

Report of the Project "Wadi Abu Dom Itinerary"

Seventh Season, 20.1.-17.3.2016

(funded by the German Research Foundation, Germany, and
the Qatar Sudan Archaeological Project)

Angelika Lohwasser
University of Muenster, Germany

1. Staff

Lohwasser, Prof. Dr. Angelika, Archaeologist, Project Director
Karberg, Tim, M.A., Archaeologist, Field Director
Eger, Jana M.A., Archaeologist, Deputy Director
Eigner, Dr. Dieter, Architect
Helmbold-Doyè, Dr. Jana, Pottery specialist
Mohammed el Toum, (NCAM)
Loai Shams (Tourist Office Karima and NCAM)
Willmy, Andreas, Mechanic
Roehl, Peter, Mechanic
Tschernig, Jalina, Student of Archaeology
Overesch, Nina, Student of Archaeology
Doerbandt, Anne, Student of Archaeology, pottery
Sieger, Kevin, Student of Geography
Traber, Janine, Student of Archaeology
Weber, Christiane, Student of Archaeology
Glosauer, Kathrin, Student of Archaeology
Schöne, Lars, Student of Archaeology
Casciello, Anna, Student of Archaeology
El Sahaddat, Haggag, Student of Archaeology
Haupt-Faria, Laura, Student of Archaeology
Ibrahim Mohammed Ahmed Ali, Student of Archaeology (Al Neelain-University, Khartoum)
Modather Abdalla Jadain, Student of Archaeology (Al Neelain-University, Khartoum)
Abdelrahman (Cook)

2. Proposed work

In the final season of the large-scale survey project, we planned to conduct the intensive survey until the end of the episodic runoff zone at the southern flank of the Gebel Sultaniyat (32° 51' 19" E; 18° 02' 53" N) and additionally to survey exemplarily punctual quadrants at exceptional situations along the other parts of the wadi. Moreover, we planned to excavate a campsite and a hut structure as well as a paved platform to obtain some knowledge about their age and specific function apart from surface finds.

3. Realized work

Although we had severe difficulties with all of our vehicles this year, we could reach our aim and conducted the intensive survey until 32° 52' 29" E; 18° 02' 07" N. In the region between 32° 52' 29" E; 18° 02' 07" N and 32° 56' 10" E; 18° 05' 29" N as well as around 32° 56' 38" E; 18° 01' 06" N and 32° 57' 58" E; 18° 11' 00" N we did punctual surveys since we identified interesting sites through Google Earth. The sondages covered two campsites, five hut structures and five paved platforms.

3.1. Survey (fig. 1, 2)

The survey took place in the middle and upper Wadi Abu Dom, covering two areas from 32° 12' 30" E; 18° 14' 53" N till 32° 19' 52" E; 18° 11' 25", and from 32° 42' 41" E; 18° 03' 43" N till 32° 52' 29" E; 18° 02' 07" N. It was prepared by intensive study of satellite images as well as aerial images, and the inclusion of the visible data into our database. This year our intensive survey covered 33,5 km of the Wadi Abu Dom, and additionally 16,8 km of punctual survey areas. We investigated the region depending on the topography generally 2 km, but sometimes up to 4 km into the hinterland at both banks. The total of the surveyed area this year is 270 km².

The aerial pictures taken by the low altitude UAV last year (southern part of the middle Wadi Abu Dom) are of excellent quality (providing a resolution of 10 by 10 cm per pixel) and therefore it was sufficient to include the visible sites directly into the GIS-database. The few areas not covered by the survey of 2015 or the aerial pictures were investigated this year to fill all gaps between the start of our survey in the lower Wadi Abu Dom and our end of the continuous survey area.

Since we identified rain-fed durra-fields last year at 32° 56' 07" E; 18° 02' 37" N, we investigated this privileged area punctually. We wanted to detect if this ecologically favored zone was already given in antiquity. It turned out that these fields did not exist any longer this year and the archaeological presence in fact declines in that area.

As an example for the situation at one of the dendritic springs of the Wadi we investigated the region around 32° 58' 11" E; 18° 11' 28" N again with a punctual survey.

During this campaign, a total of 1941 sites were documented, containing 3075 features altogether. Complete lists of the features recorded and the finds collected are attached on flash-stick.

General results

At the southern slope of the Gebel Musran and Gebel Sultaniyat it turned out that the significant increase of site density already recorded during the 2015 field campaign at the westernmost flank of that gebel continues at least to a point roughly at 32° 52' 42.2" E 18° 02' 30.8" N. Most interestingly, this corresponds relatively precise to the distribution of the recent settlement activity within the region. This leads to the assumption that the distribution of recent as well as ancient human activity was more or less determined by ecological circumstances. At the other hand, some density of

archaeological sites (nearly without exceptions dating back to the Medieval period) was also recorded at the offspring of the Wadi Abu Dom along the southern flank of the Gebel Ras al-Dom, where today no traces of modern settlement or even pastoral activity was found at all.

Another interesting fact is the distribution of archaeological sites between the northern and the southern bank of the Wadi Abu Dom (or, at the very upper Wadi, between eastern and western bank respectively). It turned out that the northern/western bank, situated at the pediment of the Gebel Musran, shows a significantly higher record of human activity in the past as the southern/eastern bank. This for sure is connected to the role of the Gebel as catchment area for episodic rainfall, which makes its slopes more suitable for living than the surrounding area.

Concerning the general diachronic distribution of archaeological record, almost anywhere within this year's survey area a substratum of Neolithic material (ceramics and lithics) can be found. Concerning the historical phases, several graveyards of tumuli generally attributed to the Kerma period were found on top of ridges. The density and absolute number of so-called Post-Meroitic tumulus graveyards decreases significantly, while the number and density of Medieval box-grave-cemeteries increases vice versa. As in the other parts of the Wadi Abu Dom, there is still no clear indication of the early or middle Meroitic period. In the upper Wadi, there are also only very few cleft burials, which are often attributed to the Napatan period.

Cemeteries

We identified – in comparison with the middle Wadi Abu Dom – a larger number of so-called *Kerma-style* graves: situated on the top of ridges and built as domes of stones of medium size, but usually without pottery on the surface (fig. 3). Their dimension is about 3-4 m in diameter and 50-70 cm high. Sometimes this type of graves covers the whole ridge and in few cases also the slopes. In some cases, three features of this type of tumulus were agglomerated very closely to each other and formed a kind of huge triple-tumulus (fig. 4).

As in the whole Wadi Abu Dom, there was no cemetery or even tomb which we could clearly attribute to the *Napatan* or (early and middle) *Meroitic* Period. Very few and heavily disturbed cleft-burials were found, none of them with associated finds and therefore not datable. Since these were found in the vicinity of Kerma-style tumuli, they may have been a local variant (situated between boulders on the ridges) of them.

The *Post-Meroitic* Period is very well visible, but less prominent as in the middle Wadi. We identified 11 cemeteries with more than 5 Post-Meroitic tumuli, up to 12 m in diameter. Some of them seem to have a “nose” (triangular widening) to the east or south-east (fig. 5), some have a visible elevation of the superstructure at one side. Interestingly, this distribution pattern of Post-Meroitic tumuli resembles more closely to the lower than to the middle Wadi Abu Dom.

The most prominent phase in the funerary culture is the *Medieval* period. We identified 6 larger box-grave cemeteries with up to 46 graves as well as few box-graves associated with Post-Meroitic tumuli and several single box-graves situated on terraces (fig. 6&7). The size varies from low boxes (0,4 m) to quite high boxes (up to 1,2 m) and we identified different types: Some of them are covered with stones, some of them with gravel. In few cases we found a round (tumulus-like) support of a box situated in its center. The position of the box-grave cemeteries – especially the larger ones – is remarkable: most of them are situated quite in the hinterland on terraces at narrow side-khors and especially in the catchment area of the Wadi Abu Dom. These remote areas seem to have been main dwelling places of the Medieval population.

We want to mention one cemetery (site 12715) which represents a diachronic picture: Quite in the

center of a cemetery with 11 Post-Meroitic tumuli, most of them with “nose” and 6-12 m in diameter, a grave of the type tumulus with box is situated. East of this grave there are two box graves and north of them two Islamic graves (fig. 8).

Settlement structures

The majority of settlement structures discovered this season are again round huts, sometimes agglomerated in clusters of 2-8 stonerings, and mostly 2-3 m in diameter. Most of them are preserved quite badly. Very few can be dated by associated finds, and in these cases most of them date to the Post-Meroitic (i.e. site 10463) or Medieval period (i.e. site 11145). But some very early examples can also be found (i.e. site 12011, which is dated by associated lithics and pottery to the (early?) Neolithic period – cf. also top 3.2 soundings).

After the investigation of the “gravel-beds”, conducted by Jalina Tschernig and Loai Shams last year (see report of last season) we include this category into “habitation sites”. The gravel-beds functioned as bed-like installations and again we found numerous sites, sometimes only one gravel-bed, but usually more than one (fig. 9). At site 12204 one of the gravel beds was integrated into a hut-structure, where we found several sherds of Medieval date (cf. also top 3.2 – soundings). This was also the case at some other small habitation sites.

Rock art

After a more or less complete absence of rock art in the middle Wadi Abu Dom and western part of the upper Wadi Abu Dom, we identified two clusters of rock art this year. One of them shows a multiphase use of a rocky formation at the northern bank (site 12215): We found highly patinated depictions of giraffes (fig. 10) and other quadropodes of apparently the same age (fig. 11), sandal prints which resemble some similar motifs usually dated to the Meroitic or Post-Meroitic period (fig. 12), at least two Medieval engravings (one elaborated and one simple cross) and more recent drawings, including one camel with rider.

Other sites

Linear stone settings (fig. 13): This year, three sites with linear stone settings were discovered. Since they consist of only one layer of stones in height as well as width, it can be excluded that they are ruined remains of larger wall structures, and it can be assumed that the actual condition of these settings represents more or less their original structure. This excludes that these stone settings were used as fences or something with a similar practical function, to prevent animals or humans from entering a specified area.

These linear stone settings resemble quite closely similar structures documented at the 4th cataract. There, these stone lines had a more symbolical function: They were constructed in most cases roughly parallel to one bank of the Nile or at least the edge of arable land, and were used as demarcation lines to delimit the area where pastoralists were allowed to take their livestock without interfering with areas claimed by agriculturalists. Of course, this special function can be excluded for the linear stone settings of the upper Wadi Abu Dom, since the topography of the sites containing these stone lines does not allow any agricultural use, and it is most likely that this was also the case in earlier periods. In one case, feature 12621-1, the linear stone setting is constructed parallel to the bank of a khor, but also in this special case the khor is much too small to be of any use for agriculturalists. Nevertheless, the construction patterns of these stone settings allow some comparison with the examples from the 4th cataract, and lead at least to the assumption that they could have been used as some kind of symbolic demarcation in general.

Neolithic material: The Neolithic period is present on nearly all elevated regions like plateaus between ridges. Single Neolithic sherds, some of them with quite elaborated decoration, are distributed over some terraces in the hinterland (fig. 14). Moreover, some surface find concentrations of lithic material were recorded during this season. This gives the impression that the upper Wadi Abu Dom was used quite intensively in the lithic periods, but this human activity only in some cases left over structures settlement sites or graves, and thus form a (Neo-)lithic substratum of relative homogenous density within all suitable elevated areas of the upper Wadi Abu Dom.

Paths: As in all other parts of the Wadi Abu Dom, small paths form a system of small-scale traffic patterns, mostly leading from the main wadi to the hinterland, but sometimes also making a shortcut of a bend, and sometimes heading to one of the few wells. But there are also paths with no directly recognizable aim, perhaps giving the way to targets in some distance. Only in very few cases these paths allow at least some rough chronological indication: For example, at feature 13538-1 a pathway is so closely associated with a medieval box grave that there is some probability that the path and the grave site were used contemporarily. Nevertheless, concerning the sites associated with paths close to the wadi and within the hinterland, it is evident that the (seasonal or permanent) settlement area is near the wadi and sidekhors, whereas the hinterland was the "land for travelling", where only ephemeral sites (overnight stops) are visible in the archaeological record, but pathways prove human traffic activities anyway.

3.2. Soundings/small scale excavations (fig. 15, overview)

Campsites

As in the 2015 field campaign, during the survey activities some small-scale soundings were carried out. As determined by the general character of a survey project, their aim was not the large-scale excavation of larger structures, but to clarify single archaeological records whose function and/or datation remained unclear from the situation at the surface.

One of the archaeological categories where a closer functional and chronological determination seemed necessary are the so-called "campsites". These structures, which occur quite often within the Wadi Abu Dom, in most cases consist only of some (intentionally) cleaned surfaces, combined with some indifferent stone structures ("activity centers") which are mostly interpreted as remains of either fireplaces or bed substructures. Surface finds indicate that historic as well as recent examples might look quite similar, which makes the datation of these structures very difficult. Nevertheless, campsites are a crucial site category concerning one of the key questions of the Wadi Abu Dom Itinerary project: The character and structure of ancient mobility patterns.

For that reason, at two campsites some sondages were carried out exemplarily, in addition to the already documented surface record. This should answer three main questions:

- Does the find material from soundings show a broader chronological dispersion than the surface finds?
- Are there indications that some of the different stone features represent fire places?
- Are there any post-holes or similar structures that might indicate former temporal buildings like rakubas?

For that reason, two campsites (site 211 and site 222) were chosen for a closer investigation. For site 211, the surface survey documented larger amounts of pottery, so it was assumed that invasive

methods would reveal a reasonable amount of datable material. At the other site, 222, the surface survey documented the occurrence of at least some Kerma period pottery.

At campsite 211, in the area of main activity (15 by 24 m) the surface was cleared and divided into squares of 3 by 3 m. The site showed almost no sedimentation, but between the upper erosion layer (determined by a significant amount of gravel) and the geological soil a thin stratum of sandy material was found, in which the stones of the "activity centers" were embedded. Within that material, several accumulations of ashes were found – most interestingly not (as expected) below the activity centers, but nevertheless in most cases directly associated with them. Additionally, a large amount of pottery was collected. These pottery was (when datable at all) completely of Medieval origin. The analysis of the charcoal samples taken from the ash accumulations is to be done after the field campaign, but at least from the ceramological point of view there are no indications that the campsite was used earlier than in the Middle Ages.

No traces of post-holes were found. Of course that could be due to the kind and amount of wood available in the Wadi Abu Dom (especially concerning that this campsite was most probably not in use during periods significantly more humid than today), but in any case the archaeological record does not allow any reconstruction of some temporary and/or lightweight architecture like *rakubas*.

At the other campsite, 222, we collected pottery from the surface systematically. Moreover, two specific stone features ("Steinplätze") interpreted as cooking fireplaces and, at least within the Eastern Sahara, often dated to the Neolithic period were excavated. Unfortunately, unlike at site 211, no traces of ashes were found. Additionally, the pottery collection showed (like at the other campsite) no material earlier than Medieval, so it has to be assumed that the isolated Kerma pottery recorded during the surface survey was part of an earlier substratum not linked with the campsite structure. Since there are at least a few examples (i. e. from Khor Shingawi) that the "Steinplatz"-fireplaces within the Bayuda desert (unlike the Eastern Sahara) can date to much younger periods (in the case of Khor Singawi either the very late Post-Meroitic or the Medieval period), there is also at site 222 no clear indication that the site dates back to earlier periods than the Middle Ages.

Since during the surface survey of the past years it became clear that in almost any case campsites of that type associated with datable surface finds seem not to be earlier than the Medieval period, the closer investigation of the two abovementioned campsites strengthens this assumption.

Hut structures

Beside the campsites, different forms of stone rings were investigated in more detail. Altogether, five different agglomerations of stone rings, forming hut-like structures with different rooms, were chosen for excavation: two from the surface survey of the previous years, and another three recently recorded during this year's field activities within the upper Wadi Abu Dom.

Site 368 consists of 5 different stone rings agglomerated to a single hut. The site is situated near a pathway in the rocky terrain north of the lower Wadi Abu Dom, at the slope of a steep ridge. During the surface clearing of the surrounding area and the excavation of the small amount of sediment within the single stone rings, absolutely no pottery or any other datable material was found.

At site 861, the hut structure consisting of three small stone rings was chosen because one of the rooms contained a stone feature of three larger stones in the center of the room. During the surface survey, this was interpreted either as fireplace, or as stabilization for some kind of central pole. During the excavation of the sediment inside this room, neither remains of ashes nor a post-hole

was found beneath the stone feature. But as already pointed out, this does not indicate necessarily the absence of a pole, since the lightweight wood available within the Wadi Abu Dom might simply not have left traces like the post-holes in comparable archaeological contexts, i.e. at the 4th cataract.

Another hut structure investigated was site 12011. Here, at a rocky elevated plateau almost on top of a ridge, two huts consisting of 5 and 3 stone rings were found during the surface survey, associated with some lithic material of late Paleolithic or early Neolithic origin. The surface clearing of the surrounding area and the excavation of the small amounts of sediment within the stone rings (Fig. 16) revealed a very small amount of Neolithic pottery, but large amounts of lithic material, consisting of tools, cores and flakes of different sizes. This find assemblage can define the area as a workshop, and thus fits in the general assumption of the stone ring huts as more stationary habitation sites. Despite the fact that – due to the very limited sedimentation in that terrain – no clear stratigraphic proof was given that the lithic assemblage and the hut structures have to be interpreted as contemporary, the density of the lithics exactly around the site and the absence of any other datable material from other periods makes the early Neolithic dating of that huts quite probable.

Additional excavations were carried out at the sites 10852, 12204, and 14001. All of them turned out to date in the Medieval era, completing the image already given by the survey that the upper Wadi Abu Dom shows significant traces of human activity during that period. Two of these three sites are situated in the vicinity of box-grave cemeteries, indicating that these structures might have been the settlement areas connected to these graveyards.

Site 10852 consists of two three-roomed huts and 15 single stone rings, and is situated at a terrace at the northern bank of the main Wadi, next to the box-grave cemetery site 10861. One of the huts consisting of an agglomeration of one larger and two smaller stone rings and was excavated exemplarily. During the excavations some amounts of medieval pottery were found, giving a clear date for the structure. No traces of rakuba or similar lightweight architecture were found.

At site 12204, an interesting mixture of different stone structures was found. Some of the stone rings were of a simple construction comparable to most of the other stone ring sites recorded within the Wadi Abu Dom, but three of the round structures showed a quite elaborated design for a building of that size and complexity. The wall consisted of an outer and an inner lining built of larger stones, filled with rubble (fig. 17). One of these elaborated and one simple stone ring was excavated exemplarily. The simple stone ring revealed some amount of Medieval pottery. From the interior of the elaborated stone structure came only few finds, but outside the entrance a large amount of Medieval sherds mixed with animal bones were found, maybe an assembly of garbage. Additionally, it turned out that the floor of the elaborated structure was dug roughly 10 cm into the ground. No traces of post holes were found (fig. 18). At site 12204, also three gravel beds were found. The association of these gravel beds with elaborated hut structures lead to the assumption that the former interpretation of these gravel beds as camp sites at least in some cases might not be correct, and these beds could also have been used in more stationary habitation contexts.

Site 14001 was, like site 10852, situated in the vicinity of a large box-grave cemetery (site 5700). It consists of simple, but large ($\varnothing > 3\text{m}$) stone rings, associated with round and rectangular gravel structures. As at the other sites, no traces of lightweight wooden architecture like post holes was found, but again some amount of Medieval pottery gives a date for the structures. Quite similarly to site 12204, outside of one of the stone rings (close to the entrance) a concentration of pottery mixed with animal bones was found, maybe also remains of kitchen garbage.

Paved platforms

A quite problematic category of archaeological record are flat, round, rectangular or D-shaped assemblages of stones, which (because until now no clear evidence of their function was found) were labeled with the neutral terminus "paved platforms".

One idea occurring during the survey was that they were, indeed, used as a kind of platform (maybe for drying some kind of products). Another idea arose from the comparison of these features with specific graves from the Kerma period. This led to the idea that the "paved platforms" could represent a poor variant of these graves – at least at one site (9179) where the distribution of 15 of these platforms over an area of roughly 1.000 square meters resembles a graveyard (see report of last year).

Five paved platforms were excavated altogether – two at site 4517, two at site 9179 (fig. 19) and another one at site 8513. Nevertheless their superstructure was quite similar, the archaeological record proved to be quite heterogeneous. This could probably indicate that this category of features – despite their uniform structure on the surface – served some different functions. All platforms except 9179-2 contained only very few ceramics.

At least, at none of these platforms any traces were found that they could have been graves. Beneath the superstructure, in no case any grave pit or traces of human bones were discovered – even after the area of the platform was excavated until the natural bedrock. At the platform 4517-2 some bones were excavated under the stones of the superstructure, but close to the edge of the platform. But anyway, these bones turned out to be not of human origin, but from an animal (most probably a goat).

At platform 9179-2, unlike all other so far excavated platforms of that type, large amounts of ceramics were found within a thin sandy layer immediately beneath the stone superstructure. The dating of this type of ceramics is still unclear and under investigation.

Another interesting, but completely different structure revealed the surface clearing of the area around platform 8513-1. Here, like at most other platforms, only very few find material was excavated below the stone superstructure. But directly at a thin sandy layer between the eroded ground surface and the reddish natural soil, five ash concentrations were found (fig. 20). Since the stones of the platform superstructure were placed within this sandy layer, even under the very poor stratigraphic circumstances of that site it is most probable to interpret the ash accumulations and the platform as contemporary. The charcoal samples probed from these ash concentrations shall be analyzed after the fieldwork season.

At the other platforms only poor find material was excavated.

Disregarding the fact that none of the platforms showed any traces of a human burial, it is at least possible that some platforms had some function in a funeral context anyway: At site 4715 as well as site 8513, the platforms were situated closely to some tumuli (most probably from the Kerma period). This led to the assumption that they could also have been connected functionally in some way – but, unfortunately, the only platform with significant amounts of ceramics (9179-2) is associated only with the other platforms of the site. A cemetery of Kerma-style tumuli is situated on a ridge about 300 m from the platform area and could be in connection with them.

3.3. Pottery study

This year our pottery specialist Dr. Jana Helmbold-Doyé finished the documentation, photographing and drawing of the sherds found in the campaigns until 2015. Together with Anne Grons, she attended the Bayuda pottery-workshop at El Kurru on Feb. 19th, organized by Dr. Jacke Phillips.

There was a meeting of Dr. Phillips, Dr. Mahmoud el-Tayeb and Dr. Helmbold-Doyé on 26th and 27th of Feb. to plan the further activities within this research area. It was consensus that the study of Post-Meroitic and Medieval pottery of the Bayuda is only in its beginning and that a close cooperation in defining a terminology for fabrics etc. is needed.

3.4. Reconnaissance of recent settlement

Dr. Dieter Eigner mapped the recent settlement structures last year (see map, fig. 21) and identified different types of houses which are inhabited today. To preserve the traditional housing of the people in the Wadi Abu Dom we decided to make an architectural documentation of examples of each type. This season he started with a large galus building and a rakuba dwelling (figs. 22 & 23). We hope to be able to continue this valuable documentation next year.

3.5. Public relations

The project director, Prof. Dr. Angelika Lohwasser, gave a well-attended lecture at the Goethe Institute in Khartoum on Feb. 24th. The lecture was introduced by Dr. Salah Mohammed el-Din. The auditorium was very interested in the investigation of the remote area in the Bayuda desert. On Feb. 25th, a similar lecture was presented for the scientific community of archaeologists at al Neelain-University, organized by Dr. Ahmed Nassr.

4. Proposal for future activities

As the funding of the German Research Foundation will end in Dec. 2016 and the survey-project will be finished by then, it is difficult to plan further activities. Depending on the financial situation of the QSAP-project, we will continue to excavate cemeteries. This part of the Wadi Abu Dom project was interrupted this year because of lack of money. Moreover, we plan to apply for funding for the documentation of the recent settlement, for which a short campaign of four weeks maximum should be sufficient.

5. Endangered sites

As in the other parts of the Wadi Abu Dom, some of the tumuli (Kerma-type as well as Post-Meroitic) were disturbed, some of them quite recently – maybe the results of the investigations of gold-seekers. But fortunately generally only one tomb of each cemetery was opened and we assume that the robbers gave up after the discovery of no valuables. Additionally, we hope that the enlargement of the Hassaniya National Park might boost the possibilities for protecting not only wildlife and the natural, but also the cultural heritage of the region.

6. Final remarks

We would like to thank Mr. Mohammed el Toum and Mr. Loai Shams very much for all their indispensable help and smooth organization! They have acted as good mediators to the people in the Wadi Abu Dom as well as experts for organization and especially as good friends to us!

Report of the Project "Wadi Abu Dom Itinerary" 2016

Figures

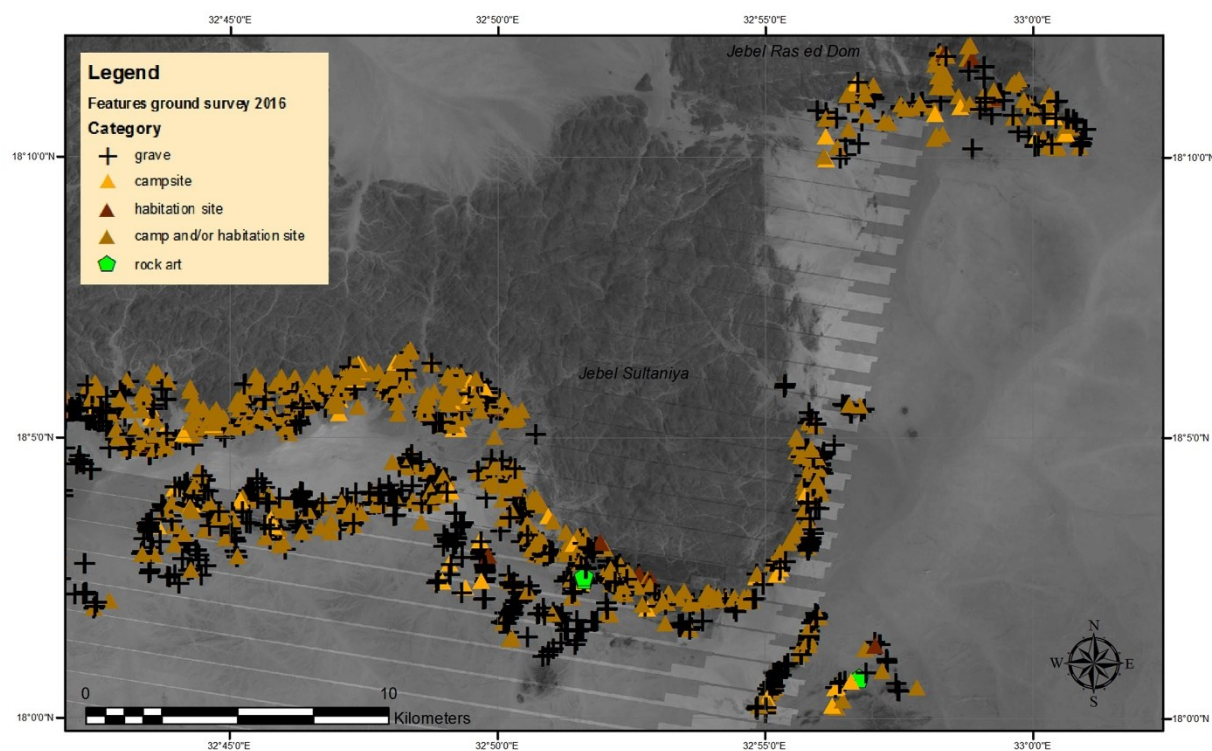


Fig. 1: Distribution of Sites documented in 2016, site categories

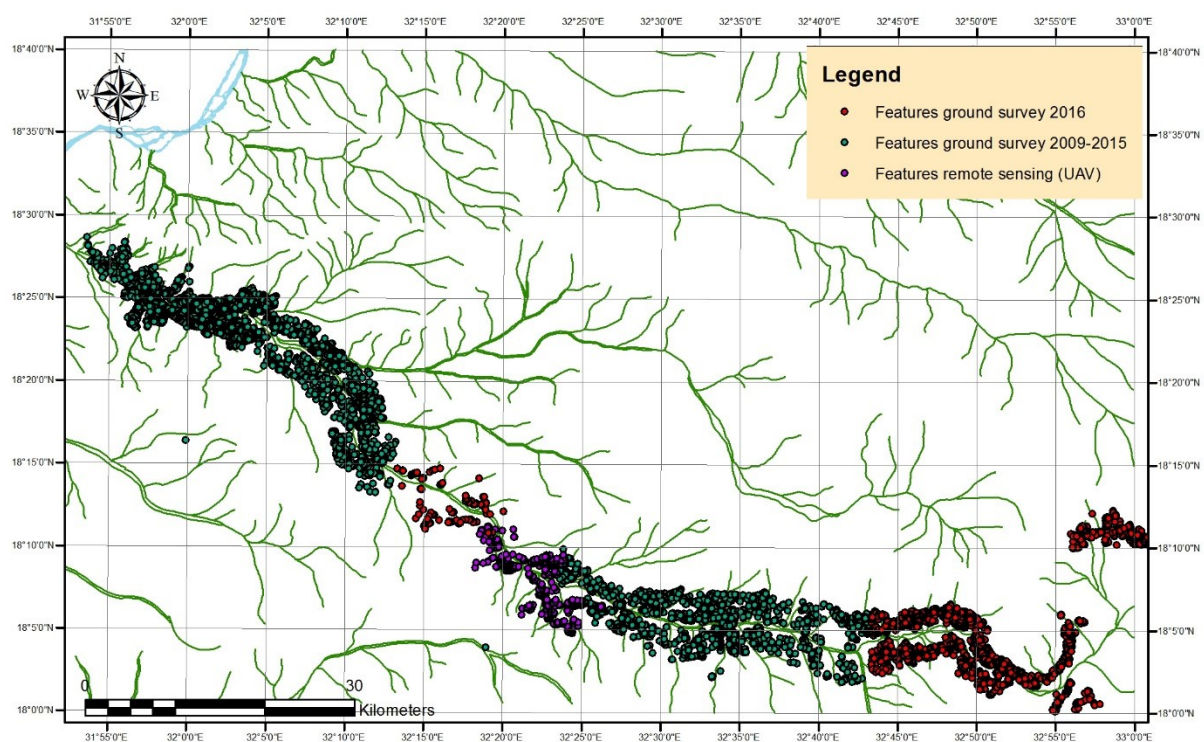


Fig. 2: Distribution of Sites documented in the whole project (2009-2016)



Fig. 3: Kerma-style grave, feature 13035-3

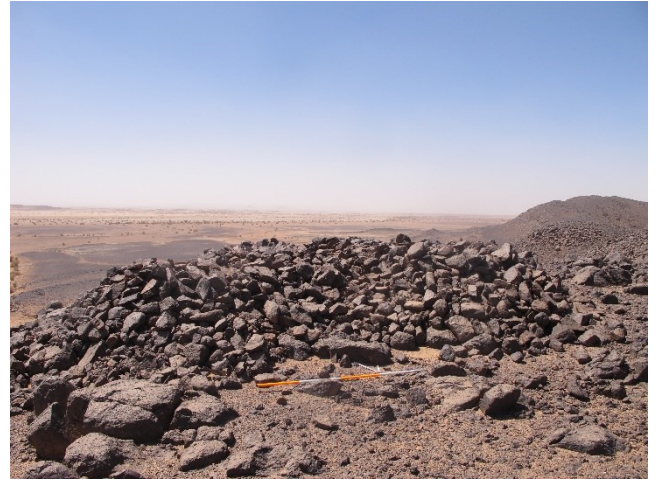


Fig. 4: Triple-tumulus, feature 6551-3

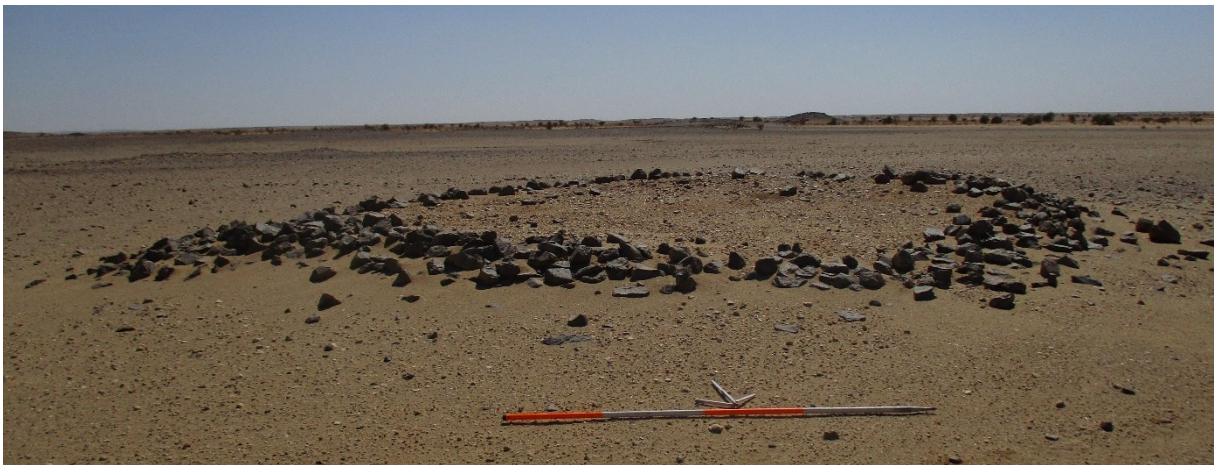


Fig. 5: Post-Meroitic tumulus with „nose“, feature 12715-11



Fig. 6: Box-grave cemetery 13847



Fig. 7: Box-grave (13847-1)



Fig. 8: Multi-phased cemetery12715: flat Post-Meroitic tumulus in the background, box on tumulus (disturbed) in the foreground left, two box-graves in the foreground right, and two Islamic graves in the middle ground.

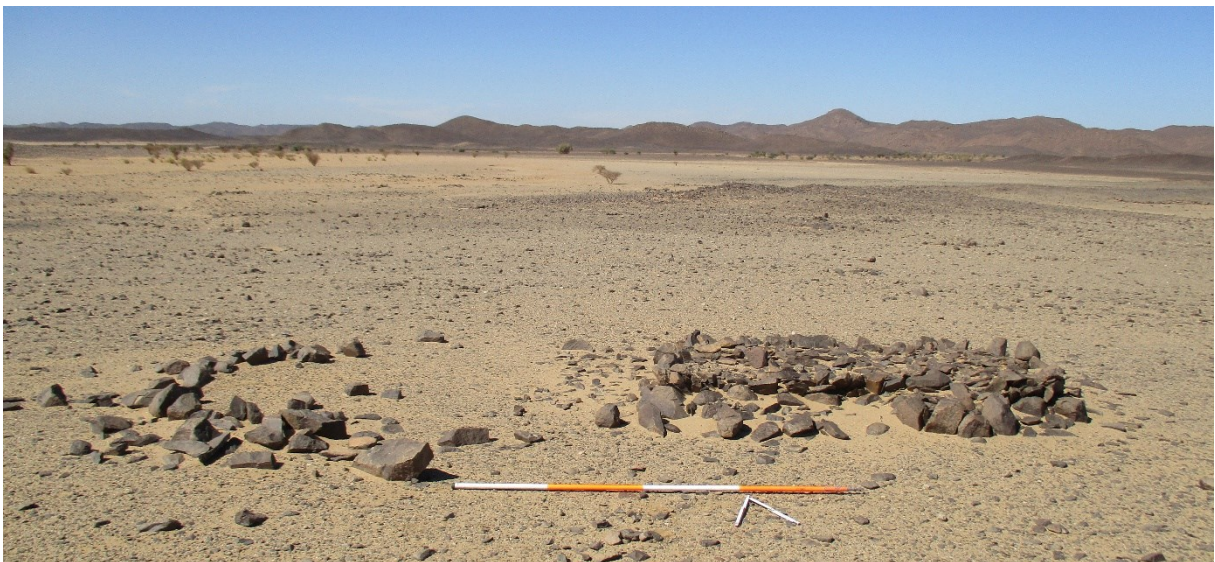


Fig. 9: Gravel-bed, feature 10507-1



Fig. 10: Rock art: Giraffes (12215-2)



Fig. 11: Rock art: Quadropode (12215-1)



Fig. 12: Rock art: Sandals (12214-4)



Fig. 13: Linear stones 12621-1



Fig. 14: neolithic sherds as surface finds

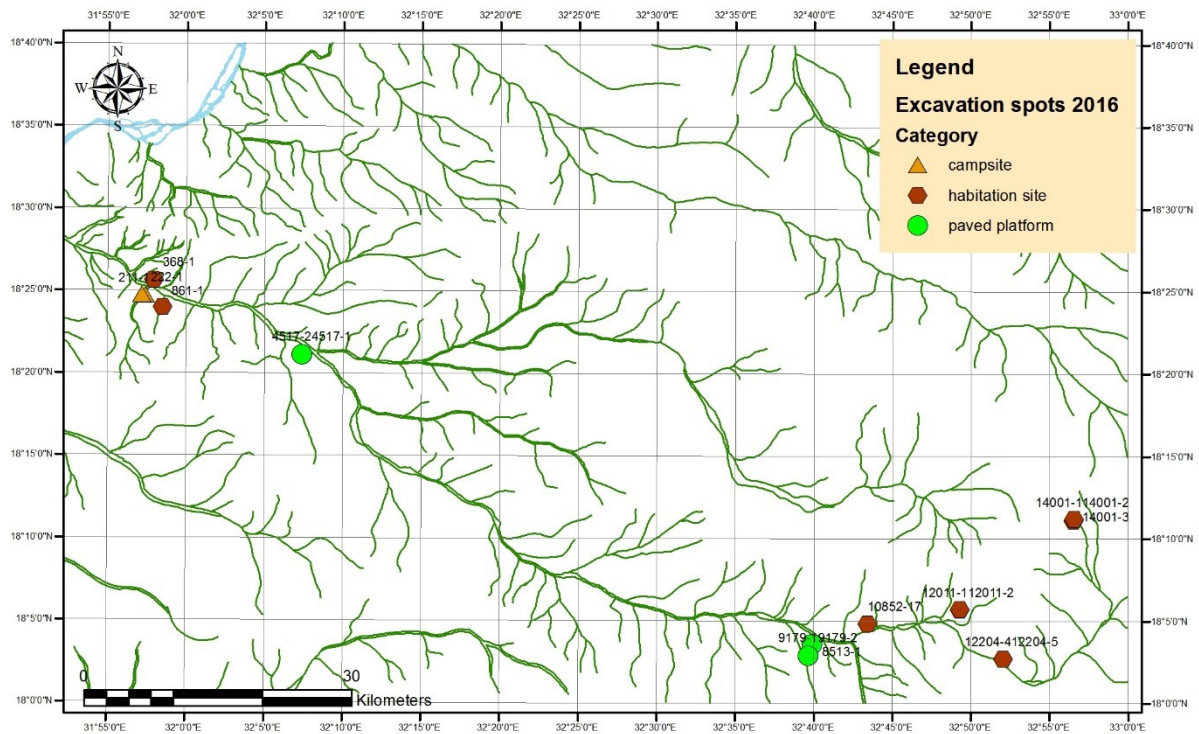


Fig. 15: Excavations done in 2016, overview



Fig. 16: Hut structure, feature 12011-2



Fig. 17: Elaborated hut structure,
detail of the wall of feature 12204-5

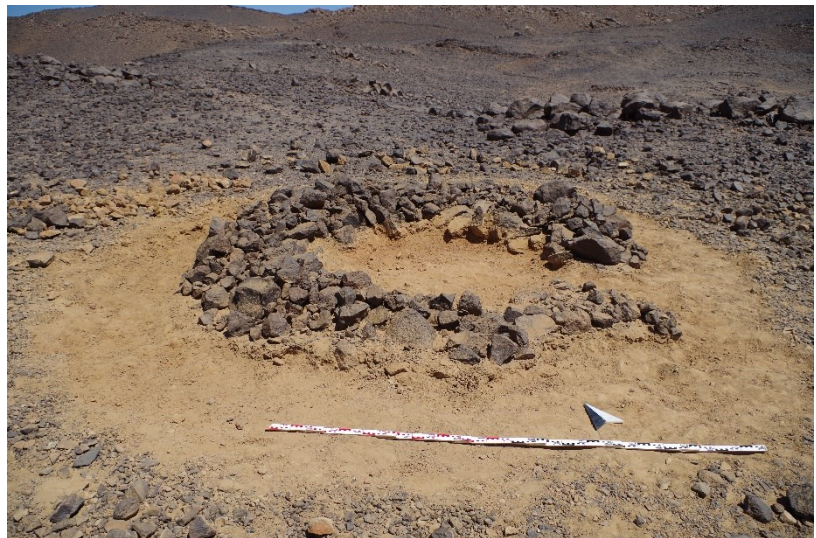


Fig. 18: Elaborated hut structure, feature 12204-5



Fig. 19: Paved platform, feature 9179-4

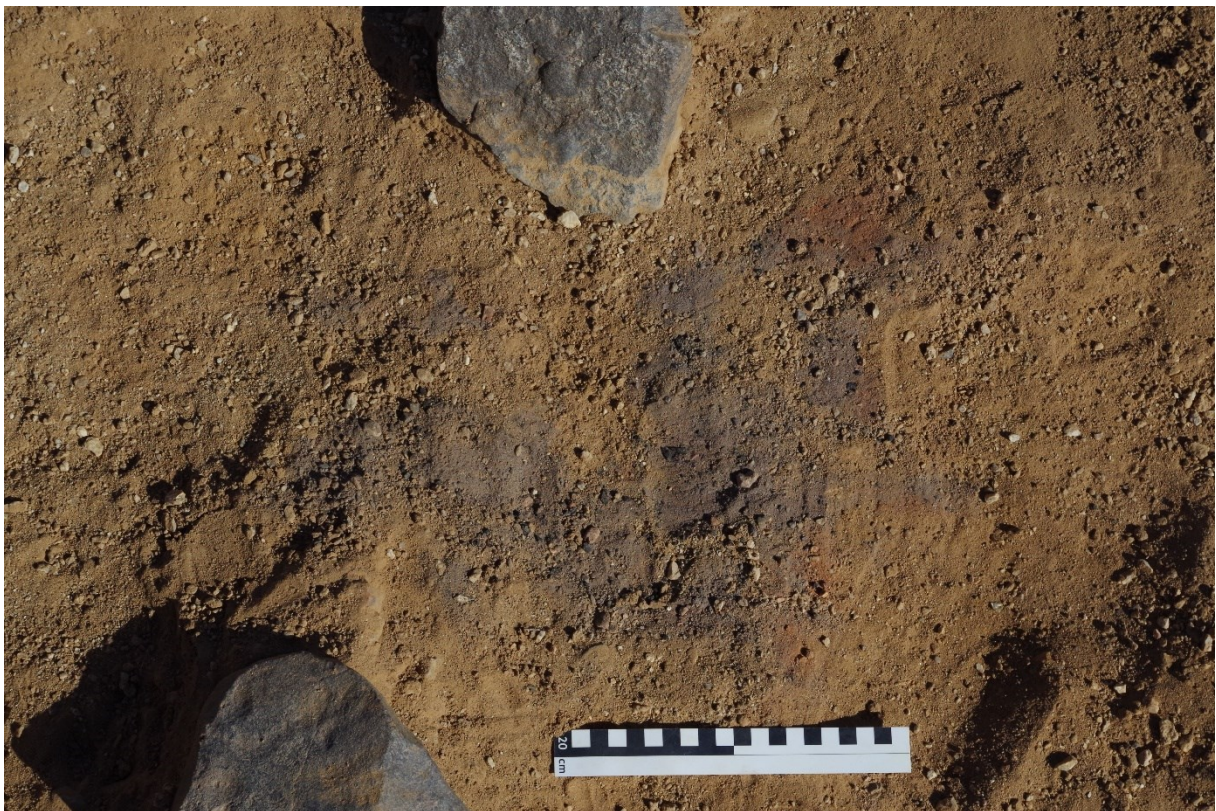


Fig. 20: Ash concentration in paved platform feature 8513-1

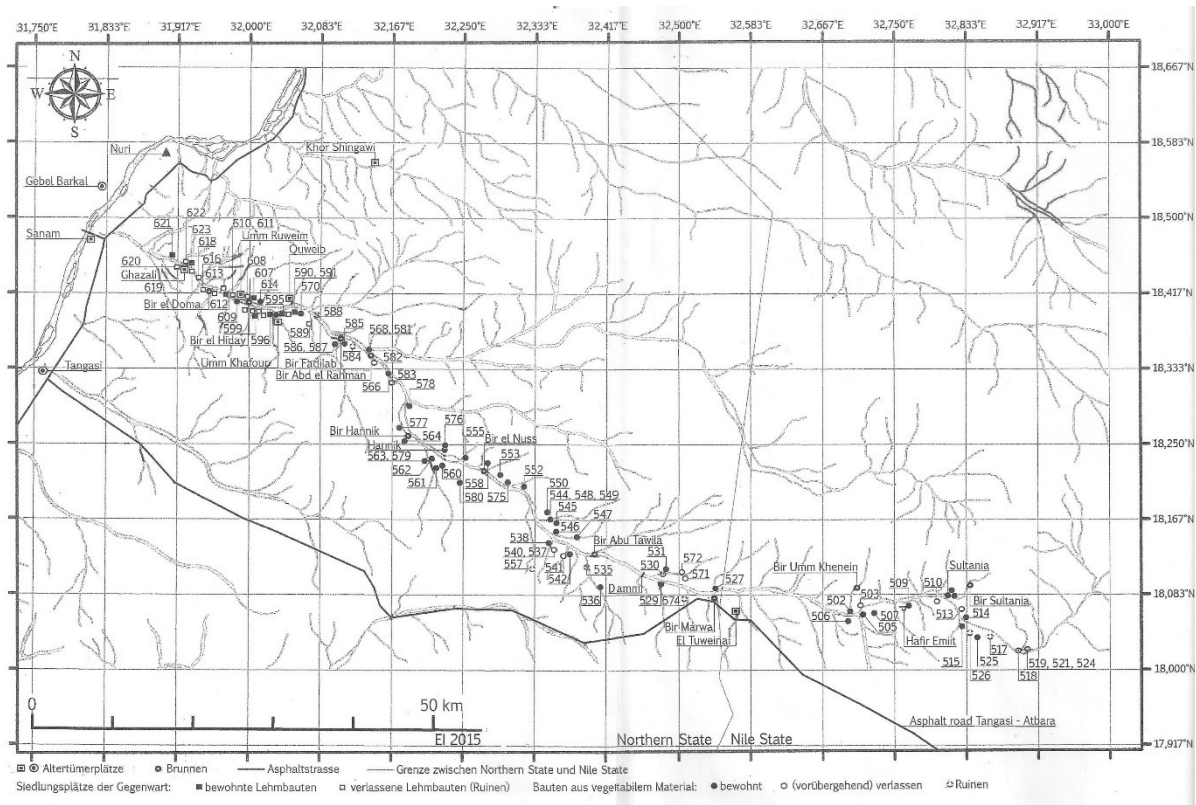


Fig. 21: Distribution of recent settlements



Fig. 22: Example of galus building in Wadi Abu Dom



Fig. 23: Example of a house of organic material in Wadi Abu Dom