

Report of the Project "Wadi Abu Dom Itinerary"

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2. Proposed work

Since the project Wadi Abu Dom Itinerary in its first step of 3 years is designed as a survey project, we planned to proceed with the intensive survey up to Umm Beida. After the bend of the Wadi Abu Dom we will continue with a more reflected survey, noting only more relevant sites like graves and hut structures or rock art and neolithic sites. At the moment, we document ALL features, even concentrations of stones which are manmade, but their date or function remains unclear.

This year, a Pedologist was intended to do some drillings in wells in the lower Wadi Abu Dom to be able to date the construction or usage of those installations.

In 2012, we mentioned in the report a newly found ruin at the Atbara-Tanqsi-road, where we saw some recent destruction. Therefore we decided not only to proceed with the survey, but also to apply for funding for the architectural documentation of this ruin. The funding was generously offered by the Federal Foreign Office, Berlin. A part of the survey was then planned in the region of this ruin in the middle Wadi Abu Dom during the documentation.

3. Realized work

1. Survey (Fig. 1)

The survey took place in the lower Wadi Abu Dom, starting from N 18°23'50" E 32°02'36" and reaching N 18°22'54" E 32°04'10" (Fig. 2). Besides that, some areas already surveyed in 2012, but not covered completely then were complemented this year.

Additionally, we carried out some extra survey in the middle Wadi Abu Dom from N 18°05'14" E 32°34'30" reaching N 18°05'08" E 32°33'27" between Feb. 19th and March 4th (Fig. 3). Due to logistic reasons, this part of the survey project was done simultaneously with the architectural documentation at et Tuweina.

During this campaign, a total of 1093 sites were documented (820 in the lower, 273 in the middle Wadi Abu Dom), containing altogether 2127 features (1409 in the lower, 718 in the middle Wadi Abu Dom). Complete lists of the features recorded and the finds collected are attached.

This year we could reach our aim to finish the intensive survey in the lower Wadi Abu Dom. At the junction with the Wadi Abu Sudeir we defined the eastern border of the lower Wadi Abu Dom, which bends to the south at that point. At the northern bank, the cemetery of Umm Beida is situated (Fig. 4). It is a multiphased cemetery, since it consists of Postmeroitic tumuli as well as oval box graves and rectangular box graves. One of the box graves is built at the top of a Postmeroitic tumulus (Fig. 5). We collected the visible data of this cemetery as a prototype and hope to excavate it in the future.

Except the cemetery of Umm Beida, most of the sites we noticed are very small. They are single features like single graves (tumuli, Fig. 6, and box graves) positioned at the banks of the khor as well as in the hinterland. Other types of features are small habitation sites with round or rectangular hut structures (Fig. 7). None of them were complex or gave the impression of a village. The biggest quantity of human activity in that region is represented only by concentrations of stones. Most of them are irregular and fail a distinctive shape, thus the function as well as the date remain unclear. Only in few instances we were able to define shelters at paths (Fig. 8). They may have served travelers or hunters as protection against wind.

All in all we can conclude that the eastern edge of the lower Wadi Abu Dom was inhabited in a less dense character than the small oasis near Umm Ruweim and Umm Khafour. The same impression comes to mind today: East of the villages of Ruweim and Khafour with their fields of tomatoes, cucumbers and onions, there are only few people with a more or less permanent settlement.

The small survey near the ruin of et Tuweina presented a different impression. The ruin itself lies in a wide wadi south of the Wadi Abu Dom. The whole area seems to receive (annual?) surface water, since there are clear indications of waterflows. On the other hand, the groundwater level is much deeper as in the lower Wadi Abu Dom, since the Bir Merwa is more than 20 m deep. Today, there are no farmers with fields in that region, but some people herding goats.

The sites noticed there consisted of several Postmeroitic tumuli (with "noses" to different directions from NE to S, see Fig. 9) and, as we have noticed already in the lower Wadi Abu Dom, Postmeroitic tumuli in connection with a box grave cemetery (Fig. 10). In that region, we also found small habitation sites. The most astonishing features were rectangular (2 x 1,5 m) and oval installations surrounded by erected stones and filled with gravel. The orientation varies and they are at some places singular, at other places in clusters up to 13, but without clear distribution patterns (Fig. 11). Since there were similar installations already excavated in the 4th cataract region, we learned that

these are no graves. We discussed the function of the gravelbeds but came to no conclusion up to now. We asked people living in the region if they use such installations in the household today, but the only feature with a more or less similar form are the gibras, which are always oriented to Mekka and singular at habitation sites. Therefore, we plan to excavate two neighbouring structures in the next campaign to get an idea if they are in a connection to each other and hope to shed light on its function.

All in all our intensive survey covers now 22 km of the Wadi Abu Dom. At both banks we investigated the region depending on the topography up to 4 km into the hinterland. The overall picture presented so far is that the Wadi Abu Dom was used by people since the palaeolithic time until today in small scale activities. We noticed small assemblages of palaeolithic and neolithic presence. Especially in the western part of the Wadi there were Kerma-type tumuli situated at the ridges of mountains, but they were only few in the eastern part of the lower Wadi Abu Dom. Napatan and Meroitic presence could not be proven up to now, but of course that can be due to the lack of excavations. At least one assemblage near Quweib could probably turn out to be a small Meroitic cemetery. The so-called Postmeroitic period shows an immense presence - much more than all the other periods, maybe except the Christian period. Several cemeteries with tumuli up to 18 m in diameter were situated mainly near the Wadi. Christian burial grounds with box graves are numerous, especially around the monastery of Ghazali. But there are some smaller box grave cemeteries also in the eastern part of the lower Wadi Abu Dom, as well as single graves in the hinterland.

It is astonishing that we lack bigger habitation sites. The sites which can be interpreted as huts are small and of a simple layout. All in all, they are much fewer than graves, and nearly none of them had associated sherds. This lack of habitation sites may be the result of the method of building the houses: Like today, they can be made with organic materials (Rakubas) or unburnt mud bricks. Both materials decay in a fairly short time without visible remains.

All the big sites are situated near local oasis: The Oasis of Umm Ruweim with the buildings of Ruweim, Khafour and, at the edge of that oasis, Quweib, and the small oasis at Ghazali with the monastery and the town. In that region are also the greater cemeteries. It seems that as today these parts of the Wadi Abu Dom was more fertile and the center of the permanent inhabitants.

2. Drillings

In the period from January 25th till Feb 7th a total of seven wells inside the concession area were documented by archaeological and geological means.

Six wells in the lower Wadi Abu Dom were chosen for investigation due to the presumable age of their edging made of stone masonry. All of those wells were constructed in a similar way: A larger cylinder-shaped pit with a diameter of 3 to 6 m was dug to a maximum depth of around 8 m. The floor of that pit was used as a kind of working platform from where a secondary, much smaller and unarmed shaft with a diameter of not more than 1 to 1,5 m was dug onto the bedrock (Fig. 12). At

larger wells, an additional platform 2-3 m below the ground was attached to the main pit.

It was intended to gather soil samples to be dated by OSL from the sediment at the bottom of those secondary shafts. After having interviewed local inhabitants in advance, it was already known that the wells are partly cleaned from time to time, but we hoped to find at least some datable sediment above the bedrock. Unfortunately, the drillings at the first wells proved clearly that the actual sediment inside the well shafts was of very recent origin (with, for example, some finds of rubber and industrially made cookie packaging in Bir A just above the bedrock).

At another well (Bir E) which was by some occupants reported to be dry and not used since at least 20 years, another drilling was prepared. But after interviewing an elderly man from the settlement nearby, telling us that he has seen this well cleaned completely (but dry, anyway) before that time, the drilling process was stopped.

Following these discoveries, it had to be stated that dating the wells by OSL probing of the sediment inside the shaft might not be successful because of the local well maintenance customs, and we had to think about another, more promising method.

What came to our mind was to take OSL-samples from the stones used for the edging of the main pits. Due to the fact that the walls were obviously built against the natural soil, it should be the case that from the time of construction on, their back was protected from sunlight and could be used for an OSL dating. Since the method of OSL dating on solid stones is still under development, it was decided to take only one sample for evaluating the method before probing the other wells.

The seventh well investigated during this campaign was the Bir Merwa close to the upper Wadi Abu Dom. This well is constructed in a completely different way than the other six: a single shaft was dug from the surface down to the bedrock and completely mounted by a stone construction (according to the local population around 30 m deep, but in fact obviously a little less). The wall construction seems to be of younger date, but might replace an older one constructed in a similar way. Nevertheless, here it was also reported by the occupants that the well is cleaned regularly, and since the drilling device was only able to deal with depths of 10 m, it was decided not to try to get a soil sample.

Additionally, the Bir Rumi within the Khor Dejamon outside our concession area was visited for touristic purposes. It turned out that it was constructed in a very similar way as Bir Merwa, but the water was still brought to the surface by ropes operated by muscle power, and not mechanized as at Bir Merwa. The same was true for the wells visited at our trip (Fig. 13).

Despite the fact that the soil sample dating by OSL seems not to be suitable for the wells investigated, several other insights resulted from the investigations of the wells: First, it became obvious that the constructional layout of the wells within the micro-oasis of the lower Wadi Abu Dom and the regions farther east differ significantly from each other. It might be the case that those differences result from different main purposes of the wells: horticultural irrigation in the lower Wadi, watering animals in the upper regions.

The reason for constructing the large pits of the wells of the lower Wadi Abu Dom is not obvious:

They are not able to increase the amount of water to be extracted from the lower shaft, and the Bir Merwa and the Bir Rumi show that working platforms below the ground are not necessary to construct deeper well shafts.

Two possible explanations seem of some probability, disregarding that none of them can be proved from the material discovered so far: First, the existence of one or (at deeper wells) two working platforms below the surface level might indicate that in the times before the mechanization the water was not brought up by a simple rope and muscle power, but by some mechanical device with a limited lifting capacity (for example a Shaduf construction), where two or more devices had to be combined to reach the ground water level. Another possibility is that in the lower Wadi Abu Dom, where accidental floodings occur more often than in the upper regions, those pits allowed a secondary use of the wells as cistern (similar to a Hafir) to store water provided by such floodings – for that purpose, an increased volume of the pit (compared to "single-shaft-wells" like Bir Merwa) could prove useful. This explanation gains some probability since some elder locals reported that at least some of the wells were filled with water almost completely during an exceptional flood in 1988.

The chronological questions concerning the wells are mostly still unsolved, but the massive amounts of medieval ceramics that could be found directly around at least two wells (Bir C and Bir D) obviously from earlier cleanings of the shaft indicate that the wells must have filled with sediment at least once during the medieval period, and so have been constructed earlier.

3. Architectural documentation of the ruin of Et Tuweina (Fig. 14 and 15)

The ruin is situated near Bir Merwa, at a distance of about 500 m north of the Atbara road, at km 164 from Atbara. Geographical coordinates are N 18°03'44" E 32°33'50". The site is situated at the western edge of a very wide wadi called el Dega, which runs northwards to Wadi Abu Dom and joins it after 2 km.

The site comprises in fact the ruins of three building objects, which are more or less independent from each other.

Object 1 are the remains of the southern part of a presumably rectangular or square enclosure, rising for about 50 to 70 cm above the surrounding terrain. Inside the enclosure the present surface is about 20 cm higher than outside. In two soundings the preserved height of the enclosure walls could be measured with about 60 cm, which amounts to four or five layers of very rough stones set in mud mortar. The width of walls is around 55 to 60 cm, they are obscured by debris and wind-blown sand (Fig. 16).

The southern wall of the enclosure is about 33 m long, the eastern wall is visible for a length of about 28 m, the western wall about 20 m. The northern part of the enclosure is completely invisible below the present-day surface. This, as well as the comparison of material, may indicate that Object 2 and Object 3 were built with the material from Object 1.

Inside the enclosure there are remains of rooms, about 2 m wide, built along the inner face of the

enclosure walls. In the enclosed area there are also remains of two free-standing single-roomed buildings of similar dimensions (Fig. 17). The walls of these rooms and buildings are 40 cm to 45 cm wide.

Inside Object 1 there are some traces of archaeological investigations. The team of the W.A.D.I.-project executed two small soundings in order to establish ancient floor level and preserved height of walls. Several fragments of mud bricks also came to light, indicating a composite construction of walls. All uncovered faces of walls have a (sometimes very thick) coating of mud plastering. A first assessment of ceramic fragments from surface and soundings indicates for Object 1 a date of the "Post-Meroitic" period. Some samples for 14C datings could be collected.

Object 2 is situated near the presumable northwestern corner of the enclosure Object 1, but the orientation of the walls is different and state of preservation much better. Therefore Object 2 can be considered as independent from Object 1, built after the destruction of Object 1, probably using its material. But this scenario still needs some further investigation and proof.

Object 2 is marked by a mound with a diameter of approx. 10 m, rising for about 1,00 to 1,10 m above the surrounding terrain. The surface of the mound is composed of stone rubble and wind-blown sand.

The western part of the mound has been attacked by illicit diggers with the help of a caterpillar (Fig. 19). This must have happened during the construction of the Atbara road. In this act the western wall of the building was completely destroyed, its position can be reconstructed only tentatively. Also two partition walls within room 2.1 were dismantled almost completely, as well as the former floor of this room. Room 2.2 was only partly excavated, while rooms 2.3 and 2.4 remained untouched in their antique state of construction.

The construction of walls is of the same type as described for the buildings of Object 1. Exposed wall faces show a coat of mud plastering. Walls are preserved up to a height of 1,20 m or 9 to 10 layers of comparatively flat stones, walls are 45 cm to 50 cm thick. There are also some remains of mud bricks.

Only minimal intrusions were effected by the W.A.D.I.-team, just to determine the exact position of the eastern wall corners. The function of Object 2 appears to be a domestic one, a habitation of comparatively high standard with four rooms. The entrance must have been in the now destroyed western wall, eventual windows are still hidden under the surface of the mound or were positioned in the missing upper parts of the wall.

Object 3 was once defined by a mound of a diameter of about 20 m, rising for about 1,6m to 1,7 m above the neighboring terrain. Excavation by caterpillar has changed the shape of the mound considerably, it is now a landscape of craters and heaps of debris (Fig. 20). But in any case, the plan of the building hidden in the mound became clear.

Walls are around 50 cm thick, their construction is the same as described for Object 1 and Object 2. They are preserved up to a height of 1,80 m. Their bases rest upon an about 5 cm thick layer of grey

hard mud. The caterpillar has removed partly the fill of rooms, only the room 3.1 remained untouched. The fill of rooms consists mainly of mud brick debris, which leads to the conclusion that walls had a top part of brick and that rooms may even have been roofed by a barrel vault of mud brick. The size and shape of rooms, about 12 m long and about 2 m wide, indicates strongly the former existence of such a vault. Proof could be found by examination of a clean and clear section through the fill.

Room 3.1 was left untouched by the caterpillar team, therefore the western wall is still preserved up to a height of about 1,50 m. There is no opening for a doorway in this wall, apparently the room was inaccessible. Conclusion is that room 3.1 as well as rooms 3.2 and 3.3 served probably as silos which were filled through openings in the roof. Contents of the silos could have been taken out through small openings in the west walls. There is no answer to the question which crops or other goods were stored there.

The W.A.D.I.-team removed wind-blown sand at the deepest point of room 3.2 and uncovered remains of a hard grey mud floor, about 5 cm thick. Also remains of a coating of mud plastering were found at the foot of walls at this room (Fig. 18).

Since the documentation of Et Tuweina took two days less than estimated, our architect Dieter Eigner also documented the small ruin near the house of our Ghafir in Umm Ruweim, Mablul. We call this very small ruin now Umm Ruweim 3 (Fig. 21). This ruin is mostly covered by sand and debris, only some parts are visible. The mound has a diameter of 15 m, but this gives us not the exact measurements of the building. It shows similar building techniques like in et Tuweina Object 2 and 3: It consists of stone masonry set in mud mortar and walls with mud plastering. There is quite a large amount of mud brick debris, but also in situ mud bricks inside the walls. The layout of rooms resembles et Tuweina Object 2: There is a more or less square room and the long store rooms are not dominant, therefore we suggest a domestic function (Fig. 22). The pottery collected at the surface seems to be similar to et Tuweina.

4. Trips

We made a trip through the Wadi Abu Dom, connecting both parts of our survey. We continued after Umm Beida, going by car along the Wadi to the southeast to reach et Tuweina. Our aim was on one hand to plan for the next campaign, to estimate the time being on tour and to see the condition of the tracks. On the other hand we wanted to see the other wells, which are mentioned in the literature and on maps. The first well we saw was called Bir Hadj Abdelrahman by the local people (in the case of the geological map of the Bayuda produced by the German Federal Institute for Geosciences and Natural Resources, this well was confused with the below mentioned Bir Hannak). It is about 15 m deep and built like Bir Merwa and Bir Rumi. We followed the track, leading us into the hinterland of the Wadi (the local people said that the Wadi itself is not suitable for cars) and came back to the Wadi at Bir Hannak. It is built in the same technique and consists in fact of two wells, lying about 30 m from each other. Both are about 15 m deep. The third well we met was Bir et

Tawila (the Bir Wad Abu Hagar we could not find, but we did not search for it intensively). This well, built as well in the same manner, is about 20 m deep. We realized that in the whole region there are no fields, only people with goats, donkeys and camels.

During this trip we saw several cemeteries with tumuli sometimes quite large) and box graves. We did not document them, since this will be part of the program for the next years.

4. Proposal for future activities

Plans for the following campaign (spring 2014) are the proceeding of the survey in the middle Wadi Abu Dom, but now not in the very intensive and time-consuming way in noting all manmade concentration of stones. Although going by foot (not to miss sites which are difficult to detect, like rock art or neolithic areas only visible by pottery concentrations), we will only document sites which are diagnostically meaningful.

Furthermore, we plan to make some small scale excavations at specific features (like the gravel beds) in order to get an idea of function or date of these structures. It depends on the availability of an anthropologist if we also excavate some graves exemplarily.

5. Final remarks

Coming to Khartoum already on Jan. 8th, we faced some severe problems in getting our cars and starting the fieldwork. It took nearly two weeks and several meetings until we were allowed to take our cars out of the compound of Sudamin. In the end it was only possible due to the intensive engagement of the Director General of NCAM, Dr. Abdelrahman, to find a solution. We would like to thank him cordially for his support and backing!

We would like to thank Mr. Abdel Rauf very much for all his indispensable help and smooth organisation! He has acted as a good mediator to the people in the Wadi Abu Dom as well as an expert for our old cars and especially as a good friend to us!

Karima, 16.3.2013

Angelika Lohwasser

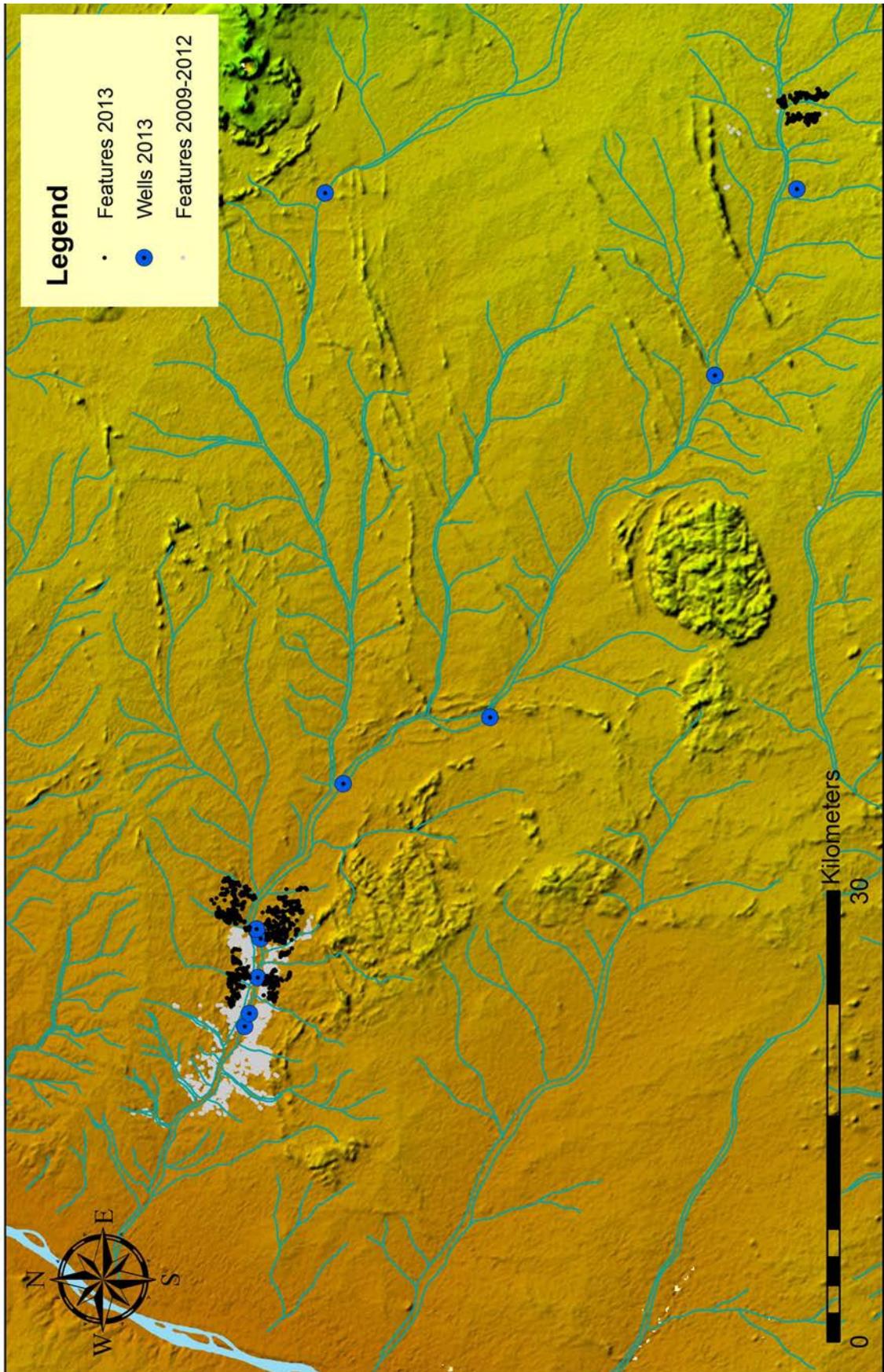


Fig. 1: The survey done 2009-2013

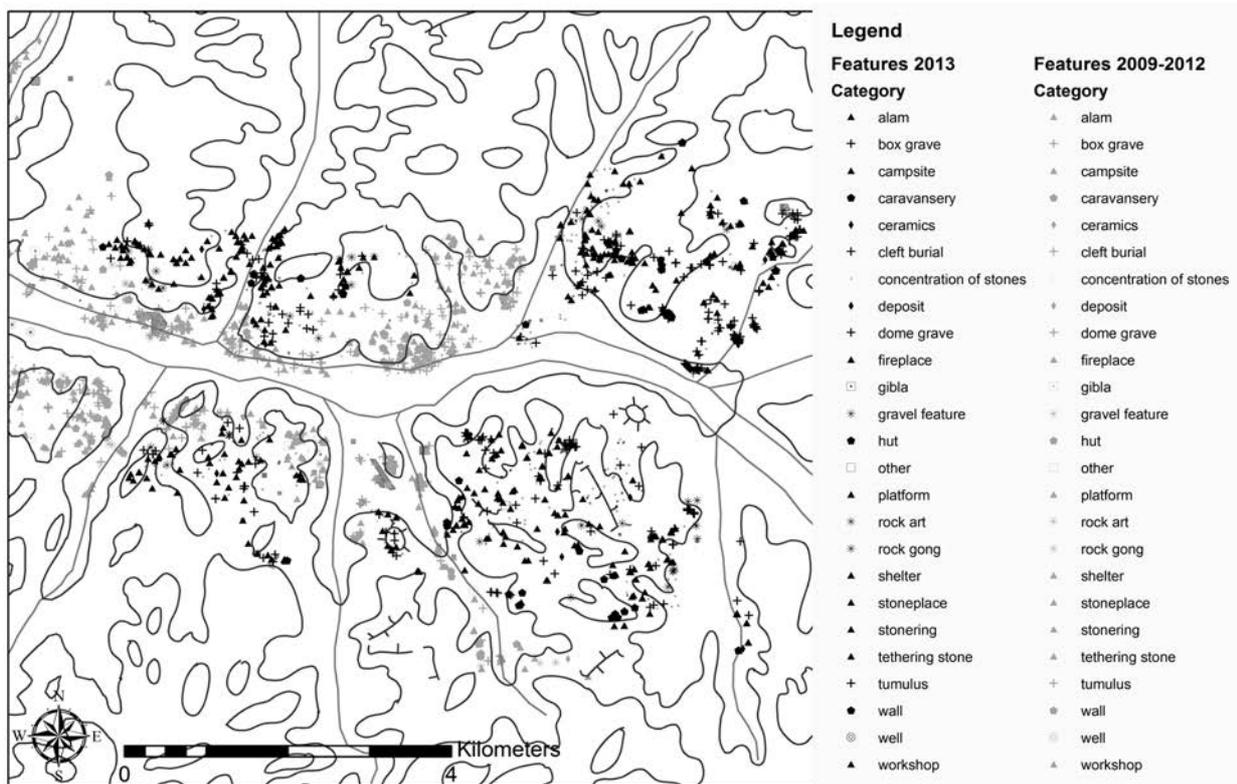


Fig. 2: The area of the survey in the lower Wadi Abu Dom

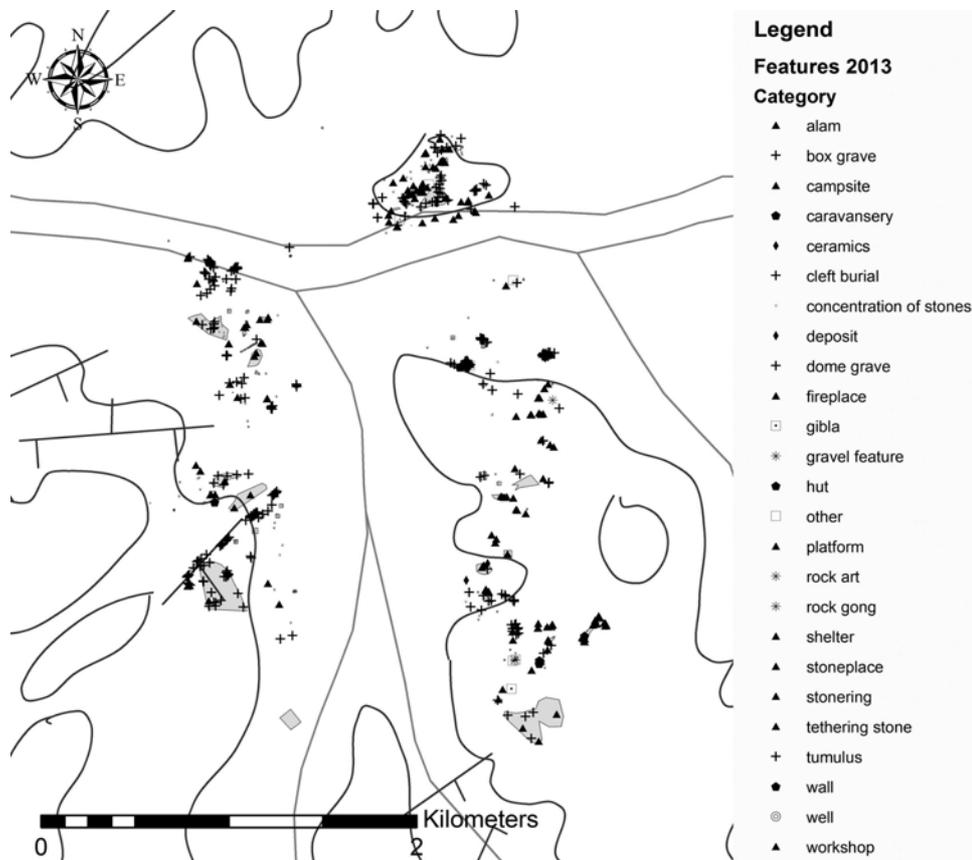


Fig. 3: The area of the survey near the ruin of et Tuweina



Fig. 4: The cemetery of Umm Beida



Fig. 5: Umm Beida: A box grave upon tumulus



Fig. 6: Single tumulus



Fig. 7: Single hut structure



Fig. 8: Shelter at pathway



Fig. 9: Postmeroitic tumulus



Fig. 10: Postmeroitic tumuli in connection with a box grave cemetery



Fig. 11: Two gravelbeds in different directions



Fig. 12: Platform in Bir B



Fig. 13: A single-shaft well (Bir Hadj Abdelrahman)



Fig. 14: The complex of et Tuweina

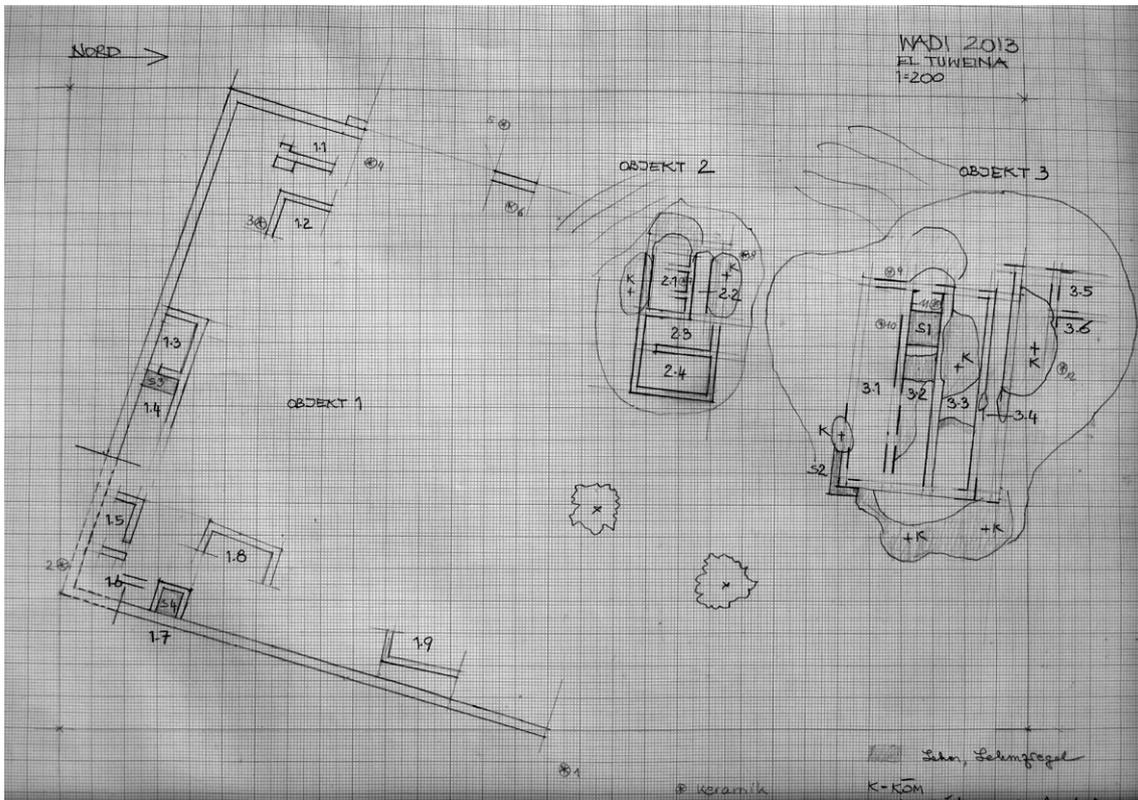


Fig. 15: Scetch of the complex of et Tuweina

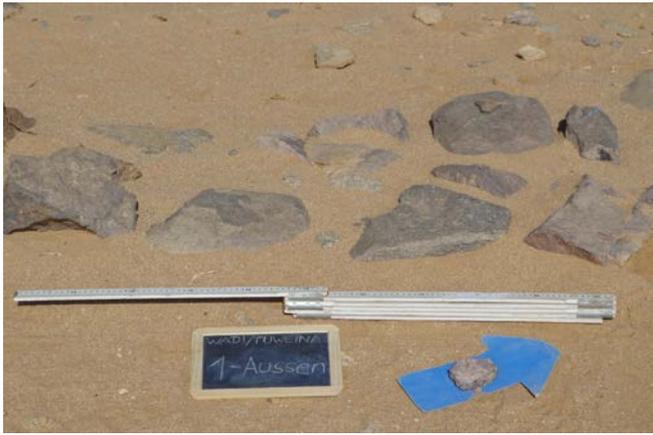


Fig. 16: Wall of Object 1



Fig. 17: Freestanding room in Object 1



Fig. 18: Wall of Object 2



Fig. 19: Destruction through caterpillar in Object 2



Fig. 20: Object 3 in et Tuweina



Fig. 21: The ruin Umm Ruweim 3

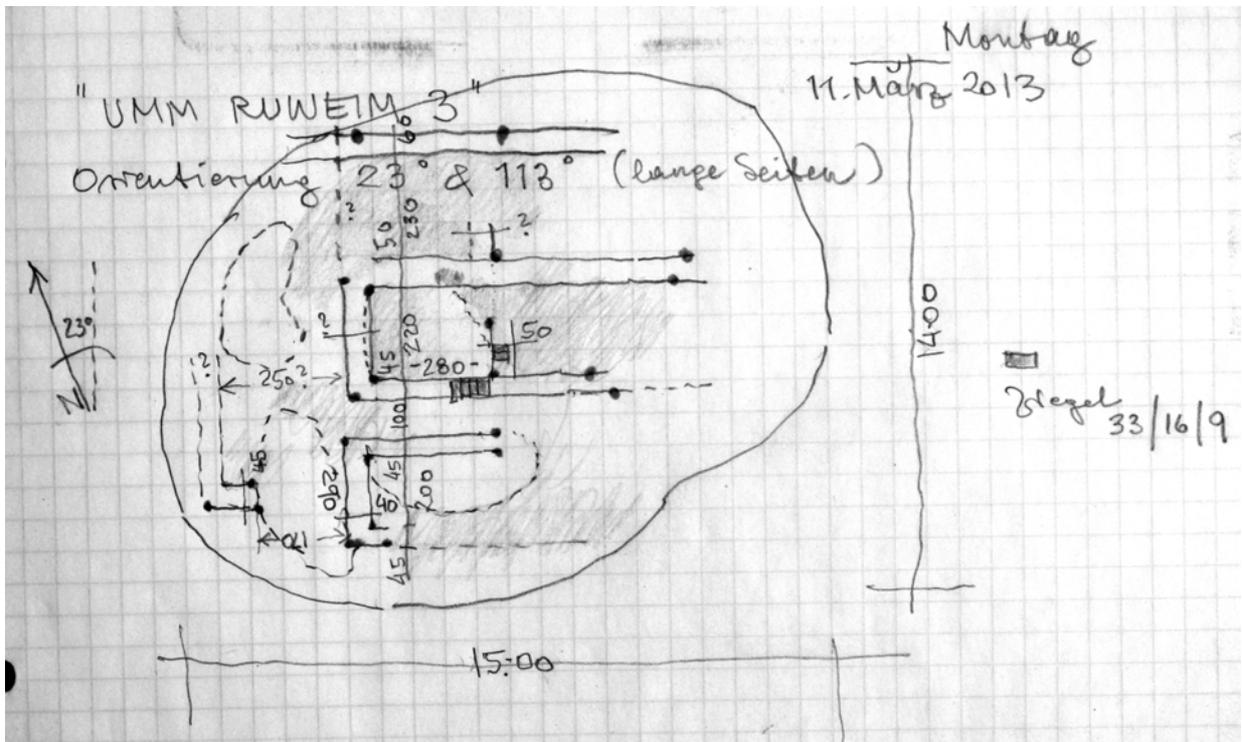


Fig. 22: Sketch of Umm Ruweim 3