

K E R M A

2011-2012

SOUDAN

Matthieu Honegger

Charles Bonnet • Martin Williams • Veerle Linseele • Isabelle Crèvecoeur • Philippe Ruffieux



I M P R E S S U M

Université de Neuchâtel

Documents de la mission archéologique suisse au Soudan
2012 | 4

Institut d'archéologie

Espace Paul Vouga
CH-2068 Hauterive
Switzerland

Scientific Committee : Matthieu Honegger, Charles Bonnet, Louis Chaix,
Nora Ferrero.

Translation : Michael Templer (texts of Matthieu Honegger)
and Pierre Meyrat (texts of Charles Bonnet and Philippe Ruffieux).

Layout : Philippe Marti

HONEGGER M. and collab. 2012. "Archaeological excavations at Kerma (Sudan)",
Documents de la mission archéologique suisse au Soudan (4), Université de Neuchâtel.

Cover figure : The northern part of the Kerma cemetery. Photo: Matthieu Honegger

ARCHAEOLOGICAL EXCAVATIONS AT KERMA (SUDAN)
PRELIMINARY REPORT TO THE 2011-2012 SEASON

The investigations of the Swiss Archaeological Mission started on 3rd of December 2011 and ended on 31st of January 2012. As usual, the mission was organised in two teams.

The team directed by Matthieu Honegger worked in the eastern cemetery of Kerma and at the site of Wadi El-Arab. The team was composed of the *rais* Khidir Magbul who supervised six local workers. Two Swiss specialists worked in their respective domains: Marc Bundi (supervision of the construction of the walls protecting the eastern cemetery, work in the Museum and in the new resthouse) and Daniel Conforti (archaeology and drawing). Seven collaborators or students from Neuchâtel (Camille Fallet, Bastien Jakob, Julien Spielmann, Philippe Marti, Laure Bassin, Laure Prétôt, Alice Vanetti) and a curator of the Kerma Museum (Shahinda Omer) participated in the mission.

This year, the team was strengthened by the presence of four persons who each stayed at least three weeks in January. Veerle Linseele (Dr., University of Leuven) came to study the fauna of Wadi El-Arab as a replacement of Louis Chaix (see her contribution in this volume). Martin Williams (Prof. emeritus, University of Adelaïde) led a campaign of geological observations to study the sedimentary and geomorphological history of the region, in particular around Wadi El-Arab (see his contribution in this volume). Michel Mauvilly (archaeologist in the Department of Archaeology of Fribourg) came to complete the excavation team. He assisted, amongst others, Hélène Delattres for a week in her program of prospection around Sedinga, to the North of Kerma. Finally, Stéphane Goël (film maker, Climage), who realised a few years ago the film “Sur les traces des pharaons noirs”, followed the work of the mission in order to produce short films for the future exhibition which will take place in the museum of the Latanium (Neuchâtel) in 2014.

Since august 2011, Isabelle Crèvecoeur (CNRS, Université de Bordeaux) resumed the study of the skeletons of both cemeteries of El-Barga (Mesolithic and ancient Neolithic), where the excavations ended a few years ago. After a second stay at Neuchâtel during the summer of 2012 to examine the collection, she delivers her first results in this volume.

The team led by Charles Bonnet pursued its works at Dukki Gel and conducted restoration projects in the ancient city of Kerma and at Dukki Gel. It was made up of the *rais* Gad Abdallah, Saleh Melieh, Abdelrazek Omer Nuri and Idriss Osman Idriss who supervised 60 local workers. Abdelmagid Mahmud, director of the museum participated to the excavation. Five specialists from Switzerland worked in their respective domains: Philippe Ruffieux (ceramology), Inès Matter-Horisberger

(archaeology and drawing), Alain Peillex (archaeology and drawing), Patricia Jehger (drawing) and Jean-Michel Yoyotte (photography). Prof. Dominique Valbelle (University of Paris IV, La Sorbonne) worked on the publication of the engraved blocs of Dukki Gel.

The Swiss Mission was supported by Dr. Abdelrahman Ali, the new director of the National Corporation of Antiquities and Museums of Sudan (NCAM) and his collaborators, Mr. El-Hassan Ahmed Mohamed and Dr. Salah Eddin Mohamed Ahmed. This project is supported by the Swiss National Fund (SNF 100012-137784/1), the State Secretariat for Education and Research of the Swiss Confederation, the Foundation Kerma and the University of Neuchâtel (Switzerland). For more information, see www.kerma.ch

The investigations during this campaign focused on the following sites:

- Wadi El-Arab, where destructions of a part of the site led us to extend the stratigraphic trenches to better understand the succession of human occupations and the sedimentation processes. A new surface of 64 square metres was opened to the west to search for the presence of additional huts dug into the ground.
- The eastern cemetery with the continuation of the excavation in the area of Ancient Kerma. In parallel, the low protection wall was completed with the building of a new section of about 1000 metres.
- Dukki-Gel, where Charles Bonnet continued his work on temples, sanctuaries and fortifications of Nubian or Egyptian traditions (18th dynasty). He also pursued the restoration of the site by reconstructing in mud brick the foundations of the main buildings.

EXCAVATIONS AT WADI EL-ARAB
AND IN THE EASTERN CEMETERY OF KERMA

As every year at Wadi El-Arab, we noticed that the site was partially destroyed by people looking for gold (figure 1). The main stratigraphic trench had been emptied, enlarged and dug down to the bedrock. Other surfaces cleaned down some centimetres had been destroyed. These regular destructions are problematical. We have tried various methods to protect or camouflage the sections excavated, and have set up panels in Arabic and English nearby. These measures have however proved ineffectual, and the best method of protecting the site will be, in the final resort, to discontinue the excavations. This should occur within a few seasons, given that we have accumulated a wealth of information regarding the main characteristics of the site.

We have taken advantage of the widening of the main stratigraphic cut, as well as of another hole almost 2 metres deep, to expose more extensive stratigraphic cuts; one in an east-west direction, as last year, and another perpendicular to the slope on a north-south axis (figure 2). This operation has allowed us to complete our observations regarding the successive occupations, to better understand their respective extent, and their dates. We benefited from the presence of Martin Williams, who undertook a geoarchaeological study to determine the sedimentary processes as well as the environmental context (see his contribution in this volume). Samples were also taken to obtain OSL dates. At the archaeological level, the strata varied considerably laterally, particularly as regards their thickness, due in particular to the irregular profile imposed by the bedrock. A series of radiocarbon dates have been obtained. They confirm that the initial occupation occurred during the late 9th millennium BC, whilst the main archaeological level with habitation structures (Honegger 2011a) is dated ca. 7300-7000 BC (all dates expressed in BC are calibrated).

With a view to completing our knowledge regarding the most recent occupations identified at Wadi El-Arab, we opened a new surface of 64 square metres to the west of the areas already excavated (figure 2). We were hoping to not only find better preserved remains for this period, which we had estimated as dating from 6300-6000 BC, but also a continuation of the alignment of the three huts previously discovered, dating from a millennium earlier. Our expectations were only partially fulfilled, in that the more recent levels were more poorly preserved than hoped, since small drainage gullies cut by rain-water had partially destroyed the strata. We were however able to collect archaeological material from the more recent levels, which were confirmed by the presence of pottery, with an increasing proportion of undecorated burnished ware. The radiocarbon date for this level is between 5600-5400 BC, which is more recent than previously estimated, and which proves that the site had been occupied over a period spanning three millennia, with

unfortunately a poor state of preservation for the more recent occupation levels. Beneath this level, we were unable to identify a continuation of the habitation structures already known. The effects of erosion and site perturbation rendered any interpretation too problematical.

Whilst exposing the archaeological levels, the strata were excavated with particular attention for the earliest period of occupation (ca. 8300-8000 BC), with a view to collecting a larger sample of material. Unfortunately, this level was poorly provided with archaeological material other than knapped flint tools. Whilst excavating these levels, a tomb was discovered at the base of the sedimentary strata, in a pit dug from a poorly identified level. Laid out in a flexed lateral position, this inhumation joins the eight others previously found at Wadi El-Arab on the surface or in intermediary levels. As with the site of El-Barga (Honegger 2004, 2006), the entire sequence of Mesolithic occupations shows a close proximity between habitation and funerary areas.

These past few years, the faunal remains of large ruminants, some of which appeared to belong to domesticated bovids, had particularly attracted our attention, since they dated from a very early period (ca. 7200 BC) for animal domestication in Africa (Chaix 2011, Honegger 2005, 2007). Veerle Linseele re-examined this material, and demonstrated that in the final analysis these remains belonged to other species of bovids (see his contribution in this volume). This result substantially alters our perception of the Final Mesolithic and Initial Neolithic of the region. Rather than seeing a progressive transition towards a productive economy, with the

Figure 1 | Clandestine digs at the site of Wadi El-Arab at the start of the excavation season. Two pits have been dug down to the bedrock.

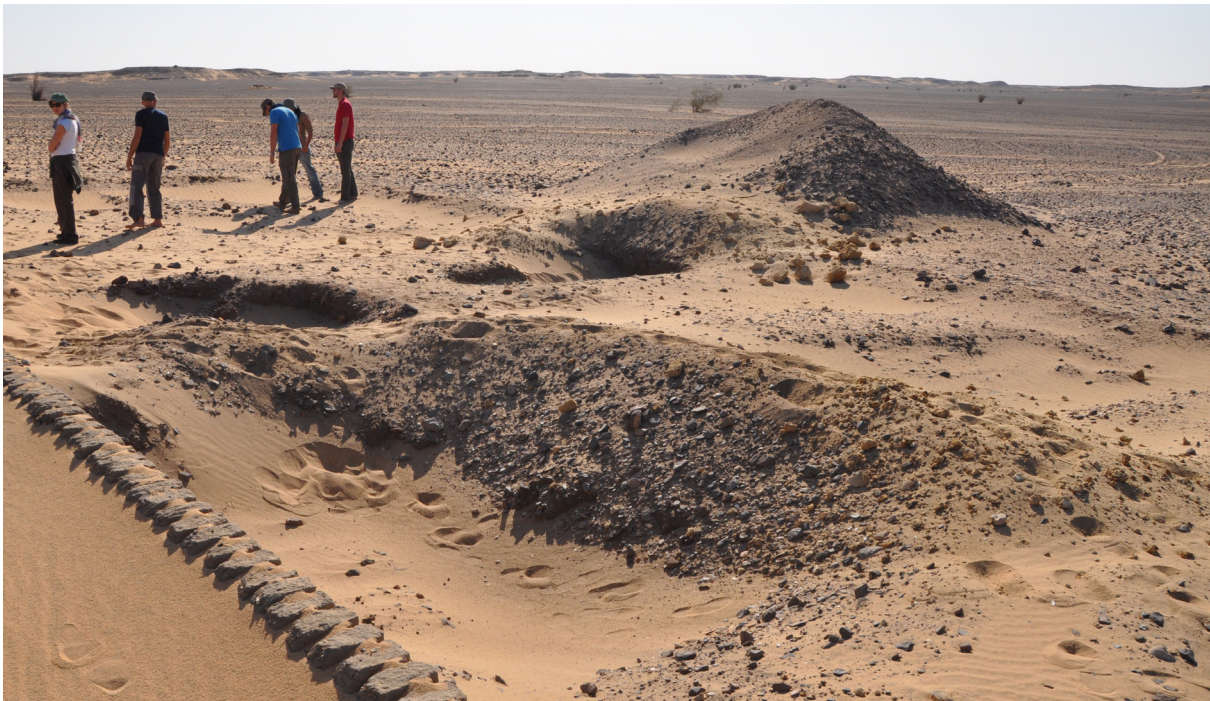




Figure 2 | View of the excavations at Wadi El-Arab at the end of the campaign. In the foreground, the surface excavated this year looking west, and in the background, the L-shaped stratigraphic cut.

discreet beginnings of bovid domestication spread over more than a millennium, in the image of Nabta Playa and Bir Kiseiba in Southern Egypt (Wendorf 2001), our vision is now turned towards a later introduction of Neolithic attributes, which conceivably arrived almost simultaneously (bovids, caprines, agriculture). The cemetery of El-Barga, qualified as Neolithic by the presence of a bovid skull placed on a tomb, was in use between 6000-5500 BC, at a time when the material culture was undergoing rapid change with the development of polished stone (axe blades, personal ornaments), burnished ware and bifacially retouched flint tools. Still to be determined is whether caprines and agriculture arrived simultaneously in the region of Kerma. At present they are only evidenced from the 5th millennium BC (Chaix and Honegger, forthcoming), but this observation is of little value, since it is due to the rarity of sites dating from the 6th millennium, with El-Barga and Wadi El-Arab being exceptions at this point in time.

The observations made over the last decade at different sites in the region of Kerma, allow us to propose a first summary of the sequence of cultures, accompanied by a brief description of the pottery (figure 3). The first occupations identified in the Holocene are no earlier than 8300 BC, when the Mesolithic develops, characterised by an economy based of predation and the development of pottery. The habitations for this period are huts with sunken floors, suggesting a tendency towards sedentism, which is confirmed by the appearance of the first cemeteries, either close to, or within the inhabited area. The evolution of pottery shows different phases, the best-known of which are dated between 7500 and 6700 BC. The appearance of the Neolithic dates to the early 6th millennium BC, without any clear indication as to whether it is a gradual uptake or a more radical change. Archaeological remains

Phases / sites / pottery style:

Recent Pre-Kerma 2700-2600 BC
Boucharia II
Polished pottery, black top, rippled limited to the rim, geometric incised pattern



Middle Pre-Kerma ca 3000 BC
Eastern cemetery
Polished pottery, black top, rippled limited to the rim



Neolithic II 5000-4000 BC
Kadruka / Eastern cemetery
Burnished pottery, black top, rippled



Neolithic I 6000-5500 BC
El-Barga II
First burnished pottery, rocker stamp



Mesolithic IV 6300-6000 BC
Wadi El-Arab V
Rocker stamp, bifacial lithic tools



Mesolithic III 7200-6300 BC
Wadi El-Arab III-IV
Earing bone pattern, dotted wavy line



Mesolithic II 7800-7200 BC
El-Barga I / Wadi El-Arab II
Alternative pivoting stamp



Mesolithic I ca 8300 BC
Boucharia I - Wadi El-Arab I
First pottery, return technique



Comparisons:

Similarities with sites between the 2nd and the 4th cataracts (Sai Island, Soleb, etc.)

Similarities with the Pre-Kerma in Arduan island

Similarities with Abkan and central Sudan Neolithic

No comparison in Nubia

Similarities with El-Jerar phase

Similarities with El-Nabta phase

Similarities with other sites between the 2nd and the 3rd cataract

No comparison in Nubia

Figure 3 | (Left page) Prehistoric cultural phases in the Kerma Region, as defined by the pottery decoration and its surface treatment. Each phase is ¹⁴C dated and the earliest phases were observed at Wadi El-Arab. Some preliminary comparisons are proposed with other Nubian sites (Photos by Nicolas Faure).

become frankly plentiful during the 5th millennium, particularly with the presence of numerous cemeteries (Reinold 2000, Welsby 2001). On the other hand, there are no archaeological remains for the 4th millennium in Upper Nubia. This absence is surprising given the spectacular development in Upper Egypt of the Pre-Dynastic period and the A Group in Lower Nubia. It is from 3200 BC that evidence appears with the development of the Pre-Kerma. Its evolution continues until the beginning of the Kerma civilisation (2500 BC), which is currently the subject of our research programme in the eastern cemetery of Kerma, where we are excavating the earliest sector.

Figure 4. Extant grave with tumulus from Early Kerma, with, in the background, the pits of sepulchres already excavated.

This year we have been able to complete our programme in the oldest section of the eastern cemetery of Kerma, where two cultural sequences appear to follow each other (Honegger 2011b). Sixty-five burials have been excavated (figure 4 and cover figure), of which many have been substantially destroyed by grave robbers in times past. The observations appear to confirm our previous conclusions, in that the initial phase is characterised by the Early C Group (Phase Ia), whilst the next phase represents Early Kerma with the assimilation of certain elements of the C Group, especially the black bowls with incised geometric decorations. The seven new ¹⁴C dates obtained this year from the material in the graves did not confirm the picture previously proposed, in which we discerned a chronological evolution between the



Figure 5. Red pot with a black rim dating from Early Kerma, engraved once fired with the image of at least four bovinds.



western and eastern sides of the excavated area (Honegger 2011b, fig. 9). To the contrary, they tend to harmonise the ensemble, dating the majority of the tombs between 2600-2400 BC. This means that the transition between the C Group and Early Kerma took place over a period of less than two centuries. The error margins associated with carbon 14, do not allow us in this instance to fine tune the chronological subtleties, and in the final analysis, it will be the typological study of the material which will allow us to understand the evolutionary process, and demonstrate the greater age of one tradition with regards to another.

Our future investigations will focus on a slightly more recent sector. We will in fact reinitiate excavations in sector CE 23, partially studied some 15 years ago by Charles Bonnet (1997). According to the typology of Béatrice Privati (1999), this sector belongs to Early Kerma phase II, which immediately follows the period we have just studied.

Other than the usual grave goods, we must mention two discoveries which are out of the ordinary. This winter, a pot discovered as a surface find, unfortunately fragmented, was decorated with at least four engraved bovinds on its belly (figure 5). The engraving was made after firing on the red belly, previously decorated with

Figure 6. Dagger with ivory handle, with a blade made of a copper alloy, golden guard and rivets. It was discovered in a tomb visible on the surface, in a sector dating from Middle Kerma.



impressed comb motifs. We know of other examples of bovids as secondary incised decorations, such as the famous storage jar of the A Group, decorated with a long-legged bovid, in a schematised style comparable to the examples from Kerma (Bonnet 1997). This discovery helps to confirm, if such was still necessary, the importance of bovids and pastoralism at Kerma. The other object was found last year, in an eroded section further to the south in the cemetery, close to the M cemetery excavated by George A. Reisner, dating from the end of Middle Kerma. It is a dagger with an ivory handle, a wooden sleeve which had decomposed, five gold rivets and one in bronze, a gold guard and a cloth sheath (figure 6). It belonged to a grave located only a few centimetres from the surface. If the upper part of the skeleton was absent due to an ancient robbery, the dagger was intact and still in place at the waist of the body.