Dakhleh Oasis Project Prehistory Group

2008 Final Report

The following report on the activities of the Dakhleh Oasis Prehistory Group is presented in four sections; petroglyphs, Holocene prehistory, geoarchaeology, and Pleistocene prehistory/geoarchaeology.

Section 1. Petroglyphs (Ewa Kuciewicz)

Fieldwork in the season 2007 was carried out from the 28th of January until the 14th of February. The Petroglyph Unit this year consisted of Michal Kobusiewicz from Polish Academy of Sciences, Ewa Kuciewicz and Eliza Jaroni, both from Archaeological Museum in Poznan. All of them act on behalf of the Polish Centre of the Mediterranean Archaeology in Cairo.

The main purpose of the season was the continuation of recording of rock art sites found in the area of so called "Painted Wadi". In 2006 season the research was carried out in the central part of the *wadi*, in 2007 in its northern part, whereas this year the complex survey has been undertaken in the remaining part of the centre of *wadi* and on its southern extreme (Fig. 1).

The fieldwork concentrated in the area, which limits could be confined by the following GPS locations (see Fig. 1):

GPS 1. – N 25° 30`47,9`` EO29° 09` 39,5``
GPS 2. – N 25° 30`48,2`` EO29° 09` 44,4``
GPS 3. – N 25° 29`24`` EO29° 09` 06``
GPS 4. – N 25° 29`30`` EO29° 09` 32``
GPS 5. – N 25° 29`02`` EO29° 09` 04``
GPS 6. – N 25° 29`01`` EO29° 09` 25``
GPS 7. – N 25° 27`38`` EO29° 08` 51``
GPS 8. – N 25° 27`39`` EO29° 09` 12``

All the jebels in the above area have been thoroughly surveyed. 22 sites containing rock art have been located, which together with the sites recorded in the previous years in the remaining parts of the *wadi*, gives us 60 rock art sites in the Painted Wadi itself.

Short description of the 2008 season rock art sites:

Site 1/08

- NE part of the jebel, facing E, on vertical panel ca 3 m above the bottom of the *wadi*. Single giraffe with pecked belly. Numerous unidentified vertical lines.

- NW part of jebel, facing W, geometric signs of various kinds.

Site 2/08
Found already in 2003, recorded this season, on vertical panel facing W scene representing three giraffes being led by men and one unidentified animal (Fig. 2).

Site 3/08
- NE side of jebel, vertical wall, facing E and S. A pair of anthropomorphic figures facing each other, probably man and woman. One more schematic figure of a woman. Two figures of bovids (Fig. 3).
- Single stone laying on the S slope of the jebel. Depiction of three animals.

Site 4/08
- Shelter in the N part of the jebel, petroglyphs on vertical wall and on the boulder lying in front of it. At least six figures of giraffes, one representation of the giraffe`s tail, two palms of hands, three sandals and schematic anthropomorphic figures (Figs. 4, 5).
- SE side of the jebel, facing E, the row of six animals heading S, at least three giraffes in front (Fot. 6).

Site 5/08
Pecked zig zag line.

Site 6/08
Numerous glyphs of sandals, feet, individual scratches and other unidentified motifs (Fot. 7).

Site 7/08
Numerous glyphs of sandals, inscriptions, schematic incised lines.

Site 8/08
Petroglyph depicting two sandals.

Site 9/08
Bovid, two giraffes, birds, geometrical signs.

Site 10/08
Petroglyphs located in four different places of the hill. Pair of feet, two anthropomorphic figures (probably man and woman), unidentified signs and lines.

Site 11/08
Two glyphs depicting antelopes, zigzag lines.

Site 12/08
Small stone outcrop covered by enormous amount of depictions of feet, sometimes nicely decorated, geometric signs, inscriptions, circular objects with marked centre.

Site 13/08

S part of the jebel, on its horizontal outcrop. Numerous depictions of feet (at least three pairs, facing one another, besides three single feet), also a hand, unidentified inscription.

Site 14/08
The hill is covered by huge amount of different geometric signs, figures of man and woman with emphasized sexual organs, *wusum* signs.

Site 15/08
W side of the jebel, facing W, on carefully chosen panel there is a single, very nicely executed depiction of giraffe with geometrically decorated body.

Site 16/08
NW side of the jebel, on small panel about one metre above the bottom of the *wadi*, schematic horse rider and group of vertical and horizontal lines.

Site 17/08
Single geometrical sign.

Site 18/08
Depictions of various birds, ostriches among others, giraffes, single bovid and a figure of man.

Site 19/08
Depiction of a single animal (antelope or giraffe).

Site 20/08
Schematic petroglyph of woman.

Site 21/08
- N side of the jebel – huge vertical wall covered by numerous depiction, among other of an elephant, figure of a man, other animals. On blocks laying below – the remaining part of 'ladies' head, foot and zigzag line, maybe a water mountain symbol. Also facing N, but more to the S of the jebel – beautiful representation of giraffe on the lead.
- S side of the jebel, feet and unidentified lines.

Site 22/08
Petroglyphs on S part of the jebel and on its very top. Numerous representations of feet and sandals, sometimes richly decorated, also schematic animals. On the top of the jebel very elaborate depiction of ornamented sandals incorporated into body of an animal. Also, captured antelope and about seven simplified figures of animals.

As in the previous years, survey of the *wadi* also included noting and recording of any traces of human activity. Numerous sites with potsherds, flint and stone implements were recorded. Only two sites with stone structures were found, one of them, especially interesting, composes one feature with the rock art site #18/08. It is a comfortable shelter, protected from the northern winds, with at least four stone structures build in it, probably remains of huts. On its vertical

walls are numerous petroglyphs (see description of the site). It is a very promising site when considering possible excavation.

Also the experiment with an ochre used for colouring the petroglyphs has been continued – using IFRAO scale, digital photos of scenes made in 2003 have been taken, and with the help of a computer programme will be compared to data obtained in the previous seasons.

The surveying and recording of the Painted Wadi was completed this year. More complex analysis of rock art sites and petroglyphs will now be possible.

Members of the Petroglyph Group:

Prof. dr hab. Michał Kobusiewicz
Institute of Archaeology and Ethnology, Poznań Branch
Polish Academy of Sciences
kobusiewicz@iaepan.poznan.pl

Ewa Kuciewicz
Poznań Archaeological Museum
yevka@interia.pl

Eliza Jaroni
Poznań Archaeological Museum
musawar@poczta.fm

Figure 1.

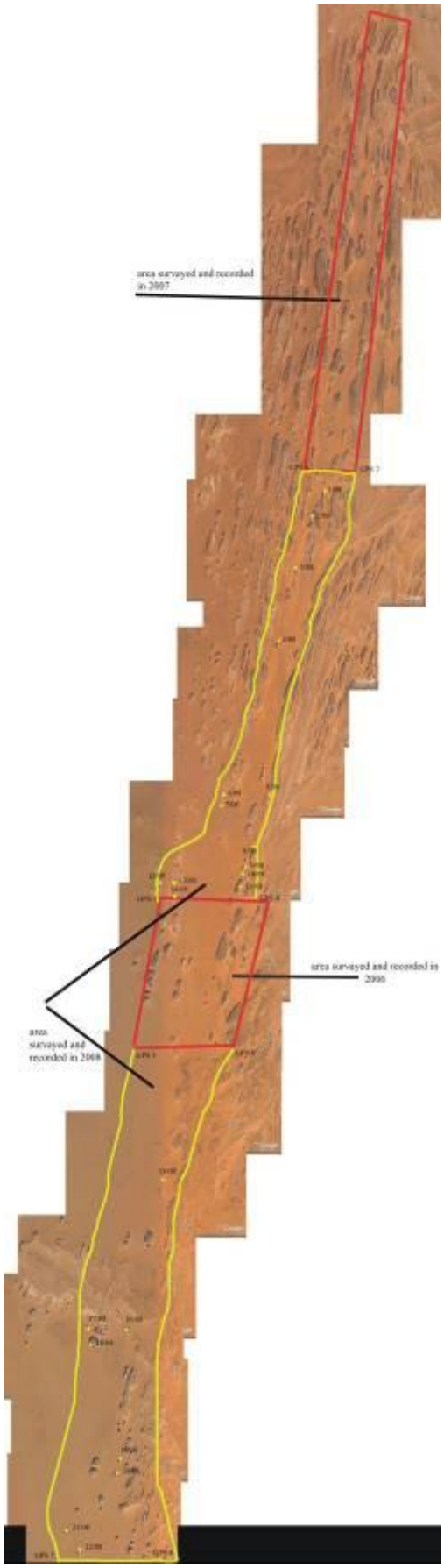
area surveyed and recorded in 2007
area surveyed and recorded in 2006
area surveyed and recorded in 2008

Figure 2.

Figure 3.

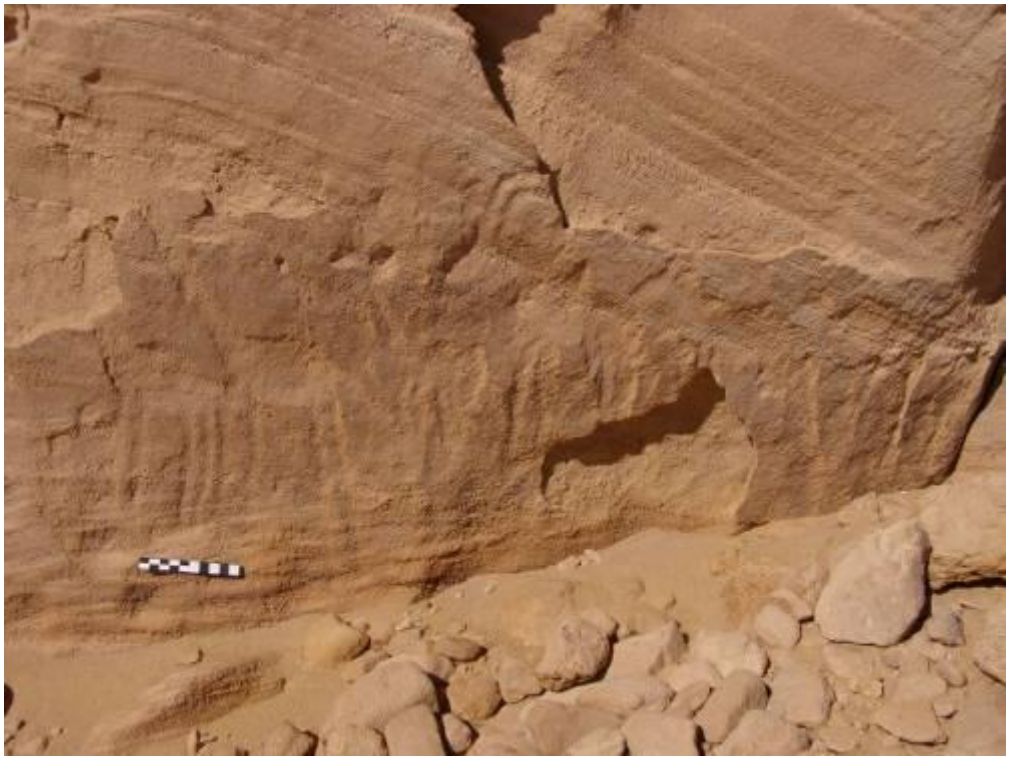

Figure 4.

Figure 5.

Figure 6.

Section 2. Holocene prehistory (Mary M. A. McDonald)

I arrived in Dakhleh Oasis on January 7, 2008 and departed February 22. During this period I spent 2½ weeks, from Jan 14 through Jan 31 in Kharga Oasis, doing fieldwork with the Kharga Oasis Prehistoric Project (KOPP). I spent the other 29 days in Dakhleh Oasis, conducting laboratory research in the Dakhleh Oasis Project dig house in Sheikh Wali. During this time, I worked on research from the Kharga Oasis, mostly material collected during the 2008 season.

The main goals of the Kharga fieldwork were as usual, to refine the Holocene prehistoric sequence preserved in the Escarpment and Plateau above Kharga, and to determine the adaptive pattern of humans during the early and mid-Holocene (10,000 to 4,000 b.p.). In previous seasons, I have defined two major cultural units: 1) the Midauwara Unit, an Epipalaeolithic unit; and 2) the Neolithic Baris unit, subdivided into Early and Late phases. I now suspect that the Midauwara and Baris units are not two completely discrete units. Rather, they may have been more or less continuous occupation throughout the 6000-year period, with the Midauwara Unit archaeological content gradually changing into that typical of the Baris Unit. Investigations in Kharga in 2008 were designed to help to resolve this issue.

The issue is relevant to the understanding of sequences in both Kharga and Dakhleh Oases. Fieldwork in previous years has revealed that the early to mid-Holocene cultural sequences in Kharga and Dakhleh are very closely related, the Midauwara Unit the equivalent of the Dakhleh *Masara* Unit, and the Baris of the *Bashendi* Unit in Dakhleh. In Dakhleh, however, the Masara and Bashendi have always appeared to be discrete units, with an apparent gap between the two. This may reflect the fact that surviving Late Prehistoric sites in Dakhleh are found mostly on the extreme outskirts of the oasis and may represent occupation just in the wettest times. Finds from Kharga may thus help to fill in some of the gaps in the Dakhleh sequence.

In Kharga Oasis there are as yet virtually no radiocarbon dates for Late Prehistory. Accordingly, placing sites within a sequence must be on the basis of relative dating of chipped stone tool assemblages and technological traits.

In the 2008 season in Kharga, a total of 27 Late Prehistoric sites was recorded. Collections were made on 24 of these. On many of them, just a few representative tools were selected. On eight sites, larger collections were made, including controlled samples of debitage as well as tools.

To date, collections from all of the sites have been catalogued and preliminary counts made. All eight of the big collections – tools and debitage - have been completely analyzed. Seven of the smaller collections have been thoroughly studied as well. Some tool groups have been photographed and representative tools and debitage from key collections drawn.

Results of this analysis will be available only when the numbers are crunched and hypotheses tested back at the university. It is hoped, however, that we will be able to demonstrate a relatively continuous development through the early and mid-Holocene on the Escarpment and Plateau edge above Kharga Oasis.

Section 3. Geoarchaeology (Jennifer R. Smith, Katherine A. Adelsberger)

Six days were spent in laboratory investigations this season in Dakhleh. We examined aerial photographs of the Dakhleh Oasis basin and consulted with Dr. Maxine Kleindienst as to the locations of geologic features related to the presence of standing surface water within the region. Dr. Kleindienst alerted us to several fields of ironstone spring mounds in the western portion of the oasis, south of Deir el-Haggar and of Muzawakka and we studied the imagery of those regions in order to compare with spring mound fields which we studied in prior seasons near Sheik Muftah and near Balat. Based on similarities in the geomorphology of the studied and unstudied regions we believe the areas identified by Dr. Kleindienst will prove particularly intriguing and useful in reconstructing the prehistoric geography of the Dakhleh basin.

We also examined samples of spring mound ironstones and spring deposited tufas in the laboratory, in order to better understand the processes involved in their deposition. Distinct differences occur between iron-rich sediments within spring mounds; some are simply quartz sandstones with an iron-rich cement, others are a nearly pure iron precipitate. It is these which preserve fine-scale structures indicative of microbial activity, but macroscopic plant casts (most likely reeds and or grasses) are more typically found in the sandy iron-rich sediments. The variable color of spring mound sediments is likely related to variable geochemistry, with sediments of browner hue more likely to be iron oxides or oxyhydroxides (e.g., goethite), and yellower sediments more likely to be iron sulfates (e.g., jarosite). The cause of purple and green colors in the spring mound sediments can not be determined from simple visual inspection. The sediments all appear consistent with deposition in a shallow water, spring-fed environment.

Spring carbonate deposits, sampled in previous seasons from along the flanks of the Libyan Plateau escarpment near Balat point and along the Gifata promontory exhibit a range of alteration from relatively pristine primary deposits to heavily recrystallized carbonate sediments. Our examination suggests that macroscopic features of the tufa deposit may allow for a tentative assessment of relative age, with better-preserved tufas being younger and more recrystallized, older. However the significant range of preservation within individual strata makes detailed field observations necessary before attempting to use preservation as an age indicator.

Section 4. Pleistocene prehistory/geoarchaeology (Maxine R. Kleindienst)

I arrived in Dakhleh, Ein el-Ghindi base, on January 07, 2008, and departed on February 08th, spending a total of 17 days in Dakhleh. During this time, I spent January 14th through 31st in Kharga Oasis, on fieldwork with the Kharga Oasis Prehistory Project, KOPP.

I spent my time in Dakhleh in 2008 on laboratory research, mainly in routine processing of collections that I made during the 2006 field season of the Dakhleh Oasis Project (DOP) and of the KOPP, work that incorporates updating of the Prehistoric Site Register Books for both Dakhleh and Kharga.

The 2006 DOP collections add a small number of finds to the Middle and Earlier Stone Age aggregates associated with the lacustrine deposits of Palaeolake Teneida and Kellis, and support previous observations (Kleindienst in Bagnall *et al.* 2007). (In 2006, my time in Dakhleh was spent with the 'Meteoritic Working Group'. This intensive fieldwork resulted in there being too little time to process the recovered samples of artefacts and lithic raw materials.)

I also collaborated in the laboratory work of the geoarchaeologists in Dakhleh, J. R. Smith and K. A. Adelsberger, identifying areas of ancient spring vent discharge which I had previously visited, and which they have not yet investigated (Kleindienst 1999; Kleindienst *et al.* 1999). I informed Adelsberger about the archaeological contents of some of the vents that she has already studied. Based upon previous finds, one vent includes cores and flakes of the Younger Middle Stone Age through the Terminal Middle Stone Age Sheikh Mabruk Unit, covering a long period of discharge. Several incorporate artefacts of the Late Pleistocene, Aterian Complex, Dakhleh Unit. Some have yielded generalized Middle Stone Age aggregates; and several other vents include bifaces, cores and flakes of the later Middle Pleistocene, Terminal Earlier Stone Age, Balat Unit. Whether fossil artesian spring vents of different archaeological ages show different depositional environments has yet to be determined (see report by Smith).

I also processed some of the material collected during the 2006 KOPP field season at Kharga Oasis, from the Abu Sighawal and Midauwara areas. Of special interest from Midauwara are: 1)

a collection of small ‘chertballs’ found by C. S. and B. Churcher, which may represent a prehistoric ‘gaming set’ associated with a Midauwara Unit locality; and 2) the large, enigmatic, polished ‘Baris Balls’ associated with Baris Unit, Later Phase, localities, whose function is as yet unknown. The Abu Sighawal, Middle Stone Age surface collection from the area above Caton-Thompson’s trench at ‘Tufa Cliff Wadi’ is a mixture of Older and Younger Middle Stone Age workshop debris, derived from upslope sources (cf. McDonald *et al.* 2006).

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