

Meroitic Ceramic Studies I : A Preliminary study of the Meroe West Cemetery

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Introduction

Nearly a century after Garstang began excavating at Meroe, archaeological studies of Kushite material culture still remain poorly developed in many respects. One major failure of research has been the lack of specifically archaeological studies which may contribute to our understanding of Kushite chronology. The sparse historical sources and the conventional dynastic schema developing Reisner's classic studies of the royal cemeteries (e.g. Hintze 1973; Eide *et al* 1996, 1998) provide a number of chronological benchmarks. However, at present, the value of such dating evidence generally remains very limited in relation to the requirements of archaeological research. While, for example, some monuments may be attributed to named, and approximately datable Kushite monarchs, such instances are generally of little relevance or value with regard to developing our understanding of the development of Kushite material culture over time.

Despite the considerable scholarship which has focused on this field, other means at our disposal of dating archaeological material, and sites, remain little explored. Some dating evidence has been gleaned from valuable studies of datable imported artefacts (e.g. Török 1989), particularly in royal tombs. However, the relatively long date-ranges which may be assigned to the more common items such as glass, metalwork and pottery provide little basis for constructing more precise chronologies. In particular, in the absence of studies of the contextual associations of datable items with other types of artefacts, their ability to contribute to the establishment of more extensive sequences of datable material remain limited. By contrast, the potential for using Meroitic ceramic data would appear very great, both in relation to existing data (both published and unpublished) and for future work. Ceramic chronologies remain a central element in most archaeological work (Orton *et al.* 1993) and the systematic study of such material is long-overdue in Kushite archaeology.

While a number of large groups of Meroitic ceramic material have been published, mainly from cemeteries, many more remain poorly documented and reported. Excavations of key settlement sites, such as those carried-out at Meroe (Shinnie and Bradley 1980) and, to a lesser extent at Musawwarat es Sufra (Otto 1967) have failed to produce significant information commensurate with the large quantities of pottery recovered, although the ongoing reassessment of the Musawwarat material (e.g. Seiler, *in press*) is producing important results. However, the lack of archaeologically meaningful contexts for most earlier groups, including those recovered by Garstang at Meroe, recently published by Török (1997),

also greatly limits their usefulness. While various type-series' have been prepared, the absence of published stratified groups precludes the construction of usable ceramic sequences. This is particularly unfortunate with regard to the material from the more recent excavations at Meroe, which had the potential to provide a stratified sequence spanning probably the whole Kushite period. Sadly, most earlier "settlement" excavations, such as those at Kawa, Jebel Barkal, Sanam and Wad Ben Naqa showed little or no interest in the ceramic finds.

Fieldwork in Lower Nubia has produced more significant groups of material, although again largely limited to cemetery assemblages in the absence of any adequately published stratified groups from settlements. However, the synthetic study of Lower Nubian Meroitic pottery still remains undeveloped. Adams' work on Meroitic pottery provides a useful overview of the often distinctive wares encountered in this region, but this remains perhaps the least successful part of his major study of Nubian pottery (1986). This is most apparent in a failure to identify clear patterns of chronological development within pottery assemblages from that region. However, reflecting a caveat attached to his first study of the Lower Nubian material, it serves better as "An Introductory Classification of Pottery found on Later Meroitic Sites of Lower Nubia" (1964 : 127).

Despite the limitations of earlier work, it is probably fair to state that for both regions some of the more distinctive vessel types may now be recognised as "late" or "early" types. However, considerable problems remain in identifying larger and more useful chronologically distinctive groups, and absolute date ranges for such types remain almost entirely lacking. Thus certain "late" types might be assigned a date from the late second to the late fourth centuries, often depending on presumptions concerning, for example, the date of the "end of Meroe", while dates for "early" material may float between the third and first centuries BC. For many potentially highly distinctive forms, a date anywhere within a 400 year time-span might be possible.

In the context of fieldwork projects in central Sudan, both with "rescue" projects, such as the excavations at Kadada (Lenoble 1994a) and Gabati (Edwards 1998a) cemeteries in the Meroe region, and ongoing research projects such as those at Kawa, Jebel Barkal, Musawwarat es Sufra and Naqa, the need for reliable ceramic chronologies is becoming increasingly pressing. On the basis of the Kadada and Gabati excavations as well as the material from Qustul and Ballana (Williams 1991) and Qasr Ibrim (Rose 1996) it is also increasingly clear that, with the exception of early material, Meroitic assemblages from Lower Nubia are dominated by regionally-specific pottery wares as well as large quantities of imported pottery not found in the south. In view of this, the need to develop typologies and sequences relevant to research in the heartlands of the kingdom is also becoming more urgent.

This new, if necessarily preliminary study of pottery from the Meroe West cemetery has been undertaken to provide the basis for a regional ceramic sequence. The likely interest of such a study seemed considerable in view of the long use of the cemetery. The potential to draw parallels between the Meroe material and pottery from sites such as Kadada and Gabati also offers the possibility of establishing at least an outline chronological framework at a regional level, while also extending the range of material which may be included within such a sequence. While establishing a framework which may be related to an absolute calendar dating sequence with any degree of precision must remain in the future, the acquisition of a growing number of radiocarbon dates (e.g. Edwards 1998a) may soon allow us to suggest at least the outlines of such a chronological sequence. What is important at this point, however, is to establish at least a working outline which can be modified and reworked as and when new information becomes available.

The seriations in this study have been produced using the Bonn Seriation and Archaeological Statistics Package (WinBASP), developed over many years at the Rheinisches Landesmuseum Bonn. This package has been specifically developed for cemetery analyses and has much to recommend it,

not least its ease of use and the quality of its graphic presentations. The theory and practice of seriation studies have been long-established in archaeology and remain a common tool. However, despite Petrie's key role in the development of this method, its applications in Nile valley archaeology have remained few until the 1970's (e.g. Kemp 1975), and while used more recently in a number of interesting studies in Egypt (e.g. Wilkinson 1996) it has surprisingly received little attention in Sudan. While Grzymiski undertook a computerized reworking of Reisner's ordering of the royal pyramids (1984), no systematic studies of cemetery groups have been undertaken, despite the existence of several potentially suitable sites (e.g. Meroe, Sanam, Ballana, Qustul, Faras, Karanog, Semna).

Scope of this study

All the seriations have been based upon presence/absence data only, and restricted to the pottery element in grave groups. Doubtless, more complex studies including a full range of artefacts and grave attributes might provide additional information on the development of the cemetery, but for our purposes a concentration on a single group of material seemed appropriate. As discussed further below and in Appendix 1, not all types found in Dunham's (1963) report could be used; vessel types occurring only once have necessarily been excluded from the seriations, while some other rare forms/types were also excluded so as to not unnecessarily complicate the results. There are likely to be benefits in including as much of the material as possible, but for the purposes of this preliminary study, this more limited approach is felt sufficient. More detailed work will really require a re-examination of the original material to create more reliable typologies.

It must be reiterated that a particular concern was to develop a better grasp of changing vessel forms, and to a lesser extent ware types over time, with a view to providing, in the first instance at least, a *practical* tool for the use of field archaeologists. For such purposes, it is necessary to distinguish chronologically distinctive vessel types/forms which can readily be identified, even on the basis of potentially fragmentary sherd material. The importance of developing such *practically useful* tools cannot be overstressed.

Some 40 vessel "types" have been used in various runs, defined by specific forms in similar wares. These represent only part of the total material from the cemetery, but their selection was necessarily restricted to easily recognisable forms occurring in at least two graves. However, in many cases, several forms/types from the published typology have been combined, the total representing some 100 of the Dunham's types included in the main typology, with a few additions from types not integrated with this series. The basic validity of this approach was demonstrated on several occasions during preliminary seriation runs when two or more of the original designations were listed separately and then combined, producing near identical results. On the other hand, the simplification of the typology may obscure more subtle differences.

A number of problems with such a typology must of course be acknowledged. Most importantly, I have had to rely on the original published data which clearly have many potential shortcomings. While the vessel drawings are probably reasonably accurate, the degree to which they correspond with the forms of all the individual vessels assigned to the types cannot be determined without re-examination of the material. Equally, in the absence of systematic descriptions of fabric and vessel finish, it is likely that some important variability will have been lost. However, as a basis for a preliminary study such as this, the degree of detail and accuracy is probably sufficient.

Vessel types

As noted above, the vessel types used for this study are based on a simplified version of Dunham's typology, necessarily restricted to vessel types encountered in two or more graves. In a number of cases several 'types' distinguished by Dunham (1963) have been combined to form a single unit. The smaller forms include a variety of cups and bowls, although drawing clear distinctions between such types is sometimes difficult. These include various ledge-rimmed bowls, some with ring/pedestal bases (F.13), others with solid round bases (K.16), the latter tending to be somewhat heavier. A common form (E.26) includes several types with thin out-turned rims and simple flat bases. This type includes considerable internal variety in the proportions of the vessels as well as their fineness of manufacture, both features which may be chronologically significant. However, various runs were tried with various sub-types but failed to produce any consistent patterns. It seems likely that significant variations can be defined amongst these vessels but it is probably necessary to re-examine the original vessels to create a more meaningful new typology. A smaller variant of these types (K.15) seems to represent a significant and distinct form.

A number of shallow open bowls, included the E.9 type with smaller E.4, E.16, E.11 and E.8 cups/bowls, E.12 being a taller round-based form. F.19 represents a more angular form. Other simple open forms include F.7, F.8, E.21, E.24 and E.22. A range of simple bowl forms decorated with a distinctive striped style have been included separately as G.2, with a number of jars/bottles in a similar style as G.8. Similar jar and bottle forms in undecorated wares are represented by F.39, F.42 and F.44. Another distinctive type is represented by F.37 which includes a variety of carinated bowl/jar forms, also found in highly decorated (stamped or painted) finewares (Dunham 1963 : fig.G).

Two types of taller flaring cups/beakers (K.13, K.14), a potentially diagnostic vessel form, are included as a single form type. A similar form E.17 was found in W.139, but its description as a black-stained red ware is a little ambiguous, and was not merged with these types.

A range of larger wheelmade jar forms, referred to here as "beer-jars", are present. It may be noted that these differ in many respects from types found in other regions, and as such we may already suggest the existence of different production centres and certain region-specific types. The virtual absence in the south of the highly decorated jars of types encountered at some Lower Nubian sites (e.g. Karanog) is also noteworthy. The main types have been distinguished on a variety of criteria, in which variations in neck/rim forms seem particularly important, as well as more general differences in overall shape.

A group of vessel types K1-K.4, includes D.4, show some Hellenistic inspiration, with their thickened rims and the addition of ring bases in some examples. The additional further elaboration of some necks with various additional "ledges" is also very distinctive. Similar neck forms have recently been found in material at Musawwarat es Sufra while occasional examples are found in some royal tombs, as in N.17 and N.1 at Meroe, and Bar.16 at Jebel Barkal (Dunham 1957 : fig.106). Simpler vessel forms include examples with long straight necks (I.13) and a larger heavier form with a shorter neck (L.3). Clearly there is some potential to distinguish some intergradation between these; we find medium length necks in Meroe N.17 for example (Dunham 1957 : fig.94) and similar neck forms have also be found at Musawwarat. The tall cylindrical jars (L.8) are quite distinctive, while again showing some minor variability in form, which may warrant further study. These have otherwise only been found in large quantities in this region at Kadada (Lenoble 1994a). A type of smaller globular jars with short necks represents an amalgam of a number of types (L.2, I.7-I.8) which is distinguished from a similar if more rounded vessel type (I.9), commonly decorated with painted designs on the shoulder, again well-paralleled at Kadada.

The relatively small numbers of handmade jars are more problematic, representing a variety of forms with differing surface treatment and decoration, and potentially in very distinct fabrics. Moreover, the descriptions are also quite imprecise and the attribution of certain vessels to various types may not be

very reliable. Also several types only appear very rarely or in early graves otherwise not included in the main seriation runs. Some of these may actually be useful chronological indicators and will be further discussed below, but only type J.11 is included in the main seriation runs.

The various handmade "black-bottles" are, as discussed by Lenoble (1995), of some interest as a very distinctive vessel type. Some examples seem to represent a relatively standardised product, which we might expect to have a reasonably limited chronological occurrence. Type L.4, with a flattened base, is not dissimilar to J.4-7 but lacks their distinctive decoration. Type J.1. represents a more heterogeneous group of forms.

A notable feature of the Meroe material is the range of offering stands/braziers. This interesting class of material has until recently appeared to be a peculiar feature of the Meroe cemeteries. However, recent excavations at Gabati, some 50km to the north (Edwards 1998a), as well as at Kadada (Lenoble 1994a) has recovered similar vessels, while further examples have been found in some quantity at Musawwarat es Sufra (Edwards 1998b). A few handled examples, not dissimilar to some early types from Meroe (e.g. types C.27-8), have also recently been published from Qustul (Williams 1991: fig.20). It is certainly possible that such vessels were more common than these few examples suggest. However, on the evidence from Gabati, it seems that they were generally deposited as surface offerings or dumped in shaft fills. As such they have rarely survived or been found as intact vessels in grave chambers. Three main types have been distinguished and included in the seriations, while, as will be further discussed below, a rather different earlier type can also be identified. The first type BR/1 has reasonably shallow upper elements with pierced cylindrical bases. The second, BR/2 has generally small stands and solid bases to the upper dish. The third, BR/3 includes two rather different forms (H.10-H.11) with taller stands.

Offering Trays (D.22) were included in some trial runs. The four examples appeared quite widely spread though Group II and Group III. When removed from the sequences, this caused relatively little change, mainly with W.454 shifting to a somewhat later position. However, due to their rarity and to the fact they tend to be poorly-contexted, these have not been included in the runs discussed here. Three types of imported amphorae, E.1, L.5, L.6 as well as the imported *askos* bottles (I.14) have also been included in the main run.

Seriation runs

The use of the seriation package has not been limited to creating a definitive or necessarily objective result. Rather, I have attempted to use it as a means of exploring the data, and to attempt to refine the typology used in developing a preliminary sequence. Several types have, at various times been added to and removed from the seriation runs. This provided an opportunity to assess the extent to which their inclusion or exclusion effected the sequences, and, with the benefit of external sources of information, assess their likely value as chronological indicators. In some cases, consistent clustering patterns of some sub-types has allowed the splitting of various types into two, broadening the range of types included. In other cases, it became apparent that supposed distinctions between types had no chronological significance and these could satisfactorily be merged together as a single type.

One obvious problem area concerns the inclusion of imported pottery types as, in the absence of firm evidence concerning the history of 'trading' relations with Egypt and the Mediterranean world, it is by no means certain as to what extent their presence at Meroe reflects their chronological range as opposed to other factors, such as the ebb-and-flow of supply and demand as a function of changing trading relations. It certainly cannot be assumed that relatively long-lived amphora types were consistently available at Meroe, while, equally, as imported wine was potentially a quite prestigious material, their distribution

may have been more restricted than many other types of ceramics. Bearing this in mind, a number of comparative runs were undertaken with and without the inclusion of imported amphorae and other vessels such as the *Askos* (I.14) forms.

Several modifications of the data were also required to deal with some apparently anomalous results produced during various runs. In nearly all cases the sources of distortion could be located and eliminated, most of these relating to the mixing and contamination of deposits by robbing and re-use. The ability of the seriations to clarify such problems seems in itself a measure of the usefulness of this technique. In such a way, there can be little doubt that a fragment of *askos* (an early type) in W.415 was intrusive, and its presence in the runs caused considerable distortion, "dragging" this relatively late grave back to the middle of the series. W.139 also presented some problems, consistently appearing much later than might be expected. A relatively early date might be expected with the presence of the carinated "Achaemenid" bowl forms, stamped finewares, beer-jars and indeed bowl forms such as F.15, of Ptolemaic inspiration, not included in the seriation (the group is discussed by Török 1987a : 199). Similar bowls are known from Qasr Ibrim (Rose 1996 : figs.4.18-19) along with ledge-rimmed forms. On the other hand, several other vessels appear of markedly later types, notably the "late" type offering stand/braziers (I.1, I.3), shallow bowls (F.5, E.23) and the E.25 goblet. In this case, it is reasonably clear from the grave inventory that the grave was reused, and we are seeing the mixing of two distinct sets of material, a point not appreciated during previous discussions of this material. On this basis, these latter vessels were excluded from the primary runs. Similarly W.126 (and W.454) consistently appeared in early runs as anomalous, representing unusually early examples of graves with black bottles and the otherwise "late" E.22 bowls. Re-examination of the inventories again makes it likely that the material represents the mixing of two distinct groups of material. On this basis, the grave contents were split into two group (W.126a, W.126b), and further runs undertaken tend to support this in placing these two grave groups far apart, while placing W.454 within a coherent group of the "late" (Group IV) graves furnished with black bottles.

General groupings

Four runs are illustrated here which include over some 40 different vessel types, ordering some 60 of the graves. The first contains a full range of forms (pl. XXXV, fig. 71), the second excluding imported vessels (pl. XXXVI, fig. 72) and the third with the addition of two royal tombs to the run (pl. XXXVII, fig. 73), which also introduced another imported amphora form (L.6). The results are generally consistent, with only minor re-orderings of the grave sequences. The runs also suggest five main groupings, defined on a further run (pl. XXXVIII, fig. 74) which are briefly described below. It must be stressed, however, that these have been adopted for descriptive purposes and should not be seen as totally discrete or exclusive entities.

These have been termed groups rather than phases to attempt to avoid unnecessary implications that they correspond with distinct periods ; their chronological distinctiveness *cannot* be assumed on the basis of these results alone. It must also be borne in mind that the cemetery evolved through a continuous and complex process of development and the divisions are relatively arbitrary. However, for the purposes of description, the cemetery has been divided into five areas (zones A-E in pl. XXXIX, fig. 75). The core area which includes the major pyramids is divided between zone A in the north and zone B in the south. Zone C and D forms two belts of graves along the northwest side and zone E a similar spread of burials along the southeast side.

The first group (Ia) comprises a cluster of some nine graves in zone C which consistently appear at the beginning of the sequence in more than 30 runs (pl. XL, fig. 76). These are notable for the presence of both distinctive forms and decorative styles (see pl. XLI, fig. 77). Stylistically these included forms of simple striped decoration, found on bowls, jars and bottles (G.1-13 included as Types G.2 and G.8),

elaborate painted vessels and stamped wares, the latter largely confined to finewares. A reasonably clear range of distinctive vessel forms also appear, both as fine and coarse wares and in plain and painted/stamped examples. These include the much-discussed "Achaemenid" deep carinated bowls (Török 1987a : 199), small pots/jars and bottle forms with medium-length necks.

Less distinctive are some simple polished red ware cups/small bowls (E.4, E.8, E.16) and broad open bowls (E.9). While less easy to differentiate on the basis of the available descriptions, these do appear to be a characteristic feature of earlier graves. Better defined are a small group of distinctive brazier/offering stands (Type BR/3 = H.10-11). This group also sees the first appearance, and greatest concentration of the distinctive fineware products.

The second group (Ib) is more diverse and includes graves both in zone C and in peripheral positions in zone B (pl. XL, fig. 76). Despite the differences between these groups, it may be suggested that the distinction between Ia and Ib may reflect the rather different character of the burials they are associated with, as much as any significant chronological differences; the first group having few larger vessels.¹ Two jar forms, (K.1-4) with externally thickened rims, and I.13 with relatively long straight necks are prominent features of these graves. It may also be noted that some of the smaller bottles (e.g. G.12, listed here with G.8) occurring in "earlier" graves, with an externally thickened rim and ring base, are obviously closely related to the series of the K.1-4 jars. A second prominent feature of this group is the appearance of broad ledge-rimmed bowls of variable size. Two other bowl types, F.8 and E.21 are less secure, having relatively undistinctive forms. These graves also see the appearance of a reasonably well-defined, if long-lived type of brazier/offering stands (BR/2) and are also associated with the presence of imported *askos* vessels (I.14).

A third group (II) may be defined with the presence of the L.3 beer-jars, with substantially shorter necks than the earlier I.13 form, associated, although not exclusively with the BR/2 brazier/offering trays. These include some substantial tombs in zone B as well as further smaller tombs in zone C, with additional graves beginning to spread along the east side of the cemetery in zone E. Other types include the coarser ledge-rimmed bowls (K.16), the E.1 amphorae and the rare F.7 and F.19 cups/bowls. Sherds of painted finewares were also recovered in W.102 and W.106.

The fourth group (III) appears quite homogenous, with a concentration of material from zone E on the east side of the cemetery. The typical jar forms are the large cylindrical L.8 vessels associated with smaller globular jars I.7/L.2 and I.8 forms. While clearly some further distinctions may be expected within the various forms, it was not possible to identify any developmental pattern in the form of these jars. The jars are associated with another broad grouping of the very common goblet/bowls (E.26) and the tall flaring cups K.13-14. A small number of handmade jars (J.11) also appear within this block. Amongst the later graves, we also see the first appearance of the small handmade black bottles (J.1) and also the late types of brazier/offering trays (BR/1). Early in this group, a few fineware vessels are found in W.125 (G.20-21). This occurrence is of interest as nearly all the other finewares, both stamped and painted are concentrated in earlier graves. These however, are also marked out by their rather different decoration as well as their forms. Such angular and straight-sided forms are similar to those common in later groups in Lower Nubia (Williams 1991 : fig.4, e-u, fig.5) and may be contrasted with the hemispherical bowl forms found here in the early graves and, for example at Musawwarat es Sufra (Edwards 1998b). Comparison may also perhaps be drawn with the angular F.19 goblet/cup form which also features in group III.

1. It is noteworthy in this respect that W.306, W.284 and W.308 were all child's graves.

The last group (IV) shows some diversity with the bulk of these late graves infilling areas on the east side of the cemetery in zone E with some additional burials on the extreme west side in zone D. It sees the general appearance of black bottle forms, the rather heterogeneous types of J.1 types appearing first with the flat-based L.4 and decorated J.4 types appearing latest in the sequence. On the basis of these runs, the last two might be merged to form a single group. This group also includes the BR/1 type offering stands, the distinctive decorated globular I.9 jars and a range of simple shallow bowls (E.22, E.24) and the K.15 cups/goblets.

Run without amphorae/askos

This run (pl. XXXVI, fig. 72) excludes the three amphorae types. These did not significantly effect the overall sequence of graves. Most amphorae appeared in groups Ib and II, but the L.6 amphorae also occurs in N.28, and it is clearly quite a long-lived type. The restricted occurrence of the I.14 *askos* form, in groups I and II is noteworthy.

Run with royal tombs

While relatively little pottery appears, or has survived, in the much-pillaged royal tombs in the North Cemetery, an additional run was tried with the addition of N.17 and N.28. While considerable caution is required in using the putative "dates" of these tombs to date our sequences, they can at least provide some chronological markers which may provide a basis for further research. The run places them in the correct sequence, but it should be noted that assigning more definite dates on this basis remains problematic. More traditional chronologies (e.g. in Welsby 1996) could place the first, the tomb of Amanitenmomide, as early as the middle of the first century AD, but a "onger" chronology suggested by Török (1998 : 205-6), would place it in the first half of the second century. The second tomb N.28, to be associated with the historically recorded King Teqorideamani, to sometime after 253AD.

The first of the royal tombs falls among the group II graves. It may also be noted that what are probably I.13 and L.3 jars are also found in tomb N.15 (Dunham 1957 : fig.88), an otherwise unattributed grave. The association of N.28 with the group III graves is perhaps more useful. However, it should be noted that its location so early in the group III sequence in this run is probably misleading. This is because the limited range of material in the grave gives undue "weight" to the presence of the rare L.6 amphorae, which has the distorting effect of "dragging" it towards the start of the sequence. In fact, the grave could equally fall significantly later, at the end of Group III graves. In this respect, it should be noted that the L.8 jars, a diagnostic feature of this group, are also present in several other royal tombs (N.18, N.19, N.32, and N.29), all generally recognised as *predating* N.28 (Török 1998 : 206). The conventional dates for these range from around the mid-second to the mid-third century AD, a range not incompatible with the patterns seen here.

Chronological developments

In general, the results of these seriations suggest the outlines of a ceramic sequence from the late first century BC until the end of the Meroitic period, as traditionally defined. The main types with their distribution through this sequence are illustrated in pl. XLI-fig. 77, the earliest on the left of the diagram. An earlier starting date for the group Ia graves seems unlikely due to presence of the various finewares amongst them, whose production is thought to begin no earlier than the very late first century BC. It should be noted however, that suggesting a date for the end of the sequence still remains extremely difficult. Traditional chronologies which have placed the last royal tombs c.350 AD, (i.e. about a century

later than the last datable and attributable tomb, N.28) have also tended to assume that this corresponds with the demise of recognisably "Meroitic" ceramic types. However, a presumed correlation between political change and changes in pottery manufacture is by no means self evident, and indeed the extent to which we should attempt to force the archaeological data to correlate with such historical "events", remains open to question.

On the basis of this study, I would tend towards placing N.28 quite late in the group III sequence. This in turn would suggest that ceramic developments seen in the transition to group IV, *may* already be underway in the late third century. The Kadada excavations have already shown that the vessel types found in groups III and IV are commonly found together and thus at least in part contemporary (pl. XLII, fig. 78-pl. XLIII, fig. 79-80). Furthermore, there is little basis to suppose *a priori* that the chronological range of the group IV graves needs to be very long, while, as Lenoble has convincingly demonstrated at Kadada, it is exactly these late Meroitic types which may be found with what are traditionally regarded as "post-Meroitic" types (typically handmade beer-jars). Such 'mixed' groups were found, for example, in KDD33/1 and KDD107/6 (pl. XLIII, fig. 79-80). In view of the relative homogeneity of the group IV pottery types, and limited evidence for formal or other changes prior to the appearance of the first "post-Meroitic" types, it may be suggested that the chronological span represented by the group IV types may also not have been very great. How long this may have been remains to be determined ; however, there is certainly no reason to assume that the chronology of such ceramic changes need correspond with that of assumed political changes identified in the historical narratives.

If a broad developmental sequence may be suggested, it is also possible to highlight a number of vessel forms and groups of vessels types potentially of value as chronological indicators. Potentially useful major chronological divisions may be seen in changing jar forms, more particularly in the form of jar necks. The K.1-4 jars and long-necked I.13 types are restricted to quite early graves, the larger short-necked L.3 types in group II followed by the tall L.8 forms combined with globular and short-necked I.7-8's in group III. The latest graves then have the I.9 type. It may be noted that in the Meroe region, these latter types dominate at Kadada, but were largely absent at Gabati and provide a clear indication that the two cemeteries span different chronological periods. Finds of I.9 jars at Kadada, with identical painted designs to examples found at Meroe, should also be noted (pl. XLIII, fig. 80). That such jars, and especially jar necks are easily identifiable in sherd collections should make them a useful in providing broad date-ranges according to this sequence.

The patterning of the three types of handmade "black-bottles" quite late in the Meroe sequence is also noteworthy. The earliest vessels come from the rather heterogeneous group of J.1 types, a type which was somewhat unsatisfactory in view of their variety, but one which still appears to be of some chronological significance. The L.4 and J.4 types are more similar and form a reasonably discrete late group. These are again of some interest and seem to be a defining feature of late Meroitic assemblages, being a very prominent feature of the Kadada grave groups (e.g. in KDD22/122, fig.8). The contemporaneity of the latest in the Meroe sequence and those at Kadada is also suggested by the very close parallels between some bottles found at both sites, indicative of a single source (Lenoble 1995 : pl.IV). Again it may be noted that only a single black bottle was found at Gabati, in what seems likely to be one of the latest graves.

In Lenoble's study of this interesting vessel type (*op.cit.* : 153), he raises questions concerning the origins of this form, and possible antecedents. One possibility suggested by this material is that if we look at the composition of assemblages in terms of various functional types, such vessels *could* have counterparts in earlier graves, for example, among the distinctive range of bottles/closed bowls in group Ia. In terms of form and size these would appear well-suited for performing a similar function, perhaps libationary, to the black bottles ; in the same way as might a distinctive range of long-necked jars found in Middle/Lower Nubia (Leclant 1985). On the other hand, they have no obvious counterparts in group II and other

group III graves, but further work on the functional characteristics of changing vessel types, especially in relation to libations (e.g. Lenoble 1994b : 91-4) is likely to prove worthwhile.

The offering stands/braziers also seem to fall into well-defined chronological groups. It may be noted that W.125 and W.214, the latter an intact tomb, appear to have examples of both BR/2 and BR/1 types, demonstrating that the types were not mutually exclusive.

Changing bowl and cup forms appear more complex, but these runs already suggest a number of avenues for further studies. Simple rounded bowls and cups appear to be restricted to the first half of the sequence. This was slightly surprising in that such simple forms might have been expected to be more tenacious. This result is however borne out by the evidence from Kadada where such forms are largely absent. By contrast, at Kadada as at Meroe, the most characteristic "late" cups/bowl forms are either rather coarse E.26 type goblets, local variants not found in the Meroe West collections, and/or a range of broad shallow bowls (pl. XLII, fig. 78-pl. XLIII, fig. 79). One common form appears very similar to type E.24 (Lenoble 1994a : fig.99).

The flaring goblets (K.13-14) fall into group III. This corresponds with the appearance of similar vessels at Kadada, similarly associated with L.8 and I.7-8 jars (Lenoble 1994a : figs.9, 18, 29, 51). However, it should also be noted that a similar form also appears significantly earlier in W.139, and in apparently earlier contexts at Gabati. The Gabati examples appear in a rare and distinctive, basically black burnished ware (Fabric G10), but which show some variation in surface colour. This recalls the description of a vessel from W.139 as a redware "stained black" (Dunham 1963 : fig.E.17). On the other hand, the other example of an E.17 type (not included in the runs) occurs in W.227, a grave occurring very close to these others. Other vessels in this form as Gabati are found in one of the "semi-fineware" fabrics (G11) in a grave likely to date to the first century BC. As such, while some chronological distinctiveness of this form is possible, differences in fabric/ware types of the original material need to be accounted for, and this will require a re-examination of the original material.

Dating of additional graves with limited ceramic remains

In addition to the graves included in the runs, we can also *tentatively* assign a number of other graves to various groups on the basis of the presence of single diagnostic vessel types. Grave W.313 may also be placed into group Ia/b on the basis of the presence of a carinated stamped fineware bowl (Dunham 1963: fig.167.10), very similar to examples in W.139 (G.36-37). W.393 also has E.8 bowls and other forms found in W.298, not included in the seriation. Some parallels indicate a relatively early date, however cited types (e.g. F.36 and F.40) include both polished black wares and red-brown wares and their comparability is by no means clear. The presence of a type F.40 jar in an otherwise late grave W.390 is potentially problematic, but this is almost certainly represents a remnant of an earlier burial in the reused tomb.

Further graves may be associated with group Ib. A type D.7 long-necked jar in W.20 is similar to I.13 types, a type also found in W.30 and W.150. Grave W.20 also contained imported bronze vessels of types found at Sennar (Dixon 1963) along with an imported *askos*, which would again fit with this period. Graves W.157, W.340, W.299, largely robbed-out but including type K.1-4 jars are also likely to be broadly contemporary with the group Ia/b graves. The first also included an I.14 *askos* jar.

Additions to group II may include W.166 which included L.3 jars. Further group III graves may include W.219, with L.8 jars, while, as noted above, L.8 jars are also found in a number of the royal tombs in the North Cemetery. Several other graves, W.300, W.302 and W.430, contain E.26 type bowls (C.16 and K.18), although the first two may represent intrusive material in group I graves. Late material occurs

in W.381 (I.9 jars) and I.12 jars in W.142 also suggest a quite late date. E.22 bowls were also found in W.132. Late (BR/1) offering stand/brazier types are also found in W.332 and W.397.

Early graves

As there can be little doubt that the sequence represented here begins no earlier than the first century BC, a few comments should be made about the identification and character of earlier graves. Among the early graves we also have other types of offering stand/braziers, with examples in W.5 (Types C.27-28), W.348 (Types L.15-16). Other pieces may be identified in W.8 (Type C.10), W.309 (Dunham 1963 : fig.167, 1-4), W.258 (Dunham 1963 : fig.164, 10). These latter examples, usually with impressed decoration and multiple handles are comparable with fragmentary examples from Gabati (Edwards 1998a : fig.6.23, 137/1). While often poorly contexted these seem quite likely to be of relatively early date, possibly from the second century BC

Another potentially significant vessel type are a number of handmade beer-jars with shallow in-sloping necks, replicating a large gourd-bottle form. These are found for example in W.7, W.263, W.13 (e.g. Dunham 1963 : fig.C.1; fig.152, 3-4). A jar with a slightly longer necked jar with impressed decoration also occurs in W.29. These quite distinctive jar forms almost certainly predate our sequence and may be compared to types found, for example, at Qasr Ibrim, Gabati and Musawwarat. The material from Qasr Ibrim probably dates to the first-second century BC (Rose 1996) and a similar date may be suggested for small quantities of such material recovered from early levels at Musawwarat (Edwards 1998b). At Musawwarat, such jars, in a fabric very similar to the Qasr Ibrim A4, were found in stratified contexts *predating* levels with material similar to that found in our groups Ia-b. By association, such types may be broadly contemporary with another distinctive early wheelmade jar form with long in-sloping neck, found, for example, in early groups at Qasr Ibrim (Rose 1996 : fig.4.13) and Gereif East (Geus and Lenoble 1982 : fig. 4,21).

Observations on the chronological development of the cemetery

The seriations also provide some useful indications of the spatial development of the cemetery over time. While more detailed studies encompassing the full range of artefacts and other features are required, a few general points may be made here. These again make no claim to present a definitive study but may prove useful for future work.

As noted above, it is clear that the graves included in this seriation do not include examples from the early Meroitic period (c.fourth-second century BC) and it may be assumed that graves from this period are to be found mainly among the heavily plundered graves in zone A. Graves in this area include the rare early ceramic types discussed above, and also much of the demonstrably early (i.e. Ptolemaic) types of imported metalwork (Török 1989).² On this basis we may suggest that over time the cemetery was expanding into zone B to the southwest, and into zone C to the west by the late first century BC and into the first century AD, including most of the graves in group Ia, Ib and II. The spatial development also appears to be complicated by further intra-zone distinctions, with, for example, an abundance of child burials in zone C. As noted previously, the group Ia burials include several children's graves and it is possible that many burials in this area are contemporary with adult burials in zone B.

2. The extent to which imported metalwork is concentrated in limited areas of the cemetery (i.e. relating to certain periods) is also worthy of further investigation. While this may in part relate to changes in access to such prestigious objects, further systematic study of the changing composition of grave assemblages over time is likely to be productive, especially in view of the apparent growing importance of pottery in later periods (see Lenoble 1994b).

Most of the group III burials then fall in zone E spreading along the eastern margins of the cemetery, and include many of the graves in this area with substantial superstructures. The latest graves in group IV seem to represent an infilling within this area together with some additional spread along the northwest side in zone D. Some additional late graves, marked by the presence of “black bottles” may be found in re-used earlier tombs (Lenoble 1995 : Pl.I).

Conclusions

These results provide us, for the first time, with at least an outline relative chronology for a significant range of pottery types from the Meroitic heartlands. Moreover importantly, most of the types included here will be readily identifiable in sherd collections so may be useful for dating fragmentary material from settlement and cemetery sites. It is also apparent that there is almost certainly considerable scope for refining this study, particularly through developing typologies which can account for more of the observed variation in the material, as well as include a wider range of types. However, in the absence of a full re-examination of the original material from the Meroe cemeteries, such work may perhaps be premature.

The general validity of the sequence suggested here would seem to be supported by the recurrent and consistent patterning in the grave ordering found during many runs with very varied groups of material. It also appears to be borne out by other aspects of the archaeology of the cemetery, and is certainly reasonably consistent with what we can see of its spatial development. However, it must be reiterated that it would be premature at this time to attempt to closely link this sequence with absolute chronologies. As suggested above, we can relate this material to two of the royal graves, which give us some form of benchmarks, but no more. There is certainly potential to extend the sequence with a range of earlier vessel types (predating group I) occurring in small numbers at Meroe, but also identifiable at Gabati and Qasr Ibrim, for example. Some vessel types, such as the “early” ledge-rimmed bowls and F.15 bowls may also have been in existence for a significant period before the beginning of our sequence. Greater definition at the end of the sequence may also be possible with a more detailed analysis of the Kadada material, which in turn will provide a link with early “post-Meroitic” pottery types. Linking such sequences to an absolute chronology of course presents another range of problems. However, in determining the end of the sequence, *a priori* assumptions linking this with a historical “end of Meroe” (in itself a highly problematic notion), conventionally placed around the mid-fourth century, should be avoided. It seems likely that a systematic programme of radiocarbon dating of well-contexted groups may provide valuable guidelines for future research, if not a very precise absolute chronology.

At this stage a few tentative parallels may also be drawn with material from further north, in the Dongola Reach which suggests some wider applicability of this sequence. Amongst material excavated by Reisner at Kerma, some of the jar forms may be seen as local variants of the L.3 and L.8 forms (1923 : fig.19). These examples are also of interest in perhaps illustrating some of the variation seen in the evolution of the forms ; no.55 from grave K12 being quite similar to an L.3 with no.56 from grave K17 having the more cylindrical form of an L.8. The various bowl forms associated with these jars (*op.cit.* : fig.14) also correspond quite closely to similar types at Meroe in the K.16 and E.26 range, while the fineware cups/goblets (*op.cit.* : fig.12) are also of later, more angular forms. The publication of collections from Jebel Barkal may be awaited with interest, as the complex architectural history of the various temples and palaces at the site clearly has considerable potential for providing well-stratified groups, with the potential for linking them with named, if as yet inexactly-dated, Meroitic rulers. Many similarities between material found in the Barkal and Meroe pyramids certainly suggest that comparable types may be found in this part of the Dongola Reach.

With regard to material from further north, relatively few meaningful parallels may yet be drawn with the best-known Lower Nubian types. In general, the strong regional character and distinctiveness of its pottery is clear, while the prominence of imported material also makes direct comparisons difficult. In terms of decorative styles, very little material has been found south of the Third Cataract which compares closely with the often highly decorated wares from further north. Similar distinctions may be made in terms of vessel form. A comparison of vessel forms represented in this sequence with the types represented at Qustul and Ballana, for example (Williams 1991), makes this very clear.

It is also worth again highlighting the very marked differences between the finewares encountered at Meroe and those found in Lower Nubia. The stamped and painted wares at Meroe, both in the cemeteries and on the townsite (Török 1997) contrast markedly in both form and decoration with the common types encountered in the north, well-represented at, for example, Ballana (Williams 1991 : figs.4-5). As was apparent during recent excavations at Qasr Ibrim (Rose and Edwards 1998), the most common "fineware" fabric was also very different from southern fabrics recently examined by the author at both Gabati and Musawwarat. These macroscopic differences are borne out by Laurence Smith's fabric analyses of sherd and clay samples from Lower and Upper Nubian sites (Smith 1997). As noted above, the straight-sided flat-based cup forms, (with a height commonly similar to their diameter) which dominate Lower Nubian groups also seem likely to be characteristic of the second and third centuries AD. By contrast, assemblages in the south, earlier than most Lower Nubian sites, appear dominated by simple hemispherical bowls. Where some tall straight-sided cups do appear they are readily distinguishable in both form and fabric from common Lower Nubian types. The substantial group of round bowls recently excavated at Musawwarat (Edwards 1998b) seem likely to date to the first century AD. Extensive use of stamps also appears as an early style, very rarely encountered in Lower Nubia (e.g. Williams 1991 : fig.4d, Q 417-2). Stamped jars, some in very unusual forms (e.g. Török 1997 : pl.213-4) appear to be very rare outside Meroe.

However, if the "classic" Lower Nubian assemblages differ markedly from material found in the Meroe region, it is also becoming evident that earlier Lower Nubian assemblages of the late first millennium BC have much more in common with types found further south, and indeed some may be imported from the south. This may be seen, for example, in some of the distinctive jar, bottle and cup forms, including some with the simple banded decoration which may be found in early graves at Faras and Qustul (e.g. Williams 1991 : fig.9b, 11f). Early material of the second-first centuries BC from Qasr Ibrim (Rose 1996) also includes a range of material (especially among the handmade wares) whose forms and decoration, can be closely paralleled outside Lower Nubia, at Gabati, for example. In view of the sparsity and limited scale of Meroitic settlement in Lower Nubia, particularly during this early period (Edwards 1996), a reliance on imported material from the south, as well as from Egypt, should, perhaps, not be surprising.

It is hoped that this study may provide a basis for developing more systematic work on Meroitic ceramics which may help clarify issues of chronology, particularly for those dealing with excavated sherd collections. The opportunities for developing more comprehensive studies relating to ceramic production and distribution are also considerable. More generally, however, it may be hoped that a greater attention to pottery studies, in line with current archaeological practice in other parts of the world, may open up a still sadly neglected area of investigation.³

University of Leicester
June 1999

3. I would like to thank Pam Rose for much advice with this project and for clarifying many issues relating to Meroitic pottery. Thanks also to Patrice Lenoble for information and comments on the Kadada material.

Appendix 1: Pottery typology composition

Types discussed in text and seriation runs, derived from Dunham (1963).

		Adams
		A
F.37	Carinated bowls (+ F.46)	Adams
F.44	Small bottle	C
F.39	Small bottle	Desang
G.8	Striped jars and bottles (= G.8-G.12)	L
F.42	Small Jar	Dunham
		K
K.1	Beer jar (= K.1-4)	A
I.13	Long-necked beer jar (+ D.19, D.18)	Dunham
L.3	Beer jar	T
L.9	Handmade beer jar	F
I.7/L.2	Small jars	Eide, T
L.8	Large jars (+ K.5)	F
J.11	Short-necked handmade jar	Eide, T
I.8	Round jar (+ I.12)	F
I.9	Round jar (+ I.11)	Edwards
J.1	Black jars/bottles (+ D.8-11, J.1-9, J.12)	T
L.4	Bottle/jar	(
		Edwards
E.4	Cup	(
E.17	Tall cup	Edwards
E.12	Tall cup	F
E.11	Black/Red cup	Grzym
BR/3	Offering stand/Brazier (= H.10-11)	S
BR/2	Offering stand/Brazier (= C.27-8, H.2-9)	2
BR/1	Offering stand/Brazier (= D.25, I.1-6, L.1)	Hintze
		T
G.2	Striped bowls (= G.1-G.7)	Kemp,
E.9	Large bowl	I
F.8	Bowl	Kemp,
E.21	Bowl	2
F.13	Ledge-rimmed bowl (+ K.19, F.14, F.12)	2
K.16	Ledge rimmed bowl (+F.11)	Leclan
F.4	Bowl]
F.5	Bowl	,
F.7	Small dish	Lenob
F.19	Goblet/Cup	2
E.26	Goblet/bowl (+ E.25, F.2, F.1, 135c, C.16, K.17-18)	2
E.22	Open bowl	Lenob
K.15	Goblet (+ C.17)	Lenob
E.24	Open bowl	Lenob
		,
I.14	Askos	,
		,
E.1	Amphora	Orton
L.5	Amphora	,
L.6	Amphora	Otto,
		,
D22	Offering Tray	,

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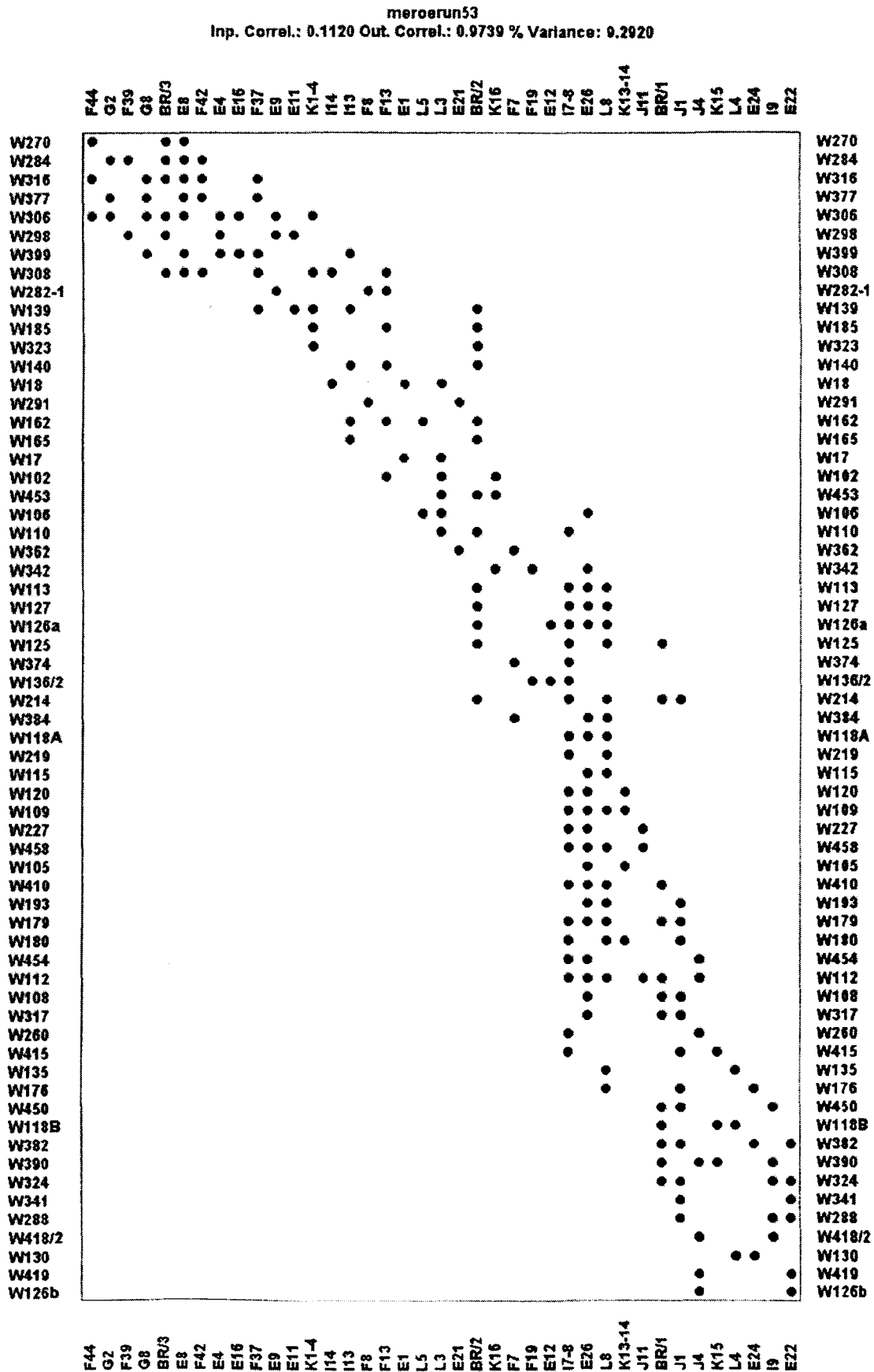


Fig. 71 - Seriation run, including amphorae types

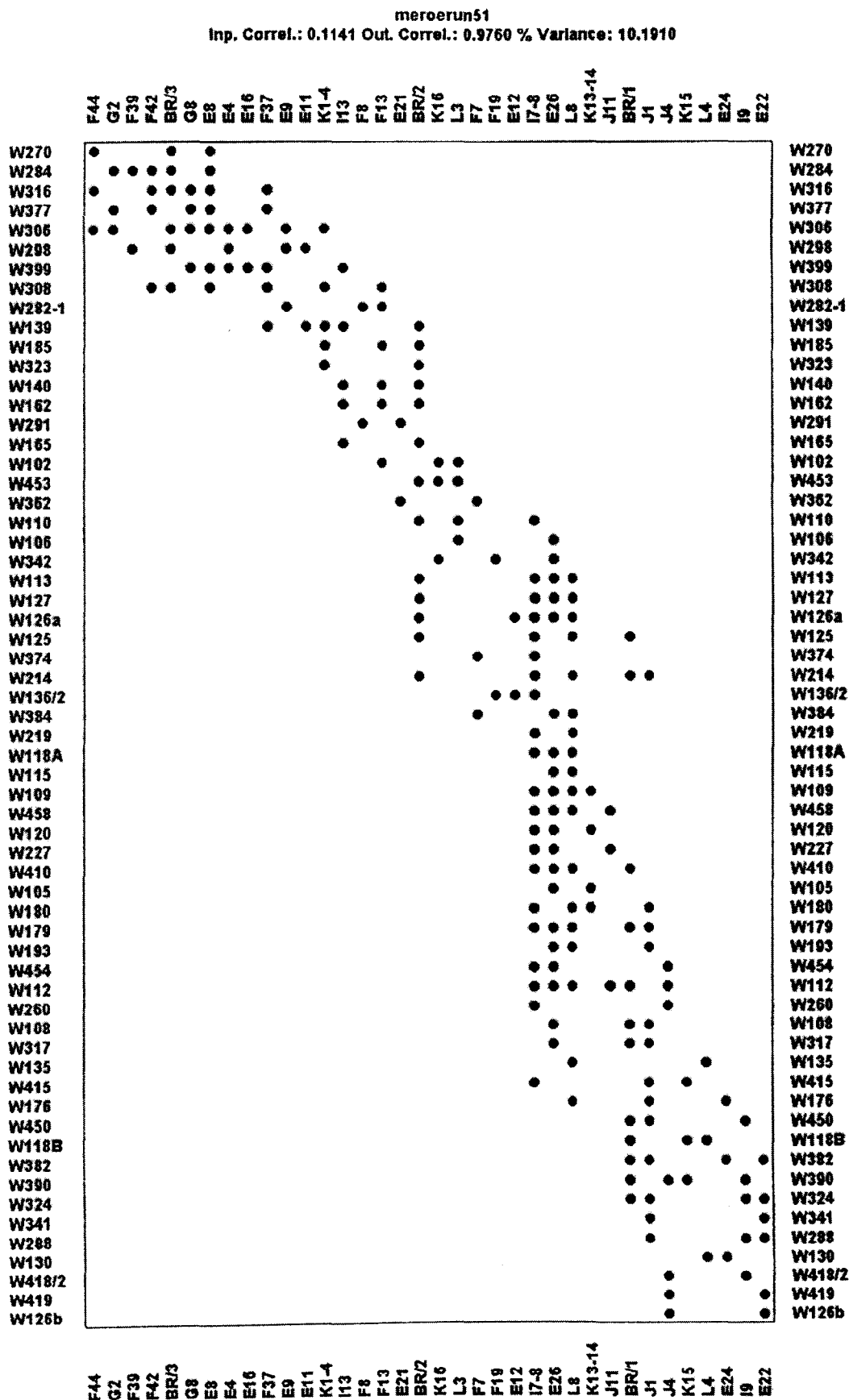


Fig. 72 - Seriation run without imported vessels (amphorae & askos types)

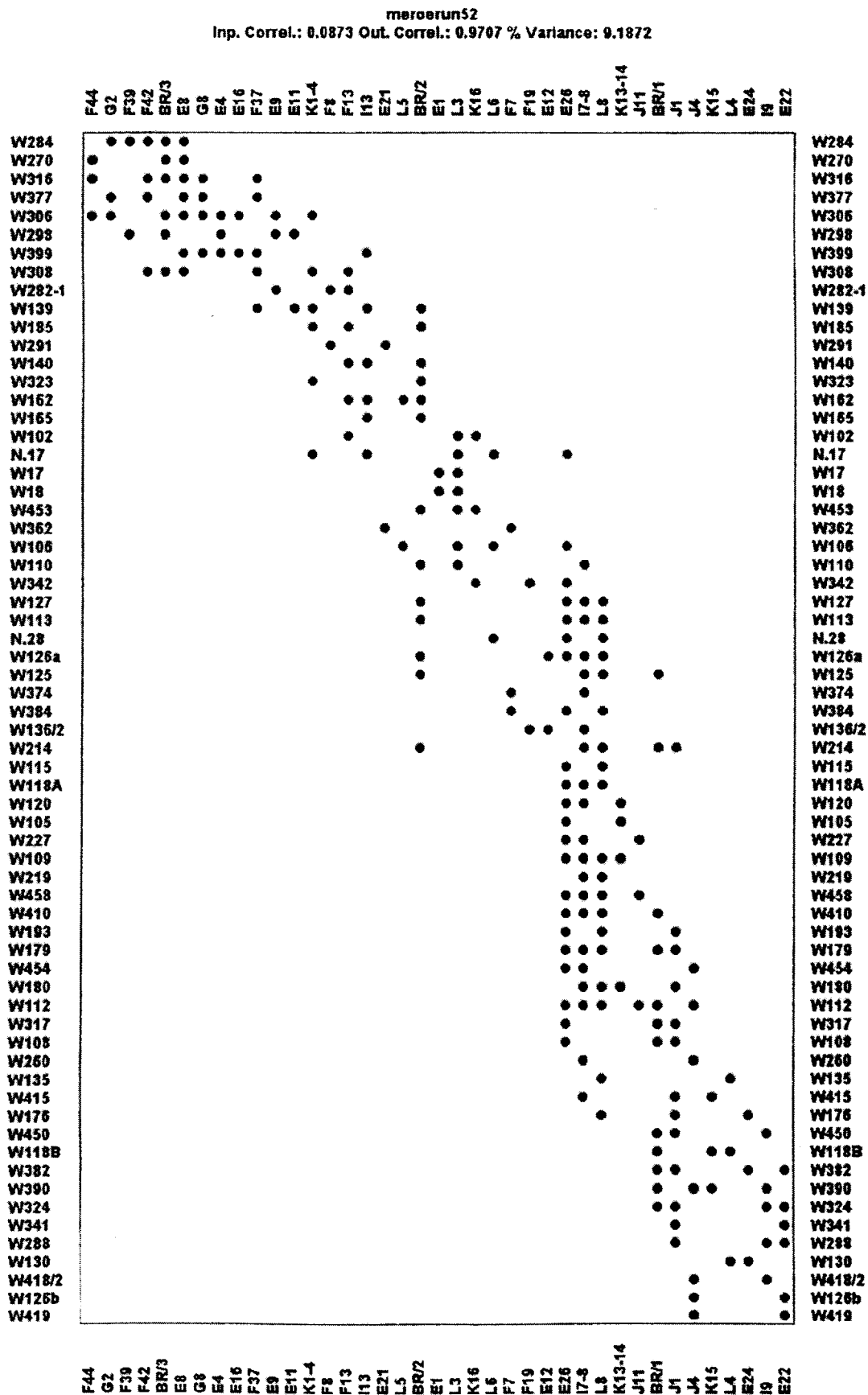


Fig. 73 - Seriation run included royal tombs N.17 and N.28

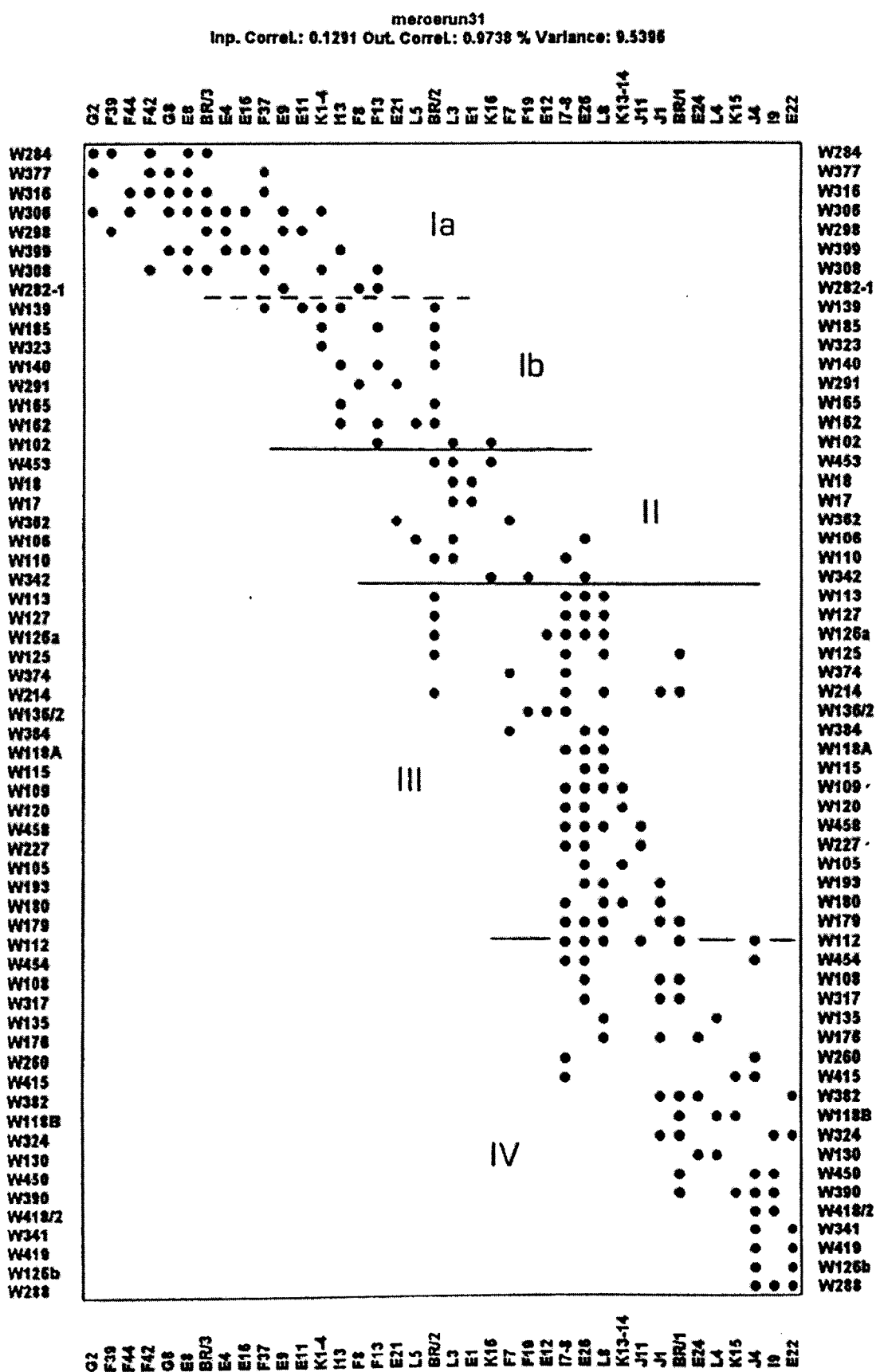


Fig. 74 - Example of seriation run with possible groupings (I-IV) indicated



Fig. 75 - Main "zones" of Meroe West Cemetery discussed in text

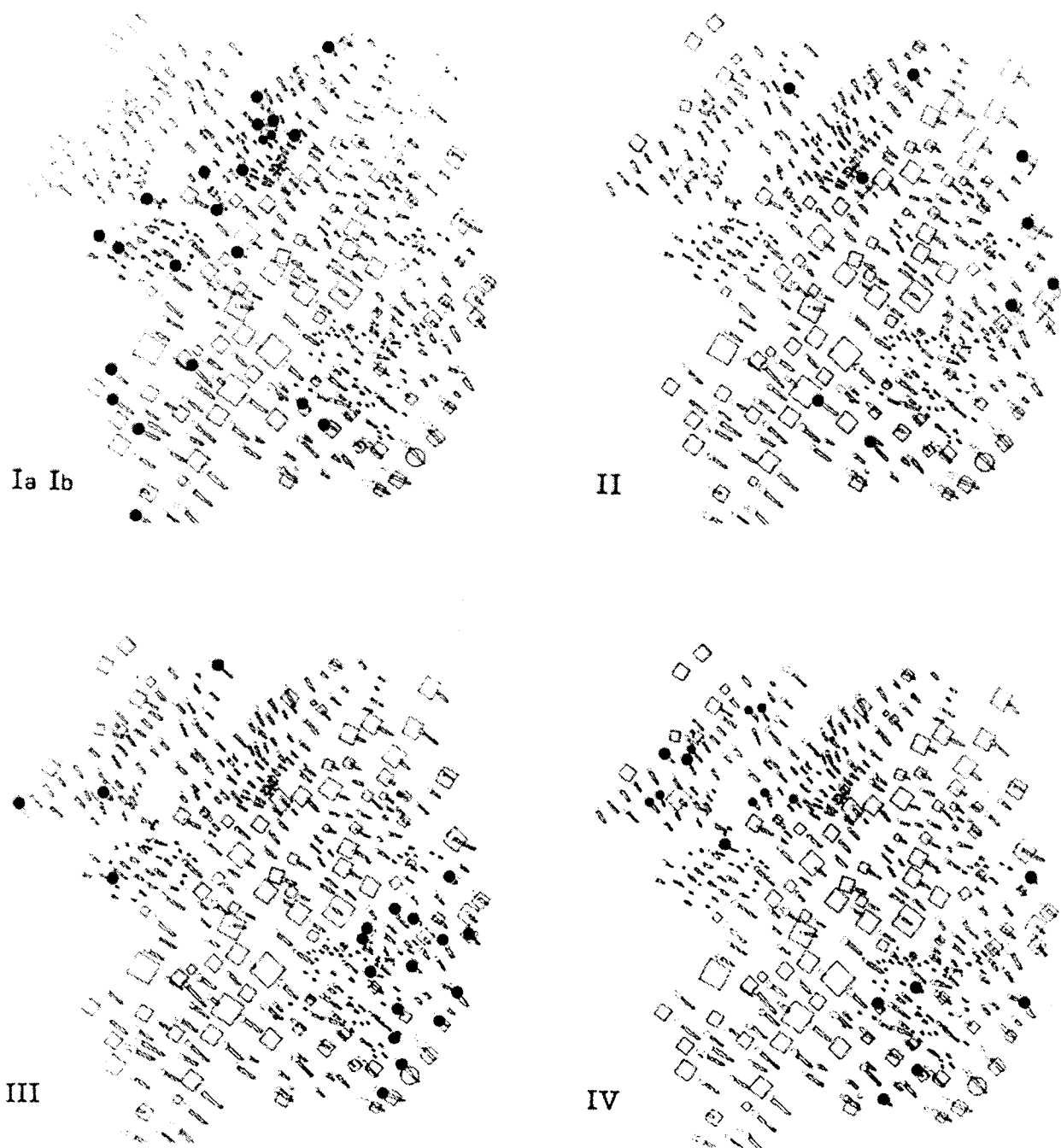


Fig. 76 - Plots of grouped tombs at Meroe West following ordering of seriations

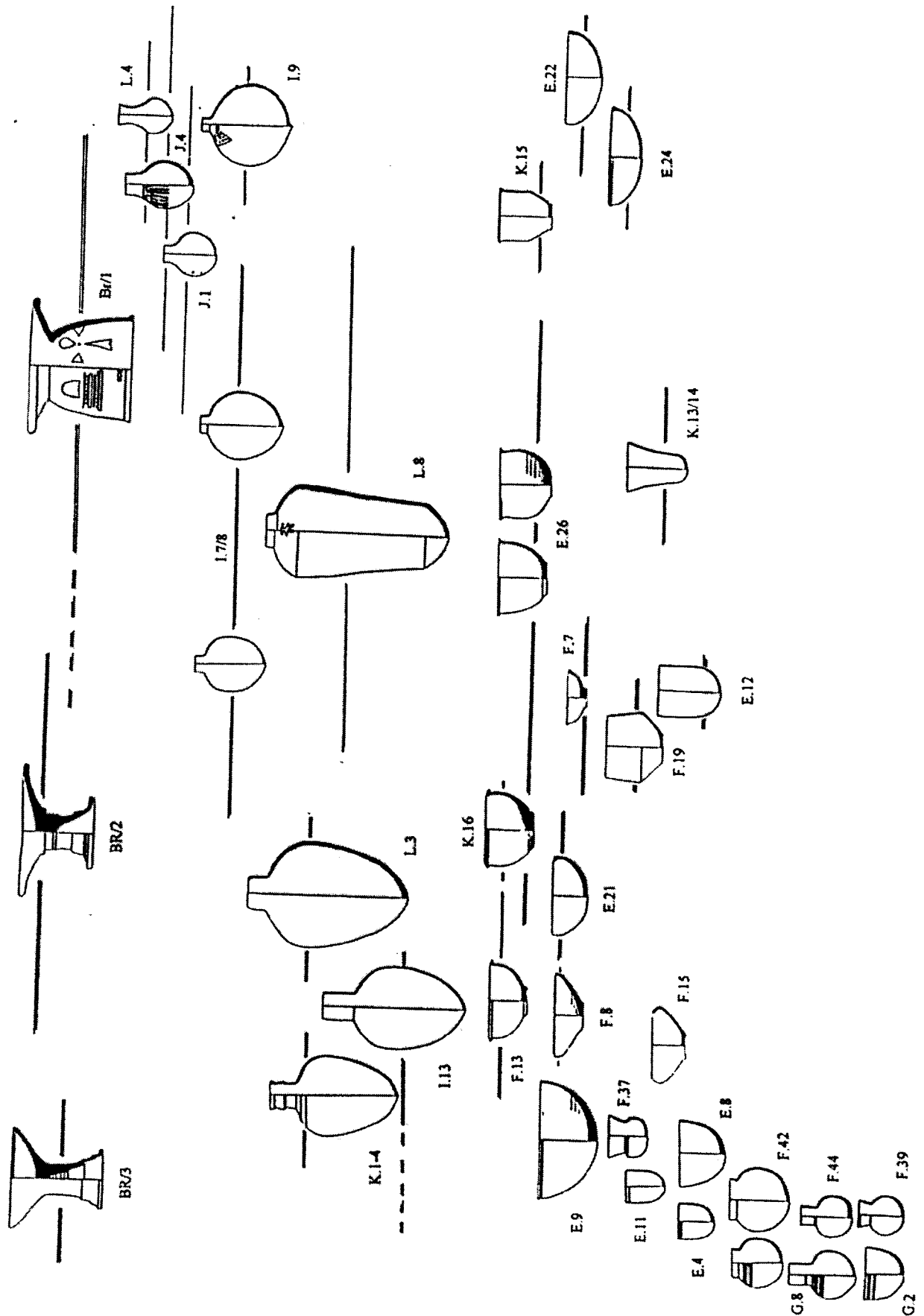


Fig. 77 - Outline sequence of main types discussed in text

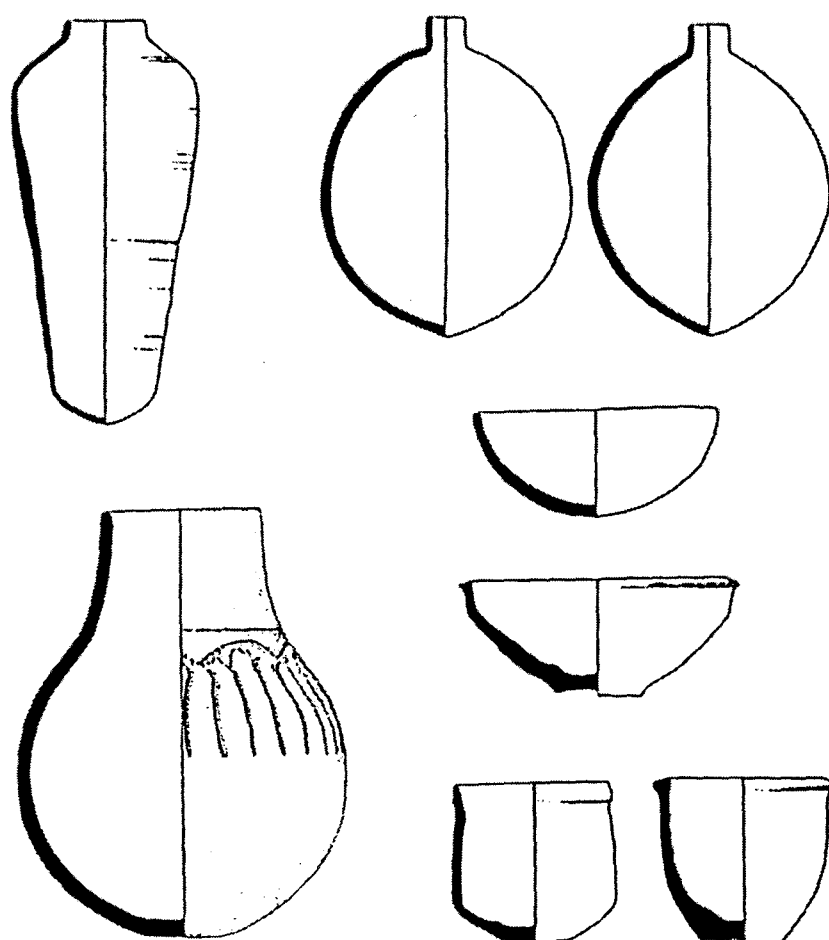


Fig. 78 - Kadada pottery group (KDD22/122),
similar to Meroe early group IV (from Lenoble 1994a)

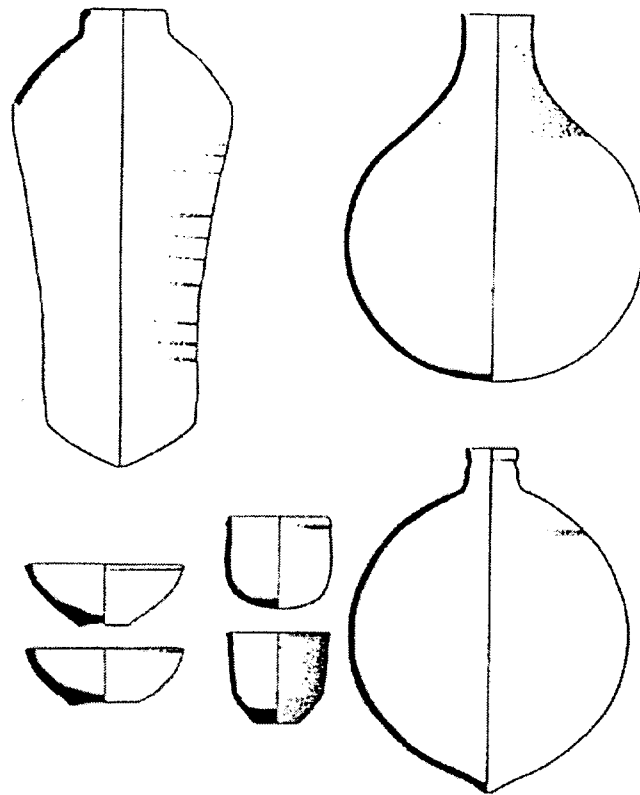


Fig. 79 - Kadada pottery group (KDD107/6),
similar to Meroe early group IV, with handmade "beer-jar" (from Lenoble 1994a)

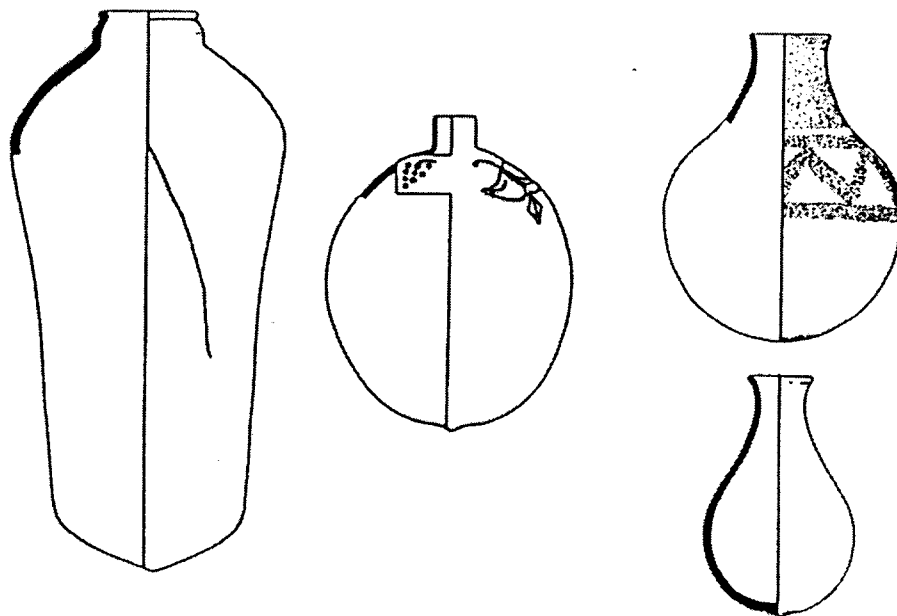


Fig. 80 - Transitional Kadada pottery group (KDD33/1),
similar to Meroe early group IV, with handmade "beer-jar" (from Lenoble 1994a).
Note decoration of I.9 type jar very similar to examples at Meroe