

Wadi Sura – The Cave of Beasts



University of Cologne
Institute of
Prehistoric Archaeology
Africa Research Unit



CICS

Cologne University
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Cologne Institut of
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Wadi Sura – The Cave of Beasts

A rock art site in the Gilf Kebir (SW-Egypt)

In collaboration with

Franziska Bartz, Erik Büttner, Frank Darius, Frank Förster,
Lutz Hermsdorf-Knauth, Sabine Krause, Hans Leisen,
Heiko Riemer, Jürgen Seidel and András Zboray

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Dating the rock art of Wadi Sura

The archaeological survey at Wadi Sura contributes substantially to the dating of the prevailing rock art tradition in the region, which is well represented at the ‘Cave of Beasts’ (Wadi Sura II), but also at most other rock art sites at Wadi Sura. Correlation with the dominating pottery tradition affiliated with the time period of the Gilf B phase, c. 6500–4400 calBC, provides a time frame for the Wadi Sura paintings. According to this, the prehistoric creators of the Wadi Sura rock art tradition were hunter-gatherers or ‘pastro-foragers’. This tradition completely differs from the paintings of the succeeding cattle pastoralists after c. 4400 calBC.

An absolute time frame for the Wadi Sura paintings

“Rock art is rarely easy to date, either in a relative or calendrical sense” (WHITLEY 2005: 53). Thus one of the major project objectives was to develop a concept on the dating of the Wadi Sura rock art. The study of the archaeological context turned out to be particularly useful in the relative and absolute dating of the rock art of the region. What is termed here ‘archaeological context’ does not only imply the intra-site context and artefacts associated with rock art at a specific place; it also represents an approach on a regional scale, implying that careful analysis of the occupational and economic history of an entire region may provide dates on the rock art as well (cf. DILERNIA & GALLINARO 2010; FÖRSTER et al. 2012).

The regional context was, first and foremost, pursued in favour of gaining information on the occupational history of the region, implying that a number of changes in subsistence and artefact traditions occurred during this sequence, starting with the early Holocene reoccupation of the Sahara in the 9th millennium BC and ending when drier conditions progressed during the 5th to 4th millennium BC (cf. KUPER & KRÖPELIN 2006). Moreover, a relative chronology of the rock art of the Gilf Kebir–Jebel Ouenat region has been developed by ZBORAY (2009; 2012; cf. Zboray, this volume), illustrating the appearance of cattle herders at the recent end of the sequence. It appeared that the frequency in which motif types of specific chronologically relevant style types occur together with artefacts and site types significant for certain chronological phases may provide information on the dating of the rock art.

The most useful group of artefacts to date the sites of Wadi Sura is pottery (Figs. 1–3). The pottery tradition of southern Egypt during the Holocene humid phase is represented by the so-called Khartoum style, featuring medium to thick-walled open vessels (Fig. 4), and distinctive impressed or incised decoration motifs, such as ‘Wavy line’ and ‘Packed dotted zigzag’ (Figs. 2; 3). The analysis of the fabrics (typical compositions of tempering agents to be found in the potsherds, cf. Fig. 1) allows to identify undecorated pottery as well. This is of importance, because most of the potsherds in southern Egypt

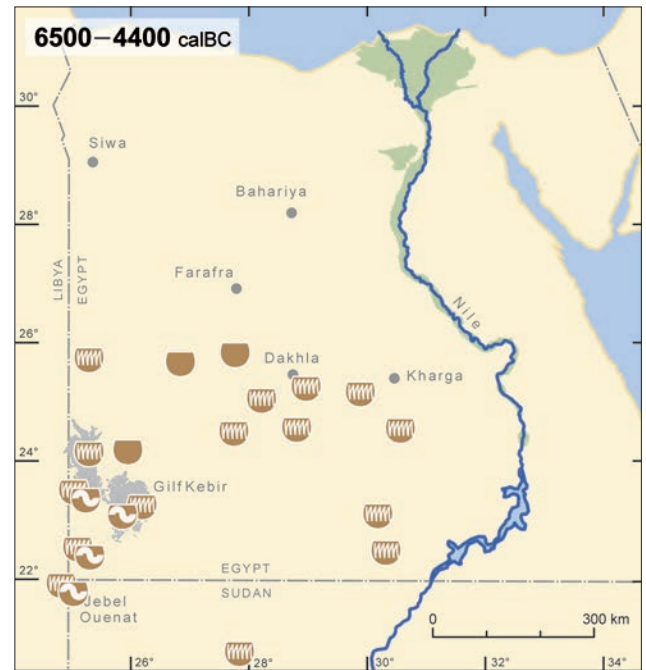



Fig. 2 Distribution of Khartoum style pottery in Egypt's Western Desert between 6500 and 4400 calBC.

Khartoum style pottery:
 Packed Dotted Zigzag Wavy Line only undecorated

are undecorated, such as at Wadi Sura where not more than 5 % of the sherds exhibit surface decorations.

The growing number of ¹⁴C dates in Egypt, either from directly dated potsherds or dates from stratified contexts comprising potsherds, allows to affiliate the tradition of the Khartoum style pottery in southern Egypt much more precisely than some decades ago (Fig. 2; cf. RIEMER & JESSE 2006; KUPER & RIEMER 2010). According to these dates, the Khartoum style pottery tradition starts in most parts of the Western Desert of Egypt around 6500 calBC and begins to disappear from 5300 calBC onwards along with the progressing southwards retreat of the monsoonal summer rains. Eventually, it ends in the Gilf

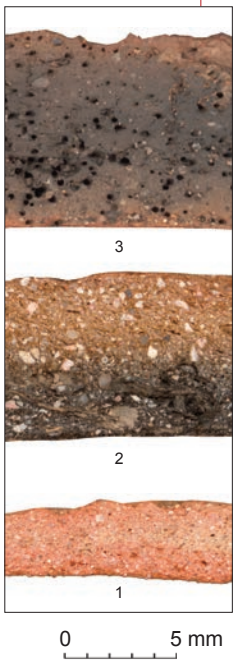
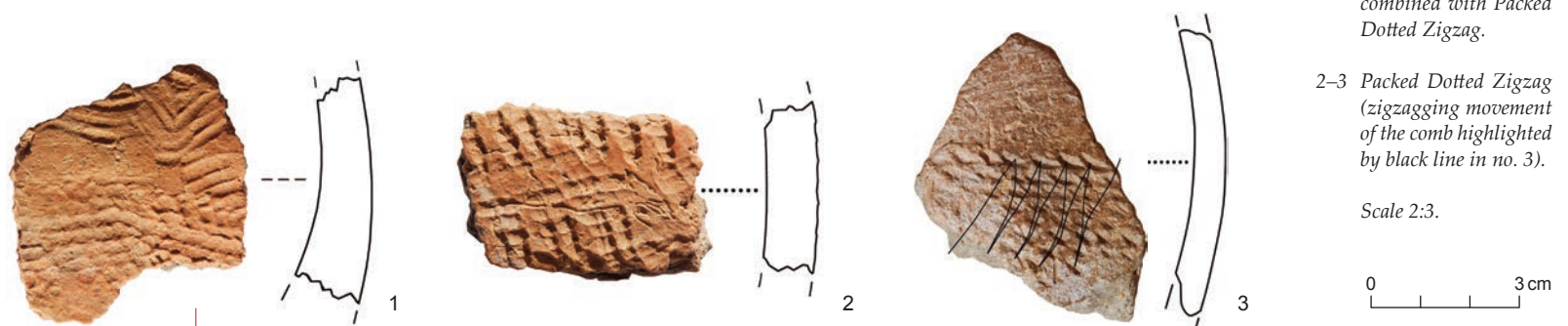


Fig. 1 Fabric analysis helps to identify pottery traditions: Characteristic fabrics in the pottery of Wadi Sura feature a development from highly mineral tempers in the early Gilf B phase (1) to plant tempers in the late Gilf B phase (2 and 3). Scale 3:1.

Fig. 3 Characteristic Khartoum style decorations on potsherds found at Wadi Sura:



1 Incised Wavy Line combined with Packed Dotted Zigzag.

2–3 Packed Dotted Zigzag (zigzagging movement of the comb highlighted by black line in no. 3).

Scale 2:3.

Kebir and Jebel Ouenat region by 4400 calBC, succeeded there by a new tradition of thin-walled small vessels with fine impressed or incised surface decorations, such as the herring bone motif (cf. KUPER 1981: 236, fig. 13,1; SCHÖN 1996; LINSTÄDTER 2005), which can be affiliated to a period between approximately 4400 and 3500 calBC.

At Wadi Sura one-third of the total number of (about 400) investigated sites yielded pottery. The result of the analysis of a total of almost 2200 potsherds found on these sites highly supports the conclusion that the major occupation of the area took place during the so-called 'Gilf B phase', c. 6500–4400 calBC, given the fact that c. 98% of the potsherds, and c. 97% of the vessels represented may be affiliated with the Khartoum style pottery (Fig. 5).

In contrast to the sites yielding Gilf B phase pottery, there are only very few and short-term sites from the post-dating Gilf C phase, c. 4400–3500 calBC, featuring the aforementioned thin-walled vessels. Moreover, the preceding Gilf A phase (c. 8500–6600 calBC), which is aceramic both in Wadi Sura as well as in most parts of the Western Desert of Egypt, is evidenced at only a few sites by characteristic elongated microlithic elements and a typical blade technology in the lithic material. Thus, there is ample evidence to conclude that the Gilf B phase represents the climax of the prehistoric occupation history at Wadi Sura.

Regarding the relative chronology of the rock art styles, Zboray (this volume: 22) recognises two major style complexes (Fig. 6). The earlier style complex comprises the so-called 'Ouenat roundheads', the 'Elongated roundheads', the 'Miniature style', and the 'Wadi Wahesh style' occurring in Jebel Ouenat and its surroundings, while the Gilf Kebir is predominantly characterised by the 'Wadi Sura' paintings. The latter features the 'headless beasts', the 'swimmers', and possibly hand stencils. The later style complex in the entire Gilf Kebir–Jebel Ouenat region is the rock art of the 'Cattle pastoralists'. At Wadi Sura, however, it is easy to recognise that the 'Wadi Sura' paintings clearly dominate the rock art, while cattle and associated representations of the cattle herders are few. Given the very small amount of Gilf C pottery and the few representations of cattle herding scenes in the rock art of Wadi Sura, it is highly probable that the rock art of the cattle pastoralists developed during the Gilf C phase, c. 4400–3500 calBC. In turn, taking into account that most of the rock art found in the Wadi Sura area can be affiliated to the 'Wadi Sura' paintings, it is highly probable that this style connects to the Gilf B phase, c. 6500–4400 calBC (cf. p. 17, fig. 11).

It can not fully be excluded that some regional rock art dates back to the early Holocene (or epipalaeolithic) Gilf A phase (c. 8500–6500 calBC). Yet, sites typical for this phase are few at Wadi Sura, and it is, therefore, suggested that the majority of rock art of the 'Wadi Sura style' was produced during the Gilf B phase which marks the zenith of prehistoric settlement activities in the region.

*** Phases and absolute dates mentioned in this book:**

Naming and order of archaeological phases (Gilf A, B and C) follow the sequence established by LINSTÄDTER (2005) on the Wadi Bakht archaeology (cf. LINSTÄDTER & KRÖPELIN 2004). Yet, the absolute time frames of these phases (given here in calibrated years BC) have been revised on the basis of a comprehensive pottery analysis of key archaeological sites in the Western Desert of Egypt (cf. RIEMER 2009; KUPER & RIEMER 2010; RIEMER 2012: 339).

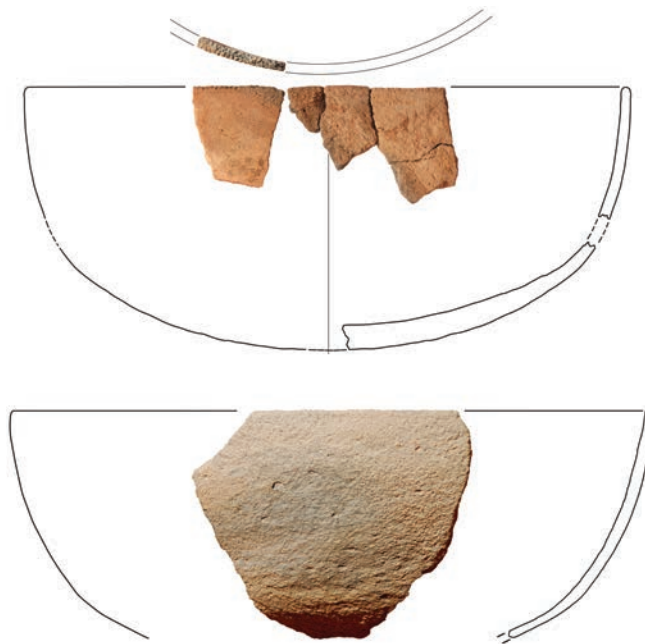


Fig. 4 Vessel shape and size of Khartoum style pottery from Wadi Sura.

0 10 cm

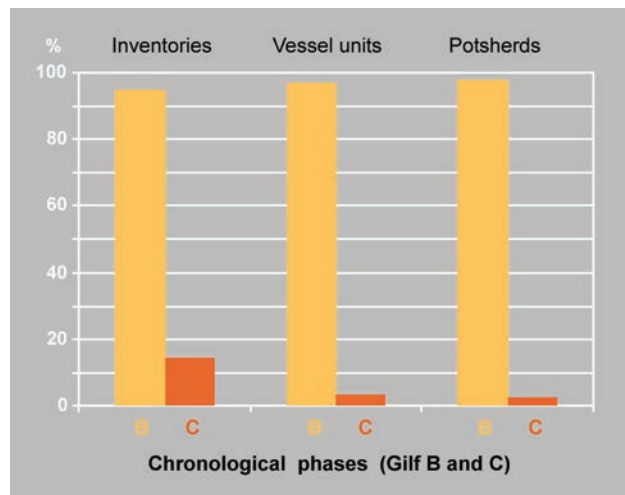


Fig. 5 The majority of pottery recorded during the Wadi Sura survey can be affiliated to the Gilf B phase (c. 6500–4400 calBC), while the number of Gilf C phase pottery (c. 4400–3500 calBC) is very small. Pottery frequencies are presented in the graph by the number of pottery sites (inventories), vessels represented ('vessel units'), and potsherds.



Absolute dating*
 — c. 3500 calBC
Gilf C
 — c. 4400 calBC
Gilf B
 — c. 6500 calBC
Gilf A
 — c. 8500 calBC

Fig. 6 The two major rock art style complexes in the Gilf Kebir (styles and sequence adapted from Zboray, this volume) and the suggested absolute dating based on the frequencies of pottery found at Wadi Sura.

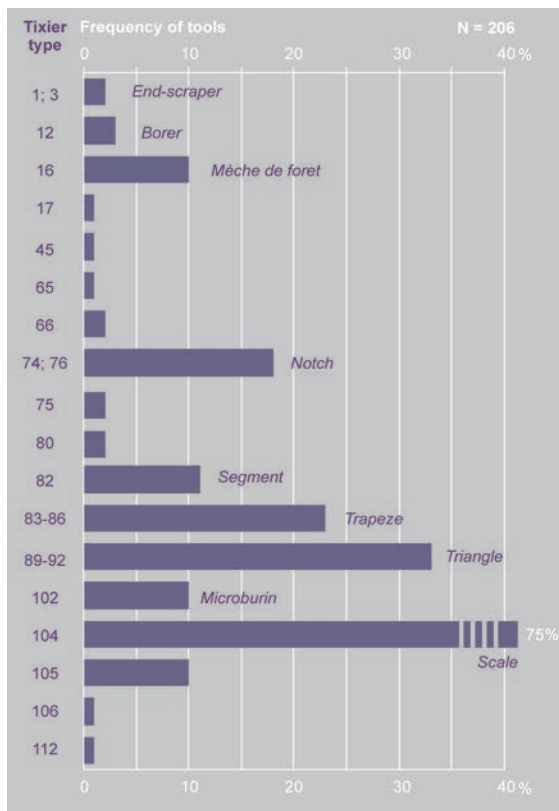


Fig. 7 Frequencies of chipped stone tools excavated from site 10/29-1, listed by type numbers according to TIXIER (1968). The graph illustrates the importance of microlithic elements during the Gilf B phase, in particular arrow insets, such as segments, trapezes, and triangles (see opposite page). The tool proportions provide a more precise 'fingerprint' of the Gilf B phase rather than single artefacts collected from the surface. Above: Gilf Kebir National Park ranger Tamer Ramadan Zayed picking microliths from the screens during the field school excavation of 10/29-1.

Some characteristics of the 'Gilf B phase'

Pottery is the most distinctive artefact class to be used in the dating of the prehistory of southwest Egypt, yet there are also a number of characteristic stone artefacts to be found at Wadi Sura which allow chronological affiliations, the most important elements of which are listed in the type sheet on the following page.

Single surface artefacts recorded during the archaeological survey may help to identify the chronological setting of a site, yet it is needed to gain more detailed statistical data on frequencies of stone tools, blanks, and production waste to arrive at a more substantial defini-

tion of the lithic tradition of the Gilf B phase. Therefore, a number of small excavations were performed at selected sites. The painstaking examination of thousands of chipped lithic pieces recovered from the excavations yielded a more precise picture of artefact patterns in the assemblages (Fig. 7).

Among the chipped stone artefacts, microlithic tools and characteristic small chips, flakes, and cores resulting from the production of microliths are very frequent among the Gilf B phase material. They represent the key material of this phase, allowing for a certain association, because they do not occur frequently in earlier or later phases. The characteristic microlithic tools comprise, in particular, tiny triangles, trapezes, and segments which were used as arrow heads. Moreover, specific raw materials, such as quartz, chalcedony, or fine quartzites were used in the microlithic production, while larger and less formal tools, such as scrapers were preferably made from coarser quartzites, which form the primary geological source of stones in the Wadi Sura region (Fig. 8).

Excavations provided not only a mass of lithic material and pottery, but also a number of other objects, such as bones, dung, and pigments. When found associated with potsherds or distinctive stone artefacts in layers or pits, the key artefacts permit to determine the age of the



Fig. 8 Intact knapping place of coarse blackish quartzite on the desert surface. This raw material was used to produce large informal tools, such as scrapers. It is the most frequently flaked material at Wadi Sura.

Hunters bring down gazelle and giraffe—Evidence from bone analysis

Test excavations did not only gain detailed information on artefact frequencies, but on subsistence patterns as well: According to identifications by archaeozoologist Hubert Berke, a bone pit on the camp site 10/86 (right) contained the slaughter waste of gazelle, antelope and giraffe. Apparently, the giraffe was cut on the spot where it was brought down, and only parts of the body were transported to this camp site to be boned and consumed.



Mandible of *Gazella dorcas*.



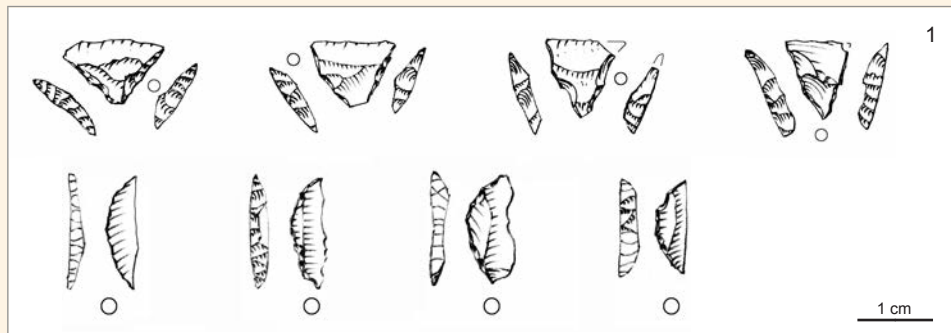
Environmentalist Ahmed Ebaid excavates fragments of a giraffe leg during the field school to develop skills in archaeology and environmental studies.

entire assemblage. Thus, we may deduce that, e.g., pieces of red ochre and painted rock pieces dropped from the rock walls affiliate with the Gilf B phase (Krause et al., this volume).

Likewise, site-contexts give information on the subsistence performed during the Gilf B phase. Although bone material is poorly preserved, there is evidence from some sites that gazelles and other game were hunted, thus pointing to a predominant hunter-gatherer strategy of the people at Wadi Sura. Yet it can not be excluded that goat or sheep keeping started to marginally complement the economy of the prehistoric groups from the 6th millennium calBC onwards (cf. RIEMER 2007: 'pastor-foragers'). However, a fully fledged pastoralism—both in economy as well as in social relations—obviously did not develop a before the Gilf C phase (c. 4400–3500 calBC) when rock art begins to show intensive cattle herding and points to a cattle centred ideology that is inherent to pastoral nomads (cf. KUPER & RIEMER 2013).

Lithic type artefacts of the Gilf B phase, c. 6500–4400 calBC

This sheet assembles typical flaked and ground tools from the thousands of lithic artefacts recorded or excavated at Wadi Sura. These tools are characteristic of the major occupation phase at Wadi Sura: the Gilf B phase, c. 6500–4400 calBC.



Triangles, trapezes, and segments used as arrow heads or insets in arrow shafts are among the most significant lithic tool types to be found during the Gilf B phase, indicating that hunting played a major role in the subsistence of the prehistoric dwellers at Wadi Sura. Where animal remains are preserved, bones indicate the kill of gazelles, antelopes, and even giraffes.

Grooved abraders are suggested to have been used to polish wooden arrow shafts. They appear to become very frequent during the later Gilf B phase. The alternative view that they were used to shape ostrich egg shell beads is less likely, given the low number of beads found in context with grooved abraders at Wadi Sura.

Grinding implements become frequent on Gilf B sites. In the absence of cultivated plants, large block- or slab-like lower grinding stones, together with the lighter handstones, were likely used to process wild seeds and tubers.

The distribution pattern of handstones indicates that they become smaller and more rectangular in the late Gilf B, thus suggesting to constitute the ancestor of the so-called 'Gilf type' handstone known from the succeeding Gilf C phase.

Likewise, palettes appear during the late Gilf B together with elongated pestles. It is suggested that they were preferably used to powder colour pigments.

1 Transversal arrowheads and segments made of quartz, chalcidony, jasper, and fine quartzites. Scale 1:1.

2 Grooved abraders made of fine sandstone. Scale 1:2.

3 Notched pieces may have been used to burnish wood shafts. Scale 1:1.

4 Scaled pieces ('scales') are frequent by-products of bipolar knapping of quartz pebbles to produce microlithic elements. Yet, they were probably used as tools as well: e.g., as chisels to split bones or to produce peckings and carvings in rock art. Scale 1:1.

5 Palette and pestle from a late Gilf B phase site.

6 Lower grinding stone made of quartzitic sandstone ('ortho-quartzite').

7–10 Evolution of handstones from late Gilf B types (7–9) to the 'Gilf type' handstone of the Gilf C phase (10).

