquities and Museums (NCAM) in Khartoum, particularly its Director General Abdelrahman Ali Mohamed, for granting permission for the fieldwork, and the fieldwork section, el-Hassan Ahmed, Fawzi Hassan Bakhiet, Amel Hassan, Inaam Abdelrahman and Habab Idris, for support during post-excavation. Thanks go to Oxford Archaeology East for the secondment of Gareth Rees and Andrew Greef to the MIAMi project. We are grateful for the hard work and diligence shown by the field teams which helped us achieve so much during the past field seasons, particularly Rizwan Ahmad and Michael Flache. Hassan Mustafa (NCAM) worked on and monitored all parts of the project and provided valuable assistance. Andrew Greef provided assistance with the surveys at both sites, whilst Gemma Tully carried out survey, excavation and community liaison at al-Hilla. Florian Kirschner and Lisa Seelau contributed to the building survey at al-Hilla. Joanna Then-Obłuska is thanked for discussion about beads. Stefania Merlo and Valerie Hänsch contributed useful information gathered

59 Ahmed 1971: 10–11.

60 Ibid.: 11; Linant de Bellefonds in Shinnie 1958: 67.



during their fieldwork. Aiman Hassan worked tirelessly to provide logistical support for the team and we are extremely grateful for his efforts. No work would have been possible without the cooperation and assistance of the local people of the villages of al-Hilla and Mikaisir.

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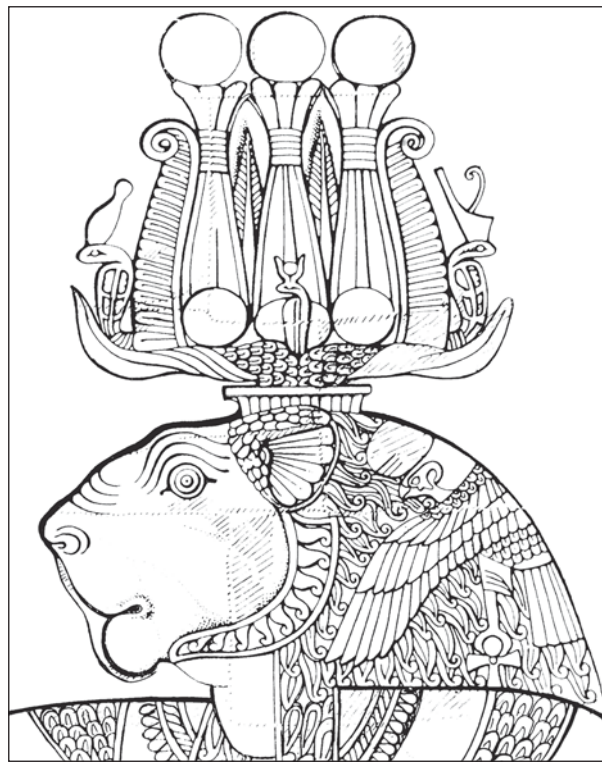
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- Ras al-Jazira (MOG048), eine mittelalterliche Festung an der flussabwärtigen Spitze von Mogrart
  - Mikaisir (MOG047), eine früh-postmeroitische Festung am nördlichen Nilarm
  - Kurta (MOG089), eine mittelalterliche Festung auf einer kleinen Insel im nördlichen Nilarm
  - Maqall (MOG039), eine mittelalterliche Festung am nördlichen Nilarm
  - al-Hilla (MOG112), eine Festung aus islamischer Zeit am südlichen Nilarm
  - al-Karmal (MOG004), eine mittelalterliche Festung am südlichen Nilarm.
- Der Hauptteil des Beitrags gilt den archäologischen Arbeiten der Frühjahrskampagne 2015 in den Festungen von Mikaisir (MOG047) und al-Hilla (MOG112). Grabungen in der Anlage von Mikaisir (MOG047) legten eine Lehmziegelrampe in der südöstlichen Ecke der Festung sowie eine gegen die Ostmauer gebaute, als Küchenbereich interpretierte Sequenz aus vier Räumen und einem offenen Bereich (Spaces 1–5) frei. In den genannten Räumen wurden in den Boden eingelassene Gefäße gefunden, die wohl als Kochstellen genutzt worden waren. Funde aus der Grabung umfassen vor allem Keramik, Lithik, Tierknochen und im Bereich der Kleinfunde Perlen aus Straußeneischale, Quarzkeramik, Glas und Stein sowie einzelne Metall-, Keramik- und Steinobjekte. 14C-Daten aus den Kampagnen 2014 und 2015 weisen die Festung von Mikaisir in die frühe postmeroitische Zeit, zwischen dem späteren 4. und dem mittleren 6. Jahrhundert n. Chr.
- Die Arbeiten in al-Hilla (MOG112) begannen mit Surveys zur Vermessung sowie zur photographischen und photogrammetrischen Dokumentation der Festung. Die darauffolgende Grabung umfasste fünf Testschnitte. In vier Schnitten (Trenches 1–4) trat Keramik und Lithik zutage, die auf eine Nutzung des Fundplatzes vor dem Bau der Festungsanlage schließen lassen. Bis auf eine einzelne blaue zylinderförmige Glasperle und eine durchbohrte Lehmkugel (Webgewicht) wurden keine Kleinfunde verzeichnet. 14C-Daten belegen eine Datierung der Festung von al-Hilla in die letzten dreihundert Jahre. Vermutlich wurde die Anlage im 18. oder frühen 19. Jahrhundert, also in der späten Funj-Zeit, vor dem Beginn der Turkeyia in den 1820er Jahren, errichtet.
- Die Feldforschungen des kommenden Projektjahres sollen weiteren Grabungen in den beschriebenen Festungen, der Fundbearbeitung sowie der Erstdokumentation der Festung von Kudurma gelten.

#### ZUSAMMENFASSUNG

In diesem Beitrag wird das Projekt „Fortresses of Mogrart Island“ vorgestellt, das seit 2013 Teil der durch das Qatar Sudan Archaeological Project (QSAP) geförderten Mogrart Island Archaeological Mission (MIAMi) ist. Nach einer Zusammenfassung der Forschungsgeschichte werden die bisher sechs im Rahmen des Projekts erfassten Festungen summarisch vorgestellt:



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Angesichts der Tatsache, daß die globalen wirtschaftlichen, ökonomischen und politischen Probleme auch zu einer Gefährdung der kulturellen Hinterlassenschaften in aller Welt führen, ist es dringend geboten, gemeinsame Anstrengungen zu unternehmen, das der gesamten Menschheit gehörende Kulturerbe für künftige Generationen zu bewahren. Eine wesentliche Rolle bei dieser Aufgabe kommt der Archäologie zu. Ihre vornehmste Verpflichtung muß sie in der heutigen Zeit darin sehen, bedrohte Kulturdenkmäler zu pflegen und für ihre Erhaltung zu wirken.

Die Sudanarchäologische Gesellschaft zu Berlin e.V. setzt sich besonders für den Erhalt des Ensembles von Sakralbauten aus meroitischer Zeit in Musawwarat es Sufra/Sudan ein, indem sie konservatorische Arbeiten unterstützt, archäologische Ausgrabungen fördert sowie Dokumentation und Publikation der Altertümer von Musawwarat ermöglicht. Wenn die Arbeit der Sudanarchäologischen Gesellschaft zu Berlin Ihr Interesse geweckt hat und Sie bei uns mitarbeiten möchten, werden Sie Mitglied! Wir sind aber auch für jede andere Unterstützung dankbar. Wir freuen uns über Ihr Interesse!

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ISSN 0945-9502

Der antike Sudan. Mitteilungen der Sudanarchäologischen Gesellschaft zu Berlin e.V.

Kurzcode: MittSAG

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