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PRELIMINARY INVESTIGATIONS IN THE DJEBEL UWEINAT REGION,  
LIBYAN DESERT



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**Abstract**

*Over the last hundred years the Djebel Uweinat was the objective of several expeditions, most of them being driven by the intention to find new rock art sites. These explorers mostly stayed at the base of the mountain where the majority of the currently known rock art sites were found. During their two recent visits, the members of the ACACIA team focused their interest on the upper part of the Uweinat and on its smaller, mostly neglected neighbouring mountain, the Djebel Arkenu.*

*In the upper part of the Djebel Uweinat artefacts and some stone arrangements were found. While no rock art sites were spotted in the upper part, we discuss the function of stone arrangements and rock art from the lower reaches in view of the semiotic processes in which they may have operated. The presentation of the rock art sites found at Djebel Arkenu will also be fitted into an overview of how we interpret the cognitive map of people who used to live in the environment of the two mountains. Furthermore, some background information concerning the landmarking function of the archaeological finds is given which could be a useful indicator of the character of mobility as well as of perception of landscape among prehistoric people.*

**Résumé**

*Durant les deux siècles précédents, le massif du Djebel Uweinat a fait l'objet de plusieurs expéditions, dont la plupart avait pour but la découverte de nouveaux sites d'art rupestre. Ces explorateurs s'étaient jusqu'alors presque essentiellement limités au pied des reliefs, là où se trouvent d'ailleurs la majorité des sites rupestres connus actuellement. Au cours de leurs deux dernières visites, les membres de l'équipe ACACIA, ont concentrés leur intérêt sur la partie supérieure du Djebel Uweinat ainsi que dans un petit massif montagneux voisin souvent négligé, le Djebel Arkenu.*

*Dans la partie supérieure du Djebel Uweinat, des artefacts ainsi que des arrangements organisés de pierres ont été découverts. Dans la partie supérieure, seuls des arrangements de pierres ont été trouvés, l'art rupestre n'étant présent que dans la partie inférieure. Par conséquent, ces différences seront discutées en terme de processus sémiotiques. Les sites d'art rupestre du Djebel Arkenu seront placés dans le contexte d'une carte cognitive d'une population qui vivait dans l'environnement des deux montagnes. De plus, quelques informations de base concernant la fonction des trouvailles archéologiques qui marquent le paysage et donc qui sont interprétés comme des indicateurs de la mobilité ainsi que de la perception de l'environnement par les peuples préhistoriques.*

*Keywords: Libya, landscape, semiotic processes, stone structures, rock art, pottery.*

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## Introduction

The Djebel Uweinat and its smaller neighbour Djebel Arkenu are two mountains which rise over the flat plain southeast of the Libyan oasis Kufra (*Fig. 1*). The Djebel Uweinat forms a landmark where the frontiers of Libya, Egypt and the Sudan meet. The largest, western part of the mountain belongs to the Libyan side, whereas the Sudanese (southeast) and Egyptian parts (northeast) are much smaller. The highest peak reaches about 1900 meters above sea level. Deep wadis, the so-called Karkurs, cut into the almost circular shaped mountain. On the northern and western side are located the Karkurs Hamid, Idriss and Ibrahim, on the eastern side the Karkur Murr and Karkur Talh. There are permanent springs at Ain Doua, Ain Zuweia and Ain Murr. Their existence seems to have induced the mountain's name since the Arabic word "Uwênât" can be translated as "the small fountains" (SCHIFFERS 1973: 423).

Geologically the Djebel Uweinat consists of two parts: the western part is composed of circles of praecambrian layers; in the eastern part sandstone-pillars dominate the outer appearance of the mountain (SCHIFFERS 1973: 426).

Beginning from the early 1920ies, the Djebel Uweinat was the objective of numerous expeditions from different countries. Before going into detail of two recent visits of members of the collaborative research centre SFB 389 ACACIA/University of Cologne, Germany, to the Libyan side of the Uweinat, the history of research of this area will be outlined.

## Historical background

Looking for a direct way from Ouadai to the Mediterranean coast, a Majabri Arab from Jalo called Shehaymah, passed by a mountain with two rock wells at its foot. This happened around 1809 or 1810 and it is very likely that his description of the "Gebel en Nari", the "mountain in flames", corresponds to the mountain nowadays known as the Djebel Uweinat (SHAW 1934: 64-65).

Ahmed Hassanein Bey, an Egyptian diplomat and explorer, was the first to report in detail in 1924 about the Djebel Uweinat and its neighbouring smaller granite outcrop, the Djebel Arkenu (HASSANEIN BEY 1924: 354). In his travel documents he mentioned rock engravings at the Karkur Ibrahim, on the western side of the Uweinat, which led him to wonder: "There are no

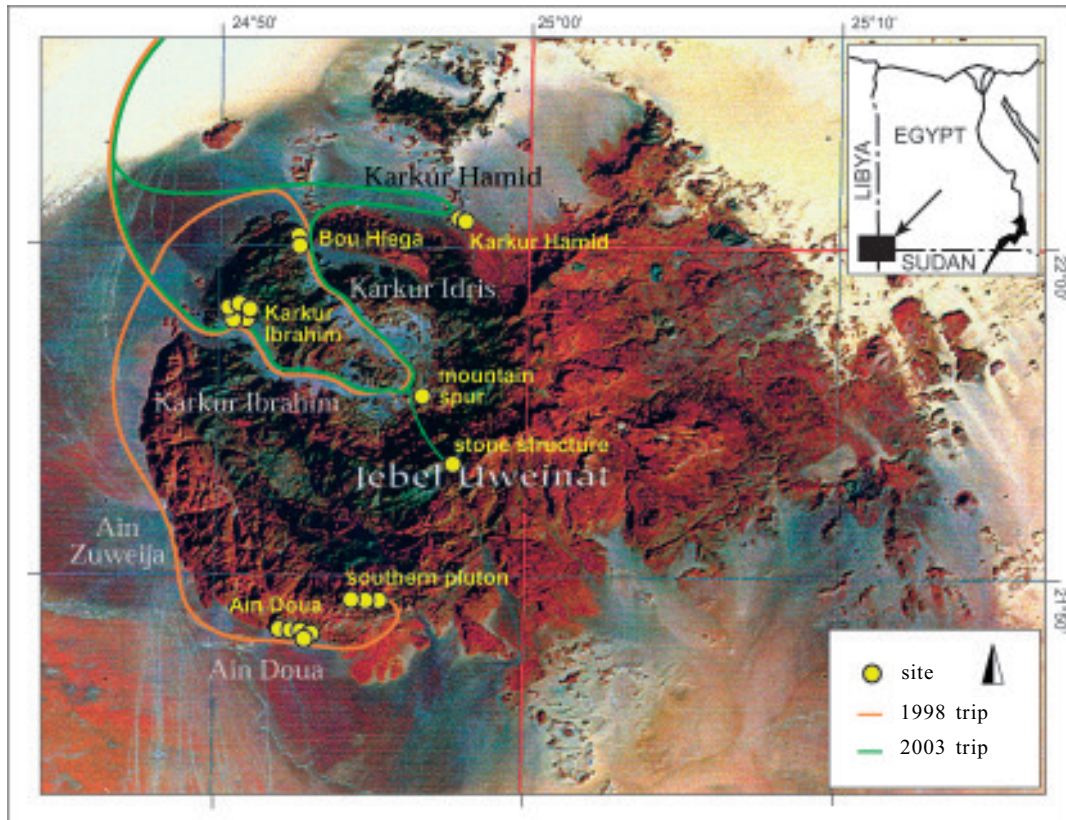
giraffes in this part of the country now, nor can they live in similar desert country anywhere. Also there are no camels among the carvings, and one cannot penetrate to this oasis now except with camels. Did the men who made these pictures know the giraffe and not the camel?" (HASSANEIN BEY 1924: 355-356) With these words he indicates that he was well aware of the antiquity of the pictures.

After the description of these two "lost oases", until then only believed to exist far away in the west beyond the farthest known Egyptian oasis (WILKINSON 1837; BAGNOLD 1937: 265), the Egyptian Prince Hussein Kemal el-Dine, who found his passion in exploring the desert, started an expedition towards the Gilf Kebir and the Uweinat with Citroen cars in 1925 and 1926. The prince published his rock art finds of the Karkur Talh in two volumes (KEMAL EL-DINE 1928; KEMAL EL-DINE & BREUIL 1928).

The next explorer who found his way to the Uweinat was the English Major R. A. Bagnold. After Bagnold's first short passing-by of the Uweinat in 1930 (BAGNOLD 1931: 29-31) he returned in 1932 to focus his and his colleagues' interest on the rock art of Karkur Talh (BAGNOLD 1933: 106; SHAW 1934).

The Hungarian discoverer Almasý was lured by the secrets of the Libyan Desert. His passion for the desert was combined with his abilities as an excellent driver and pilot and so he could make use of these new technologies for his expeditions to the Gilf Kebir and the Uweinat, among others. When Almasý came to Ain Doua in May 1933, at the southern fringe of the Djebel Uweinat, he met an Italian topographical mission, including L. di Caporiacco with whom a wide dispute about the findings of Ain Doua unfolded. According to Almasý's description it was his driver who found the first rock paintings at Ain Doua and together they located a dozen rock art sites before passing this information to di Caporiacco (ALMASÝ 1936: 73-75, 1939: 140). Di Caporiacco and also the German researcher Frobenius, who came to Ain Doua together with Almasý in October of 1933, claimed in their articles (CAPORIACCO 1933, 1934 a,b; CAPORIACCO & GRAZIOSI 1934) and in oral communications (ALMASÝ 1936: 73) the discovery for themselves – a conflict which remains unresolved until today.

Despite these "quarrels", the expedition of Frobenius, with the aim to record the rock art and archaeology of the Libyan Desert, led to a publication by Rhotert, an expedition's participant, in which he



**Fig. 1.** The Djebel Uweinat. The eastern sandstone-massive and the almost round western magmatic intrusion are clearly discernible. The map shows the routes of the 1998 and 2003 trip as well as the sites visited. (Landsat TM from 06.02.1987, after NRSC)

gives a colourful impression of the rock art sites of Ain Doua and Karkur Talh (RHOTERT 1952: 16-18).

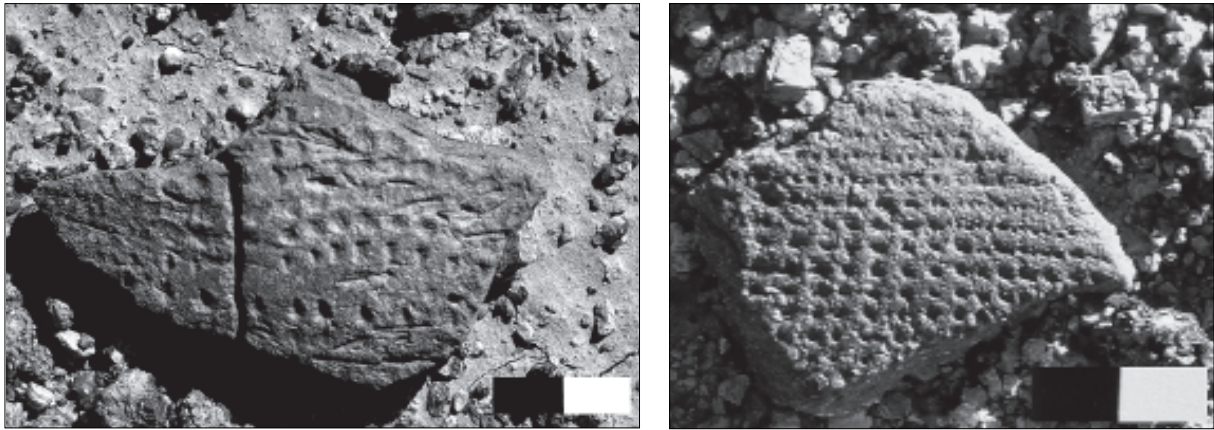
The combined Bagnold-Mond expedition was the last mission to the Uweinat before World War II. It was carried out by Bagnold and his scientific team in 1938 and sponsored by Sir Robert Mond (BAGNOLD *et al.* 1939; McHUGH 1975). New rock paintings of Karkur Talh and Karkur Murr were recorded by Bagnold's colleague WINKLER (1939) and also "crude but distinctive microliths, struck from small quartz pebbles and at the last two ostrich-shell beads" have been described by Peel and Bagnold (BAGNOLD *et al.* 1939: 294) for the area next to the rock art sites.

After World War II, the biologist Jany was the first to visit the Karkur Idriss and Karkur Ibrahim again. He recognised some rock art sites there but did not publish them (JANY 1963: 357). Some years later, the Royal Military Academy Sandhurst Expedition explored and mapped the Djebel Arkenu, the small neighbouring mountain of the Djebel Uweinat. They found several new rock art sites which are briefly described in the publication of WILLIAMS & HALL (1965: 494).

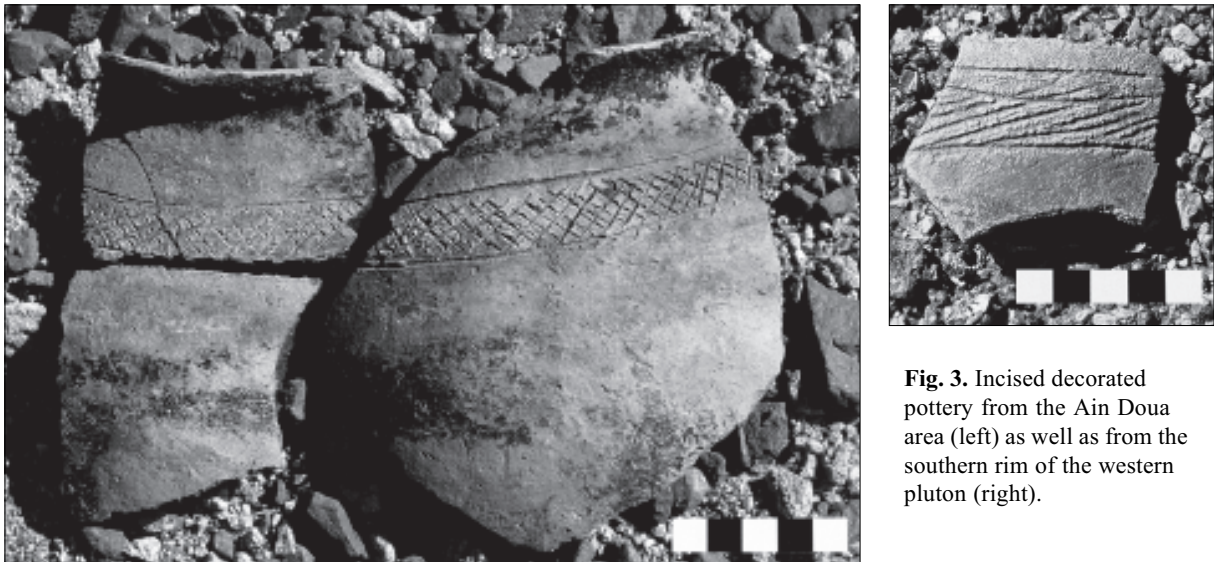
Concentrating on the Djebel Uweinat again, an Italian group found rock art sites in the Karkur Idriss in 1962 (BELLINI & ARIÈ 1962). They called the site Carcur Bulega (BELLINI & ARIÈ 1962: 262; "Bû Hlêga" in LE QUELLEC 1998).

In 1965 a Belgian expedition came to the Uweinat to do an intensive research of the natural environment of the mountain (LÉONARD *et al.* 1969: 102; LÉONARD 1997, 2001). This field trip was followed by a two month field research in 1968/69 in which numerous rock art sites in the Karkur Talh, in the Wadis Talh I und II and in small adjacent valleys, in the Wadi Wahesh, in Ain Zuweya and in the Karkurs Ibrahim, Idriss and Hamid have been discovered (VAN NOTEN 1978a: 13, 1978b: 286). This detailed research pushed the total number of known rock art figures of the Djebel Uweinat up to 4080 (VAN NOTEN 1978: 13).

Around the same time as the Belgians an Egyptian group discovered some more rock art sites on the northern fringe of the Uweinat in a wadi they called Wadi Handal, situated west of Karkur Talh (HAYNES 1980: 62).



**Fig. 2.** Pottery decorated with Rocker stamping from the Ain Doua area. Common are shallow (left hand) as well as deep (right hand) comb impressions, but the vertical lines are always very close together.



**Fig. 3.** Incised decorated pottery from the Ain Doua area (left) as well as from the southern rim of the western pluton (right).

In 1996 a French team found in a two and a half day survey in Karkur Idriss and Karkur Ibrahim ten new sites (LE QUELLEC 1998).

Beginning from 1998 to present days, András Zboray led almost yearly expeditions to Djebel Uweinat and Djebel Arkenu. Very interested in rock art he published some of his newest finds of the Uweinat in 2003 (ZBORAY 2003).

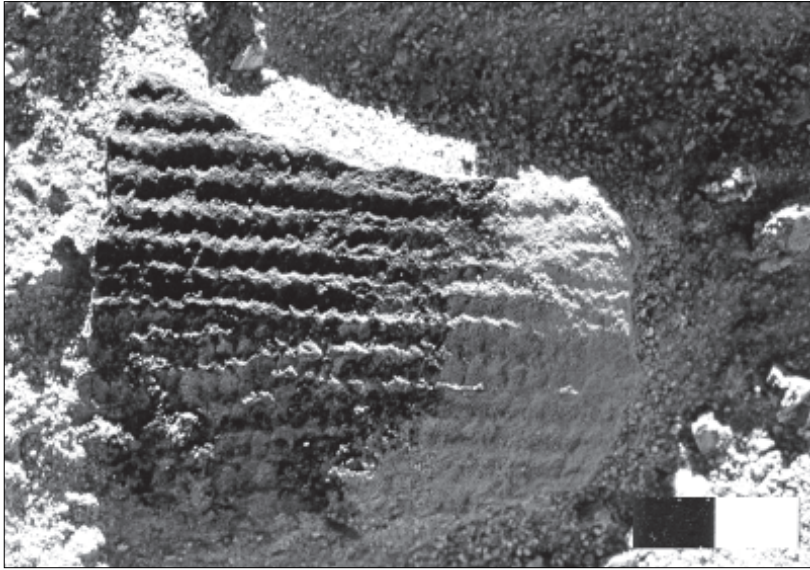
### **Outcome of recent visits to the Uweinat region**

#### *The 1998 field trip*

At the end of 1998 a field trip to the western part of the Libyan desert was undertaken. This region has a potential for expanding and comparative pros-

pects to the existent interdisciplinary Cologne project working in Egypt since 1995. With regard to the supply situation for basic needs in ancient times, the Gifl Kebir and the Djebel Uweinat are the first possible reserves for people moving west from the Egyptian oasis belt. Especially the Djebel Uweinat is an outstanding landmark in the zone between the western oasis Kufra and the eastern oases in Egypt. Still today the Djebel Uweinat is a traffic junction where goods are transferred from the Sudan to Libya and vice versa. The former human occupation is evinced by rock pictures, stone tools, ceramic sherds and other archaeological material.

At the base of the Uweinat mountain observations were made which include rock art sites. The new findings were a by-product in the pursuit of the objective to take a closer look at the already published sites in



**Fig. 4.** Mat-decorated pottery from Karkur Ibrahim, found below one of the “tarfuni” called shelters at the bottom of the Karkur.

order to find indications of the criteria of the prehistoric artists concerning the placing of their drawings in relation to the rock formations and the landscape.

An ascent of the Djebel Uweinat showed that the upper regions of the mountain also had been occupied in prehistoric times. Two archaeological sites with pottery and stone tools, including grinding stones, on the surface are evidence of a repeated use of the upper region of the Uweinat, supported by the finds of stone tools and a stone arrangement on a mountain spur on the ascent route. Whereas normally vegetation in the upper region of the Uweinat is virtually absent it is surprising that the two places were localised from a wider distance because of a notable vegetation of herbs and some low acacias.

The failure to spot rock art sites in the upper Uweinat during the visit of 1998 can be explained by the short stay and the short range which was explored in the mountain. Since there is no water in that region, everybody has to carry his whole water supply on his own, therefore reducing the negotiable distances. The group stayed for two days in the upper part and returned with the conviction that more intense searching would yield the expected rock art sites. The excursions into the inner mountain from the eastern side by Zboray and his group commencing in the same year verified this assumption (ZBORAY 2003). There may, however, also be ecological reasons for the different frequency of rock art sites in the eastern and the western part of the Uweinat. While the granitic part in the west seems

to be void of sites, the eastern part with its sandstone surface seems to be particularly rich. Possibly the different terrains provided different habitats.

During the stay eight archaeological sites were detected at the bottom of the Uweinat mountain. Some of these were connected to rock art sites and each of them showed ceramic sherds and stone tools on the surface.

The pottery indicates that the Uweinat area was visited repeatedly during the last seven millennia. The ceramic we interpret as the oldest in the mountain area, was found in the envi-

rons of Ain Doua. The sherds show different rocker stamping techniques (**Fig. 2**). Comparable decorated ceramics are known from the Northern Sudan such as from the Wadi Howar sites 80/87 (JESSE 2003: pl. 7, 10), 80/73 (KUPER 1981: fig. 35) or 84/24 (GABRIEL *et al.* 1985: 109) dated to the 5<sup>th</sup> millennium BC (JESSE 2003: fig. 56), as well as the Nile valley’s famous Early Khartoum sites of Geili (CANEVA 1988: 65 - 67) or Shaneinab (ARKELL 1953). West of the Djebel Uweinat, in the Tibesti Mountains or in the Bardague pan (Chad), sites like Gabrong were excavated which yielded rocker stamped ware comparable to the Uweinat material (SCHUCK 1989: pl. 64-66, 74). The finds are dated to the 5<sup>th</sup> millennium BC (SCHUCK 1989: fig. 57).

A probably younger type of pottery decorated with bands of incised cross-hatchings below the rim was found in the Ain Doua region as well as on the southern top of the mountain (**Fig. 3**). Similar ceramics are known from the middle Wadi Howar region (PRILL 2000: pl. 1-3) and dated to the 2<sup>nd</sup> millennium BC (HOELZMANN *et al.* 2001: fig. 11). Here this type of decoration is called “fine geometric” or “Handessi A” (JESSE, in prep.). Parallels to the above mentioned ceramic decoration exist in the central sahel, like in the plains south of Lake Chad. In this region the incised decorated pottery is dated to the Early Iron Age, 500 BC to 500 AD (WIESMÜLLER 2001: 168 - 172, pl. 23).

The presumably youngest pottery of the Uweinat mountain is a mat-impressed ware, found in one of the “tarfuni” called shelters at the bottom of Karkur Ibrahim



**Fig. 5.** Bou Hlega. The paintings of Bou Hlega display hundreds of cattle partly mixed with antelope. Both animals seem to originate from the same period.

(*Fig. 4*). This kind of decoration appears in the final neolithic, but is in use until today (WIESMÜLLER 2001: 158 - 162; STERNER & DAVID 2003: fig. 3). Beside this ceramic of probably recent age, even pots made on a potter's wheel, were found. The chronological affiliation of the pottery found in the Uweinat, described above, should be regarded as preliminary. Without closer investigations an exact dating of this type of ceramic is hardly practicable.

#### *Rock art discoveries of the 1998 field trip*

The field trip was not designed for systematic rock art research; the main focus was instead on reconnaissance of the rock art in the general region and, more importantly, on exploring the upper reaches of the mountain in view of archaeological traces. This seemed due since although two parties reportedly climbed the mountain, namely the group around Bagnold (BAGNOLD *et al.* 1939) as well as the Belgian expedition of the late 1960s (LÉONARD *et al.* 1969; LÉONARD 1997), neither of them mentioned archaeological finds.

Despite its remoteness, the Djebel Uweinat has received enough attendance that at least many of the rock art sites around its foot area have been discov-

ered earlier. Yet only the Frobenius expedition of 1933 (RHOTERT 1952), the party Bagnold led to the mountain in 1938 (WINKLER 1939) and the Belgian expedition of 1968 seem to have spent enough time at the mountain for being able to do extensive recordings or at least to photograph comprehensively. J.L. LEQUELLEC (1998) also reproduces some friezes in black and white tracings, but they seem to be based on photographs. Very recently A. ZBORAY (2003) published photographs of a wealth of new found rock paintings he discovered in the higher reaches of the sandstone part of the mountain.

On the reconnaissance tour, the whole spectrum of rock art sites was encountered, including sites which are of exceptional status even at a world-wide scale such as Bou Hlega (*Fig. 5*), while others are small sites with unspectacular pictures. The short research aimed at systematically allocating the sites in their landscape setting in order to gain first basic information about the status of rock art. Since the Uweinat mountain probably always was an area requiring high mobility of its inhabitants due to scarce and scattered resources (annual precipitation may at no time during the holocene have exceeded 50 to 100 mm, NEUMANN 1989: 124), rock art in its landmarking function could be a useful indicator of the character of mobility as well as of perception of landscape.

The ten sites analysed according to the scheme developed and tested elsewhere (LENSEN-ERZ 2001) exhibit a number of characteristics which are so manifest that even the small sample cannot entirely belittle the findings:

With the exception of two sites, all were of such small size that they only afford accommodation for less than ten people. The presentation of the art is related to the inner room of the shelters and it is only in a few cases where, from a coincidental angle, the pictures are visible from outside. Accordingly, the art was not a matter which aimed at the level open space which is adjacent to six sites and which extends only few metres away from another three sites. The pattern of rock art being placed at sites in a way that it might be easily discernible from a potential "dance floor" (i.e. a level area of at least 10 x 10 m) next to the site is quite current elsewhere, e.g., in the Brandberg in Namibia (LENSEN-ERZ 2001: 281).

In terms of the natural „infrastructure“, i.e. of those natural features beneficial for food, drink, lodging, mobility or religious practice, the location of all sites near level open areas goes together with easy access to most of the sites, while only at two sites a steep slope or larger rocks are small obstacles along the access route. Water as the most critical resource is only in one case within reach of few hundred metres in a lasting reservoir, while at all other sites dwellers probably would have had to benefit from the occasional water or underground water in the nearby wadis. In view of the large distances of far more than 10 km to the still today prolific springs at the mountain, it is unlikely that they would have provided the necessary supply.

The sites tend to cluster loosely and even the one site, which was found to be isolated, may turn out to be part of a larger group of sites once a more intense survey can be undertaken in its surroundings.

The motifs in the art are largely dominated by cattle but giraffe and antelope are also present, sometimes mixed with cattle in a way that no temporal difference between the motifs can be discerned. Human figures are not particularly numerous and normally they do not display much stylistic or polychrome elaboration. This, however, certainly pertains to cattle, which - besides monochrome specimens - can be seen in an enormous variety of patterns of the coat.

In conclusion, one can hypothesise about two spatial patterns linked to rock art, one on the small-

scale level of the site, the other in the wider landscape. In the majority of the cases, the sites are comparatively small shelters providing space or accommodation for a small group of people, e.g. a core family. The presentation of the art exclusively on inside walls and ceilings emphasises the importance of the secluded room and the fencing off from the outside. Into this chamber, the animals were brought through paintings - maybe in order to enter into a secured „dialogue“ with them. Very likely, however, the animals (i.e. cattle) could be kept right next to the shelter since the setting of most sites would have allowed herding them on adjacent plains.

The sites are usually not isolated and due to the flat terrain, negotiation between them is rather easy. Nevertheless there is a certain distance and further research would have to find out, whether a specific minimum spatial entity which contains a site can be established (e.g. by Thissen polygons). It seems that proximity to the level plains with their possibilities of swift mobility had a strong selective impact on rock art sites, thus showing that the mountain area was not visited to provide the security of a "fortress" in a case of a hypothetical conflict although this the terrain would certainly be highly suited in somewhat higher reaches. More likely this mountain was of highly symbolic significance - besides its ecological advantages - where people went when they wanted to find a certain „privacy“ for specific rituals and yet being able to stay close to their cattle, on the one hand. On the other hand, being at locations which at any moment would permit easy and immediate departure as part of their nomadic lifestyle. Generally, the choice of sites can more plausibly be linked to a herder lifestyle than to hunter-gatherers even though a fair number of game animals can be seen depicted. Further research will have to clarify the role of hunter-gatherers in rock art production and use of space.

### *The 2003 field trip*

This visit paid to Djebel Arkenu and Djebel Uweinat was not a systematic research program. Accordingly, the results have to be understood as intense observations based on expert knowledge but not resulting from conventional archaeological research.

Not very deep in the main wadi of Djebel Arkenu, where the valley narrows a bit, a few rock art sites, of which it is hard to believe that no one should have seen them before, were discovered. But there are no hints of them in the literature, which may be due to the



**Fig. 6.** View from the mountain spur into Karkur Ibrahim.



**Fig. 7.** Watershed in the Upper Uweinat. Djebel Kissu is visible in the background of the picture.

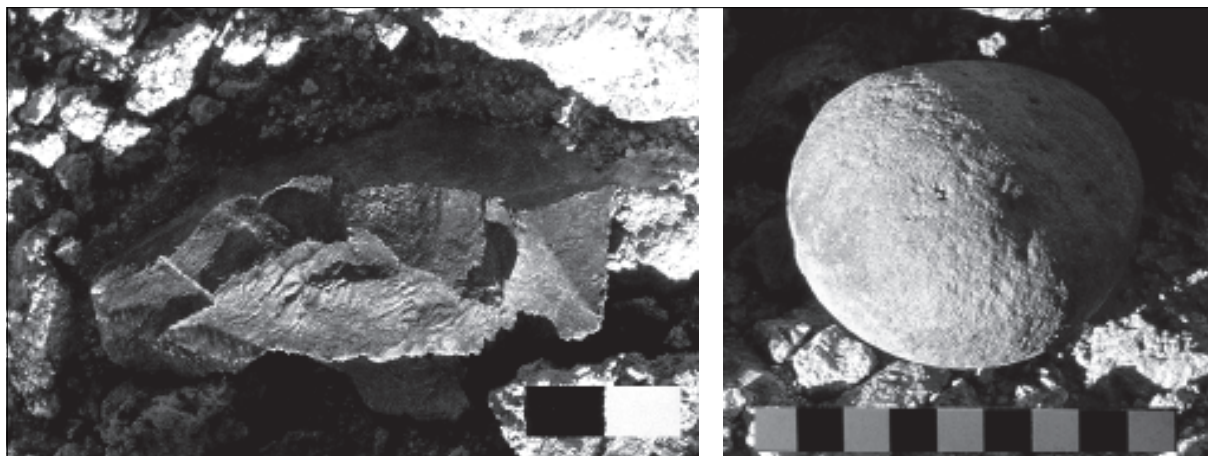
fact that the Djebel Arkenu did never receive the same attention as the neighbouring Djebel Uweinat.

In the Uweinat a mountain spur was briefly examined, which is located about 50 m above the valley floor at the low ridge where Karkur Idriss links with Karkur Ibrahim (*Fig. 1*). The gentle slope of the spur makes an easy ascent. On the way to the top of the spur some archaeological finds were discovered (*Fig. 6*), described in detail below.

A whole day was spent to mount the region of the Upper Uweinat for an archaeological survey. Several ravines filled with granite gravel and boulders were crossed without finding any trace of human presence in the very steep gorges. Smooth valleys which facilitate human dwelling can hardly be found in the upper granite region of the Uweinat. Only one open place was found which seems to fit human needs and there a few isolated artefacts were scattered.

Further up the mountain a pass opens the view to the hinterland of the Uweinat looking straight at Djebel Kissu in the south (*Fig. 7*). It was reached after crossing a large section of the granite part of the Uweinat, taking the route





**Fig. 8.** Artefacts next to the stone structures (left) and an upper grinding stone near the structures (right) on the mountain spur of Djebel Uweinat.

people are likely to have taken over ages which is testified by the stone structures encountered on the pass (*Fig. 7*).

A further short visit was paid to the northernmost valley of the Libyan part of the mountain, called Karkur Hamid. This wadi is a broad and shallow valley filled with gravel which seems to end in a wide basin. In a mound of huge granite boulders traces of human occupation from palaeolithic to recent times were located.

#### *Impressions concerning field archaeology of the 2003 field trip*

On the above mentioned mountain spur in the Uweinat forming a small plateau some 50 m above the valley floor, stone circles were discovered (*Fig. 6*). They caught the eye because most of the small rocks had been put aside to leave room for three stone circles of approximately 1,5 m in diameter, giving the whole configuration a neat and clean appearance. Inside and around the stone circles lay artefacts (*Fig. 8, left*), undecorated ceramic sherds and mill stones (*Fig. 8, right*).

The rock face next to the structures showed a number of very small cavities which seemed to have been worked over by hand. Inside one of the abris, sized to allow an adult to stretch out in full length, mill stones and artefacts were spotted as well as one rock painting (described below).

Not less compelling were the stone settings on the pass in the upper part of the Uweinat (*Fig. 1, Fig. 9*).

Here one can encounter several granite boulders of up to a man's height covered with hundreds of small stones, partly forming little walls on top of the boulders (for a more detailed description see below). Since some stone artefacts lie about next to the structures but no recent leftovers like cans, bottles or the likes, it is quite obvious that this passage has been the usual way to cross the mountain as long as the hinterland of the Uweinat was inhabited and this pass provided shortest access from the southern plains to the Karkurs Idriss and Ibrahim. But presently the age of these stone assemblages right in the middle of the Uweinat is undeterminable and also the unspecific stoneartefacts cannot help to definitely establish the period when this pathway was in use.

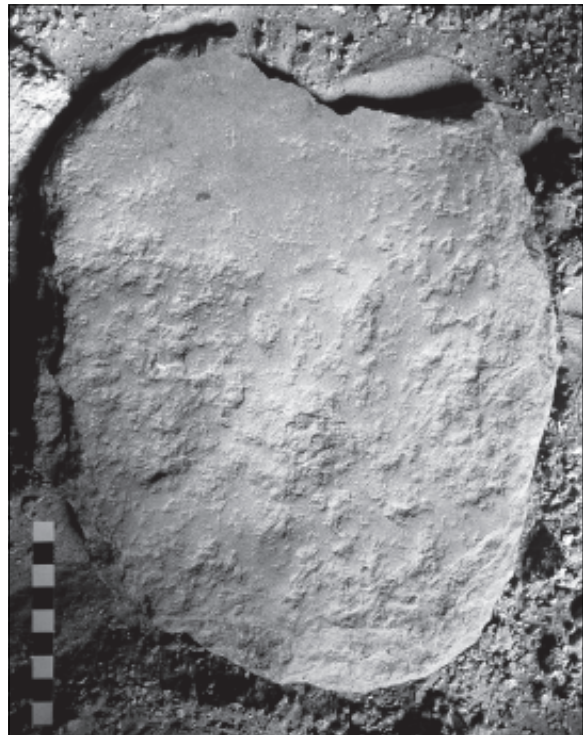
More details were detected on the dwelling place in Karkur Hamid on the northern perimeter of the mountain (*Fig. 1*). Some hand-axes indicate the beginning of habitation in palaeolithic times (*Fig. 10, left*). These stone tools are lying in a wide scatter in front of some granite boulders forming a small shelter (*Fig. 11*). Next to one of the entrances of the shelter and inside of it ceramic sherds, smaller flakes and isolated mill stones were spotted.

A structure inside the shelter is formed by a small wall in front of a painted rock face. Adjacent to it the floor was paved with stone slabs of which a very thin one is shaped in a palette form (*Fig. 10, right*).

Following the foot of the hill formed by granite boulders in northeastern direction, two round stone circles with artefacts and undecorated pottery next to it were found (*Fig. 12*). Similar to the stone circles in the Uweinat, the area around them looked tidy as though all larger stones had been cleared away. A low



**Fig. 9.** A large boulder on a pass in the Upper Uweinat. The watershed between desert and inner mountain is only a metre away from the arrangement. The heaps of fist sized stones on top of the boulder indicate a symbolic landmark in the mountain.



**Fig. 10.** Hand-axes in the sediment of Karkur Hamid (left) and a palette shaped stone inside the Karkur Hamid shelter (right).



Fig. 11. Artefact scatter in front of the rock shelter in Karkur Hamid.



Fig. 12. Stone structures in Karkur Hamid.

artificial barrier, built of stones and including larger boulders between the stone circles and the shelter, indicates that domesticated animals may have been fenced in here.

*Aspects of the rock art encountered during the visit to Uweinat and Arkenu in 2003*

Despite its limited character the field trip of 2003 resulted in some remarkable new observations. The first were two petroglyph sites at Djebel Arkenu. Both are located near each other rather deep in the main wadi draining to the south. There have been no reports on these sites so far, but it is unlikely that they should not have been discovered before since a worn car track passes nearby and an old military camp is only a few hundred metres away. Both sites can be reached very easily and the petroglyphs are well visible.

The sites are of different character concerning their layout as well as the preference of motifs. The first site (*Fig. 13*) is a boulder with a flat top lying directly on the bank of the wadi. The table-like top is somewhat sloping so that the petroglyphs are reasonably well discernible with most of them showing medium to strong repatination although some are fairly little re-



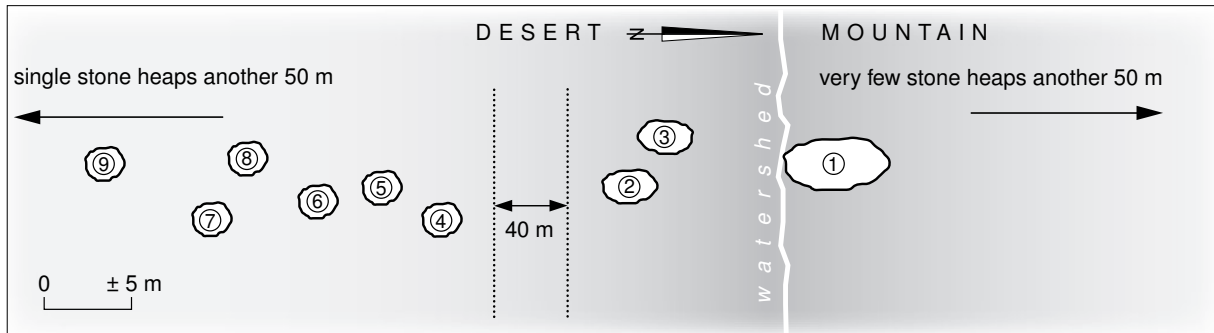
**Fig. 13.** Arkenu I. Petroglyphs at the first Djebel Arkenu site. The body of the oryx antelope is 15 cm long.



patinated. Motifs are rather restricted in their variety with a strong focus on bovids (24 specimens), among which two oryx and a cattle are identifiable. Two canides and two indistinct animals complete the corpus of rock art at this site. All depictions except one bovid are on the main rock. The single bovid can be found on an isolated rock lying about 40 m upstream on the riverbank. Thus, it is still in shouting distance from the site but instead of forming a firm part of the site, it rather forms an intermediary signpost, as it were, on the way to the next site upstream, which is another 100 m away (*Fig. 14*).

This site is located some 20 m above the floor of the wadi on the slope, comprising a perpendicular rock face with two short flanking wings, which also bear depictions. Some metres down the slope lies a large slab, the sloping upper side of which is embellished with some petroglyphs. The character of the locality of this site is quite different from the first one and so are the motifs. Here the ma-

**Fig. 14.** Arkenu II. The main panel of the larger petroglyph site at Djebel Arkenu. The central giraffe has a neck length of 33 cm.



**Fig. 15.** Sketch of the stone markings on the pass in upper Uweinat. The approximate numbers of stones on each of the rocks are as follows: ① >200, ② >100, ③ ca. 30, ④ ca. 30, ⑤ ca. 20, ⑥ ca. 50 (partly fallen down), ⑦ ca. 60, ⑧ 5, ⑨ ca. 30.

majority of depictions are giraffe of which 17 specimens were identified, while there are 16 bovids (including 8 unambiguous cattle but only one clear antelope). Six humans (two with bows) and three ostriches constitute further motifs which are absent from the other site. The petroglyphs on the main wall are large enough and so little re-patinated that they are easily discernible from the wadi floor while the depictions on the wings and on the sloping slab only become visible if one is standing right in front.

At Djebel Uweinat some discoveries which are results of symbolic behaviour were made and which probably have not been made before since they are rather inconspicuous. At the site on a mountain spur next to the intersection of the Karkurs Idriss and Ibrahim in one of the small shelters a depiction was found. It is an antelope painted in dark reddish brown with obviously some white parts on the belly having faded away. The depiction is on the ceiling inside a shelter where a short outcrop forms a small vertical piece of rock face.

More rock art was newly discovered on the northern margin of the mountain at the location in Wadi Hamid which also yielded palaeolithic artefacts. This is a small, well-secluded shelter under some tumbled granite boulders. It is located on a flat spur of a low granite mound in the middle of the wadi (*Fig. 1*). There is a useful flat terrace in front and only a few metres further on to the west the wide flood plain of Wadi Hamid extends.

Here a total of six figures were detected but two of these are nothing more than indistinguishable remains while the other four all seem to be cattle of which only one is fairly well preserved. As usual in the Uweinat, the depictions are on the ceiling well inside the shelter only becoming visible after having entered it.

A discovery of quite a different character was made when climbing several hours to the south into the upper reaches of the mountain, starting from the Karkur Idriss - Karkur Ibrahim junction. As pointed out above, this is a pass (at ca 1120 m.a.s.l.) providing the best access to the inner part with the Karkurs Idriss and Ibrahim when coming from the south (*Fig. 9*). The ravine running south from here, i.e. towards the desert, cuts deep into the flank of the mountain and provides a useful travel route. Towards the inner part of the mountain, the ravine is very narrow and steep and takes one within about three hours to the bottom of Karkur Idriss. When approaching the pass from the inner mountain the natural routes are not as unambiguous as the route coming from the desert plains in the south. This may be an explanation why the stone markings mentioned above, which signify this pass, are much denser on the southern ascent than on the northern one.

Near the pass top, on most of the sizeable rocks whose upper side is within reach of people, one can find heaps of stones mainly the size of an adult's fist. There is no doubt that these stones were put there by passers-by - a practice which is also current to today's nomads. The numbers of stones vary between three and several hundred, according to the availability of more or less flat surface on the supporting rocks and according to proximity to the watershed (*Fig. 15*). The main rock in this configuration is an oblong boulder of 5 m length, 3 m width and about 1.5 m height. It is located only a few steps from the watershed proper and on top of it, passers-by have piled several hundred stones which almost look like a small wall (*Fig. 9*).

### The semiotics of the Uweinat discoveries

Looking closer at both the symbolic expressions found during this visit, i.e. rock art and stone markings, there can be no doubt that rock art is the more complex sign system following conventions of style, motif, colour, composition and so forth. Very likely, specialists made it at special occasions, i.e. it was part of ritual and/or religious activities, which by their nature are linked to the cosmology of people. The sites, on the other hand, do not seem to be so special. In the Djebel Uweinat (but not only there) the locations of rock art lie in the lifeworld of everyday, they are not hidden and there is easy access. Many sites can be identified from afar due to their characteristics concerning size, roof, and open area nearby. Rock art was present every day and accordingly also during mundane activities even though the production and part of its usage probably was sacred. As mentioned before, a conspicuous characteristic of the paintings is (in contrast to engravings) that there is no public presentation; rather the depictions are related to the inner room of the shelters.

The other phenomenon found in the upper Uweinat which links rocks and symbolism are the stone markings reminiscent of Alamaat. Usually Alamaat are human-made stone heaps marking routes through the desert. As isolated waymarks they are well visible and they are of vital necessity for every traveller. However, here on the main pass providing access to the mountain from South, they are different from Alamaat in the desert because they are not needed for orientation since on entering the mountain from the south it is hardly possible to miss this place. Rather the stone heaps are expressions for the esteem of the location, which is the entrance threshold to the mountain as this is the highest point on the natural travel route. Their antiquity cannot be determined but due to the mass of stones, it seems likely that they should have accumulated within many centuries. Judging by the low population density of recent times, probably most of the stones were put in place in prehistoric times.

These stone markings are the result of a comparatively simple sign process: a ready product, a stone, which is meaningless when lying around and which is not involved in a technological process (like, e.g., the grinding of pigment from haematite stones for paintings), gets meaning through being placed at a particular location in the landscape. This is doubtlessly an unspecialised activity in which everyone can participate and accordingly here many hundred stones have

amassed. Although it is a meaningful act, it likely was not linked to any elaborate ritual. Rather this is a gesture linked to concepts which are not as deeply rooted in religious aspects as rock art normally is, it may more likely be an invocation of good luck, a sign of gratitude for easy travelling or a gesture of respect for being able to enter the mountain. A gesture of everyday tangibly connects the landscape to the acts of people, thus putting this landmark firmly on the mental map of everyone who ever passes by here. The custom of putting down a stone on a heap when passing by a particular locus can be found worldwide, e.g. in Namibia, where such stone heaps are linked to the trickster Heitsi Eibib of the Nama (VEDDER 1934: 58).

The semiotic process involved in the making of these stone heaps is not only comparatively simple (in view of rock art), but it is also very restricted in its framing conditions. The sign is an unmanipulated stone and the signified is a particular location in the landscape, which is selected according to its specific topographical properties. Interestingly there are almost no other artefacts to be found on this pass and in particular, there is no rock art, which could add to the meaningfulness of the locus. Consequently, also the meaning is probably restricted - or maybe rather constant. In view of so many stones piled on the rocks it is rather probable that the place was in use over many centuries with a mono-functional meaning, as it were; and accordingly here we are not facing a palimpsest where through the times new meanings were introduced. Rather we may deal with a „vector of meaning“, carrying a basically unchanged message over long periods. With such a vector of meaning through time, we have a strong temporal aspect in the semiotic process where meaning is a stable thing - time is not necessarily a cause for changes of meaning (cf. LEWIS-WILLIAMS 1984: 233). Apparently, if the power of a place in the landscape is as strong as here, the meaning is transmitted through numerous generations and maybe even through different economic systems. This is simply because the place is so characteristic and gives structure to the landscape and the gesture of putting down a stone is a token of what one has achieved when reaching this spot. Even without indigenous informants, we find clues as how to read the landscape in these properties. In order to do so, we have to understand the sign systems and the archaeological artefacts in their state of being interwoven with their setting. This is the whole landscape as the physical milieu of a lifeworld where everything may become replete with meaning, even a single stone on the floor.

## Conclusion

When dealing with a desert landscape where there are recently no people and accordingly no ethnography, methods of research have to be purely archaeological and have to maintain a positivist or empirical epistemology. Consequently, we can only work with the tangible things. But how to proceed beyond the merely descriptive which, as such, provides only little understanding? We can try to access the intangible through the traces of acts of prehistoric people and by finding relevant links among the tangible things. After these preliminary steps, the concluding interpretation which leads to an understanding of landscapes works through a reconstruction of cognitive processes, on the one hand, and through a deconstruction of semi-otic processes on the other hand. In landscapes like the Uweinat (or Arkenu) we find ideal conditions for such research since here the impact of modern human settlement activities is negligible while there is to be found a wealth of archaeological sources.

Notwithstanding the short stay in the Uweinat region, the two visits of the ACACIA members led to some new results concerning the occupation of the mountain. First of all, the archaeological finds in the upper region of the granite part of the Uweinat indicate that people have been moving around there which has not been testified before. It is remarkable that on both tours to the upper Djebel Uweinat occupation remnants have been found on mountain spurs. What is behind the preference of this position in the mountain, half way up to the inner part of the massive? It may be the surveying view from these places, where humans or animals can be spotted over a long distance. It may also be that during the rainy periods the wadis may have become dangerous due to floods coming from the upper areas of the mountain. Accordingly an occupation of a mountain spur was promisingly safer which balanced out the fact that the way to the water resources took longer. Whatever the reasons for dwelling on a mountain spur might have been, it seems probable that people lived there as the stone circles (base of huts or tents), the mill stones, the artefacts and the ceramics indicate. Furthermore, people bothered to clear the stony underground of the potential sleeping places they found in small shelters.

In contrast to the almost sedentary character of the described finds on the mountain spurs, the small scatters of artefacts and ceramic without any traces of dwellings in the upper regions of the mountain point to short termed stays, maybe for hunting and gathering.

Since no excavations have been undertaken, neither on the mountain spurs nor in the upper part of the Djebel Uweinat, all explications mentioned above must be taken as preliminary ideas. Together with the new intriguing finds of rock art in the upper reaches (ZBORAY 2003) these thoughts are certainly suited to trigger further intense interest in the Uweinat and Arkenu mountains as foci of prehistoric lifeworlds. However, regrettable experiences from other parts of the Sahara show that knowledge of such places leads some people not only to make observations and draw conclusions from them - which is acceptable - but also to take away items of the cultural heritage. Therefore the broad interests have to be channeled through measures ensuring the preservation of the natural and cultural heritage. Since three countries "share" in the Djebel Uweinat, i.e. Libya, Egypt and Sudan, all efforts have to be welcomed and supported which aim at embellishing the mountains with a high ranking protective status which, under ideal circumstances, should be designed even including the Gilf Kebir in Egypt. By such a measure a cultural and natural heritage would be under protection which ranks among the world's most valuable such landscapes.

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