

# SUDAN & NUBIA

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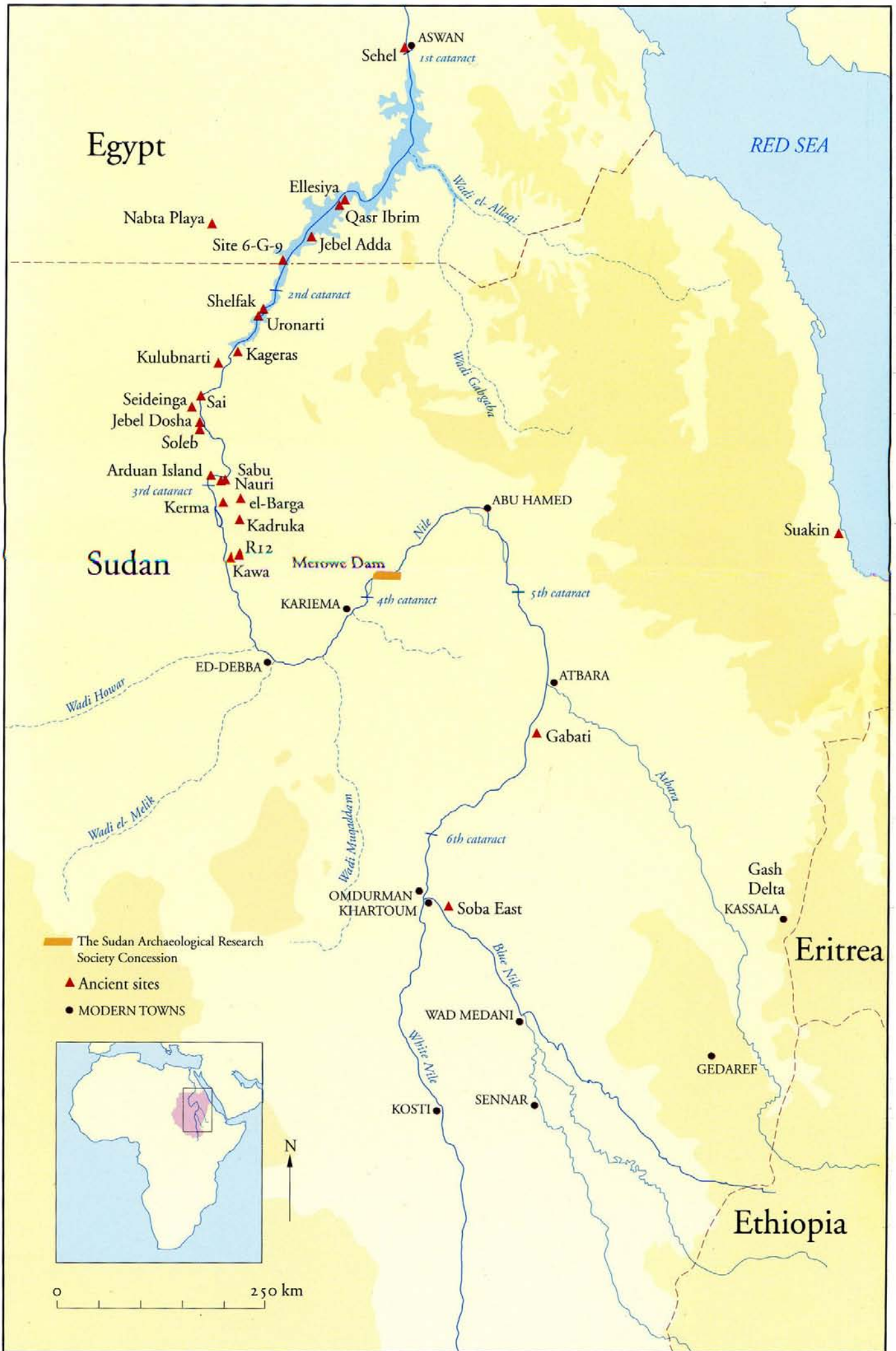


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# The Pre-Kerma: a cultural group from Upper Nubia prior to the Kerma civilisation<sup>1</sup>

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The Pre-Kerma culture was defined for the first time following the discovery in 1986 of a settlement beneath the tombs in the eastern necropolis of Kerma (Bonnet 1988). A preliminary study of the pottery found in the storage pits of this settlement demonstrated that this culture was earlier than that of Kerma, while showing certain similarities with the Lower Nubian A-Group (Privati 1988). Following this early work, the concept of a Pre-Kerma culture was generally accepted by the research community, in particular because it filled the gap in knowledge of the fourth and early third millennia of Upper Nubia. However, the definition of this culture remained imprecise and the fact that it was only represented by a single site made comparisons difficult (Honegger 2004; *forth.*).

During the last six years, the discovery of other Pre-Kerma sites on the islands of Sai and Arduan, and in the Kerma region, revived interest in this culture (Geus 1998; Edwards and Osman 2000). At the same time, studies of the pottery brought about a reconsideration of the cohesion of the A-Group, suggesting its possible extension to the south of the Second Cataract (Gatto 2000; Lange, *forth.*). It thus became necessary to try to more precisely define the Pre-Kerma culture and to attempt to evaluate its development and its relationship with other groups in Nubia. This paper proposes a definition of the Pre-Kerma culture based on its pottery style, comparing it with geographically and chronologically related cultures, such as those of the Neolithic in the Kerma region, the A-Group and the Kerma civilisation.

## Polythetic cultural groups

For prehistorians, it is usual to define entities in terms of monothetic civilisations, using the terminology of D. L. Clark (1968). According to this model, entities correspond to cultural groups in which all the elements are stable and vary together in the same way. While this approach can be effective in some archaeological situations, such as that of the first Neolithic colonisation of Europe via the Danube corridor, it is often badly adapted to the complexity of cultural phenomena, which function for most of the time in networks and where all the typological data do not have the same value (Pétrequin *et al.* 1987-1988). Polythetic models are better adapted to reality because they involve geographical entities and cultural variables, where the types of objects that contribute to their definition do not all have the

same significance. These latter can be divided into several categories:

- the key types designate the artefacts specific to the geographical area studied (Nubia)
- the exclusive types indicate the original features of certain entities at the core of the defined assemblage (the cultural groups)
- the non-essential types correspond to objects that result from intercommunications with other regions (trade with, and influence of, regions outside Nubia).

These models only have value through studies that are both quantitative and detailed, and are of homogenous and well-dated sites. In this study, the three categories indicate:

- characteristics of the Nubian techno-complex;
- elements having features of cultural groups from certain regions (Neolithic, A-Group, Pre-Kerma and Kerma);
- or trade with Egypt or central Sudan.

## Choice of sites studied

During the last ten years, survey work and excavations undertaken in the Kerma region have brought to light remains from many periods and these have been fairly precisely radiocarbon dated (Figure 1). The pottery from the area has been systematically recovered in such a way as to provide assemblages that lend themselves to quantitative analysis. The first assemblage of interest is from a series of successive occupations of the Neolithic period discovered in the centre of the eastern cemetery of Kerma (Honegger 2002). Five radiocarbon dates placed them between 4700 and 4300 cal. BC (site 8). They were pastoral encampments with surface finds of domestic animal bones, potsherds, and stone objects. The pottery from the different levels seemed to be homogeneous from a stylistic perspective and was grouped together in order to provide an assemblage of sufficient size.

Several metres to the south of these Neolithic remains, a vast Pre-Kerma settlement has been in the process of excavation for several years (site 1). Dating to around 3000 BC, it consists of habitation huts, animal enclosures and palisades surrounding a zone of storage pits. The pits contained many potsherds and these provided the first definition of the Pre-Kerma.

Recently, two other Pre-Kerma settlements were identified in areas partly destroyed by ploughing (sites 21 and 27). Two dates were obtained from charcoal from hearths, and as many surface pottery finds as possible were collected. The C<sup>14</sup> dates and the style of the pottery indicated that these sites were a little later than the vast settlement under excavation, between 2900 and 2500 BC. It should be noted that an earlier date has been obtained from a hearth belonging to a lower level (site 21). Dating back to around 3200 BC, this site has not been included in this study because it has yielded insufficient finds.

In order to demonstrate a possible affiliation between

<sup>1</sup> Translated from the French by Annie Grant.



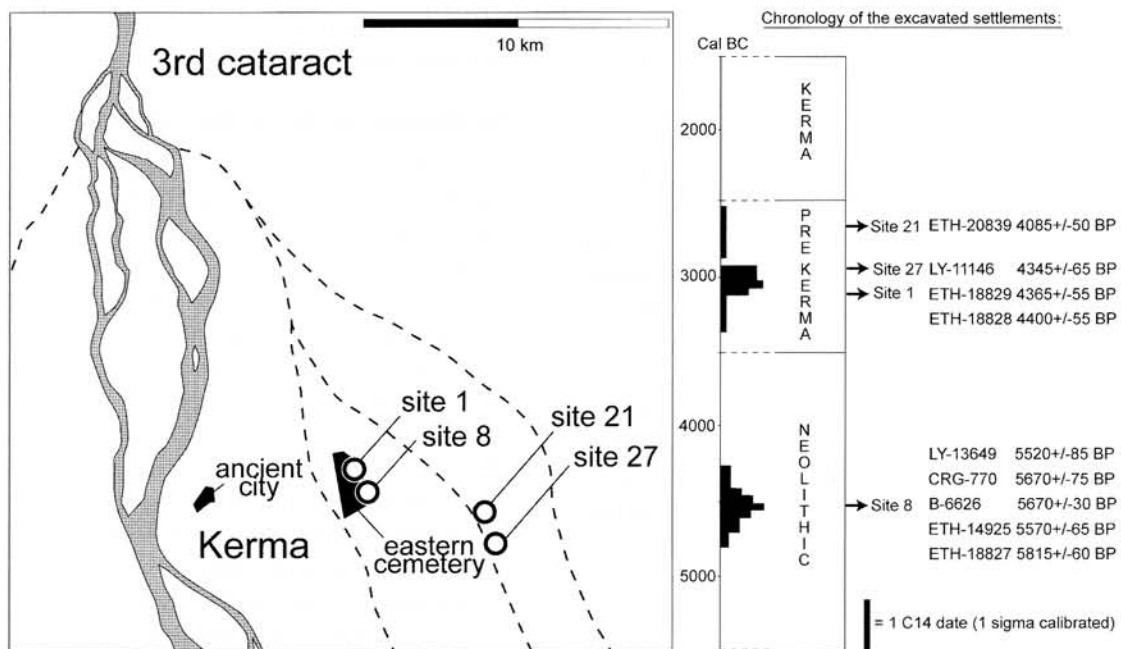


Figure 1. Distribution of the studied assemblages in the Kerma region and table showing their chronology.

Pre-Kerma and Kerma, the typological composition of the earliest phase of the ancient Kerma culture was reconstructed from several sources in the eastern necropolis at Kerma, the town of Kerma, and the cemetery on the island of Sai. On the basis of the earliest dates obtained from the eastern necropolis, this early phase must date to approximately 2500 to 2400 BC.

Finally, an attempt has been made to establish comparisons between the Pre-Kerma and the A-Group from Lower Nubia. To do this, the corpus of pottery from the classic and terminal phases of the latter group has been evaluated using the available literature on the cemeteries in the region of the Second Cataract. The dating of these two phases is known from the study of Egyptian objects found in the A-Group tombs. Thus the middle phase equates to Naqada II<sub>d</sub> and III<sub>a</sub>, that is to say between 3500 and 3200 BC, while the final phase extends from Naqada III<sub>b</sub> to the beginning of the 1<sup>st</sup> Dynasty, from 3200 to 3000 BC.

### Definition of ceramic types

In this study the approach to the pottery is based entirely on the decoration and other surface treatments. Although not used in this classification, the manufacturing techniques can be of great interest; in the Kerma region the technological evolution from the Neolithic to the Kerma civilisation follows the same trends as those shown for Lower Nubia (Nordström 1972). The fabric of the Neolithic pottery is usually grey with a temper of fine sand, sometimes with some organic elements. In the Pre-Kerma the fine pottery fabric is black, due to the high proportion of organic temper; this latter might be dung. It is much less fine than the pottery of the Kerma period, with plant remains visible under the microscope (De Paepe 1988). In contrast, the

course pottery contains much less organic material; its temper consists mainly of grains of quartz of variable diameters up to 2mm.

The definition of ceramic types is generally the most important stage in the attempts to classify cultural groups. The majority of current work is based on the descriptive system established by Isabella Caneva (Caneva and Marks 1990), which gives priority to the tool and the decorative technique (e.g. Jesse 2003; Nelson 2002). This was developed on the Mesolithic and Neolithic pottery of Central Sudan, and needs some adaptation before it can be applied to the Neolithic and Protohistory of Nubia (Gatto 2002). In the Nubian context, pots were treated in a several different ways (surface polish, colour application, incised or impressed motifs) that could be combined in multiple variants. Any attempt to present the full range of diversity of these combinations could lead to a complex descriptive system with a high number of types.

The objective here is not to provide the most detailed description possible of the pottery of the cultural assemblages studied, rather to demonstrate the originality of a culture that is still poorly known in comparison with others that are close in time and space. In that we advocate a quantitative approach and not one of absence/presence, the number of types defined should not be too great (cf. Gatto 2000). On the other hand, these types must have a certain discriminatory value in order to be truly effective. In the final analysis, this results in an approach that is more empirical than analytical and systematic.

The typological classification rests on a three level hierarchy:

- I. The surface can be plain/smoothed or burnished/polished





II. No external colour is applied - pots are red, black, red with a black border or painted with motifs (eggshell).

III. Incised or imprinted decoration can be limited to the edge or covering the whole surface.

In order to avoid a multiplicity of types and present the most discriminatory elements, several simplifications must be accepted. Thus distinctions have not been made between the burnished pottery of the Neolithic and the generally later polished pottery. Red pottery with a black border has been shown to be very abundant, indeed ubiquitous, in the Pre-Kerma and Kerma assemblages. It has been noted only when it has no impressed decoration, but when the latter is present it takes precedence over the coloration. In the same way, rims decorated with impressed motifs are very common, and these are only noted when the rest of the surface of the pot entirely lacks decoration.

#### *Type list*

##### Plain or smoothed surface (coarse pottery)

1. No decoration
2. Impressed or incised pattern near the rim, without decoration on the rest of the surface
3. Geometric impressions or incisions on the surface with herringbone pattern
4. Rocker-stamps on the surface with zig-zag pattern (dotted and plain rocker)

##### Burnished or polished surface (fine pottery)

5. No decoration, natural brown colour of clay
6. Red coated with black top, without impressed/incised decoration
7. Simple impressed horizontal combed lines (mainly red coated with black top)
8. Simple impressed vertical combed lines (mainly red coated with black top)
9. Milled rim: thin impressions or incisions near or on the rim, without decoration on the rest of the surface (mainly red coated with black top)
10. Notched rim: thick impressions on the rim, without decoration on the rest of the surface (sometimes red coated with black top)
11. Rippled: limited to the top of the pottery (mainly red coated with black top)
12. Rippled: covering all the surface (sometimes red coated with black top)
13. Completely black, without impressed/incised decoration
14. Completely red coated, without impressed/incised decoration
15. Painted eggshell pottery
16. Geometric impressions on the surface with triangle pattern
17. Imported Egyptian pottery
18. Various: rare types that cannot be classified in the preceding categories. For example, microceramics (two

examples), bowls covered with white slip (four examples) or vertically aligned impressions (five examples).

#### **Comparisons between cultural groups**

For each cultural assemblage, counts or estimates were made. For those series examined directly (Neolithic and Pre-Kerma), the potsherds were catalogued individually, taking care not to double count fragments of the same vessel. Thus the totals produced are not the numbers of sherds collected but the minimum number of vessels.

Where the material was not directly examined, estimations were made using the available literature. In respect of *Kerma Ancien*, the earliest period has been characterised. In the eastern necropolis of Kerma this corresponds to sectors 1 and 3 (Privati 1999). There is, however, an earlier phase that has not been excavated, where some surface collections have been made. At Sai, the earliest sector has been studied and detailed breakdowns are available (Gratien 1978). Account has also been taken of the jars represented in the deepest stratigraphic levels of the town of Kerma, in order to provide some information about the coarse pottery which is rare in the tombs of this period (Privati 2004).

In respect of the A-Group, estimates were made using two principal publications on the cemeteries around the Second Cataract (Nordström 1972; Williams 1986). The absence of studies of habitation sites means that it has not been possible here to take account of these. However the discrepancy between funerary and domestic material does not seem to be very great. In contrast to the *Kerma Ancien* period, course pottery, particularly jars, is well represented in the burials of this period.

Using detailed counts and estimates, a seriation was created in order to reveal the evolutionary development from the Neolithic to the early *Kerma Ancien* (Figure 2). The assemblages from the area around the Second Cataract have been presented separately, given the distance that separates them from the Kerma basin. The series shows a progressive evolution without a break between the Pre-Kerma and the early *Kerma Ancien*, suggesting cultural continuity in the region of the Third Cataract over this period. It justifies the use of the term Pre-Kerma as a precursor of the Kerma period. In contrast, there is a certain stylistic discontinuity between the Neolithic and the Pre-Kerma, perhaps not surprisingly given the chronological gap that separates these two assemblages. For the present, this gap is difficult to fill; in the Kerma region, as in the rest of the Northern Dongola Reach, 4<sup>th</sup> millennium settlements are unknown. The Neolithic cemeteries excavated in recent years are not later than 4000 BC (Salvatori and Usai 2001; Reinold 2001). The two phases of the A-Group can also be distinguished from the Pre-Kerma; they occupy an intermediate position between this cultural group and the Neolithic.

To complement the seriation, a principal components analysis was undertaken in order to visualise the results using different axes that group together a certain percentage

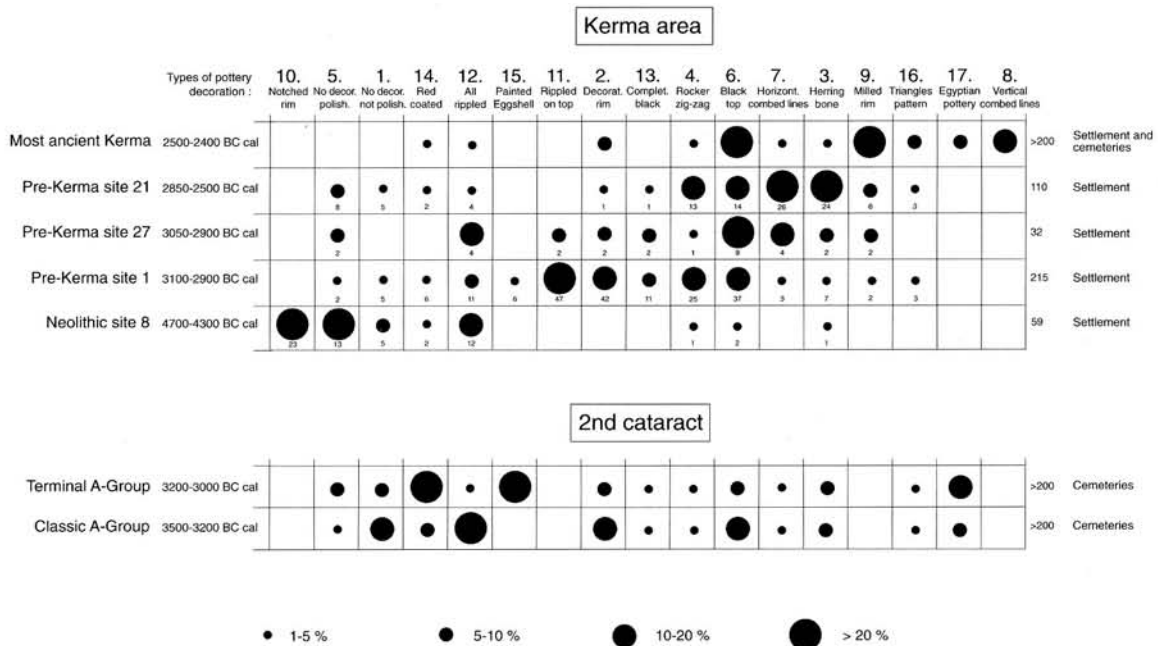


Figure 2. Frequency of the ceramic types in the cultures of Pre-Kerma, Kerma, the Neolithic of the Kerma region and the A-Group in Lower Nubia. The totals of each type are shown for those assemblages where precise quantification has been undertaken.

of the information (Figure 3). The first two axes demonstrate the affinities between the Neolithic and the A-Group, while the Pre-Kerma assemblages are grouped together and *Kerma Ancien* is relatively isolated. Axes 1 and 3 show a slightly different configuration. The Neolithic is isolated, while the Pre-Kerma of around 3000 BC shows certain connections with A-Group. The two most recent Pre-Kerma assemblages are very close to the early *Kerma Ancien*.

On the basis of these comparisons, we can briefly summarise the characteristics of the pottery of these different cultural groups by dividing them into key types, exclusive types and non-essential types (Figures 4, 5 and 6). This division is somewhat schematic in the sense that it is not possible to integrate the detail of the trends expressed in the seriation shown in Figure 2.

*Key types common to the Nubian techno-complex*

Types 1, 2, 4, 5, 6 and 12

All these types are found in the majority of the cultural groups between the 5<sup>th</sup> and 3<sup>rd</sup> millennium BC. Their proportion is however variable and they can sometimes be found much more frequently within a particular cultural group. This is the case for types 5 (Neolithic), 14 (classic A-Group), 3 (late Pre-Kerma) 9 and 16 (*Kerma Ancien*).

*Exclusive types characteristic of each cultural group*

- Neolithic: type 10 (notched rim).
- Terminal A-Group: type 15 (painted eggshell pottery)
- Middle Pre-Kerma (site 1): type 11 (rippled limited to the top of the pottery)
- Late Pre-Kerma (sites 21 and 27): type 7 (horizontal combed lines)
- Early *Kerma Ancien*: type 8 (vertical combed lines)

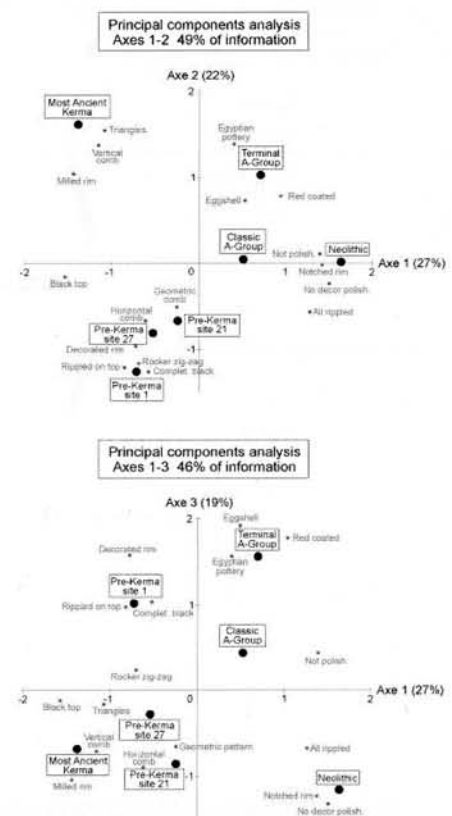


Figure 3. Axes 1-2 and 1-3 of a principal components analysis of the cultural groups of Nubia defined by 17 types of ceramic. The contribution of each type is also represented (analysis normed using the statistica software package).



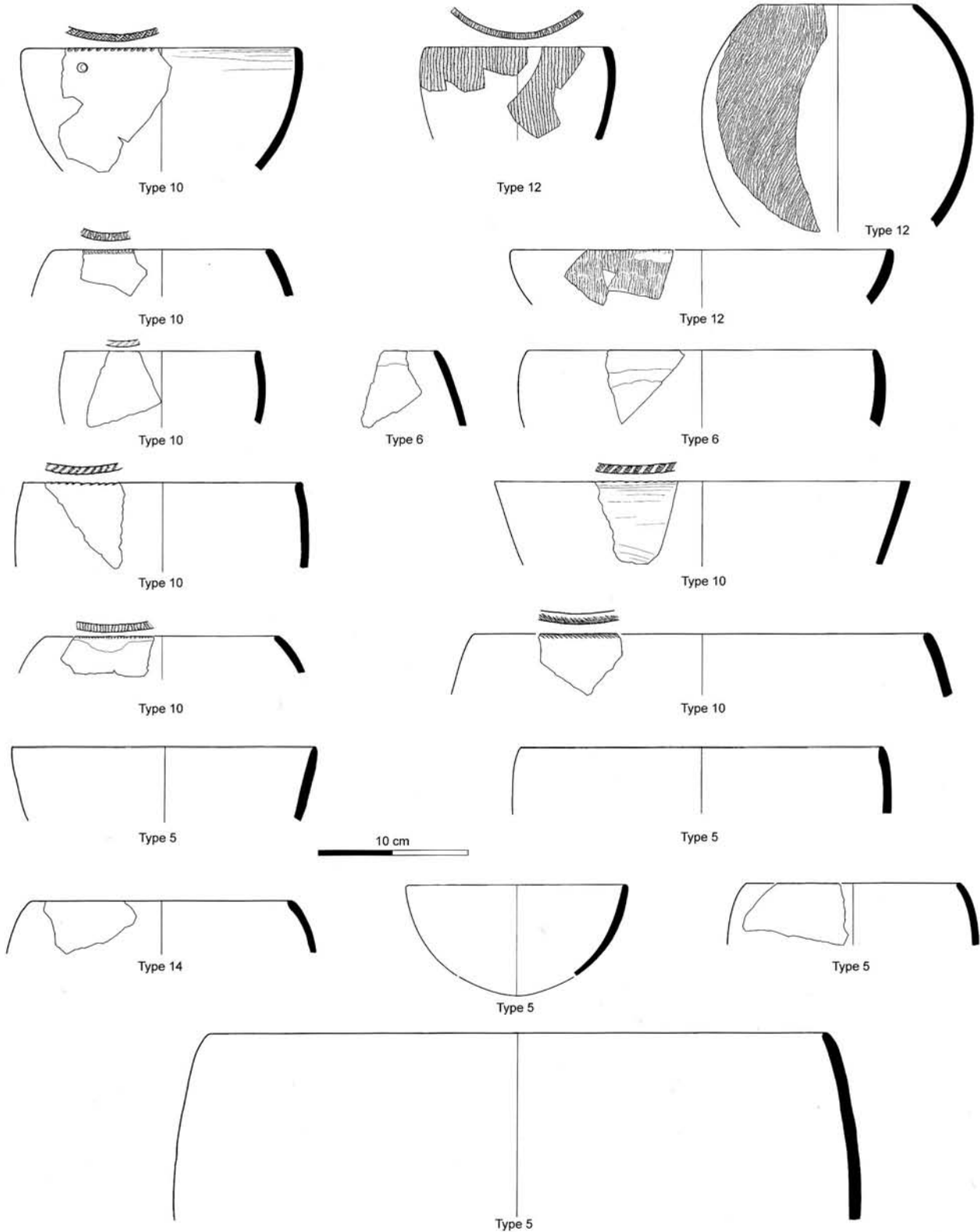


Figure 4. Examples of Neolithic pottery from the Kerma region with the indication of the type number. (Drawing M. Berti).

These types are found almost exclusively in the cultural groups mentioned. They can thus be considered as type-fossils.

*Non-essential types from outside the study zone*

Type 17 (Egyptian pottery.)

Current thinking is that the importation of Egyptian pottery does not begin prior to *Kerma Ancien* period in the region studied, but discoveries at Sai, 100km to the north, have shown the presence of such imports from around 2700 – 2600 BC.



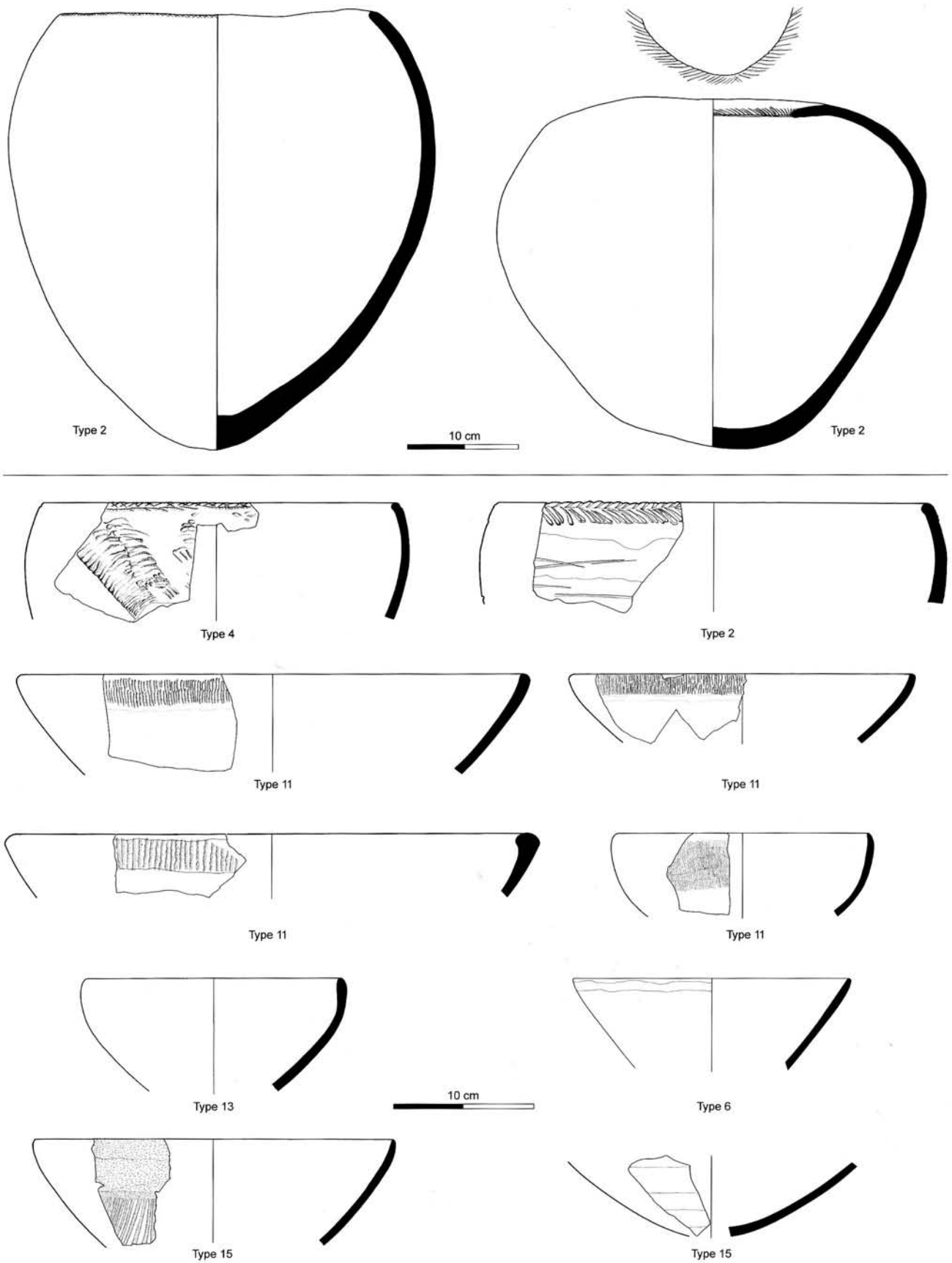


Figure 5. Examples of Middle Pre-Kerma pottery from the Kerma region with the indication of the type number (site 1, c. 3000 BC). (Drawing M. Berti).

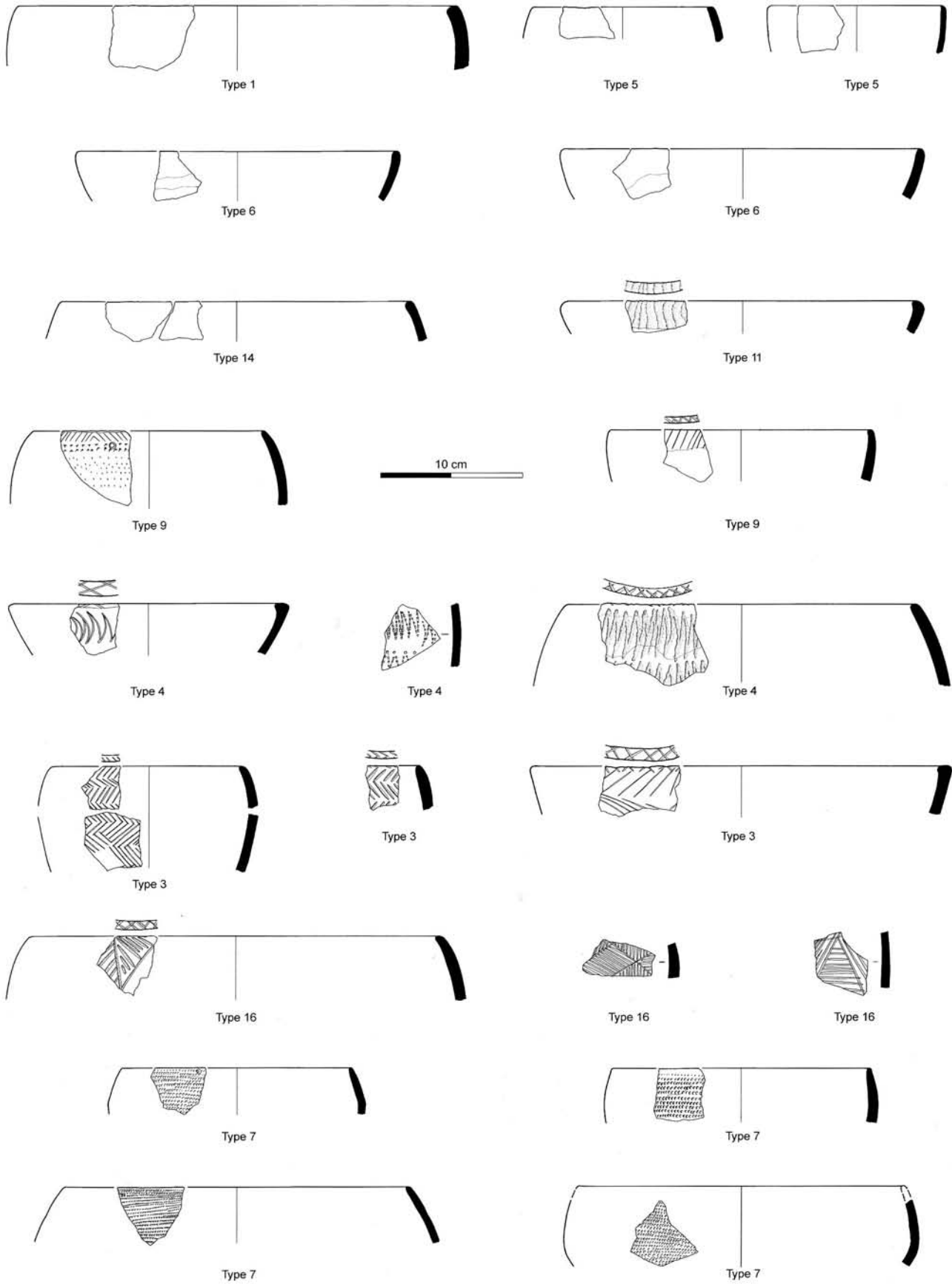


Figure 6. Examples of Late Pre-Kerma pottery from the Kerma region with the indication of the type number (sites 21 and 27, 2900-2500 BC). (Drawing M. Berti).



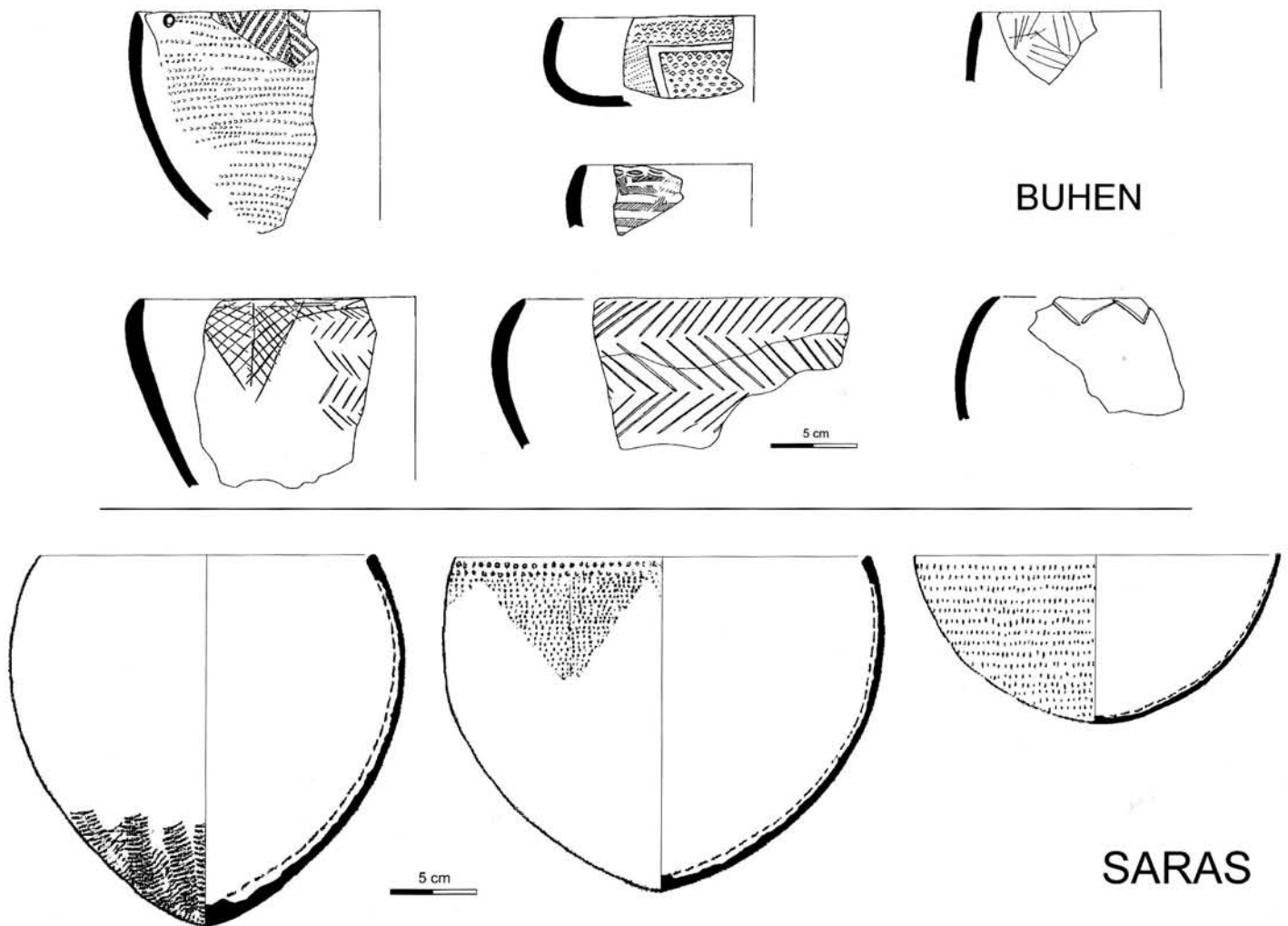


Figure 7. Examples of two assemblages attributed to the late Pre-Kerma from north of the Third Cataract (after Gratien 1995, fig. 1; Mills 1967-1968, fig. 2).

## Discussion

This comparative study has demonstrated certain cultural specifics of the Pre-Kerma pottery, showing its originality and its relationships with other Nubian groups. Within the three Pre-Kerma assemblages, two phases can be distinguished. The first corresponds to the settlement of the eastern necropolis (site 1) and is dated to around 3000 BC. This is proposed as the Middle Pre-Kerma phase as there must be an earlier phase around the middle of the 4<sup>th</sup> millennium, providing the transition from the Neolithic. The second period is represented by two sites and must date approximately from 2900 to 2500 BC (sites 21 and 27). This is named Late Pre-Kerma, as it follows the earlier phase and appears to be transitional to the beginning of the *Kerma Ancien* period. It must be pointed out here that this study is based on only one category of finds (pottery) and more extensive comparisons must take account of the complete cultural assemblage. In this context, the grave goods found in two Middle Pre-Kerma graves should be noted: they comprise, amongst other things, two quartz palettes and a cop-

per pin with a square section, recalling A-Group objects (Honegger 1999).

The Pre-Kerma culture must occupy a part of Upper Nubia, but its extent is still little known as comparisons are restricted. Pottery similar to that of the middle phase seems to have been found only on one other site, on the island of Arduan, just north of Kerma (Edwards and Osman 2000, fig. 3). Here there are pots with ripple decoration limited to the top of the belly (type 11). Pottery with similarities to that of late Pre-Kerma has in contrast been noted several times to the north of the Third Cataract (Figure 7). It is usually of the type with herringbone decoration (type 3) and horizontal combed lines (type 7). Inverse triangles filled with incised motifs are also found; these have been integrated with type 16 but deserve further detailed description in the future. Late Pre-Kerma sherds have been found at Soleb (Schiff Giorgini 1971, 391-392), at Sai and its surroundings (Geus forth.), at Saras (Mills 1967-1968), at Buhen, where they have been assigned to a redefined B-Group (Gratien 1995, fig. 1) and finally at Faras (Nordström 1962, pl. XIII).

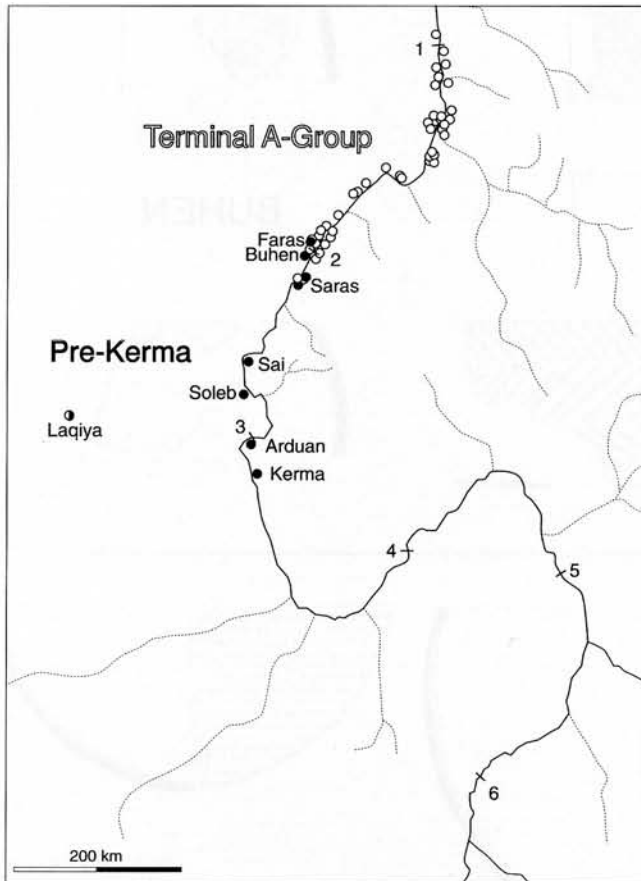


Figure 8. Map of Nubia showing the distribution of sites attributed to the Terminal A-Group and to the Pre-Kerma. The absence of Pre-Kerma sites in the southern part of the Kerma region reflects the current state of research.

Currently, knowledge of the Pre-Kerma is primarily from the north part of Upper Nubia (Figure 8). Some sites have also been located to the south of the Kerma region, in the Northern Dongola Reach, although the precise details of this pottery are as yet unknown (Reinold 2001). However, we cannot exclude the possibility that the Pre-Kerma stretched beyond the Fourth Cataract, given the evidence from the many surveys undertaken in advance of the construction of the Merowe Dam that show the extension of the Kerma civilisation in this region. In all these cases, the existence of Pre-Kerma demonstrates that the emergence of the Kerma civilisation is based in part on the dynamics of the local substratum and it is not necessary to envisage an immigration of an external population to explain the emergence of the first kingdom of Nubia.

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