

Mwangia Pottery Tradition: Technical Analysis and Placement in the East African Cultural Sequence

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Abstract

This report presents an analysis of the Mwangia pottery from Mtembwe/Mahege site in Rufiji, Tanzania and provides a discussion on where the assemblage fits in within the pottery cultural sequence developed for the central coast of east Africa by Chami (1994/95). Mwangia tradition which was prominent from 5th-6th century A.D was seen in Tanzania extending from Dar es Salaam through south western Tanzania to Mozambique, Zimbabwe and south Africa with variants such as Mwabulambo, Nkope and Gokomere (Kwekason,2010). Mwangia pottery tradition was recognized from a small sample of pottery excavated from the site Mwangia and material excavated from the site of Ziweziwe both in the Rufiji region (Chami and Kessy, 1995). The pottery excavated from these sites was hereafter termed Mwangia because the site of Mwangia is richer and easily accessible than Ziweziwe. More than six sites with this pottery tradition that is characterized by beveled rims and comb stamping have been reported (Soper 1971).

Keywords: pottery, EIW - Early Iron Working, pottery analysis, assemblages, cultural sequence

1. Introduction

Mtembwe/ Mahege site is an open-air early iron-working (EIW) site geographically located (S 06^o 33' 34.1" and E 0 37^o 08'288") southeast of Nyambwanda town. It is in the present Rufiji district and about 150km south of Dar es Salaam along the road from Dar es Salaam to Lindi. It covers an estimated area of 200sq.m. The site structure is composed of hearth, daubs as well as some fragments of Mwangia potsherds and few palm kernels. This pottery tradition on the Swahili coast is important because they are seen as the last variant of EIW tradition and form the most part of a completely recovered assemblage from a temporally discrete excavated context.

EIW culture that comprises of Limbo, Kwale and Mwangia is seen as the culture that succeeded or in some area that came to coexist with LSA in east Africa. It has also been termed "the early iron working industrial complex" (Chami, 1994). This culture thought to have been established from the beginning of the first millennium A.D and surviving for more than 500 years had people knowledgeable in metal (iron working) and pottery technology. The communities were said to be agricultural, hence with permanent settlements (Soper, 1971). It has been suggested that EIW people spread from inter-lacustrine region to the rest of east and southern Africa. Their movement spread iron and pottery making technology to the rest of the region.



Figure 1. Map of Rufiji showing the location of site

2. Pottery analysis

The analytical attributes of archaeological artifacts are different, depending on the kind of object analyzed, whether stones or pottery. The attributes range over the material artifacts made, size, shape and surface treatment (Doran and Hudson, 1975). In pottery analysis, many aspects of the above attributes have been suggested, ranging from thickness, surface condition, weight, color, temper, dimensions, shape, decoration, surface finish etc. (Shephard, 1963; Hulthen, 1974). Different archaeologists have, however used different attributes in their studies, depending on the nature of their problems. In an attempt to clarify the EIW pottery of East Africa, Soper (1971) used an eclectic approach by selecting 50 attributes (traits) ranging from “vessel shape, rim morphology, bases, finish, decorative techniques and motifs etc. In trying to classify the pottery of southern Africa, Huffman (1976) concentrated more on the structure of motif and decoration placement. Chikure *et al*, (2002) in a bid to give a better picture of the Khami pottery from Zimbabwe, dealt with the attributes of the vessel shapes, surface treatments, decoration techniques and motifs as well as motif placements.

For the description and quantitative analysis of the pottery attributes, we have selected eight attributes: decoration, motif placements, color, surface treatments, vessel shape, temper, thickness, and rim morphology. A total of 31(76%) decorated sherds and 10 (24%) undecorated sherds that were excavated over a period of seven days in 2009 were used in the course of the analysis. Sherds less than 3 square centimeters were regarded as fragments and were excluded from the analysis.

3. Decoration

Mwangia tradition comprises of 8 different design elements. These include: bold vertical lines of incision, vertical and horizontal grooved lines, bevels, lip decorations, lines of punctuates, cross-hatching and thickened rims. Horizontal grooved lines 5 (17%) and vertical grooved lines 6 (23%) are the most frequent decorative elements. Here the grooves are either narrow or bold executed in a leather-hard condition mostly on the neck region. Beveled rims 5 (17%), thick rims 4 (13%) and bold vertical lines of incision 3 (10%) also exist in reasonable amount. Others include punctuates 2 (7%) which are mostly of the cuneiform pattern situated on the rim and neck axis, cross hatching 1(3%) and lip decoration 3 (10%). There was no sign of local glazing at this site.

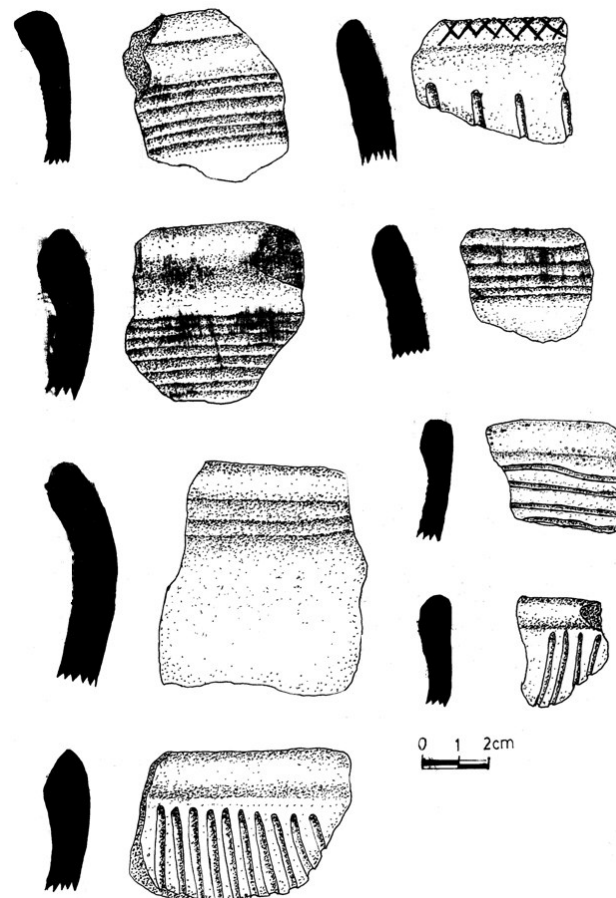


Figure 2. Different decorations of Mwangia pottery

4. Motif placement

Generally, decorations on potsherds are mostly placed on five parts of the vessels, namely, lip, rim, neck, shoulder and body. In Mwangia assemblage, decorations were mainly on the neck than any other vessel parts. The frequency of the motif placement was as follows: rim (29%), neck (32%), shoulder (23%), lip (10%), and body (6%). It was noticed in the analysis stage that bowl were mostly undecorated, except for smoothing and burnishing. It is apparent that the placement difference between the pots and bowls indicates a functional difference. Thus it could be said that bowls, being small, would have relatively small area for decoration and being for table purpose (eating and drinking), would look more beautiful when burnished and probably easier to wash than when decorated. All the decoration on the potsherds was executed on the exterior.

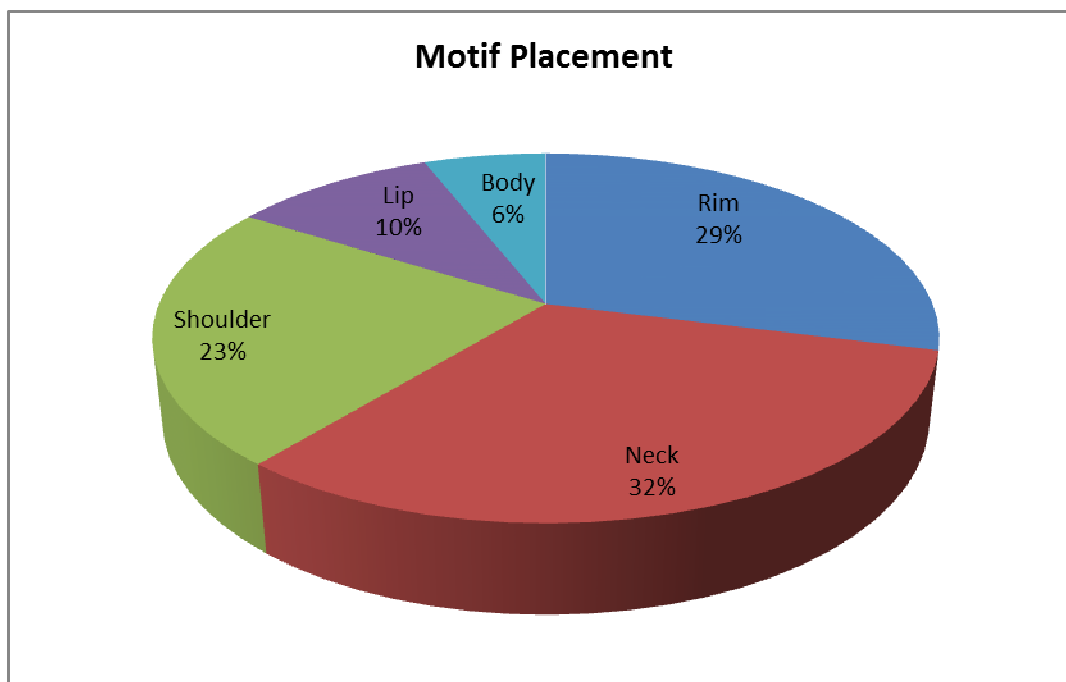


Figure 3. A pie chart showing the frequency of the motif placement

5. Pottery thickness

All potsherds were measured in order to obtain an overall picture that characterizes the pottery assemblages from the site. In an endeavor to achieve this, some arbitrary classes were set up in order to differentiate the pottery thickness. The classes are as follows: very small (0.3- 0.6cm), small (0.7-0.9cm), medium (1.0-1.3cm), large (1.4cm and above). Results from the analysis are presented in Table 1. This shows that thicker walls characterized the bigger vessels and large orifices while the smaller vessels have smaller orifices. Both bigger and smaller vessels could have been used for domestic purposes, which include storage, cooking etc.

Table 1: Classification of potsherds according to thickness

		Thickness category				
		Large	Medium	Small	Very small	Total
Mtembwe/ Mahege	Qty	4	13	14	10	41
	%	10	32	34	24	100

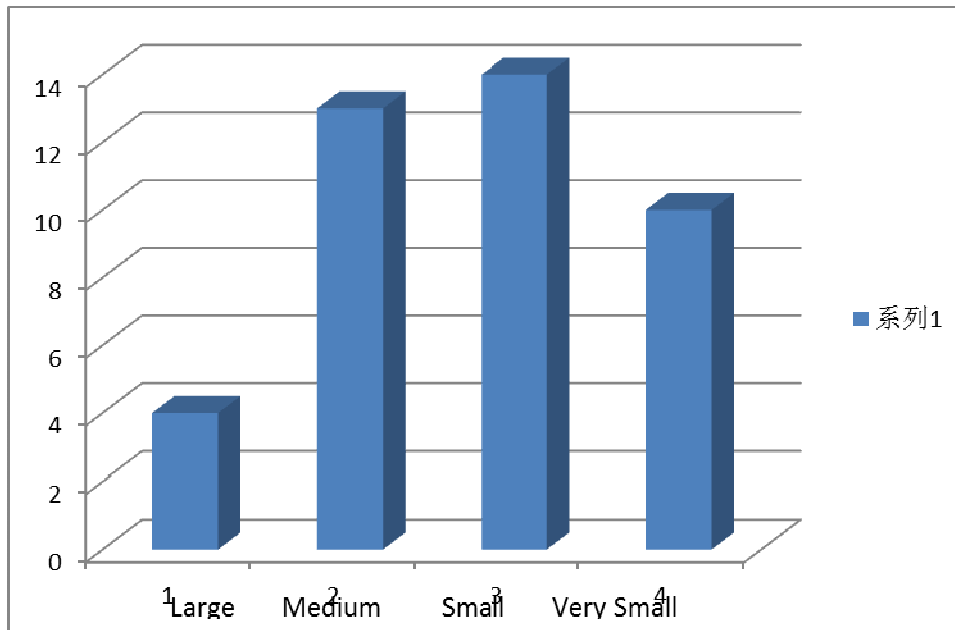


Figure 4. Pottery thickness

6. Rim Morphology

The most common rim form is everted 11(58%) followed by thickened rim 5 (26%) and inverted rim 3 (10%). Neutral rims that maintained the thickness of the vessel wall consist of 2 (3%) while only 2 potsherds (3%) are lip indented.

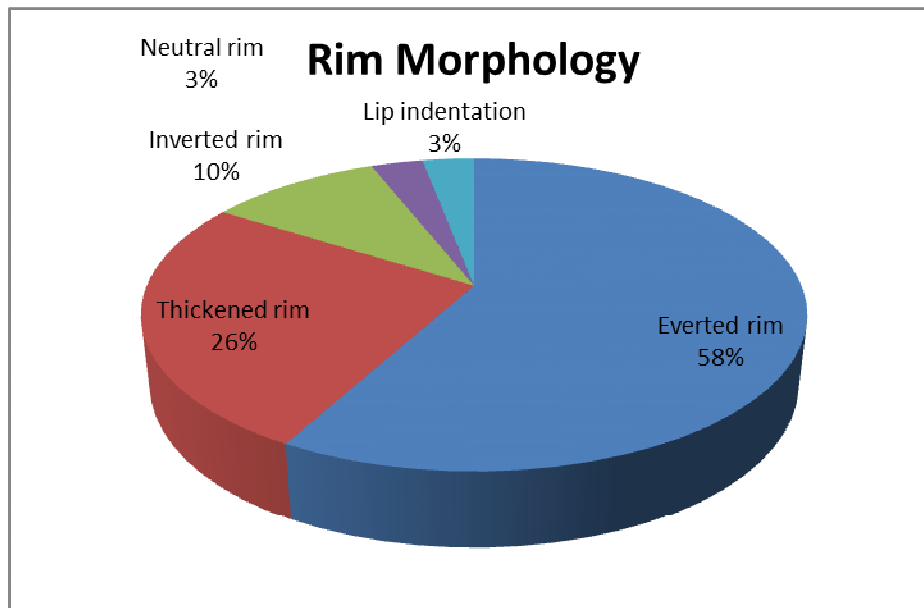


Figure 5. Mwangia rim forms

7. Temper

Mwangia pottery generally has a fine fabric (grain < 1mm). Fine rounded sand grains occur in roughly the same proportion as fine to coarse grains. It is often difficult to differentiate between sand and well-grounded quartz, however one must often look microscopically to determine the extent of granular angularity (Stewart, 2005). 23 (57%) of the potsherds are classified here as having a very fine sand temper. 10 (25%) is more certainly tempered with sand and grit. Grit alone was used for another 4 vessels (10%) while a further 3(8%) was tempered with grit and quartz.

8. Vessel Type

Several models have been used for determining the shapes of pottery vessels. Shephard (1963) developed a

scheme that recognizes two categories of vessel types- restricted and unrestricted vessel either jar (pots) or bowl. Soper (1971) gives a model made up of necked pots, narrow-mouthed, globular vessels, rough open bowls and carinated forms. Similar models can be seen in Collett and Robertshaw (1983) and Huffman (1980). Of the 41 potsherds retrieved at Mtembwe/Mahege site, (52%) were pots while (34%) are bowls. A further (14%) falls into category of indeterminate, which could be derived from any vessel (Shephard, 1963). Mwangia vessels tend to be more globular; the widest part of the vessel (major point) is larger than that of the rim, and the height of the vessel being greater than the major point of the diameter. Some of the potsherds are of constricted necks with relatively short thick rims. Bowl shape consists of upturned/everted rims that meet the body at an obtuse angle.

9. Surface treatment

Like many eastern African pottery assemblages, recognizing and identifying surface treatment of Mwangia pottery presents some difficulties. The primary obscurity is the considerable carbon staining that most vessels have sustained due to use in cooking. Other impediment includes inadequate firing, use-wear and post-depositional wind abrasion. It is often difficult to differentiate between sand and well-pounded quartz, however, and one must often look microscopically to determine the extent of granular angularity. Nevertheless, surface treatments are apparent. 81% of the 41 potsherds retrieved are decorated while 10% are smoothed. A further 6% are burnished with the remaining 3% graphited.

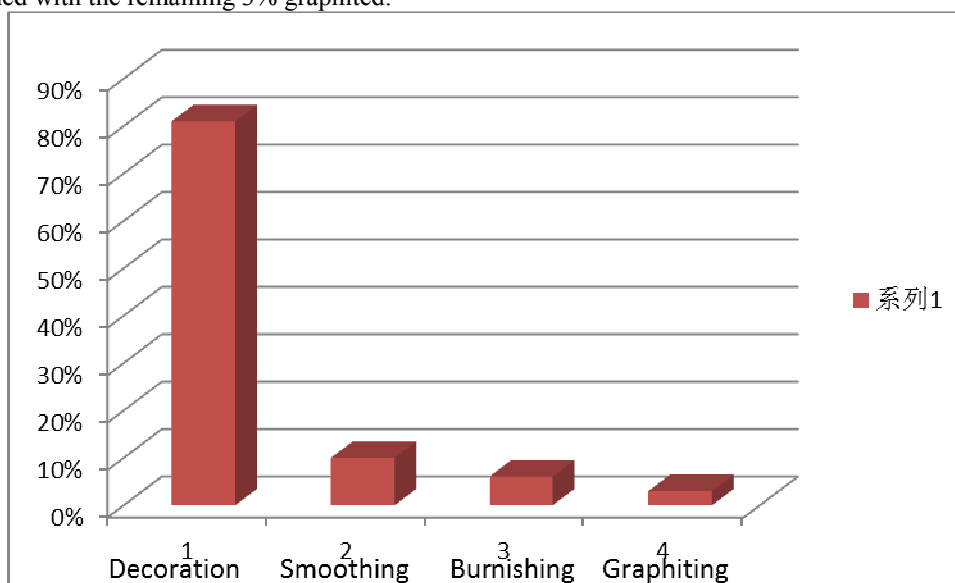


Figure 6. Frequency of the surface treatment

10. Color

Color of the potsherds were characterized mostly by three factors which includes; clay composition, temperature and duration of firing. The firing condition can result in either an oxidized, reduced or semi oxidized material (Anderson, 1984, Shephard, 1963). An oxidizing environment develops when a kiln is subjected to oxygen after burning all carbon in the fuel, a process that leads to the production of a light brown or a red surface (Shephard, 1963). A reduced fabric is produced when the fuel is not fully burnt thus causing soot and carbon monoxide to pass through to the kiln and this creates pottery with grey or black surface. Semi oxidized fabric is caused by fluctuating the firing condition from either of the above ideal conditions (Anderson, 1984). The results shows that a greater percentage of the retrieved potsherds from Mtembwe/Mahege site are oxidized (reddish brown) 58.6%, followed by semi oxidized (grayish brown) 26.8% and reduced fabric (gray) 7.31%. Only 3 (7.29%) were tainted with soot.

11. Discussion

Kirkman first studied the archaeology of the coast of East Africa in the 1940s and 1950s (Chami, 1998). In his work 'Men and Monument of East African Coast', he argued that the historical monument of East Africa belong not to the Africans but to the Arabs and Arabized Persians mixed with the blood of Africans but in culture utterly apart from the Africans who surrounded them (Kirkman, 1964). Chittick (1974) based on his archaeological excavation especially architecture and pottery maintained that foreigners colonized the coast of East Africa. His most prominent work includes the excavation of Kisimani Mafia, Kilwa in Tanzania and Mandain, Kenyan coast. This interpretation has not been received too kindly by some scholars for it is seen as a denial of the local input as revealed by the excavated pottery and the architecture (Chami, 1994). Challenges to this interpretation arose

when in the early 1980s, when archaeologists consistently observed in the lowest level of excavations at the sites like UngujaUkuu, EIW pottery similar to that of the hinterland (Chami, 1998). Subsequently, in the early 1990s, Schmidt et al (1992) and Chami, (1994) as well as others at the University of Dar es Salaam found numerous EIW sites on the Islands, littoral and hinterland of the central coast of Tanzania. The study of these sites, which were dated to the Pre-Islamic period (before the 9th century A.D) suggested their occupants had cultural affinities with the established EIW Bantu speakers. The earliest settlements of EIW Bantu speakers practicing iron technology with beveled/fluted pottery were found west of Lake Nyanza (Victoria) and the highlands of Rwanda and Burundi. These were dated to the 5th century B.C (Schmidt, 1997). The dates for the sites of the same tradition appear younger and younger as one moved towards the east and south of the subcontinent. It was thus established that the EIW tradition originated in the inter-lacustrine region where it had been established by the 5th century B.C before it spread to the different parts of the subcontinent (Soper, 1971; Phillipson, 1976).

It has also been proved by scholars like Phillipson (1976) that the pottery traditions of EIW people constituted local variants, which showed typological and stylistic resemblance forming a single coherent complex. These variants have been recognized at settlements from distinctive geographical locations that include the Urewe ware around the Lake zone, Lelesu in central Tanzania (Sutton, 1968) and Kwale in the coastal regions of southern Kenya (Soper, 1967). Naming of these variants was based on the particular site types- thus Urewe, Lelesu and Kwale pottery traditions respectively (Maro, 2000).

In addition to the aforementioned tradition, Chami (1998) through the study of EIW tradition from both surface and excavated cultural materials suggests that three phases of this tradition can now be recognized on the Swahili coast: the Limbo, Kwale and Mwangia. Using C14 dates Chami (1998) placed the Limbo date from the last centuries B.C to about the third century A.D (200 B.C – A.D 300). The second, Kwale phase, is dated to between the third and the fifth centuries A.D (A.D 300 – 500) and the Mwangia phase to the 5th and 6th century A.D (A.D 500-600). Limbo is located in the present Mkuranga District of Pwani Region in southeastern Tanzania. It is also represented at the sites of Limbo, Kibiti and Misimbi in the Rufiji area (Chami, 1994). Horizontal and oblique-hatched bands that are frequently found with Kwale and Urewe ware respectively dominate the Limbo assemblage. It has been established that the Limbo phase, dating from the last century B.C. to about the third century A.D, had cultural affiliations with the Urewe-Lelesu EIW traditions of central Tanzania and the inter-lacustrine region of east Africa (Chami and Msemwa, 1997a). Kwale Phase is distinguished from Limbo by having upturned bowls with a sharp angle between rim and body and decoration of false relief chevron. At the same time finely executed punctuates hatch and stamp, mild beveling or flutes on the rim becomes more pronounced (Soper 1967). Basketry although absent in the archaeological record is thought to have influenced the shape and decorative motif of Kwale and Limbo wares.

Many sites of this phase are now known along the coast as far as south of Somalia in Ras Hafun in the eastern highlands of northern Tanzania and Kenya (Soper, 1967) and in the offshore islands (Chami and Msemwa, 1997b). Thus archaeological observation suggests that by the 4th century A.D., this EIW tradition had been spread to many parts of the eastern and central Africa (Chami, 1998). Kwale pottery is dominated by a motif of false-relief chevron (Soper, 1967) that also became prominent in the pottery of Kapwirimbwe, in central Zambia in the 5th century A.D (Kwekason, 2010). At around the sixth century A.D., Kwale tradition changed into another short lived tradition; this new tradition had thickened rim pottery, occasionally beveled and fluted, and with one line of punctuations. The common motif in this tradition is a vertical grooved line that in some cases appears like vertical flutes. A carbon fourteen date from Ziweziwe place the tradition to fifth century A.D (Chami, 1994). It is believed that this tradition co-existed with early phase TIW tradition that has been shown to have been derived from the EIW culture. TIW thus lasted between the tenth and eleventh centuries A.D before entering into the early-urbanized Swahili tradition of East Africa.

12. Conclusion

This study presents an analysis of the Mwangia pottery from Mtembwe/Mahege site- Rufiji, Tanzania and provides a discussion on where the assemblage fits in within the pottery cultural sequence developed for the central coast of east Africa by Chami (1994/95). Additionally, it examined the pottery attributes of Mwangia in terms of color, surface treatment, vessel type, temper, pottery thickness, rim morphology, decoration and motif placement. Attributes studies of the pottery excavated provide evidence of how one culture changed into another and how one cultural phase gave way to another.

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