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**The ‘Cave of Beasts’ (Gilf Kebir, SW Egypt) and its
Chronological and Cultural Affiliation:
Approaches and Preliminary Results of the
Wadi Sura Project**

by

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KEYWORDS. — Egyptian Sahara; Gilf Kebir; Wadi Sura; Rock Art and Contextual Landscape Archaeology; Mid-Holocene; Prehistory; Gilf B Phase.

SUMMARY. — The so-called Wadi Sura II shelter in the western Gilf Kebir (SW Egypt), widely known as the ‘Cave of Beasts’, ranks among the most important prehistoric rock art sites in the Sahara. Accidentally discovered in 2002 by M. Foggini, the shelter’s rear rock wall bears thousands of well-preserved painted figures — humans, various animals including strange headless beasts, and others — as well as some engravings and a large number of hand stencils. Due to their exceptional richness and variety in terms of motifs and styles, the representations, often showing superimpositions, offer unique insights into a past cultural world when living in this remote area of the Libyan Desert was still possible.

Since 2009, a joint project of the University of Cologne, the *Deutsches Archäologisches Institut*, Cairo Department, and the Cologne University of Applied Sciences has been devoted to the meticulous documentation and analysis of this site and its drawings, but also aims to investigate the palaeoenvironmental and settlement history of the whole Wadi Sura region, including the famous ‘Cave of Swimmers’ (Wadi Sura I) already discovered in 1933. This paper reports on some preliminary results of the project, focusing on the role of contextual landscape archaeology as a means to determine the general chronological and cultural setting of rock art in arid regions. The evidence gathered so far allows us to attribute the drawings displayed in the ‘Cave of Beasts’ (as well as at most other rock art sites in the region) to a hunter-gatherers’ society roaming the area within a time span of between c. 6500 and 4400 calBC (‘Gilf B phase’).

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Introduction

The so-called Wadi Sura region is part of the western Gilf Kebir, a vast mountain massif some 700 km from the Nile Valley in Egypt's Western Desert (fig. 1)*. The Arabic designation 'Wadi Sura' (or 'Wadi Sora'), 'Valley of Pictures', goes back to the year 1933, when the Hungarian desert explorer Laszlo Almásy led the German scholars Leo Frobenius and Hans Rhotert to a number of prehistoric rock art sites in the Gilf Kebir/Jebel Ouenat area. During the expedition, Almásy discovered within this valley, among a few other rock art sites, a large decorated shelter, which has become known as the 'Cave of Swimmers' (ALMASY 1936, pp. 78-80, pls. X-XI, XIII; ALMASY 1999, p. 321; LE QUELLEC *et al.* 2005, pp. 167-182, figs. 414-455; ZBORAY 2009, site WG 52). Indeed the most striking motifs among the paintings were some representations of humans lined up horizontally as if they were floating or swimming. There was also a drawing, partly destroyed, of a strange headless beast, which was, by then, without any parallel and thus not well understood. Documented in 1935 and published by Rhotert in 1952 (RHOTERT 1952, pp. 52-70, fold-out opposite p. 52, pls. XXIX-XXXII, especially pp. 58-61, pl. XXX.1, 3-7), these unusual motifs did not receive much scientific attention for many years.

In 2002, Massimo Foggini and Ahmed Mestekawi discovered, at a hill only 10 km to the north-west of the 'Cave of Swimmers', another large shelter displaying rock art motifs very similar to the latter (LE QUELLEC *et al.* 2005, pp. 193-237, figs. 526-664; ZBORAY 2009, site WG 21). Although this new site is meanwhile widely known as the 'Cave of Beasts' due to several representations of the strange headless creature just mentioned, or as 'Foggini/Mestekawi Cave', we prefer to call the sites 'Wadi Sura I' and 'Wadi Sura II', respectively.

The Wadi Sura II shelter is perched high on the hillside and partly filled with wind-blown sand that has accumulated over millennia (fig. 2). The decorated surface of the rear rock wall, covering an area of about 18 m in width and up to 6 m in height, bears thousands of well-preserved figures, mostly painted, but there are also some engravings (fig. 3). Among the various motifs, hundreds of hand stencils occur, as do wild animals such as ostrich, giraffe and gazelle or antelope, whereas distinct representations of cattle, otherwise often attested in the Gilf Kebir/Jebel Ouenat rock art (ZBORAY 2009), are, remarkably, lacking. The most important subject for the prehistoric 'artists', however, was humans. Some of them are shown with bows and arrows, perhaps pointing, in combination with the apparent absence

* Cf. figures at the end of the text (pp. 210-216).

of cattle drawings, to a society of hunter-gatherers rather than to a community of pastoralists. Although women marked as such in the representations are comparatively rare, the community's solidarity is a basic topic, which becomes visible in many group scenes. Some of them are very lively and dynamic in expression and show humans apparently engaged in some kind of dancing or ritual activity (fig. 4).

The mysterious headless beasts, which seem to be restricted to the Wadi Sura region and its surrounding area, occur several times and are often surrounded by small human figures. Some of them are touching the beast, which apparently consists of parts of different animals and is usually shown with only two or three legs and a long, raised tail (fig. 5). Obviously it does not represent a real animal, but is to be regarded as something imaginary. There are scenes where humans seem to be 'swallowed' by the beast or 'offered' to it, at the place where instead of the creature's head just a hollow or slit has been indicated. And again we meet the so-called 'swimmers' (fig. 6), another characteristic of what can be termed the 'Wadi Sura style' (ZBORAY 2009).

Due to the exceedingly rich and complex rock art, which offers unique insights into a past cultural world, the Wadi Sura II shelter certainly ranges among the most important prehistoric sites in the entire Sahara. In recent years, attempts have been made to directly link its imagery with ancient Egyptian mythological and religious concepts (LE QUELLEC *et al.* 2005; LE QUELLEC 2005, 2008, 2010; D'HUY 2009; BARTA 2010; GEORGE 2010), culminating in the statement that the Gilf Kebir is to be regarded as the 'possible place of birth of ancient Egyptian civilisation' (BARTA 2010, p. 22). Considering the spatial as well as chronological gap between the prehistoric rock art of the central Libyan Desert and Pharaonic beliefs in the Nile Valley, such as expressed in the Coffin Texts or in the Book of the Dead, this approach must, however, be regarded as highly speculative (KUPER 2011, FÖRSTER & RIEMER 2011) [1]*. Before daring any far-reaching interpretation, the documentation, preservation and thorough analysis of this exceptional rock art site should be primary objectives — the more so, as the integrity of the archaeological context is meanwhile seriously endangered by touristic activities (KUPER 2007, fig. 7; KUPER 2009).

The Wadi Sura Project

In 2009, a joint project of the University of Cologne, the Cologne University of Applied Sciences and the *Deutsches Archäologisches Institut*, Cairo

* The number in brackets [] refers to the note, p. 207.

Department, started to achieve these objectives (KUPER *et al.* 2009a, b, 2010; KUPER 2011). Directed by Rudolph Kuper, Hans Leisen and Stephan J. Seidlmayer, the Wadi Sura Project is also devoted to the investigation of the landscape archaeology of the region in order to provide a contextual framework to determine the chronological and cultural setting of rock art. Before dealing with this second focus of the project (see below), the main work that was conducted, during three field seasons from spring 2009 until spring 2010, within the Wadi Sura II shelter itself (labelled Wadi Sura 09/2 in our site catalogue) should briefly be summarized. It fell into the following parts (for details, see the reports on the individual campaigns accessible on our website: <http://wadisura.phil-fak.uni-koeln.de/7236.html>):

- A drilling series that was carried out in spring 2009 in order to assess the depth of the sand fill and to detect possible cultural layers underneath. Due to technical reasons, the drillings had to be stopped after reaching a maximum depth of about 3.5 m, without touching the bedrock. Neither artefacts, nor organic material pointing to a former habitation floor were found. The sediment fill consisted of eolian, sterile sand, with some broken rock falls embedded, and at that point of time it had to be expected that the drawings on the rear rock wall would continue for some metres below the present surface.
- The systematic recording of the visible rock art: In view of thousands of figures and restrictions of time, the detailed recording of the drawings, adopting criteria established by Tilman Lenssen-Erz for the rock art at the Brandberg in Namibia (*cf.* Lenssen-Erz in PAGER 2006, pp. 465-478), requires special means. In cooperation with Reinhold Goss, ‘CaveOne’, a database-driven computer system based on FileMaker, was developed and applied on site. Using standardized value-lists as well as graphic charts, it allows a rather fast recording of each single figure according to its main characteristics, such as colour, size and style, orientation, shown posture and action, superimpositions, body decoration, and others (KUPER *et al.* 2009b, pp. 10-11, fig. 11). This ongoing computer-aided recording will facilitate a subsequent search for individual motifs, characteristics or decorative patterns. It will also help to establish a relative chronology of the various motifs and styles, based on the many superimpositions that can be observed on the decorated rock face. For example, most of the hand stencils belong to a period earlier than that of the human figures painted in red-brown, and most of the figures painted in yellow belong to a later one. The space of time, during which drawings were produced in the shelter, is of course not easy to define, and some paintings almost

disappeared and are hard to identify. The visual enhancement of faded colours by modern image processing (using, *e.g.*, the ImageJ/DStretch program, *cf.* <http://www.dstretch.com>) may contribute to a better assessment of such traces.

- In autumn 2009, a three-dimensional laser scanning and digital photogrammetry of the shelter was conducted by Erik Büttner (*Zoller+Fröhlich GmbH*). This data collection can be used for various purposes, ranging from the creation of plans, maps, sections and an overall grid system for the further rock art recording up to the possibility to produce a replica of the shelter for exhibitions. It may also provide a reference system for a virtual visit of the site in an internet application or on DVD.
- Hans Leisen and Sabine Krause explored and documented the state of preservation of the shelter's rock and rock art. A variety of weathering forms and damage symptoms were recorded and mapped, for example the crust reduction that was probably caused by wind-blown sand, or abrasion by animals and/or humans during the prehistoric occupation of the site. Among other work carried out by the conservation scientists, the non-destructive pigment analysis of paints as well as the study of painting techniques should be mentioned.
- In April 2010, a systematic, high resolution digital photographic documentation of the exposed decorated surface was conducted by Jürgen Seidel (*cf.* fig. 3). This will form the basis for the final, comprehensive publication of the rock art at Wadi Sura II.
- Finally, during that season a test excavation was carried out in the eastern part of the shelter, close to the rock face (fig. 7). Except for some plant remains and animal droppings, probably from goats, only sterile eolian sand was present — no artefacts and no indication of a former habitation floor up to a depth of more than 2 m. Nevertheless, it turned out that the rock drawings in this part of the shelter continue only for about 1 m below the sand level, less than suspected. So, future excavations will indeed expose many more drawings in the 'Cave of Beasts', but, fortunately, they will come in a manageable number.

Archaeological Survey and Approaches in Context Dating of Rock Art

The project's second approach to understanding the rock art of Wadi Sura is the study of its archaeological context. This approach turned out to be particularly useful in the relative dating of the rock art of the region. What

is termed here the archaeological ‘context’ does not only imply the intra-site context and its artefacts associated to rock art at a specific site; it also represents an approach on a regional scale, implying that careful analysis of the occupational history of an entire region may provide dates on rock art as well (fig. 8).

The intra-site context usually includes excavations below rock art panels in the hope of discovering stratigraphically-buried fragments that had dropped off the panel, or tools and materials used in the making of pigments and rock depictions. The stratigraphical context can be dated by chronologically-distinctive artefacts or absolute dating methods, the results of which may provide useful ages for the tools used in the making of the art, or minimum ages for the art in case of decorated fragments spelled from the panel. This approach was adopted not only at Wadi Sura II by partly excavating the sand fill below the shelter, but also at a number of other rock art shelters, the most impressive results of which yielded the excavation at a site listed as Wadi Sura 10/29. Although less certain, surface artefacts found in rock art shelters may also provide some indication of the periods when the site was used.

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 (KUPER & KRÖPELIN 2006). Moreover, we hoped to find insight into aspects of site types and functions, and how specific sites were integrated into the landscape. Eventually, 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 rock art. This approach turned out to be appropriate because of a number of preconditions, some of which were not fully to assess at the beginning of the survey:

- A number of studies of the climatic and occupational sequences of the Western Desert of Egypt, in particular SW Egypt, already existed, including an overview of the material culture and archaeological key types to be found during a sequence of three phases from about 8500 to 3500 BC (SCHÖN 1996, LINSTÄDTER & KRÖPELIN 2004, LINSTÄDTER 2005).
- It was also known that some economic changes occurred during this sequence, in particular the introduction of domesticated animals and the adoption of a pastoral lifestyle, which might have left traces in rock art as well as in the artefact assemblages.

- A relative rock art style chronology was developed by ZBORAY (2009), illustrating the appearance of cattle herders in the second half of the sequence.
- While these aspects were known at the beginning of the survey in 2009, it appeared even after gaining a preliminary insight into the archaeology of the region that Wadi Sura is represented by a significant pattern in the distribution and frequency of rock art styles and tool traditions. This fact allowed us to draw basic conclusions concerning the dating of regional rock art.

Pottery and the Regional Context Dating

One third of the total number (about three hundred and forty) of investigated sites at Wadi Sura yielded pottery. When finally examined, they will provide further information about the chronological position of the inventories. As a preliminary result, according to the analysis of four hundred and eighty-six potsherds found during the 2009 campaigns, the pottery now highly supports the conclusion that the major occupation of the area took place during the Gilf B phase (c. 6500-4400 calBC; labelling of Gilf Kebir phases according to LINSTÄDTER 2005), given the fact that about 95 % of the potsherds and about 85 % of the inventories where pottery has been recorded, can be affiliated to this phase (fig. 9).

The ceramics of the Gilf B phase comprise large open vessels of Khartoum style pottery (fig. 10), which is characteristic for southern Egypt (RIEMER & JESSE 2006, KUPER & RIEMER 2010). Decorations, though few, feature in particular the 'Packed Dotted Zigzag', but also 'Dotted' and 'Incised Wavy Line'. By far the largest number of potsherds, however, is undecorated, apart from rim decorations which occur relatively frequently. The undecorated material can easily be affiliated to the Khartoum style complex by means of the fabrics (*i.e.* types of tempering), which are in contrast to the ceramic material of later periods.

In contrast to the sites yielding Gilf B phase pottery, there are only very few and short-termed occupation sites from the post-dating Gilf C phase (c. 4400-3500 calBC). Moreover, the preceding Gilf A phase (c. 8500-6500 calBC), for which pottery is still lacking, both in Wadi Sura as well as in most parts of the Western Desert of Egypt, is evidenced at very few sites by characteristic elongated microlithic elements and a typical blade technology in the lithic material.

In sum, there is ample reason to conclude that the Gilf B phase represents the climax in the prehistoric occupation history at Wadi Sura. This is

supported by a number of observations, such as the fact that the Gilf B phase has yielded by far the largest and most diversified camp sites in the area, while Gilf C phase sites are extremely small and exhibit a very ephemeral character.

Regarding rock art, there is Andras Zboray's fundamental catalogue of more than eight hundred rock art sites from the Gilf Kebir/Jebel Ouenat region published in 2009 (first edition published in 2005), which allowed him to draw a number of warranted conclusions on stylistic diversity and the relative chronological position of some of the styles (ZBORAY 2009). The latter is mainly based on superimpositions at a number of key sites where motifs of different styles overlap. The preliminary definitions of the styles and their position within a chronological framework established by Zboray can, therefore, be regarded as the best outline of the rock art sequence currently available for the region.

In simple terms, Zboray has recognized two major style complexes. The earlier style complex comprises the so-called 'Ouenat roundheads' and the 'Small human figures' occurring in the Jebel Ouenat and its surroundings, while the Gilf Kebir is mainly characterized by the 'Wadi Sura style'. The latter features the 'headless beasts', the 'swimmers', and possibly hand stencils, though the latter apparently predate the beasts and 'swimmers' and are to be found in other regions as well. The later style complex is the 'Cattle herders style'. The pastoral subsistence vividly highlighted in the rock art of this style is regionally more homogenous and occurs from Jebel Ouenat to the Gilf Kebir. At Wadi Sura, however, it is easy to recognize that the 'Wadi Sura style' clearly dominates rock art, while cattle and relative representations of the 'Cattle herders style' are few. This concerns not only the number of respective sites, but also the percentage of figures represented at individual sites. The only larger rock art site where paintings of cattle dominate is WG 35 (as termed in Zboray's catalogue), or Wadi Sura 09/22 (as numbered in our site catalogue).

Given the very small amount of Gilf C pottery and the few representations of the 'Cattle herders style' in the rock art of Wadi Sura, it is highly suggested that this rock art style 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 style', it is to be concluded that most of the paintings in the area date to the Gilf B phase, c. 6500-4400 calBC, to which most of the ceramics date.

Yet, it cannot fully be excluded that some regional rock art dates back to the early Holocene or epipalaeolithic Gilf A phase. The Gilf A phase is aceramic but features a distinctive lithic industry with regular blades and

microliths made of bladelets. Sites typical for this phase are, however, only 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 that indicates the heyday of prehistoric settlement activities in the region.

Shelters and the Site Context Dating

The rock art at Wadi Sura is usually to be found under rock overhangs or in other positions sheltered by rocks. What is clear to us from the first two years of research at Wadi Sura is that patterns in the location of archaeological sites can be interpreted in such a way as to indicate that activities in open-air camps of the Gilf B phase were closely connected with the rock art shelters, with the conclusion that most of the rock art was created when people occupied the camp sites. This is indicated, for instance, by artefacts found under the overhangs or more regularly by concentrations of dense scatters of potsherds, grinding implements, and flaked lithic artefacts in the immediate surroundings of the shelters. Moreover, shelters were not only used for creating rock art, but for other daily life activities, in particular to keep goats as is indicated by dung found there. Rock hooks were cut into the drip lines of overhangs at almost all rock shelters, obviously used to put up equipment, such as baskets, water-skins, or ceramic pots in nets, as is known from more recent ethnographic parallels.

More conclusive evidence is given by artefacts found in excavated stratified contexts in rock shelters. A good example is the excavation in the rock art shelter 10/29 in the south-eastern part of the Wadi Sura survey area. The excavation trench covered only a small part of the surface scatter of artefacts in front of the rear rock face of the shelter; however, it yielded more than five thousand pieces of debitage, some potsherds, and a mass of dung pellets. Among the stone tools found, there are more than fifty microlithic elements distinctive for the Gilf B phase, such as transversal arrow heads (fig. 11). The age affiliation is confirmed by some potsherds of the same phase. Although paintings on the rear rock wall are poorly preserved due to stone erosion, a small exfoliated piece of the rock surface exhibiting paint of red colour, as well as raw pieces of red-ochre and a red-ochre stone with polished edges were found in the excavation. Such pigments indicating the processing of paints were found in several surface collections of Gilf B camp sites. Traces of red ochre were also identified from a 'palette' made of a Gilf B potsherd on site 09/10, about one kilometre east of Wadi Sura II, indicating how the colour pigments were processed in order to make paints out of them.

The context of this site yielded a typical Gilf B assemblage comprising a great number of Gilf B phase pottery.

Conclusion

The archaeology of Wadi Sura may contribute to our understanding of regional rock art, and there is also some substantial information on the dating of the prevailing 'Wadi Sura style'. This style is well represented, not only at the 'Cave of Beasts' (Wadi Sura II), but also at most other sites in the area. The correlation with the dominating pottery tradition that is affiliated with the time period of the Gilf B phase, c. 6500-4400 calBC, provides the time frame for the 'Wadi Sura style' (or for most of its elements, such as the 'headless beasts' and the 'swimmers', which appear younger in superimposition than the hand stencils). The dating approach as outlined in the present paper is supported by the correlation of the spatial distribution pattern of rock art sites and open-air camp sites, as well as by a number of other remarkable observations. If this correlation of the chronologies is correct, the creators of the 'Wadi Sura style' drawings were hunter-gatherers or 'pastro-foragers', judging from what we know about the major changes of human subsistence in the eastern Sahara (RIEMER 2007, KUPER & RIEMER, in press). They may have kept goats, and perhaps cattle as well, during the last stage of the Gilf B phase, but they cannot be regarded as a pastoral society. The kind of 'art' they created is difficult to interpret facing the chimerical creatures, such as the headless beasts, or the many humans involved in what might be ritual activity. Nevertheless, this 'mythological' element in the imagery completely differs from the paintings of the 'Cattle herders style' succeeding after c. 4400 calBC. The latter vividly illustrate the daily life of cattle-centred pastoral nomads and their obviously quite contrasting concepts in ideology and social structure.

ADDENDUM

In spring and autumn 2011, two further campaigns of the Wadi Sura Project took place, during which the work described above was continued. The extended archaeological survey in the region, including small-scale excavations at a few sites, yielded additional data supporting the general picture outlined in this paper. Within the 'Cave of Beasts', samples from various levels, up to a depth of c. 6.5 m, of the shelter's sand fill were taken by hand drillings for OSL dating, but still await processing. After this, the sand was

completely removed up to the level where the decorated part of the rear rock wall ends, which is at 1.10-1.20 m maximum below the original surface, and all the newly exposed drawings were recorded by three-dimensional laser scanning, digital photogrammetry and photography. Surprisingly, in the lowest section of the central part of the decorated rock face, a painted scene came to light, which shows, next to some drawings of wild animals, the representations of goats as well as of what seems to be a (domestic?) cow (fig. 12). Nevertheless, a few distinctive microlithic elements found, among some other material, during the excavation again point to the Gilf B phase as the shelter's major occupation period.

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NOTE

- [1] LE QUELLEC (2008, p. 35; *cf.* LE QUELLEC *et al.* 2005, pp. 284-289, esp. 288-289) tentatively dates 'the florescence of regional rock art' at Wadi Sura to around 4500 ± 500 BC.

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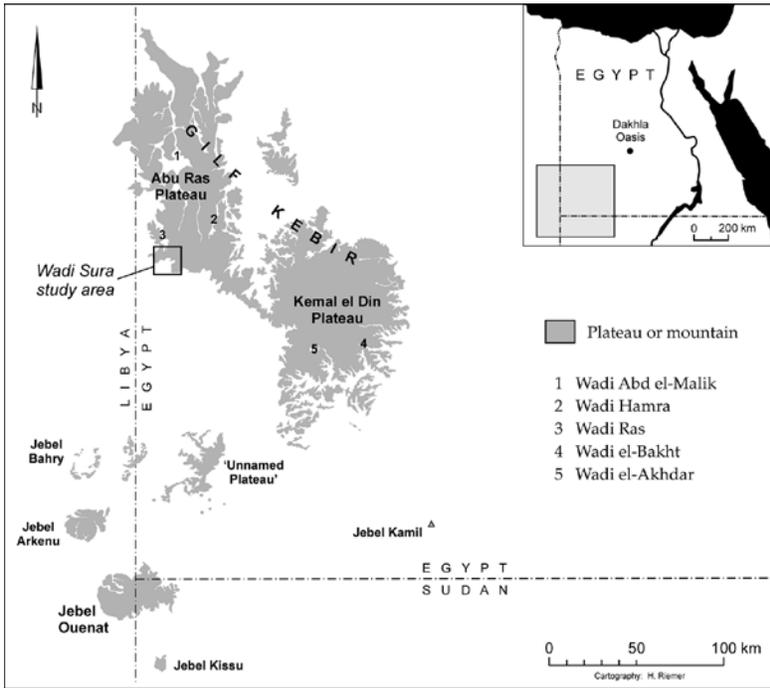


Fig. 1. — Map of the Gifl Kebir/Jebel Ouenat area in southwestern Egypt, showing the location of the Wadi Sura region (for a close-up of the study area of the Wadi Sura Project, see fig. 8).



Fig. 2. — View from the south at the Wadi Sura II shelter ('Cave of Beasts'), situated above a 20 m high sand slope (centre).



Fig. 3. — Western part of the decorated rock wall in the Wadi Sura II shelter, showing thousands of well-preserved painted figures as well as a large number of hand stencils.



Fig. 4. — Some of the many human group scenes displayed in the 'Cave of Beasts'.



Fig. 5. — Some of the headless hybrid creatures depicted in the ‘Cave of Beasts’, two of which are surrounded and touched by small human figures.



Fig. 6. — Row of so-called ‘swimmers’ shown in the Wadi Sura II shelter (highlighted by the white band). Above, another representation of a headless beast surrounded by human figures.

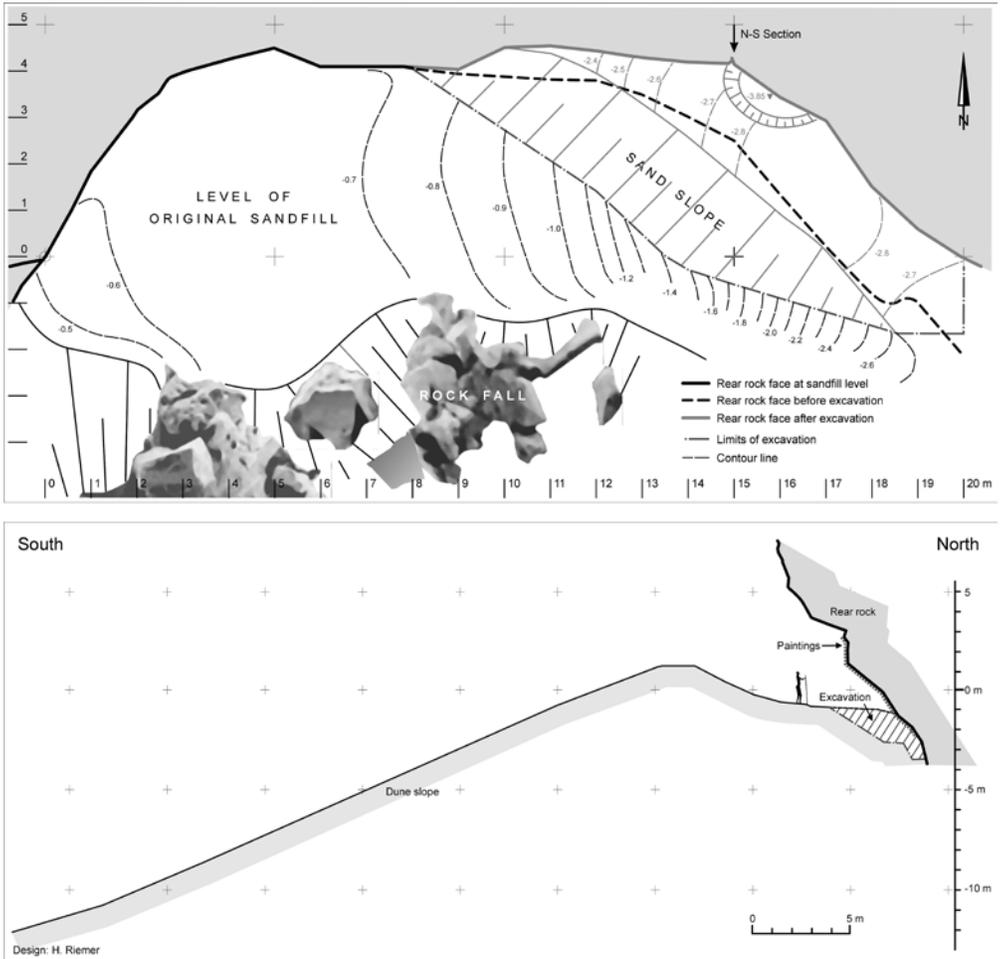


Fig. 7. — Ground plan and section of the Wadi Sura II shelter illustrating the extension of the test excavation carried out in spring 2010.

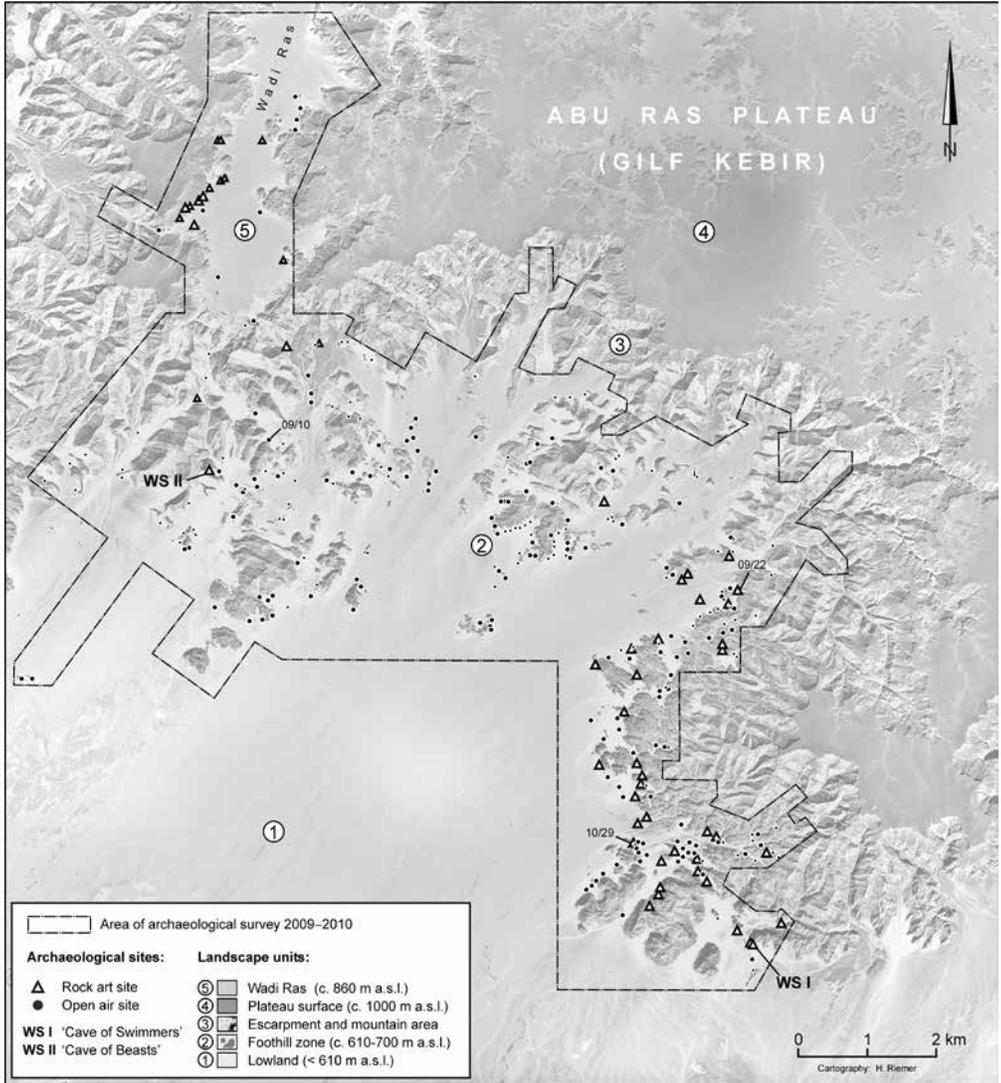


Fig. 8. — Map showing the study area of the Wadi Sura Project, as well as archaeological sites recorded during the 2009–2010 survey campaigns. Sites mentioned in the text are additionally indicated by their catalogue number (*map source*: Google Earth).

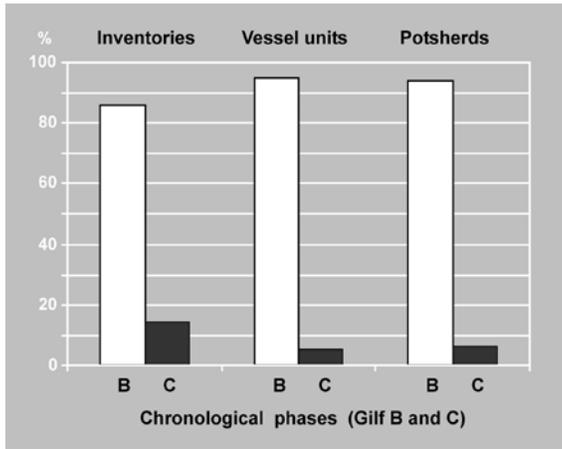


Fig. 9. — Dating of Wadi Sura pottery, based on preliminary results of the examination of 486 potsherds from sites recorded during the 2009 campaigns.

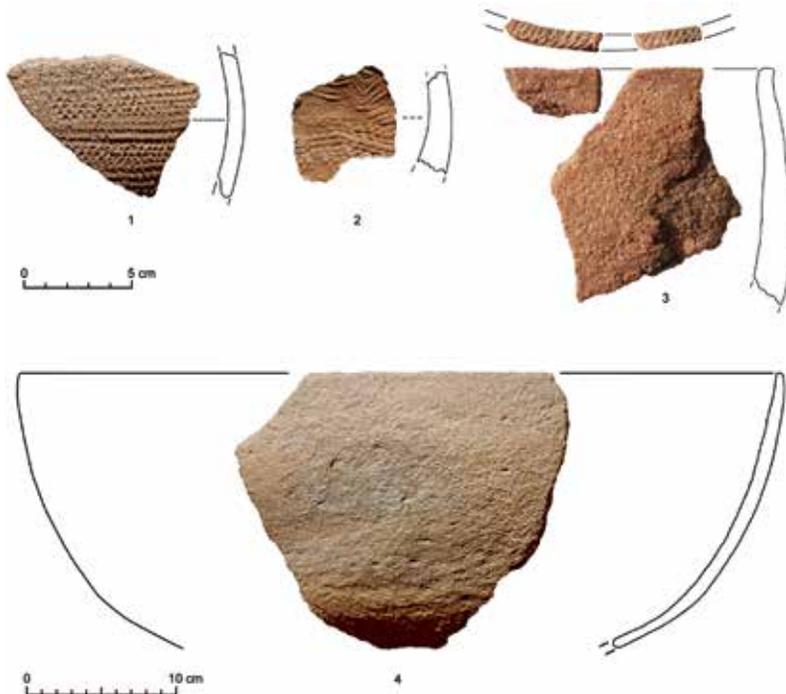


Fig. 10. — Khartoum style pottery of Gilf B phase found at Wadi Sura: 1. 'Packed Dotted Zigzag' (PDZ) decoration; 2. 'Dotted Wavy Line' combined with PDZ; 3. Potsherds with decorated rim; 4. Rim sherd representing a large open vessel.



Fig. 11. — Transversal arrow heads, such as excavated at site Wadi Sura 10/29, are characteristic microlithic stone tools of the Gilf B phase.



Fig. 12. — Newly exposed drawings showing, inter alia, a group of wild as well as domesticated (?) animals in the lowermost section of the decorated rock wall at Wadi Sura II.