

ORIENTALIA LOVANIENSIA  
ANALECTA  
————— 273 —————

PUBLICATIONS DE LA MISSION ARCHÉOLOGIQUE SUISSE À KERMA 1

NUBIAN ARCHAEOLOGY  
IN THE XXI<sup>ST</sup> CENTURY

Proceedings of the Thirteenth International Conference  
for Nubian Studies, Neuchâtel, 1<sup>st</sup>-6<sup>th</sup> September 2014

edited by

MATTHIEU HONEGGER



PEETERS  
LEUVEN – PARIS – BRISTOL, CT  
2018

The Thirteenth International Conference for Nubian Studies was held at the University of Neuchâtel  
(1-6 September 2014)

**Peer-review Committee**

Lucie Bovet, Louis Chaix, Isabelle Crèveœur, Vivian Davies, Jérôme Dubosson, Matthieu Honegger,  
Friederique Jesse, Karla Kröper, Claude Rilly, Michael Templer, Dominique Valbelle, Bert Verrept, Carola Vogel

**Layout**

Anne Canosa

Cover illustration: Rock engraving with Nubian archers, Wadi Es-Sabu, 3rd cataract, Sudan.

A catalogue record for this book is available from the Library of Congress.

© 2018, Peeters Publishers, Bondgenotenlaan 153, B-3000 Leuven/Louvain (Belgium)

All rights reserved, including the rights to translate or to  
reproduce this book or parts thereof in any form.

ISBN 978-90-429-3672-0  
eISBN 978-90-429-3720-8  
D/2018/0602/65

# NEW DATA ON THE ORIGINS OF KERMA

Matthieu HONEGGER

## Abstract

Despite the numerous studies devoted to the civilisation of Kerma, little is known about the process leading to the formation of this entity, which gradually became more complex, hierarchically structured and finally gave birth to a kingdom. In order to fill the gap between the Neolithic and the Kerma periods, our research has focused for several years on the identification and excavation of habitation sites. This has led us to a better understanding of why periods such as the Pre-Kerma – which have left no monumental remains – are so little known. Since then, our work has focused on the older parts of the necropolis of Kerma, revealing a few surprises for the period between 2550 and 2050 BC. The analysis of the spatial distribution of several hundred graves with associated funerary objects and the establishment of a precise chronology has helped to better understand the essential steps of the beginning of Kerma civilisation.

Starting in 2008, we initiated a research programme in the oldest sectors of the Kerma Eastern Cemetery, in parallel with our research into the prehistory of the region (Figure 1). The objectives of this programme are to obtain a precise understanding of the evolution and the functioning of the necropolis during the Early Kerma period, between 2550-2050 BCE. It has involved the reinvestigation of the sectors excavated by Charles Bonnet between 1980 and 1997 (Bonnet 1982; 1984; 1986; 1997; 1999), undertaking the systematic excavations of the graves and the opening of new sectors covering periods for which information was lacking (Honegger 2010; 2011; 2012; 2013; 2015; Honegger et Dubosson 2009). Many hundreds of graves have been studied but only a part can supply precise and systematic data (Figure 2). The tombs excavated by George Reisner and his collaborator W. G. Kemp in 1915-1916 are difficult to use because a large part of them are not located on the plan of the cemetery (Dunham 1982). The graves excavated by Charles Bonnet have supplied detailed information but did not allow for a systematic analysis as those excavated more recently.

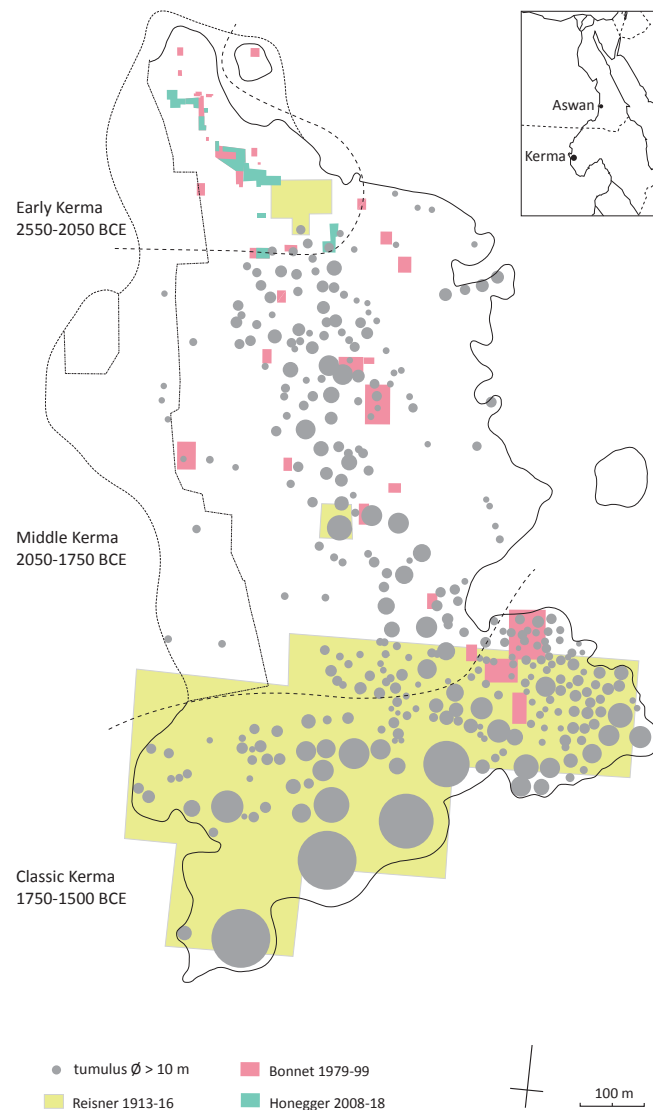


Figure 1. Plan of the Eastern Cemetery with the locations of large graves identified from the surface and excavated since the early 20th century. The sectors investigated by George Reisner between 1913-1916 are indicated. Sectors 1-27 were excavated by Charles Bonnet between 1980-1997, whilst Sectors 27-31, as well as Sector 8, have been excavated or re-examined during our excavations which began in 2008.

Excavation	Sector	Number of graves
Northern Sector excavated by Reisner in 1915-1916	N	197
Graves excavated by Bonnet between 1980 and 1997 total=124 graves	CE1	22
	CE2	2
	CE3	4
	CE4	8
	CE5	7
	CE6	8
	CE7	4
	CE8	6
	CE9	6
	CE23	30
	CE27	27
Graves excavated since 2008 by Honegger total=392 graves	CE8	30
	CE23	84
	CE27	118
	CE28	94
	CE29	62
CE30	4	
Total	15 secteurs	713

Figure 2. Graves excavated in the Early Kerma sectors in the Eastern Cemetery since 1915, as at February 2017. This estimate does not include the graves excavated in January 2018 in Sector 31.

These last represent the principal source of information for our analysis, and if we consider the sectors involved (CE23, 27, 28, and 29), these represent a corpus of 415 graves excavated between 2008 and 2017. Sector 31, excavated recently, has not been integrated into this study, since its analysis is still in progress.

Given the reputation of the Kingdom of Kerma, it is surprising that such analyses have not been undertaken on a more regular basis since George Reisner's excavations at Kerma between 1913 and 1916 (Reisner 1923). The study of the Saï necropolis is the most complete to date (Gratien 1986), even if its main focus is on the pottery, to the occasional detriment of other data, such as bioanthropology, the detailed spatial distribution of the phenomena observed, as well as the more detailed analysis of other categories of artefacts. The other cemeteries containing a reasonable number of graves

clearly supply a detailed inventory of the contents of each sepulchre, as well as a few interesting distribution patterns, but these only permit the global evaluation of funerary rites associated with the three principal periods – Early, Middle and Classic Kerma – without it being possible to go into details regarding the Early Kerma Period (Maystre 1980; Villa 1982). It is therefore not possible, with the data at present available, to propose a scenario for the evolution of society during the earliest phase of the Kerma civilisation, which saw the development of a stratified society leading up to the emergence of a kingdom.

Since the Congress of the Society of Nubian Studies was held at Neuchâtel in 2014, our programme involving the Early Kerma sectors of the Eastern Cemetery is close to being completed. It has allowed us to obtain a representative view of all the phases covering Early Kerma, as well as identifying the appearance of the first royal graves *ca.* 2050 BCE. Our objective in this article is to focus on the early phases of the cemetery, which portray in an exceptional manner how Early Kerma evolved, with its contrasts, abrupt changes and social competition, between 2550 and 2050 BCE. We will focus on the cultural evolution, primarily as viewed through the pottery styles, as well as through the evolution of funerary rites.

### Identification of the Early Kerma sectors of the Eastern Cemetery

The Eastern Cemetery evolved from north to south, following a central axis where the largest graves were concentrated (Figure 1). During Classic Kerma, the orientation changed in a westerly direction. The cemetery currently extends over almost 70 hectares, but matching it with the plan drawn-up by George Reisner indicates that the western side has been destroyed by agricultural encroachment, with the exception of a small area in the middle of the fields. Agricultural pressure on the archaeological site has increased substantially ten years ago, with the extension of the irrigation canals, planned to coincide with the reduction of the water-table consequent on the completion of the 4<sup>th</sup> Cataract dam. We therefore built a one-metre-high protective wall five kilometres-long over several years, as well as a road running alongside and planted 250 concrete posts at the corners of the fields to prevent their extension. That was the price to pay to save the Eastern Cemetery from irremediable destruction: the numerous routes across the cemetery were used with increasing

frequency by all sorts of vehicles, including trucks and bulldozers that unwittingly levelled the ground and rendered the features unrecognisable. On their side, the farmers extended their fields by a few metres year after year, occasionally creating floods to accelerate the process. As of today, satellite imagery of the cemetery shows that there is no more leeway. To the south, some fields recently created have come dangerously close to the great tumuli dating from Classic Kerma. This situation highlights the importance of remaining ever-watchful in the face of the constant pressures relating to the exploitation of the alluvial plain, if the archaeological heritage is to be saved.

With a view to establishing a clear chronology of the Kerma civilisation and undertake once again the study of the funerary chapels and temples of the cemetery, Charles Bonnet investigated 27 sectors spread over its entire surface (Bonnet 2000). These sectors, which were for the most part of a restricted size, certainly allowed him to have a view of the funerary rites for all the periods, but they did not offer him a sufficiently complete view for him to clearly perceive the evolutionary processes. Within the scope of our programme regarding the evolution of Early Kerma, we once again examined and completed the analysis of sectors 23, 27 and 8, and we opened sectors 28, 29, 30 and 31. All the graves were systematically excavated, taking into account the surface information (tumulus, pottery deposits, bucrania, hearths and post-holes) and collecting the material found in the infill of the graves. Knowing that over 99% of the graves had been pillaged whilst the necropolis was still in use, the infill of the pits is in many instances the only means of obtaining an idea of the contents of the grave and of the pottery deposited on the surface close to the edge of the tumulus.

During Early Kerma, the pits were generally small and the density of graves relatively high. The kernel of the earliest use of the cemetery is located in Sector 28. It appears to contain over 100 graves, although the areal extent of this initial use is difficult to establish due to the fact that it is highly eroded with few surface remains. The subsequent development radiates outward, although the main axis of its spread is from the North-northwest towards the South-southeast. Hence, we naturally privileged this axis, progressing from Sector 28 to Sector 27 and onto 23 and finally 29 for the chronological periods which concern us here.

## Chronology

The overall chronology of the Kerma civilisation has been reasonably well established by Brigitte Gratien, based on the analysis of the Saï cemetery, which resulted in the definition of the three phases: Early, Middle and Classic Kerma (Gratien 1978, 1986). One of the objectives of the Charles Bonnet excavations was to refine this chronology. To achieve this, he obtained a series of radiocarbon dates, for the most part on the pelts of bovines found in the graves. The results proved not to be reliable, with over 60% producing dates that were too recent. It must be borne in mind that when the dates were obtained, in the 1980s and early 1990s, the  $^{14}\text{C}$  dating methods had not attained the rigorous present-day standards. In parallel with these analyses, a more precise pottery chronology was proposed, resulting in the definition of four successive phases: *Kerma ancien* I, II, III and IV (Privati 1999, 2004). Additionally, the Egyptian imported pottery was subjected of a first study (Bourriau 2004), which permitted its chronology to be incorporated. Although these findings are interesting, they do not help in establishing the initial chronology (cf. Welsby, this volume).

Since 1995, we have been concerned by the problems of precise dating. After cross-referencing the data from different materials and from different laboratories, it transpired that that the pelts of bovines, human and animal bones, as well as horn and teeth, did not give accurate results. These materials generally contained little collagen at Kerma and are polluted by more recent elements, such as humic acids. The processes used to clean the samples never completely eliminated the polluting elements, whilst ensuring the retention of sufficient collagen for dating purposes. It was consequently necessary to find alternative materials directly associated with the graves. Ostrich eggshells gave good results, and it is this material which allowed us to establish our chronology for Early Kerma, using the beads occasionally found associated with the burials which had either formed part of bracelets or necklaces, or used as decorative elements on the loincloth. However, as we refined the chronology and our expectations became more demanding, we realised that in certain instances the dates obtained were a slightly too early, due to the fact that old pearls might have been reused, or because old ostrich eggs had been used to manufacture the beads. We finally found what is most probably the ideal material for the obtention of precise dates, in the form of the grass bedding laid down beneath the lower

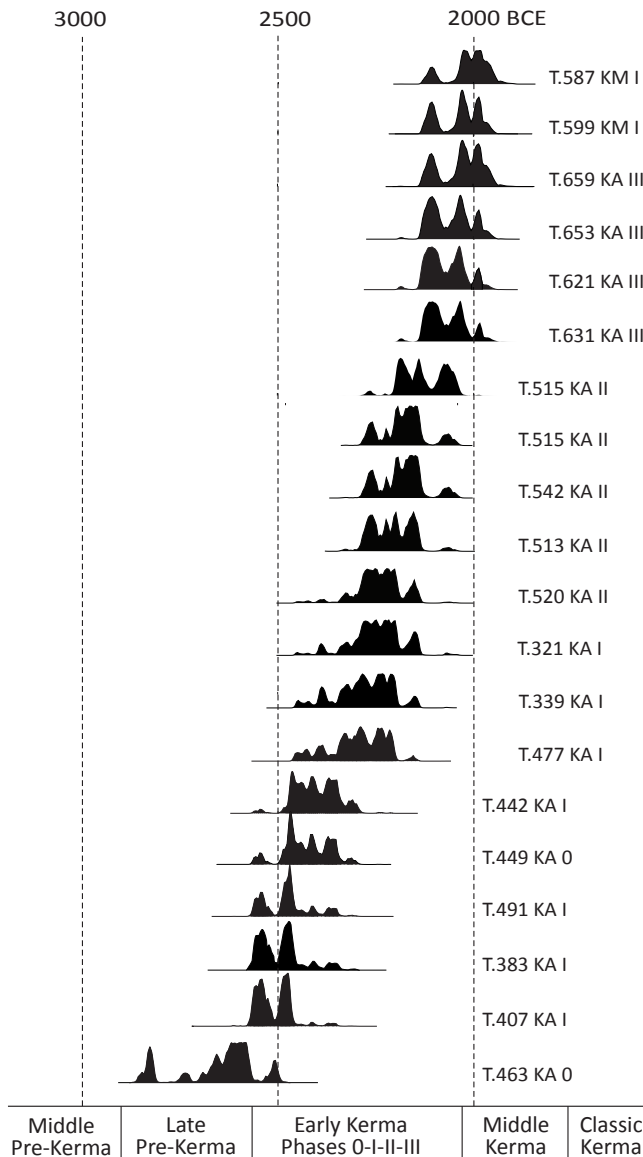


Figure 3. Diagram of the calibrated  $^{14}\text{C}$  dates obtained on samples from graves in the Eastern Cemetery with the phases defined according to the pottery typology.

bovine pelts on which the deceased had been placed. Strictly associated with the grave, short-lived and not subject to reutilisation, these grasses have to date supplied us with remarkably precise results. The differences between the materials used for dating assume their full importance in certain instances, especially when differentiating between the first two phases we had identified, which were respectively found in Sectors 28 and 27. Difficult to separate on the basis of the  $^{14}\text{C}$  dates, it was by taking into account the material

used for dating, and integrating the typology and evolution of the funerary rites, that we are able to demonstrate that these two sectors follow each other chronologically.

The dates obtained allow us to propose a coherent chronological framework which distinguishes several phases (Figure 3). The earliest dates are concentrated in Sectors 27 and 28. Sector 27, from which some of the pottery had already been studied (Privati *op. cit.*), has been attributed to *Kerma ancien I*. The pottery from Sector 28 is previously unknown; it contains some attributes of Pre-Kerma, whilst integrating certain aspects of the early C-Group (see below). We have attributed this assemblage to a new phase called *Kerma ancien 0*, which is dated between 2600-2500 BCE, whilst *Kerma ancien I*, which follows, is dated between 2500-2300 BCE (Figure 4). Sector 23 contains pottery attributable to *Kerma ancien II*, which is fairly accurately dated between 2300-2100 BCE. This is followed by *Kerma ancien III* in Sector 29, dated between 2100-2000 BCE. Sectors 30 and 31 are later, but although not yet dated, appear to belong to *Kerma ancien III*, whilst *Kerma ancien IV* has not been clearly identified in our initial analysis of the pottery found in all the sectors. Finally, Sector 8, which belongs to Middle Kerma, has been precisely dated to *ca.* 2000 BCE, and represents a *terminus ante quem* for Early Kerma. The  $^{14}\text{C}$  dates do not permit the resolution all the chronological problems and reach their limits regarding accuracy when it comes to creating a chronology accurate to within a century, or better, half-century, which is beyond the potential of the method. Confronting the results with other relative dating methods, such as pottery typologies and the evolution of the funerary rites, allows us to refine the dates proposed. A new study of the pottery imported from Egypt, using a larger corpus than in the previous study (Bourriau 2004) will produce additional information (Marie-Kristin Schröder, study in progress).

We thus have a relatively precise chronological framework which highlights four distinct phases for Early Kerma: Phases 0, I, II and III. Phases 0 and III appear to be of relatively short duration, between 50 and 100 years, whilst Phases I and II each cover a period of about 200 years. Regarding the spatial analysis, the first observable tendency during this evolution appears to be the progressive increase in the size of the graves pits (Figure 4). These are small and rectangular during *Kerma ancien 0* (average surface of 0.9 m<sup>2</sup>), becoming oval and only marginally larger during

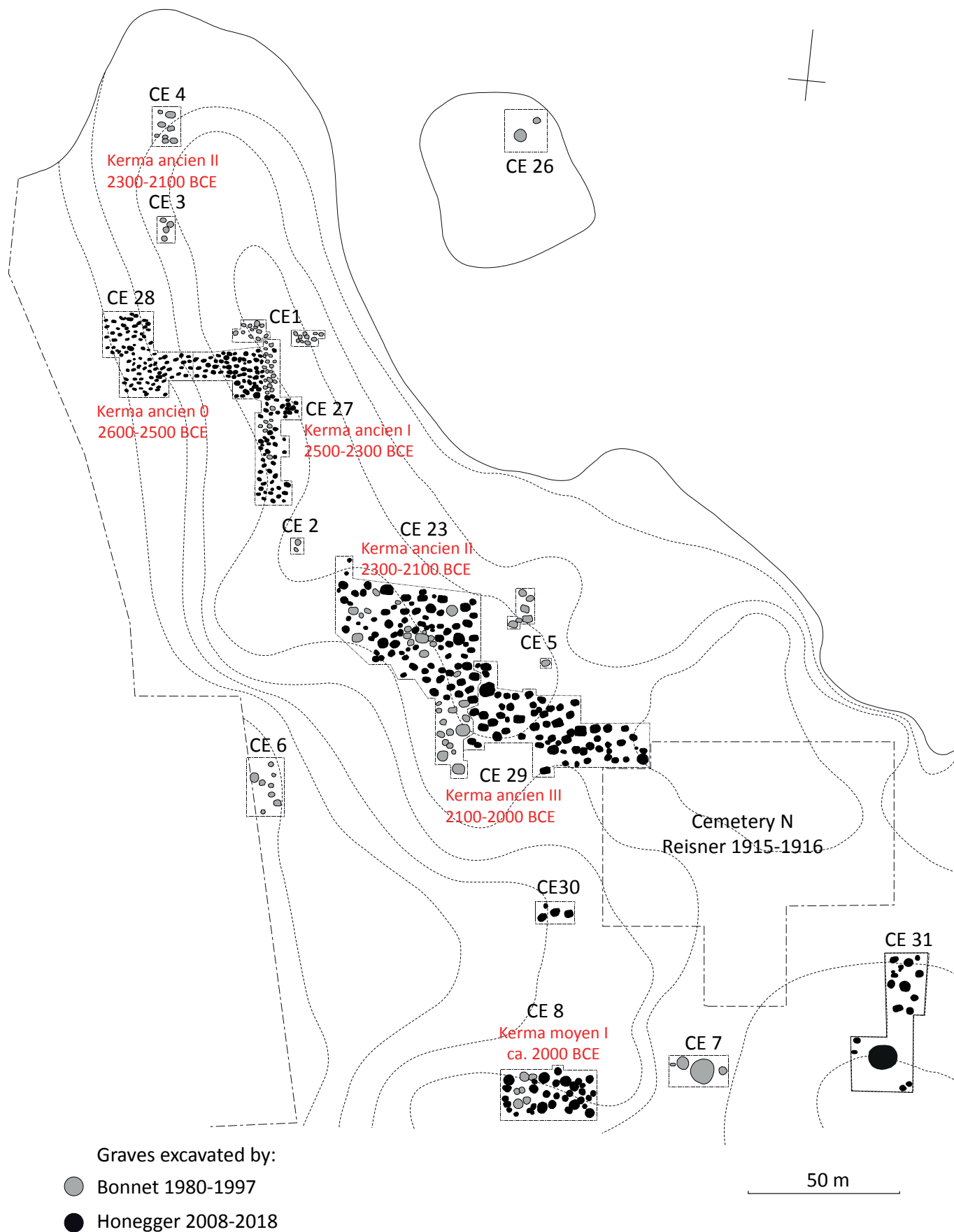


Figure 4. Detailed plan of the Early Kerma sectors showing their chronology based on the radiocarbon dates.

*Kerma ancien I* (average surface of 1.2 m<sup>2</sup>). It is only from *Kerma ancien II* that they mostly become larger and more circular (average surface of 4.2 m<sup>2</sup>), with this tendency continuing in *Kerma ancien III*, with the larger sepulchral pits attaining a diameter exceeding 4 metres, occasionally more quadrangular than circular (average surface of 5 m<sup>2</sup>).

### Pottery evolution

Pottery remains the most common material to define the Kerma culture. The most comprehensive study is that from the Island of Saï, but it is not based on a detailed chronology of the sectors excavated (Gratien 1986). The study undertaken of the pottery from the excavations undertaken by Charles Bonnet is based on a more detailed relative chronology, and resulted, *inter alia*, in the proposal to subdivide Early Kerma into four phases. As mentioned above, our excavations led us to add an earlier phase (*Kerma ancien 0*) but did not tend to confirm the existence of Phase IV, whose existence was based on the study of small number of pots (Privati 1999). This study, which proved to be the most useful for our work, permits a clear identification of those vessels subject to rapid evolution, whilst being based on a qualitative approach, however, it does not lend itself to an appreciation of the relative quantities of the main pottery categories. In our study we will quantify the relative proportions of the principal categories, thus highlighting elements of continuity or rupture over the five centuries with which we are concerned. This initial study will only partially consider the Egyptian and C-Group pottery, which we know to be present in the Early Kerma cemetery. In fact, a detailed study of these two components is in progress (M.-K. Schröder). Our unit counts are based on complete vessels as well as sherds. We have sought to express the unit counts in terms of individual pots, so that not all the sherds have been counted, but only one representative sherd of individual pots. This procedure works reasonably well but is more problematic when the pots are highly fragmented, which is the case in Sector 8 and for a part of Sector 27, which show varying degrees of erosion.

Our pottery categories are made up as follows:

- Fine polished red and black top pottery without decoration. These are vases and bowls, which make up one of the most common categories. They are already present in Pre-Kerma and A-Group, and continue to be present in the C-Group and the Kerma cultures. Their shape evolved over time.
- Fine polished red and black top pottery with the body covered by comb impressions. These are pots have more or less raised sides, with the body decorated with vertical or horizontal combed impressions.
- Fine polished red and black top pottery with thin impressed or incised decoration under the rim. This category is characteristic of Early Kerma, with a decorative band which can on occasion be extremely finely executed and with an impressive variety of decorative motifs.
- Fine polished red and black top pottery with various decorations. Several types are included in this category which includes pots of different sizes with combed impressions on the lip. One type is represented by a bowl with its body entirely decorated with rocker alternative pivoting stamp, which appears in *Kerma ancien III*.
- Red polished pottery. This category groups several types of red vases, which have been polished with a varying degree of care. One type, with raised sides and two double perforations, could be an incense burner meant to be suspended.
- Unpolished light brown bowls. These are generally bowls, often roughly polished.
- Light brown bowl with button decoration. This type encompasses those bowls with raised button decorations on the body, which appear during Early Kerma.
- Locally produced coil-manufactured jars. These can be of great size, generally smoothed but not polished. Some are decorated with geometric motifs on the shoulder.
- Vase support. This is grey cylinder, flattened at both ends, decorated with geometric motifs similar those on C-Group pottery. They appear in the second half of Early Kerma.
- C-Group Pottery. For a long time, the presence of several typical C-Group pots has been reported in the Early Kerma cemetery. They are black, grey or brown-coloured polished fine-ware, covered in finely executed incised or impressed decorations.
- Egyptian imported pottery. Present since the earliest phase, this category includes grey-green or orangey coloured wheel-thrown vases and jars, often incorporating a more or less accentuated neck, and usually covered in a white, pink or red wash. From the end of Early Kerma, locally manufactured coil-mounted imitations were produced.

- Varia. Different types of pots with few examples are grouped in this category, which includes entirely burnished black vases, a few very small pots and feeding bottles.

The objective is not draw up a complete chart of the typological evolution for the pottery, but rather to sketch-out its main outline. We will only retain five categories, primarily because they contain numerous examples and for the most part bear witness to the styles and contacts with Lower Nubia and Egypt. These five categories alone encompass 83% of the 1700 pots inventoried from Sectors 23, 27, 28 and 29, which were excavated from 327 graves.

- Fine polished red and black top pottery without decoration. These pots represent 18.5% of the assemblage and were generally found upside-down on the surface next to the tumuli, although some, especially bowls, were also found in the graves. Their evolution is particularly marked as regards their profile, but we will not elaborate on this aspect here. Their proportion varies between 10% and 16% depending on the phase.
- Fine polished red and black top pottery with the body covered by comb impressions. This category encompasses brick-red to dark red pottery with a combed decoration composed of very regular successive impressions or alternating impressions, whose motif is one of vertically aligned points over the entire body. It is made up of Gratien's types AVIIa-b and AVIII, although the decorations are never executed with a roller, as is mentioned for certain examples from Saï. These pots are typical of *Kerma ancien* 0, when they represent 47% of the assemblage, reducing to 5% in *Kerma ancien* I before disappearing in the later phases. It is a type occasionally found in Pre-Kerma (Honegger 2004), as well as in Phase Ia of the C-Group (Bietak 1968). They are not a priori characteristic of the Kerma culture. They were systematically placed upside-down on the surface next to the tumuli.
- Fine polished red and black top pottery with thin impressed or incised decoration under the rim. These pots are the most abundant and represent 38,5% of the entire pottery assemblage. They are the main diagnostic element for Early Kerma, and are invariably found upside-down on the surface next to the tumuli. They are very rare during *Kerma ancien* 0 and we believe the few found are intrusive (4 sherds representing 2% of the total). Their frequency

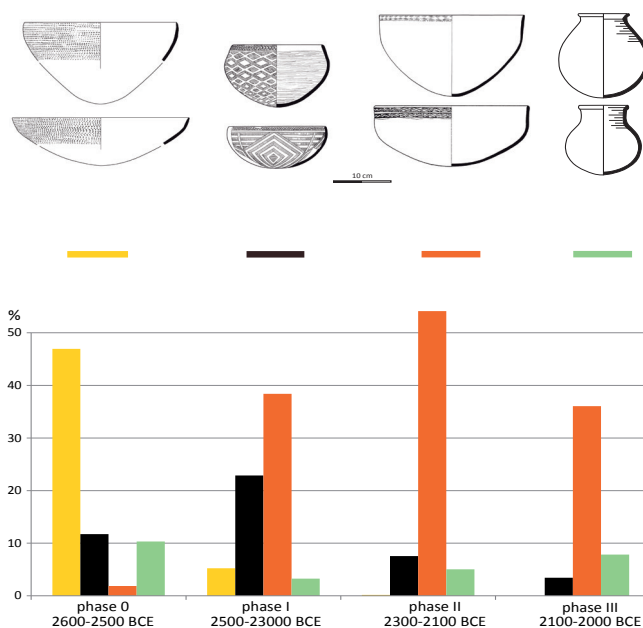


Figure 5. Histogram showing the proportions of the 4 pottery categories during the four phases of Early Kerma. The proportions are calculated on the total number of pots for each phase (nb of pots in the phase 0=213, I=612, II=556, III=319). The first category is associated with the previous Pre-Kerma traditions, the second is typical of the C-Group, the third is typical of Early Kerma, and the last corresponds to Egyptian imports.

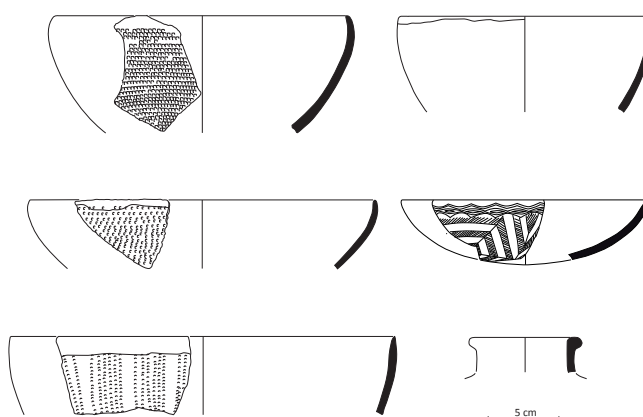


Figure 6. Pottery characteristic of Early Kerma Phase 0. On the left, fine polished red and black top pottery with the body covered by comb impressions. On the right, red and black top vessel, C-Group pot and Egyptian import.

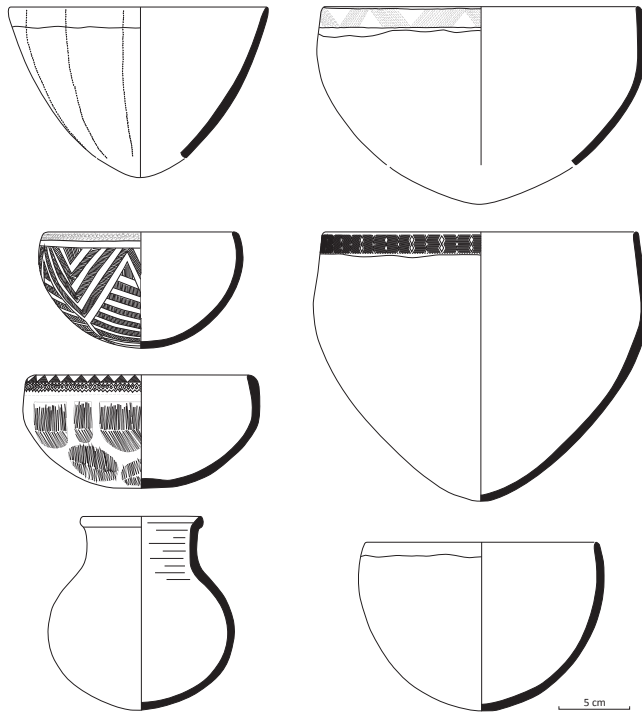


Figure 7. Pottery characteristic of Early Kerma Phase I.

Left, red and black top vessel with thin vertical impressions, C-Group bowls and Egyptian import. Right, red and black vases with thin decoration under the rim, red and black top bowl.

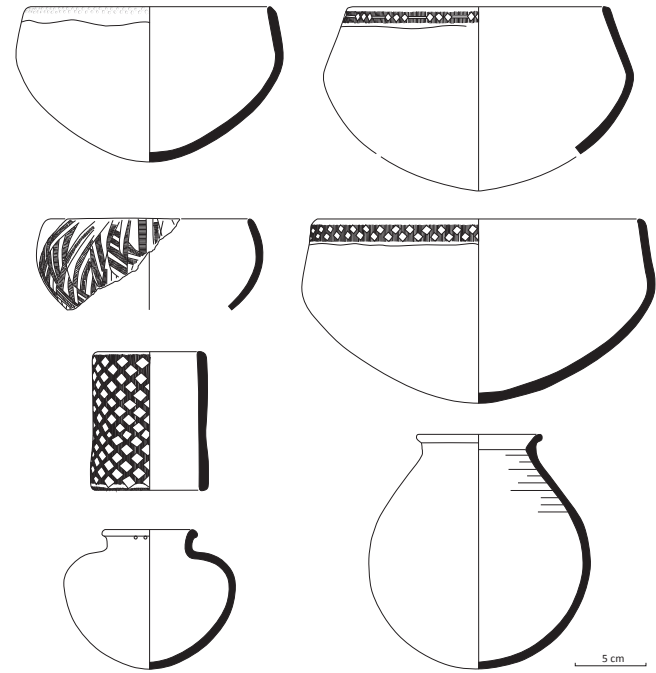


Figure 8. Pottery characteristic of Early Kerma Phase II.

Left, red and black pot with impression on the rim, C-Group bowl, vase support and small vase with a neck and double perforations, probably use as incense burner. Right, red and black top vases with thin decoration under the rim, Egyptian import.

increases to 36% during *Kerma ancien I*, peak at 54% in *Kerma ancien II*, before dropping back to 36% in *Kerma ancien III*:

- C-Group pottery. These pots, which are characteristic of the C-Group of Lower Nubia, are invariably found on the surface next to the tumuli, as is the case for the previous categories. They are relatively abundant, representing 13% of the entire corpus. Present since *Kerma ancien 0* (12% of the total), they increase to 23% in *Kerma ancien I*, to subsequently decline to 7.5% in *Kerma ancien II* and 3.5% in early *Kerma ancien III*.
- Egyptian imported pottery. Surprisingly, imported Egyptian pottery is very well represented in *Kerma ancien 0* at a frequency rate of 10%. This drops to 3% in *Kerma ancien I*, to subsequently increase again to 5% in *Kerma ancien II* and almost 8% in *Kerma ancien III*. These variations are probably due to the intensity of the exchanges and interaction with Egypt. It is noteworthy that Egyptian pottery was never deposited next to the graves, but was found

inside, at least for Phases I, II and III for which our documentation is sufficiently detailed for us to be certain that this is the case. For Phase 0, the degree of surface erosion and the fragmented nature of the pottery leads us to be less categorical.

We have thus selected pottery categories which are valorised in funerary rituals, due to the fact that they are almost all deposited on the surface next to the tumuli. At least two of these categories probably have a fairly strong social and ritual connotation: the emblematic example from Early Kerma (Fine polished red and black top pottery with thin impressed or incised decoration under the rim) and that characteristic of the C-Group. These categories were essentially manufactured for funerary rites and are rarely found in habitation contexts. Egyptian pottery probably represents certain values due to the exchanges and contacts with Egypt that they symbolise. As for the other categories (including some of the fine polished red and black top pottery without decoration), they are

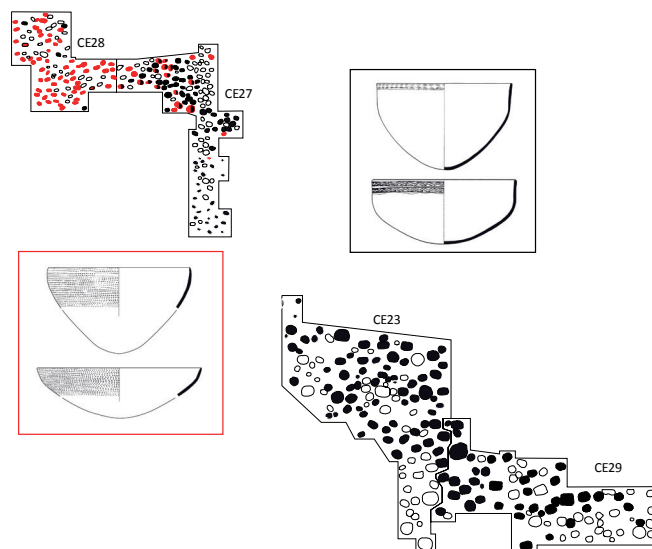


Figure 9. Distribution of the pottery categories with combed decorations and typical Early Kerma pottery. The opposition of these two categories is spatially evident.

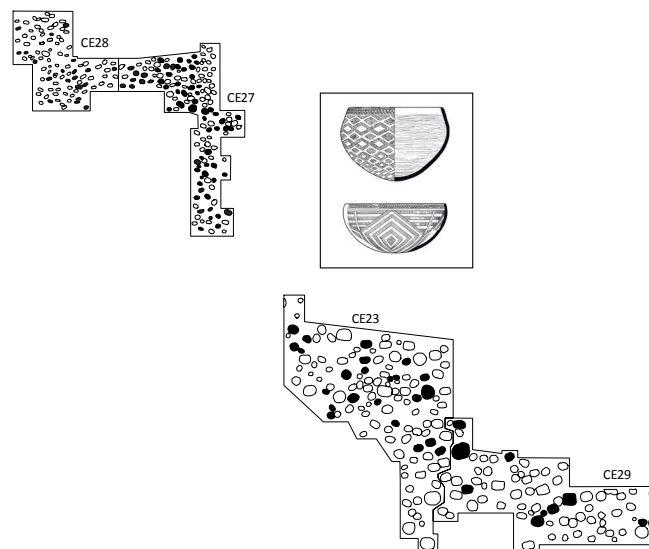


Figure 10. Distribution of C-Group pottery, primarily concentrated in Sector 27, but also well represented in Sectors 28 and 23.

generally utilitarian pots showing signs of use and are invariably deposited inside the graves, close to the deceased. There is one notable exception in the pot-supports deposited on the surface, which appear to replace C-Group pottery at a time when this becomes rare during *Kerma ancien* II and III.

The overall picture of this evolution can be synthesised in a graphic representation, which ignores the ubiquitous fine polished red and black top pottery without decoration, which appears to serve several functions (Figure 5). It is subject to strong contrasts, particularly between Early Kerma Phases 0, I and II, whilst *Kerma ancien* III shows continuity with Phase II. *Kerma ancien* 0 is dominated by pottery with horizontal decorations using a thick-toothed comb and finer vertical motifs (Figure 6). There is a certain continuity with Pre-Kerma, when a similar pottery is known, particularly in the recent phase (Honegger 2004). This pottery is accompanied by undecorated red pottery with black rims, and relatively high volumes of C-Group and Egyptian imported pottery. What is remarkable is

the almost total absence of characteristic Early Kerma pottery, other than a few sherds which are probably intrusive. It is therefore a period which cannot be considered as part of the Kerma Culture, as defined. It is, in our opinion, a facies that emanated from the Pre-Kerma, possibly enriched by A-Group traditions, if these survived beyond the supposed disappearance of this cultural entity. This phase, similar to that of C-Group Ia (Bietak 1968), shows that there were frequent exchanges with Egypt at this time and that the C-Group, at this early period, was probably not yet centred in Lower Nubia, but initially evolved between the 2<sup>nd</sup> Cataract and Kerma. The next phase is better known and corresponds to *Kerma ancien* I, as defined by Béatrice Privati (Privati 1982; 1986; 1999). The pottery so characteristic of the previous phase becomes more discreet and has been found concentrated in the eastern part of Sector 27, close to Sector 28, where Phase 0 evolved. The C-Group pottery is very well represented and the pottery characteristic of Early Kerma, with its fine decorations under the rim, is dominant (Figure 7).

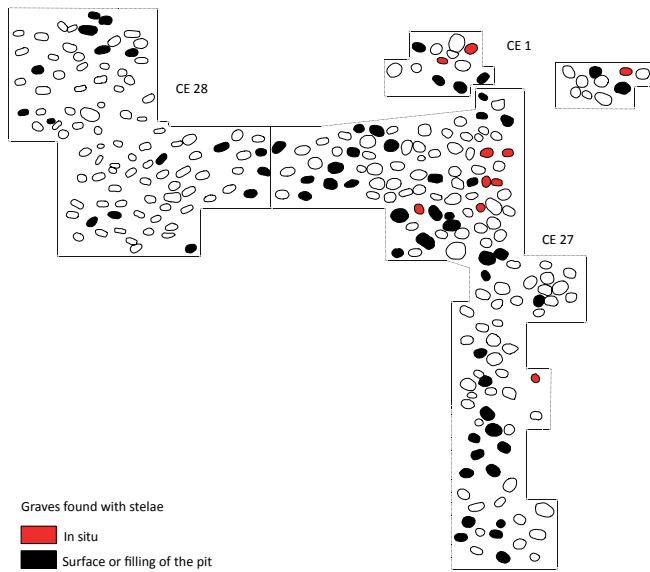


Figure 11. Distribution of stèles found in situ and those found in the infill of graves. They were originally around the circumference of the tumuli according to a tradition ascribed to the C-Group.



Plate 1. Examples of sandstone stèles discovered in Sectors 27 and 28. The top ones are pecked and polished, and were mostly from CE27, whilst the bottom ones, more frequent in CE28, are made of harder ferruginous sandstone, and shaped by percussion. The scale shown represents 20 cm.

An important point is that Egyptian imports drop substantially, indicating reduced contacts during this period. The other characteristic is the coexistence of C-Group and Kerma traditions, which is visible not only in the pottery, but also in the layout of the graves. It is not a question of two distinct cultures coexisting in the same space, but of a real fusion, with C-Group pottery on the edges of the same tumuli where typical Early Kerma pottery was also deposited. During Phase II, C-Group pottery becomes rarer, whereas that typical of Early Kerma becomes very abundant, showing a remarkable range and complexity of decorations (Figure 8). Egyptian imports increase again, not only in the form of pottery, but also evidenced by the frequent presence of bronze mirrors, whilst for the previous Phases 0 and I, a single example has been found. Overall, the range of potteries was broader during this period, primarily due to the fact that depositing pottery in the graves became more frequent, which practice was previously the exception. Since the pottery types deposited in the graves were utilitarian, and different from those deposited on the surface, it is to be expected that the variety increased (Figure 8). Typical Early Kerma pottery becomes a little less frequent and its decoration less varied. There was a progressive reduction in the volume of surface deposited pottery, whilst that in the graves increased. C-Group pots become rare with a tendency to disappear, whilst Egyptian imports increase, as they continued to do during Middle Kerma.

From a spatial standpoint, there is a marked contrast between the category of pots decorated with vertically or horizontally combed impressions and that of Early Kerma pots with a thin decoration under the rim (Figure 9). The first were primarily found in Sector 28 (*Kerma ancien 0*), whilst overlapping into Sector 27 (beginning of *Kerma ancien I*), whereas the second develop in Sectors 27, 23 and 29 (*Kerma ancien I* to III). This opposition underscores the originality of Phase 0, when the style differed from that of the Kerma Culture. The distribution of C-Group pots is also interesting (Figure 10), being present in all the sectors with their greatest concentration in Sector 27 (*Kerma ancien I*), when their presence is most marked.

### Evolution of funerary practices

The funerary practices at Kerma are somewhat similar to those of the C-Group. The body was laid out in a pit approximately 2 metres deep, resting on his right side in a flexed or a foetal position, with his head to the

east. The pit was covered with an earthen tumulus which was decorated with carefully arranged black and white stones in the Kerma Culture, whilst it was surrounded by steles in that of the C-Group. Around this tumulus the fineware potteries described above were set in the ground upside-down. The craniums of cattle (bucrania) were sometimes laid out to the south of the tumulus, although this practice only began in *Kerma ancien* II in our study. To the north of the tumulus there could be a wooden palisade to serve as a wind-break. Beginning in Middle Kerma, funerary chapels were built next to some important graves.

In the graves, the bodies were systematically placed on a carefully cut piece of bovine pelt and then covered by a second pelt. Their clothing comprised a leather skirt and leather sandals. In some cases, a linen shawl covered a part of the body. Other objects included finery worn by the deceased, such as earrings, strings of beads, bracelets or rings. As from *Kerma ancien* II, the material deposited in the grave is more abundant, such as ostrich feather fans regularly placed beside the deceased, bronze mirrors, bows and arrows in the male graves, a wooden stick in the female ones, utilitarian pots, and sacrificed sheep and/or dogs.

The presence of steles around a tumulus is indicative of the importance of the presence of the C-Group Culture in the Kerma cemetery. These steles are made from either sandstone shaped by piquetage and polished, or from the shaping of smaller plates of ferruginous sandstone, which last are most often present in Sector 28 (Plate 1). The distribution-map of those steles found *in situ*, set around a tumulus, or in secondary positions (on the surface of the tumulus or the infill of the grave), shows that this practice is limited to Sectors 28, 27 and the Sector 1 excavated by Bonnet 40 years ago (*Kerma ancien* 0 and I), when 20% to 30% of the graves are concerned (Figure 11). The steles in Sector 28 are the least well preserved due to poorer state of preservation of the land-surface, and this conservation problem does not allow us to determine whether Kerma tradition tumuli are already present in this the oldest Sector. By contrast, in *Kerma ancien* I, the two types of tumuli coexist. As has already been noted (Privati 1986), the two funerary traditions are imbricated and are not in opposition. Graves endowed with steles have pottery on the surface belonging for the most part to Early Kerma or the C-Group, in the same way as graves with Kerma tumuli can have C-Group pottery laid out around its surface. The steles no longer exist in *Kerma ancien* II.

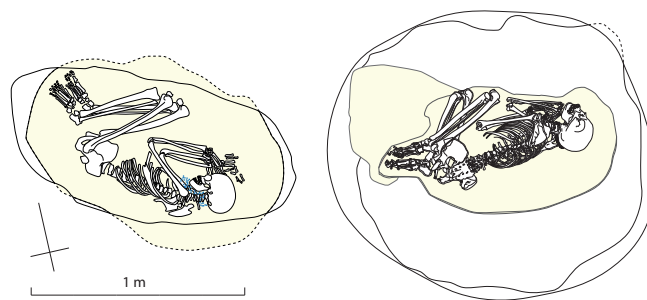


Figure 12. Grave of two 20-40 year-old male adult from Early Kerma I (2500-2300 BCE). In addition to the skeleton, the grave contained the remains of bovine pelts on which the individual had been laid.

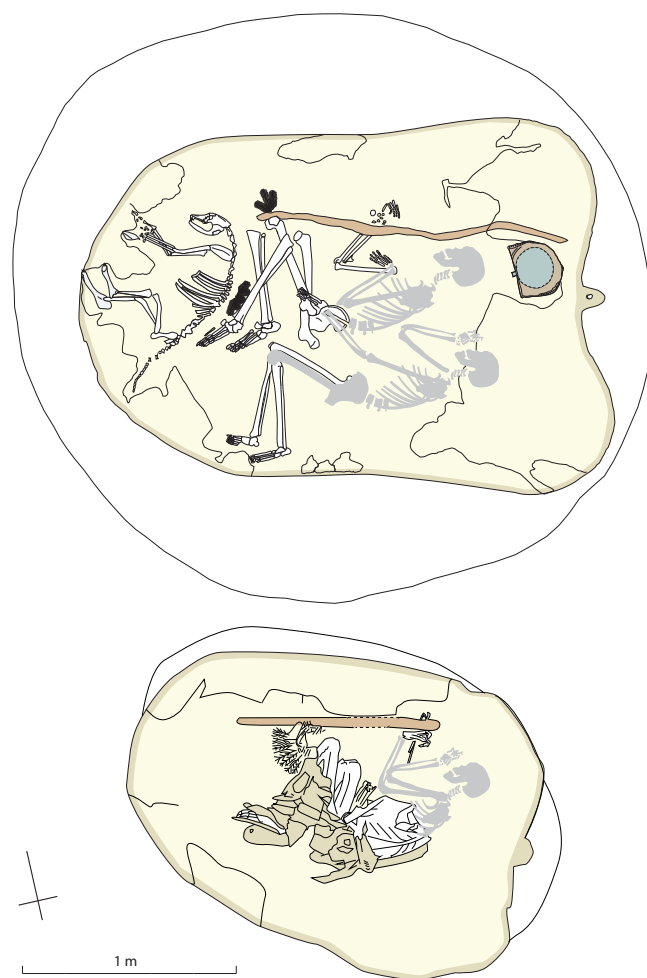


Figure 13. Graves of an archer and of a woman with a stick from Early Kerma Phase II (2300-2100 BCE), found in Sector 23 of the Kerma Eastern Cemetery. The grave of the archer contained two individuals: a young man in the central position and a woman placed by his side. A dog, a bow, an ostrich-feathers fan and a bronze mirror accompanied the young man. The grave with a wooden stick contained a 20-29 year-old woman. Both graves were partially plundered, and a part of the skeletons is here reconstructed.



Plate 2. Above, leather archer's wrist-guard found around the left-hand wrist of a deceased. Below, plume of ostrich feathers with a string which was rolled up at the extremity of the bow.

During Phase 0 (Sector 28), the graves are small and elongated, almost rectangular, which is a feature often found in C-Group cemeteries. This results in the body being often laid out in a contracted position, given the exiguity of the space. These graves have been more systematically robbed than in Sector 27, due to the fact that under the effects of erosion, they are closer to the surface and therefore easier to get to. During *Kerma ancien 0*, the pots are exclusively placed on the surface of the graves and grave-goods are rare, other than a few personal ornaments. There is no particular differentiation between the graves.

During Phase I, the pits become a little larger and body ornaments a little more present, whilst there is

little differentiation between graves (Figure 12). There are a few double burials, where the principal deceased is accompanied by another individual. Animal sacrifices are not yet practiced, although a goat horn has occasionally been found in the grave infill. The ancient looters were aware of the paucity of wealth in the graves, because these are far from being systematically pillaged. Sector 27 yielded 27% of intact graves, whilst in 34% of the cases it is only the skull that has been displaced, and only 15% had been completely emptied.

Sector 23 and more generally the *Kerma ancien II* phase shows spectacular changes in the funerary rites, compared to the earlier phases in the cemetery (Honegger 2013, 20-22; Honegger and Fallet 2015). The graves are generally larger and contain more objects. Animal sacrifices make their appearance (dogs, caprines) as well as bucrania in front of the tumuli. Graves with multiple burials are also more frequent. All these indices point to the emergence of a more marked stratification within society, whilst previously the image was one of relative equality of treatment in the face of death. The most outstanding find in the sector is the fact that male graves systematically contained one or two bows, occasionally a quiver, whilst female graves contained a stick, which it is tempting to interpret as a shepherd's accessory (Figure 13). Sector 23 appears to have been much more interesting for ancient looters as regards the richness of the graves. From the total of the graves excavated, only one was still intact, whilst 33% had been completely emptied. The remaining inhumations were found with less than half of the skeleton in place and quite often contained only a few remains *in situ*. The richest graves are logically the largest. They have the most fineware on the surface, contain the most sacrificed animals, and often have bucrania laid out to the south of the grave. They must also have contained the most metal objects, but their looting makes it difficult to evaluate this aspect. By contrast, even if the number of accompanying deceased increases and that this trend continues in Phase III, it is not necessarily the richest graves that contain them.

The fact that the masculine graves should be systematically endowed with arms is important, particularly since it concerns archers. Two recent studies have focussed on the armament at Kerma, inventorying the finds and proposing interpretations with varying degrees of success (Hafsaas-Tsakos 2013; Manzo 2016). The first concerned the daggers and swords, based on original models imported from Egypt, without being able to assess the importance of archery. The

second, on the other hand, exploited the information we communicated at the time of the Congress of Nubian Studies held in Neuchâtel in 2014, to draw up an inventory of the armaments, insisting on the importance of the archers. We know that the Egyptians designated Nubia as early as the third millennium BC in the hieroglyph *Ta-Seti*, which signifies the land of the bow. The qualities of the Nubian archers were repeatedly stressed by their northern neighbours, who recruited them since the Old Kingdom. Prior to our discovery in the Eastern Cemetery, the archaeological evidence for the presence of Nubian archers was however scarce for the Kerma Period. In the Kerma cemetery, from 2300 BCE, all the men are accompanied by their bow, sometimes decorated with ostrich feathers, often accompanied by arrows and a quiver, and in a few instances a leather wrist-guard (Plate 2). Even male children are accompanied by these accessories (Plate 3). This situation continues until at least the end of Early Kerma, and we suspect that it continues in Middle Kerma, although the intensive pillaging of the graves of that period often makes their identification difficult, particularly since the wood has often been eaten by termites.

During Phase III of Early Kerma, the same tendencies identified in the previous phase continued. The richest graves sometimes distinguish themselves in a more spectacular manner. One of them had 50 aligned bucrania to the south and 38 decorated pots on the surface. It is at the end of Early Kerma that the first royal graves appeared, like that recently discovered in Sector 31, whose diameter exceeds 10 metres and which has over 1000 bucrania laid out in front of the tumulus.

### Attempted interpretation

Taking into consideration the rare written sources and the situation in Lower Nubia since the mid third millennium BCE, it is possible to draw up a first scenario to explain the particular evolution which marked Early Kerma. In Lower Nubia, after its annexation by Egypt, the A-Group disappears *ca.* 2800 BCE, and a few centuries would have to elapse before a new autochthonous culture emerged in the region (C-Group). What happened to the A-Group is not clear. It is possible that a part of the population resettled in Egypt, whilst another component moved to the margins of the desert and to Upper Nubia. The archaeological remains and the inscriptions attest an Egyptian presence in Lower Nubia until the beginning of the 5<sup>th</sup> Dynasty *ca.* 2500 BCE. The sources are silent until the 6<sup>th</sup> Dynasty,



Plate 3. Sector 29. Intact grave of a 1.5 year-old child with a bow, a cushion made of vegetable matter and a pot.

suggesting a certain lack of control over the region, which coincides with the appearance of the C-Group between 2500-2400 BCE (Török 2009, 53-73). The origins of this group have long been the subject of debate, knowing that it appeared in a region supposedly depopulated of its original occupants for some three centuries. Some researchers believe that the group moved in from the south, possibly from the region of Wadi Owar, west of the Nile, coming into contact with Kerma before migrating further north.

Starting with the 6<sup>th</sup> Dynasty, the Egyptians renew relations with Nubia through the expeditions of Herkouf, a high dignitary from Aswan, who went south on three separate occasions during the reigns of Merenre I and Pepi II, *ca.* 2250-2240 BCE. Herkouf's narrative teaches us that several polities occupied Nubia and that these did not necessarily enjoy pacific relations (Török 2009, 69-70). These (tribal?) groups were already hierarchised with dominant personalities able to bring together large numbers of armed men, merchandise and

tens of donkeys to accompany Herkouf and his escort back on his return. Contacts became more intense at this time, only to slacken during the intermediate period between approximately 2150-2050 BCE. It was at the end of this period that the Egyptians regained control of all of Lower Nubia, building a series of fortresses at the level of the 2<sup>nd</sup> Cataract, to protect themselves from the Kingdom of Kerma, which had become powerful. The C-Group population thus found itself under foreign control.

The initial use of the Kerma Eastern Cemetery shortly before 2500 BCE evidences the presence of a population producing pottery in continuation from Pre-Kerma, which was different from that produced by Early Kerma. The presence of steles and pottery characteristic of the C-Group leads us to believe we are in the presence of an initial manifestation of this group. It is therefore possible that the C-Group first appeared in Upper Nubia, between the 2<sup>nd</sup> cataract and the Region of Kerma, which already represented a central place at that time, as suggested by the importance of the Eastern Cemetery and the previous Pre-Kerma occupations. The large quantities of Egyptian pottery at that time testify to the vigorous exchanges, stimulated by the Egyptian presence in Lower Nubia.

*Kerma ancien I* (2500-2300 BCE) witnesses the appearance of characteristic Kerma Culture pottery. At the same time traditional cultural elements of the C-Group and Kerma appeared together in funerary contexts, contextualised essentially by the tumuli and the fineware. The question then arises as to the meaning of these distinctions which are usually referred-to as cultural. Fineware is heavily imbued with meaning, due to the care in its manufacture and its importance in the funerary rituals. This significance is reinforced by its highly varied decoration which is probably also full of symbolic significance. This question has already been discussed for the C-Group, and it has been suggested that these sophisticated pots formed part of the gift-exchanges between members of the elites (Török 2009, 131.139). For our part, we think that these pots express the identity of the deceased and that the variations in the decoration are related to the presence of several lineages within the society, thus expressing their affiliation. The fact that two traditions regarding the tumuli existed, which is echoed in the two types of fine-ware, reinforces the idea that there existed two groups who interacted, probably practicing intermarriage, whilst nevertheless maintaining their specific identities. We can also question the origins of the Kerma tradition,

which begins to be visible in the cemetery only during Phase I. This culture also emanated from Upper Nubia, probably from a region close to Kerma. When examining the pottery from Pre-Kerma (Honegger 2004), particularly in its recent phase, it can be seen that the early manifestations of the C-Group (geometric decorations covering the entire body) and of Kerma (Fine decorations under the rims of red vases with black rims) are already present. During Phase I, exchanges with Egypt fell, which is in accord with the idea that Egypt lost its control over Lower Nubia, resulting in reduced exchanges between the North and the South.

During *Kerma ancien II*, funerary practices changed substantially: social stratification is clearly perceived, exchanges with Egypt increased, wealth is clearly manifested via the deposits in and around the graves, armaments take on great significance, C-Group pottery is clearly in decline and tumuli with steles have disappeared. It is hard not to associate these changes with Herkouf's expeditions, who developed a privileged relationship with the Land of Yam, which is most probably Kerma. It is possible that Kerma developed a coercive policy to ensure it controlled the lucrative trade with the North, in a context of conflicts between tribes or between different Nubian lineages. The valorisation of the warriors may have been one of the consequences. Furthermore, the presence of the C-Group became attenuated as they withdrew to Lower Nubia. It is probable that the reestablishment of commercial contacts between Egypt and Yam had an influence on this withdrawal, and that the space between the 1<sup>st</sup> and 4<sup>th</sup> Cataracts was reconfigured as Kerma progressively exerted its dominance over other groups. The C-Group possibly corresponded to certain Nubian lineages which emerged in the Kerma Region, before moving elsewhere when power passed to other lineages of the Kerma Culture. It is also possible that there were competitive struggles within the Kerma Culture for control of power. During *appurtenance II*, there were still a fair number of rich graves, and the decorations on the fineware were highly varied, whilst for *Kerma ancien III* there are far fewer rich graves, which are distinguished by greater wealth, and the fine ware decorations became more repetitive. This tendency is accentuated in Sector 31, marking the end of Early Kerma, with the emergence of the first royal grave.

The Kerma Eastern Cemetery can still today, over a century after the excavations undertaken by George Reiner, produce new discoveries regarding the development of the Kingdom of Kerma, so long as sufficient

attention is given to details during the excavations. Many other aspects of the funerary practices could be highlighted, but overall, the values which come across during Early Kerma in this cemetery relate to pastoralism, armaments, wealth expressed in terms desirable objects, including Egyptian imports, as well as possibly filiation and lineages, if this is in fact reflected in the finely decorated pottery.

### Acknowledgment

This project is supported by the Swiss National Fund (SNF 100011\_163021/1), the State Secretariat for Education, Research and Innovation of the Swiss Confederation, the Kerma Foundation and the University of Neuchâtel (Switzerland). We have benefitted from the support of the Qatar Sudan Archaeological Project for the protection and valorisation of the Kerma archaeological heritage, and in particular that of the Eastern Cemetery and the museum. We also thank Dr Abdelrahman Ali Mohamed, director of the National Corporation of Antiquities and Museums of Sudan (NCAM) for his support.

### Bibliographie

- Bietak, M. 1968. *Studien zu Chronologien der nubischen C-Gruppe. Ein Beitrag zur Frühgeschichte Unternubiens zwischen 2200 und 1500 vor Chr.*, Vienna.
- Bonnet, C. 1982. 'Les fouilles archéologiques de Kerma (Soudan). Rapport préliminaire sur les campagnes de 1980-1981 et 1981-1982', *Genava n.s.* 30, 1-42.
- Bonnet, C. 1984. 'Les Fouilles Archéologiques de Kerma (Soudan). Rapport préliminaire sur les campagnes de 1982-1983 et de 1983-1984', *Genava n.s.* 32, 5-42.
- Bonnet, C. 1986. 'Les Fouilles Archéologiques de Kerma (Soudan). Rapport préliminaire sur les campagnes de 1984-1985 et de 1985-1986', *Genava n.s.* 34, 5-45.
- Bonnet, C. 1997. 'Les Fouilles Archéologiques de Kerma (Soudan). Rapport préliminaire sur les campagnes de 1995-1996 et de 1996-1997', *Genava n.s.* 45, 96-123.
- Bonnet, C. 1999. 'Les Fouilles Archéologiques de Kerma (Soudan). Rapport préliminaire sur les campagnes de 1997-1998 et de 1998-1999', *Genava n.s.* 47, 57-86.
- Bonnet, C. 2000. *Edifices et rites funéraires à Kerma*, Paris.
- Bourriau, J. 2004. 'Egyptian Pottery Found in Kerma Ancien, Kerma Moyen, and Kerma Classique Graves at Kerma', in T. Kendall (ed.), *Nubian Studies 1998. Proceedings of the 9<sup>th</sup> Conference of the International Society for Nubian Studies*, Boston, 145-156.
- Dunham, D., D'Auria, S., Reisner, G. A. 1982. *Excavations at Kerma, Part VI*. Museum of Fine Arts, Boston.
- Gratien, B. 1978. *Les cultures Kerma. Essai de classification*. Lille.
- Gratien, B. 1986. *Saï I: La Nécropole Kerma*. Paris.
- Hafsaas-Tsakos, H. 2013. 'Edges of bronze and expressions of masculinity: the emergence of a warrior class at Kerma in Sudan', *Antiquity* 87, 79-91.
- Honegger, M. 2004. 'The Pre-Kerma: a cultural group from upper Nubia prior to the Kerma civilisation', *Sudan and Nubia* 8, 38-46.
- Honegger, M. 2010. 'The Ancient Kerma area of the Eastern Cemetery', *Kerma, documents de la mission archéologique Suisse au Soudan* 2, 7-11.
- Honegger, M. 2011. 'The beginning of the Kerma civilisation in the Eastern Cemetery', *Kerma, documents de la mission archéologique Suisse au Soudan* 3, 9-14.
- Honegger, M. 2012. 'Excavations at Wadi El-Arab and in the Eastern Cemetery of Keerma', *Kerma, documents de la mission archéologique Suisse au Soudan* 4, 3-9.
- Honegger, M. 2013. 'The oldest sectors of the eastern cemetery : neolithic occupations and the early stages of the Kerma civilisation', *Kerma, documents de la mission archéologique Suisse au Soudan* 5, 17-31.
- Honegger, M. and Dubosson, J. 2009. 'Ancient Kerma graves of the Eastern Cemetery', *Kerma, documents de la mission archéologique Suisse au Soudan* 1, 9-10.
- Honegger, M. and Fallet, C. 2015. 'Archers' Tombs of the Kerma ancient', *Kerma, documents de la mission archéologique Suisse au Soudan* 6, 16-30.
- Manzo, A. 2016. 'Weapons, ideology and identity at Kerma (Upper Nubia, 2500-1500 BC)', *Annali, sezione orientale* 76, 3-29.
- Maystre, A. 1980. *Akasha I*. Mission archéologique de la Fondation Henry M. Blackmer et du Centre d'études orientales de l'Université de Genève. Genève.
- Privati, B. 1982. 'Nouveaux éléments pour une classification de la céramique du Kerma ancien', *Genava n.s.* 30, 27-36.
- Privati, B. 1986. 'Remarques sur les ateliers de potiers de Kerma et sur la céramique du Groupe C', *Genava n.s.* 34, 23-28.
- Privati, B. 1999. 'La céramique de la nécropole orientale de Kerma (Soudan): essai de classification', *Cahier de Recherche de l'Institut de Papyrologie et d'Égyptologie de Lille* 20, 41-69.
- Privati, B. 2004. 'Kerma: classification des céramiques de la nécropole', in T. Kendall (ed.), *Nubian Studies 1998. Proceedings of the 9<sup>th</sup> Conference of the International Society for Nubian Studies*, Boston, 145-156.
- Reisner, G. A. 1923. *Excavations at Kerma I-III and IV-V*. Harvard African Studies 5-6, Cambridge.

Török, L. 2009. *Between Two Worlds: The Frontier Region between Ancient Nubia and Egypt 3700 BC - 500 AD*, Leiden.

Villa, A. and A. Guillemette, 1982. *Le cimetière kermaïque d'Ukma ouest : la prospection archéologique de la vallée du Nil en Nubie soudanaise*, Paris.