

K E R M A

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SOUDAN

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Cover figure : Mesolithic pottery sherds from Waydi El-Arab. Photo: Matthieu Honegger

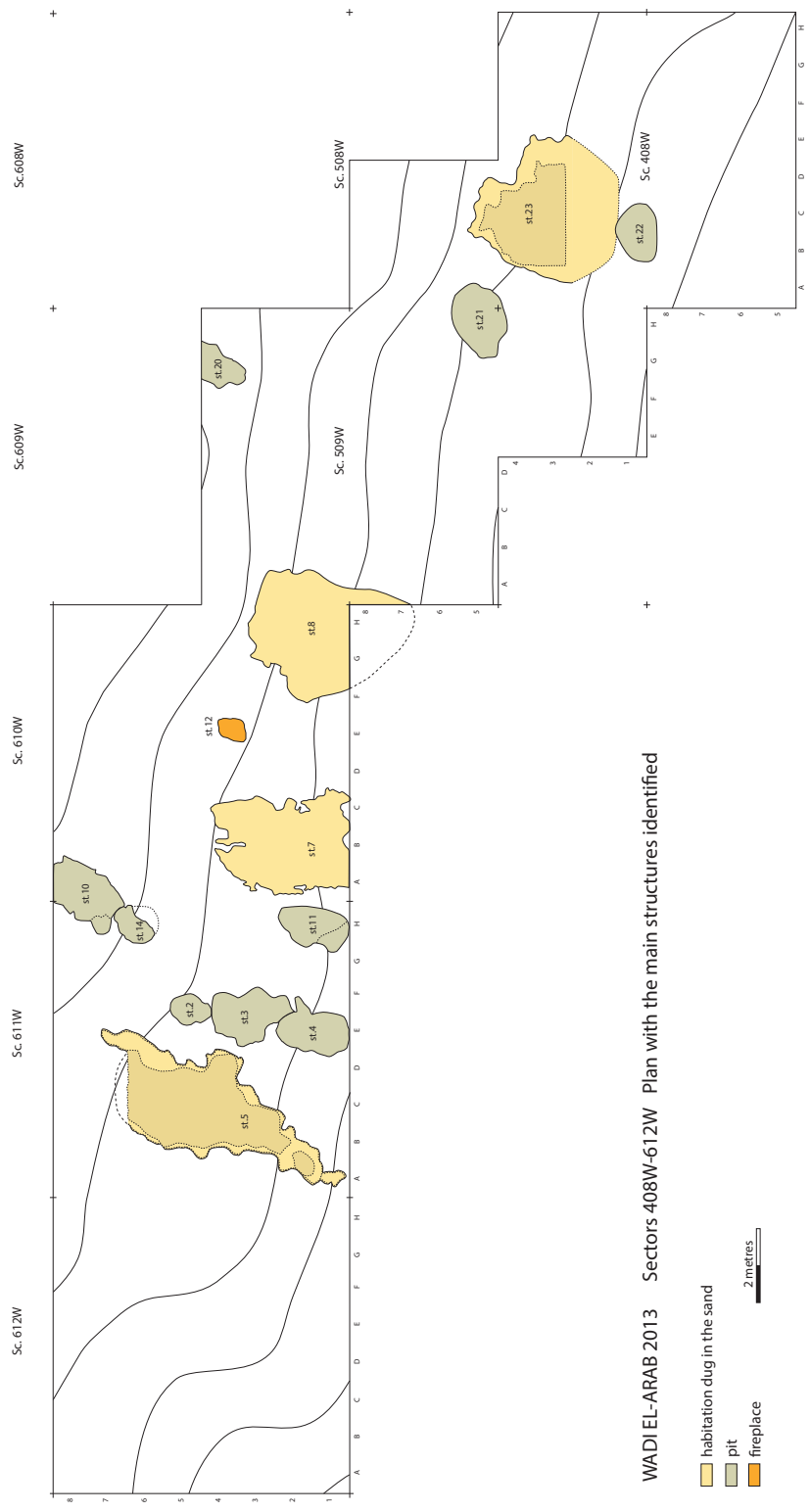
WADI EL-ARAB: SEEKING OUT OCCUPATIONS FROM THE 6TH MILLENNIUM BC

Notwithstanding the considerable extent of the site of Wadi El-Arab (3 to 4 hectares), which covers the entire Sudanese Mesolithic sequence (8300 to 6000 BC, all dates are calibrated) and that of the Sudanese Early Neolithic (6th millennium BC), we anticipate having soon explored the principal aspects of the prehistoric occupation of the site, even if we might always find justifications for continuing the excavation of this major site. We will therefore focus our attention on the publication of the results over the coming years.

As previously noted, we have applied a stratigraphic approach these past years (Honegger 2011a, Williams 2012), that the main occupations of the site have been dated, that some ten sepulchres have been excavated and that within the overlapping of the successive occupations, we have identified two habitation levels with their structures, which have been exposed over a certain surface. One consists of several pit-dwellings, whilst the more recent occupation consists of two huts identified by the stones used to prop up the posts. The abundant finds have been systematically inventoried and described according to the criteria established at inception. Given the wealth of artefacts, this task has not yet been completed, and a selection of objects remains to be drawn before we can consider drafting the report with a view to publication.

The 45 ¹⁴C dates obtained for the site of Wadi-El Arab over a period of some ten years have placed the occupation of the site between 8300 and 5400 BC. The earliest levels yielded sparse material, whilst the more recent ones are generally highly eroded. At the highest point of the site, where an area of 24 square metres was opened between 2005 and 2007 (Honegger and Jacob 2009: 3), it is the habitation levels dated between 8000 and 7200 which are best represented, whilst at the lowest point, where we are currently excavating (figure 4), the principle occupations are dated between 7300 and 6800 BC. After having tried to extend the excavations in a westward direction two years ago in a area unfortunately badly disturbed by erosional channels, we have opened an extensive surface in an eastward direction this year. The excavations have consisted in cleaning a surface of 160 square metres (Sectors 408W to 609 W) so as to facilitate the identification of excavated structures, whether they be pits or pit-dwellings. In this way a sub-circular pit-dwelling already identified as such was further uncovered and another one discovered further to the east (figure 4). Three pits were also excavated and a fairly large volume of material also found. The complex continues to appear to be a village made up of at least one alignment of huts, similar to the layout of the contemporaneous establishment of Nabta Playa E75-6 (Wendorf and Schild 2001) to which we had already compared our results.

The more elongated shape of the huts to the west could be due to the slope, which might have deformed the structures during the course of the millennia. The last hut



WADI EL-ARAB 2013 Sectors 408W-612W Plan with the main structures identified

- habitation dug in the sand
 - pit
 - fireplace
- 2 metres

Figure 4 / Plan of the sectors currently under excavation at Wadi El-Arab. Only the structures associated with the level dated to 7200-6900 BC are presented here. They include an alignment of four bottoms of huts dug in the ground, pits and a hearth. Equidistance between the level curves: 10 cm.

brought to light (structure 23) has to date only been excavated over half its surface (figure 5). The infill is darker and more powdery than the surrounding terrain. It also contains larger sherds, with a lower level of fragmentation existing in the depression. This structure did not contain pottery with a decorative style usually found in habitation levels dating between 7300 and 6800 BC, which is to say a repertoire dominated by impressions made with a comb, with notably the presence of types A1, A2, A7, R1 and R4 (cf. Gatto, this volume: 6).

As indicated by the two dates obtained from the fill at the top of this structure (figure 6, sector 508W), this last contained more recent remains, no doubt trapped in the depression, and which date from approximately 6000 BC. It is in fact not the first time that more recent horizons have been found, since later material had been found on the surface whilst prospecting the site, as well as in other sectors of the excavations. The radiocarbon dates obtained from these recent levels are bracketed between 6500 and 5400 BC. Yet we know from the Neolithic cemetery of El-Barga (6000-5500 BC) that this period witnessed important changes in the funerary rites and the material culture (Honegger 2004b). It also corresponds to the introduction of the first Neolithic elements to the region, notably that of bovinds.

At Wadi El-Arab, the upper levels, which might have furnished more data regarding this period of transformation, do not contain many faunal remains, since aeolian erosion has eliminated most of these. We will therefore learn little from this site regarding the introduction of the first domesticated animals in Nubia. In certain places however, pottery or lithic elements were still preserved, which effectively indicate the appearance of certain innovations.

The pottery is clearly dominated by the decorations made using pivoting combs

Figure 5 / Northern half currently under excavation of the bottom of a hut discovered during the last campaign in the new sectors opened to the east.



Figure 6 / Table indicating the dates from the latest occupations found at the surface of Wadi El-Arab. All the radiocarbon analysis were made on ostrich eggshells fragments. Calibration from Reimer et al. 2013..

reference	date BP	BC cal (2 σ)	context
ETH-47148	6526 +/- 33	5560-5380	Sc 612W/CF7-8/déc. 1
ETH-51609	7006 +/- 36	5990-5800	Sc 508W/AD-1-8/déc. 1
ETH-51610	7365 +/- 35	6360-6100	Sc 508W/AD-1-8/déc. 2
ETH 40526	7400 +/- 40	6390-6120	Sc 610W/AB-7-8/déc. 1
ETH 40524	7590 +/- 40	6500-6290	Sc 610W/AB-1-2/déc. 1

Figure 7 / Table showing certain characteristics of the pottery of the latest occupations at Wadi El-Arab (6500-5400 BC) in the sectors 508 to 612. Rocker stamp is the most frequent decoration (R1, R3) but the proportion of burnished pottery with few decorations is growing. For the significance of the type of decoration A (alternative pivoting stamp) and R (rocker stamp), see Gatto, this volume: 6..

level	A7a	A2	A1	R1	R3	burnished	varia	total (nb of sherds)
1	6.0	2.3	9.8	53.4	3.8	18.8	6.0	100% (138)
2	3.7	1.2	15.7	43.8	6.2	20.1	9.3	100% (326)
3	4.9	4.9	23.2	48.8	2.4	9.8	6.1	100% (168)
4	17.3	1.9	34.6	25.0	1.9	13.5	5.8	100% (53)

(rocker stamp, R1, R2), which is fairly characteristic of the levels dating from the 7th millennium BC. Furthermore, in addition to the decorations already identified of long date, there appear, in ever increasing quantities, the first undecorated potteries whose surface is more or less carefully burnished (figure 7). New incised decorations also make a discreet appearance (figure 8). In short, these characteristics announce the Nubian Neolithic pottery styles, which develop during the 5th millennium BC, and which are known from numerous cemeteries, amongst which those at Kadruka, close to Kerma. As far as the lithic industry is concerned, we had in previous years collected two fragments of polished metamorphic rock, the first of which belonged to a polished axe and the other possibly to a chisel. These two tools, which are characteristic of the Neolithic, add weight to the idea that levels representing the beginnings of this period are to be found at Wadi El-Arab. To these can be added a series of flint or agate tools also found in the same top levels, which have the particularity of being bifacially shaped using a flat retouch (figure 9). The lithic industries of Sudan do not normally contain bifacially retouched tools. The dominant flint tool-type remains the segment, in most instances obtained by abrupt retouch on a flake. The rest of the industry is made up of perforators, drills, scrapers, as well as a few truncations and tools with abrupt retouch. Bifacially retouched tools are however unknown from this repertoire, being tools commonly found to the north. This technique, long practiced in the Near-East and from where it probably originates, is particularly well represented in the northern half of Egypt and close to the valley, becoming rarer towards the south-east (Gehlen et al 2002, Riemer 2007). It is mentioned in contexts dating from 6500 BC and extends progressively towards the south where it is occasionally mentioned in Lower Nubia. At Wadi El-Arab, the tools found all have simple elongated shapes. There are no

Figure 8 / Pottery discovered on the surface, dated to the end of the 7th and the beginning of the 6th millennia BC. Scale: 1/2.

arrow-heads with peduncles as is the case in Northern Egypt. Their presence in the Kerma Basin, even if in small numbers, attests therefore to new stimuli which all seem to emanate from the north, and which, over the space of a millennium, appear to have had an important impact on society. These stimuli do not appear to be limited to certain elements of the material culture, but also concern the funerary rites and most likely also the population, as we have discovered at El-Barga. In fact, the notable differences which have been highlighted between the Mesolithic and Neolithic populations inhumed at El-Barga (Crèvecoeur 2012) have been confirmed by other means.

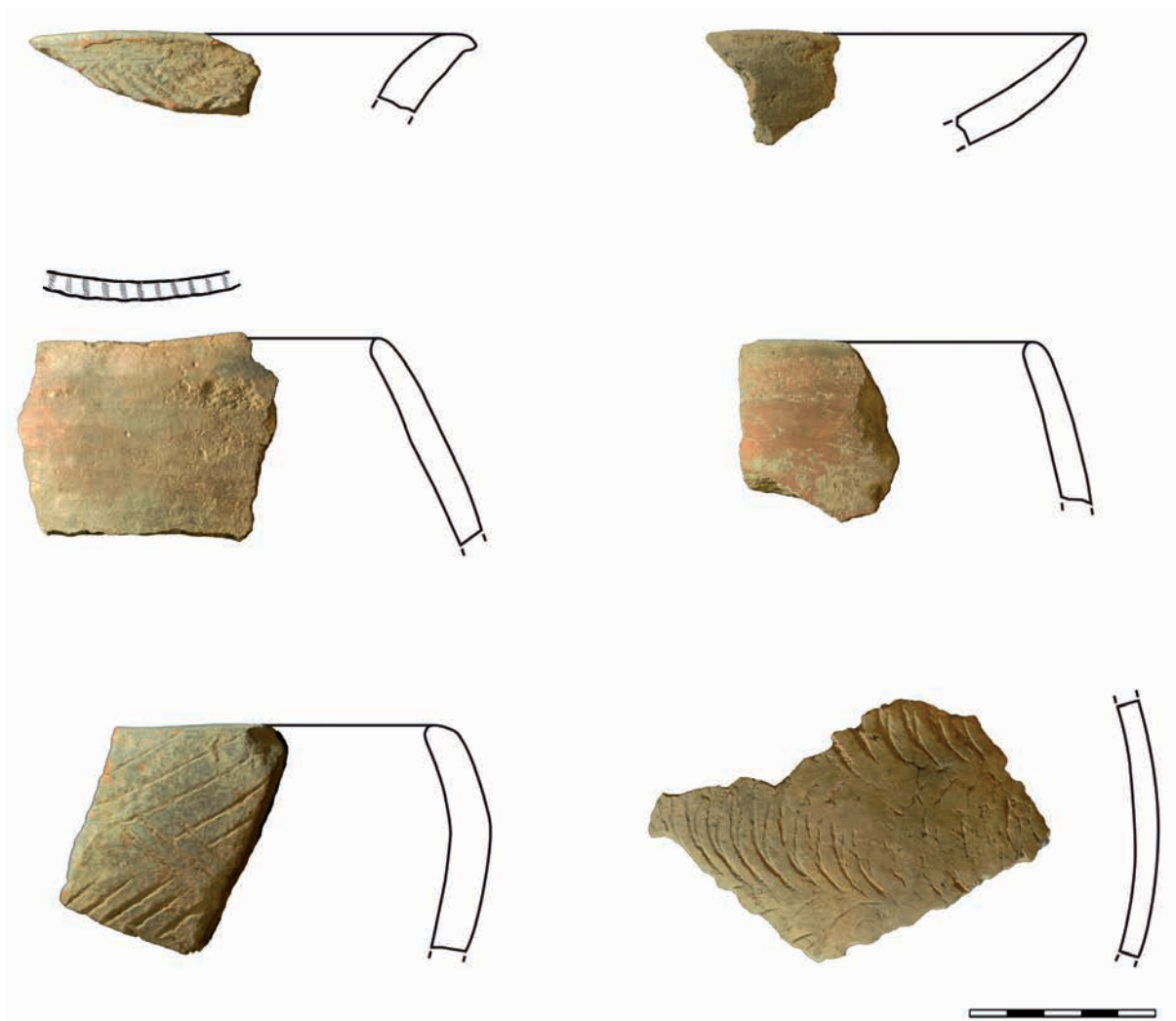
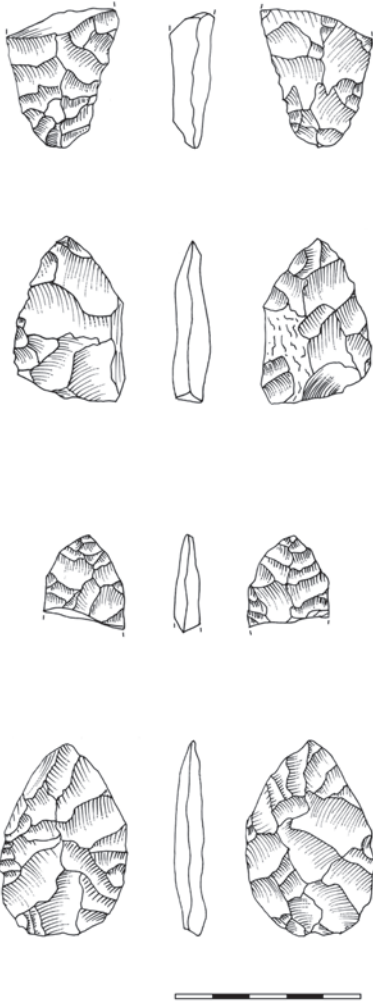


Figure 9 / Bifacial pieces
discovered on the site
surface. Scale: 2/3.



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FIGURES

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SUMMARY

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Preliminary report to the 2012-2013 season
- Maria Gatto Preliminary report on the most ancient pottery
from the Kerma region
- Matthieu Honegger Wadi El-Arab:
seeking out occupations from the 6th millenium BC
- Matthieu Honegger The oldest sectors of the eastern cemetery:
neolithic occupations and the early
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- Camille Fallet Bioanthropological study of the ancient sectors of the
eastern cemetery: latest results
- Marc Bundi The history of the museums in the Sudan:
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