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THÈSE

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POPULATION AND CERAMIC TRADITIONS: REVISITING THE TANA WARE OF COASTAL KENYA (7TH-14TH CENTURY AD)

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ABSTRACT

This thesis is a departure from the traditional archaeological pottery analysis in Kenya, where emphasis has been on decorations and forms. It uses a technological approach to offer additional information on Bantu pottery whose social boundary has been a cause of disagreement between different researchers. Pottery decorations and forms have been/are still powerful instruments in defining archaeological spatial and temporal distribution of prehistoric populations, but the ability of these attributes as social boundary markers is limited by their overt visibility on the finished product. Whilst this explicit visibility is an advantage for archaeologists who seek to explore temporal and spatial distributions of different wares, it is also disadvantageous since it makes it possible for communities which are socially, ethnically, and linguistically distinct to copy from each other hence making these two salient pottery features unreliable indicators of social boundaries. Therefore, this study puts emphasis on the forming stage, which is not obvious on the finished product and must be learnt by apprenticeship only through kinship, as demonstrated by numerous ethnographic studies.

Using chaîne opératoire as an analytical tool for archaeological material and ethnographic, experimental and ethno-historical data as reference and interpretive tools, this study sought to establish the social boundaries of makers of Tana ware which is a disputed Iron Age pottery of Bantu speakers. Some archaeologists attribute its origins to Bantu speakers whilst others attribute it to Cushitic speakers. Archaeological data was collected from Manda and Ungwana sites assemblages and ethnographic reference data was collected from Cushitic and Bantu speakers from the Coastal and Highland regions of Kenya. Ethno-historical data was derived from library resources while experimental data were obtained from the field.

This study has demonstrated that due to the nature of archaeological peopling and interactions which exposed different ethnolinguistic groups to material cultures of the other, borrowing of cultural traits took place causing distinct populations to have pottery of similar decorations and forms. It has also demonstrated that pottery chaîne opératoire can show population continuity or discontinuity from archaeological to modern times. Most importantly, this thesis has demonstrated that Tana ware has its origins from Bantu speakers, and that its decorations have their origins from Cushitic speakers. It has also confirmed the movement of Meru ethnic group from the Coast of Kenya to Mt. Kenya region, by providing tangible data to linguistic, historical and oral evidences.

The last part of this work gives directions of future research on pottery analysis in Kenya, and outlines some questions pertaining to Bantu and Cushitic speakers which remain to be answered.

TABLE OF CONTENTS

INTRODUCTION

Social and cultural behaviour in prehistoric times has attracted considerable attention from archaeologists. Despite the difficulties involved in making inferences from archaeological materials, archaeologists have drawn important conclusions regarding ethnicity, social boundaries, division of labour and gender spaces, among others, using well-developed methods to excavate and to analyze archaeological remains. Technical behaviour, which is encrypted in works of art like stone tools, metallurgy, rock art, and ceramics, has played a major role in providing such information. Thus, archaeologists have used ceramic attributes like shape and decoration to mark temporal and spatial boundaries of past populations. Until the invention of radiocarbon dating, pottery found in the archaeological record served as a means of providing relative dates and chronology based on correlation. That is, sites that produced pottery of the same attributes-specifically shape and decoration were deemed to belong to the same period and so, sites which were far removed could be associated and cultures assigned to them. Peacock (1970) states that use of pottery morphology and decoration as a way of describing cultures may have roots in classical history or eighteenth century antiquarianism. This continued into the first half of the 20th century where the decoration and morphology of vessels were often regarded as little more than chronological indices or cultural signposts symbolizing the ethic affiliations of their owners (Howard 1981). Use of pottery decorations and form as analytical tools for identifying social boundaries has been criticized by, among others Livingstone-Smith (2000), Gelbert (2003), Roux and Rosen (2009). Garcea (2005) argues that even though it is clear that the external look of a finished pot is not sufficient to distinguish cultural and chronological variability, it represents an easily discernable system for recognizing cultural groups.

Indeed, in Africa where linguists have divided the population into three major linguistic groups, Cushitic, Nilotic and Bantu speakers, specific pottery decorations and forms in the archaeological record have been used to identify their early migration routes and areas of their occupation. In Kenya, the earliest pottery is attributed to Cushitic speakers, while Nilotic and Bantu speakers are assigned later wares (Ambrose 1982). These potteries are defined according to their decoration and form such that pottery

groups with the same characteristics and are contemporaneous are seen to belong to a common social or linguistic group. In addition, they are also assumed to be archaeological remains of modern populations who live within the locality of the sites (Chami 2006b). Based on this, Kenyan archaeological pottery wares such as Narosura, Akira, Maringishu, Nderit and Elementaitan are thought to be either of Cushitic or early Nilotic speakers since they are commonly found in the Rift Valley – a region mostly occupied by these two ethnolinguistic groups (Chapter 1). However, as it will be seen in Chapter 1, there has been no clear distinction as to what is Cushitic and what is Nilotic since sites considered to be Nilotic have yielded similar pottery wares as sites considered to be Cushitic. During the peopling of Kenya, different ethnolinguistic groups moved into Kenya at different times and they may have shared same spaces, intermarried or replaced each other. This way they may have borrowed or exchanged cultural traits which may be the main reason for the occurrence of similar pottery traditions from sites which are believed to have been occupied by distinct ethnic groups. Therefore, it may be problematic to interpret and to assign archaeological cultural remains to particular ethnolinguistic groups based on their modern habitants or cultural features like pottery decoration and form which can easily be copied or learned.

Similarly, linguists postulate that migration of Bantu speakers occurred about 3000 years ago, which corresponds with the Early Iron Age period in East and Southern Africa. Their movement is evidenced in the archaeological record by certain pottery wares. These include Urewe, Kwale, and Lelesu wares (Chapter 1). Huffman (1982) points out that all the ceramic entities of Early Iron Age in Eastern and Southern Africa belong to one style system since they all have the same kind of motif combinations in the same position and on the same kind of shapes. This uniformity was generally accepted by most Early Iron Age archaeologists, making it possible for the perceived Bantu speakers' sites to be identified easily using set out models. This, therefore, left no doubt about Early Iron Age spaces of Bantu speakers although debates on their alleged routes of migration/waves of expansion are still alive.

During the 1960s through the 1970s archaeologists devoted time and funding in locating sites which bore these pottery wares in order to map this movement. Notably, in 1967 the British Institute in Eastern Africa initiated what was known as 'Bantu Project'

which was dedicated to finding Bantu sites. Because the subsistence economy of Bantu speakers since archaeological times was believed to be agriculture, archaeologists sought their early sites in the areas that are suitable for farming and areas that they occupy today. As such, all the pottery that was found in the interacustrine, Mt. Kenya and Coastal regions of Kenya, was either associated with the decorations and forms of Urewe, Kwale or Lelesu in order to confirm early evidence of Bantu presence. Where the decorations or morphologies did not match, the pottery was considered a 'variant' of any of the three. This effectively blocked any possibility of other communities having lived in these areas prior to the coming of Bantu speakers although Chapter 1 of this thesis will show that Bantu speakers did not move into vacuum areas but found other communities whom they may have displaced or interacted with. These interactions occurred in both the Mt. Kenya and Coastal regions, making the use of pottery decorations and forms as evidence of social boundaries shaky.

Research Problem

Later Iron Age pottery, on the other hand, became complicated and difficult to assign to any particular linguistic group without raising suspicion. Unlike the Early Iron Age Bantu pottery, which was found in the neighbourhood of lakes, river valleys and other arable lands, Oliver (1966) points out that the later Iron Age pottery was recovered from every type of country. This includes areas that were formerly designated as Cushitic or Nilotic due to their pastoral mode of economy (Chapter 1). Therefore, it seems to have been made by different populations who were practising different economies, which are supposed to have influenced settlement patterns. However, in Kenya, the presence of similar pottery in areas suitable for different economic activities may be partly attributable to contacts which may have taken place during its peopling and partly because of later interaction between different groups of people after initial settling as will be shown in Chapter 1. These contacts or interactions may have contributed to borrowing of cultural traits including pottery technology. Similar pottery decorations and forms of Cushitic and Bantu potteries have generated strong debate since it is no longer clear who the makers were. The criteria of settlement types, certain pottery decorations, pottery forms, and the presence of iron working artifacts did not seem to be unique to

Later Iron Age Bantu as previously assumed for the Early Iron Age. Later Iron Age archaeologists disagreed on various pottery characteristics which were hitherto seen as bridging the Early and Later Iron Age Bantu pottery as such, some saw strong affiliation of 'Bantu pottery' to Cushitic pottery and thus attributed its origins to Cushitic speakers, while others dismissed any association.

One such pottery ware that has stimulated intellectual debate in East Africa about its makers is the Iron Age Tana ware. In different areas and sites where this pottery has been found, different researchers have given it various names depending on their individual convictions. Phillipson (1979) refers to it as Wenje pottery, after the type-site, Chittick (1984) refers to it as 'Kitchen ware' or 'table ware' depending on the perceived function, while Chami (1994) refers to it as 'Triangular Incised Ware' (TIW), based on what he recognizes as its most common decorative motif (triangular incisions). Horton 1996a) refers to it as 'Tana tradition' because of its distribution patterns inland and along the coast, and its first recognition from excavated site of Wenje on Tana River (Phillipson 1979). The term 'Tana Tradition' or 'Tana ware' is widely accepted by Kenyan archaeologists, and for the purpose of this thesis, I will use 'Tana ware' since this is the term that has been published for the pottery material from Manda and Ungwana archaeological sites that I investigated.

Tana ware, as described in Chapter 1, shares decorative and morphological attributes with Cushitic pottery (Narosura ware), and Bantu speakers pottery (Kwale ware); therefore, researchers cannot agree as to whether its makers were Cushitic or Bantu speakers. One school of thought argues that it may have its origins from Cushitic speakers due to the interactions that took place during the Neolithic period between the coastal region and the hinterland. This hypothesis is stipulated by Kenyan archaeologists such Abungu (1989) and Horton 1996a). The second hypothesis postulates that Tana ware was made by Bantu speakers and it is a later development of Kwale ware. The holders of this school of thought have shown what they believe to be transitional traits from Kwale to Tana ware which have enabled them to sustain this line of thought. This hypothesis is held by archaeologists from Tanzania such as Chami (1994) and Msuya and Haaland (2000). Recent sites in Tanzania have produced what the archaeologists here

believe to be 'Narosura ware', and now they have put forward a new hypothesis that coastal Narosura ware is a Bantu product which gave rise to Kwale ware.

Research Objective

The above debates prompted me to carry out further research on Tana ware using technological approach in order to offer additional information which is otherwise not attainable through use of morphological and stylistic approaches which dominated the previous pottery researches. Indeed, since technical attributes such as forming techniques are hardly detectable on the surface, they are difficult to copy or even to learn unless through apprenticeship. It follows that technical features together with decoration and morphology can produce data on apprenticeship networks and therefore on archaeological social boundaries. More precisely, Gosselain (2000) points out that the fashioning/forming technique of pot is the most durable and enduring aspect of pottery making which is passed through kinship via apprenticeship. Therefore, it can be used by archaeologists to distinguish social boundaries Stark *et al* 1998; Gosselain 1998, 2000; David and Kramer 2001).

In general, studies of pottery technology have been made possible by ethnoarchaeological and experimental studies which archaeologists have used in the last few years to create databases that are necessary for interpreting archaeological materials. Use of the technological approach to characterize pottery has already been put forward as an important tool in tracing the archaeological movement of Bantu speakers. Thus, Gosselain (2000) argues that modern Bantu speakers make their pots by drawing ring lumps of clay and if this technique can be identified in the archaeological material, it can be used to characterize pottery of Bantu speakers and, therefore, positively indicate the areas of Bantu migration.

This research will use the chaîne opératoire methodology in combination with ethnoarchaeology, experimental and historical studies, in order to study and interpret the technical attributes of Tana ware.

The objectives are twofold:-

- First, to test the hypothesis by Abungu (1989) and Horton (1996a) that Tana ware archaeological pottery is a product of archaeological Cushitic speakers.
- Second, to test the hypothesis by Chami (1994) that Tana ware archaeological pottery is a product of archaeological Bantu speakers.

Use of technological approach to analysis archaeological assemblages, in combination with ethno-historical, experimental and ethnoarchaeological strategies, has been applied before to the study of socio- linguistic boundaries in the archaeological context. Haour (2011) points out that historical sources are never interested in processes of craft production and do not refer directly to archaeological places but ethnographic data and interpretive models can generate working hypotheses. In Africa, work of Ann Mayor in West Africa is an example of such research. By approaching the archaeological pottery this way, Mayor (2010) was able to recognize both the diachronic and synchronic variability in the archaeological pottery and concluded that the peopling of the Dogon region of Mali was characterized by superimposition of ethnolinguistic groups rather than displacements. Therefore, this strategy has been tested and has been found to be an excellent tool in studying past population dynamics and the resulting cultural attributes.

Research strategy and thesis structure

In order to introduce the reader to the structure of modern populations in Kenya, this thesis starts by outlining their archaeological and modern contexts as provided by archaeological and historical resources. First, their geographical and ecological zones which they may have occupied due to their mode of subsistence economies are presented and this is followed by a brief outline of the archaeological material cultures of each group. The material cultures mostly include pottery and lithics, which have been recovered from various sites and have enabled archaeologists to infer social boundaries as well as archaeological contacts and interactions up to the Early Iron Age period. In some cases, however, Later Iron Age pottery is discussed since this is the only archaeological evidence for some ethnolinguistic groups. The Later Iron Age pottery of the Bantu speakers, with emphasis being on Tana ware, is however, discussed in detail since it is the main subject of this research. This leads to a presentation of hypotheses and

arguments by various researchers on the origins of Tana ware; with hypothesis (a) suggesting Bantu speakers as the makers of Tana ware, with hypothesis (b) stipulating Cushitic speakers as its makers, and hypothesis (c) presenting a new line of thinking based on recent archaeological findings.

In order to introduce the population dynamics in Kenya, a historical background of the Cushitic and Bantu speakers is presented. This background information includes the historical origins of both Cushitic and Bantu speakers and their interactions as recorded in historical, oral and linguistic sources. These data offered useful information for the interpretation of the archaeological research results.

A presentation of methodology and strategies that were used to collect and analyze the data follows. In particular, I discuss the chaîne opératoire as the preferred analytical tool to study social boundaries and the necessity to create a database of ethnographic pottery-making chaîne opératoire among some Bantu and Cushitic speakers of Kenya. This database enabled me, firstly, to characterize the techniques used by each group and, secondly, to highlight the significant attributes from different technical traditions. To augment the ethnographic data, experiments were conducted using various pottery-making techniques and tools. This reference database was used in combination with other data of the same nature collected earlier, for example, data by Shepard (1956), Rye (1981), and Gelbert (2003), whilst micro-fabric reference data emanated from the work of Rye (1981) and Pierret (1995). While conducting this study, we put into consideration the importance and cautionary statements on ethnoarchaeology and experimental studies as analogies for archaeological interpretations as discussed by among others, Stiles (1977), Arnold (1981), Redman (1981), Krause (1985), Costin (2000), Hegmon (2000), David and Kramer (2001), Djordjevic (2003), and Roux (2007). For the reader to understand how and what was considered to be the necessary historical and ethnographic reference data, all the steps that were taken in collecting historical data as well as the methodological principles for classifying the archaeological assemblages in order to investigate the synchronic and diachronic variability and interpret it in terms of social groups is presented.

Before presenting the analysis of the archaeological pottery, I present Manda and Ungwana archaeological sites which produced the Tana ware material for this research. I

outline their physical locations, contexts, dates and excavations, and then after which I will present Tana ware analysis from these two sites and results for each assemblage. What emerged as Manda and Ungwana pottery making tradition is compared with the already established ethnographic reference database in order to identify its affiliates and relationship with modern Bantu and Cushitic speakers' populations. Further interpretation of these results follow based on information that was acquired from archaeological, historical, oral and linguistic studies. Finally, I present the conclusions arrived at from this research, the contribution of the study and recommendations for future research.

CHAPTER 1

PART I

PREHISTORIC PEOPLING OF KENYA

This Chapter aims to introduce the reader to the current population of Kenya, which is important for the understanding of later discussions in this thesis. Both the archaeological peopling of Kenya and historical movements of Cushitic and Bantu speakers are presented. The first part covers peopling of Kenya from the late Holocene to Early Iron Age. Each ethnolinguistic group is introduced, followed by a discussion on their supposed archaeological sites and materials. Emphasis is laid on the pottery material that is perceived as representing particular ethnolinguistic groups in various sites. This is followed a discussion on the interactions which may have occurred during the peopling, as well as the available evidence. Pottery of the Bantu speakers during the Later Iron Age is then discussed with emphasis to Tana ware and the conflicting hypotheses regarding its makers. Part two of this Chapter presents ethno-history of Cushitic and Bantu speakers presenting their internal movements within Kenya and their interactions during historical times. This Chapter forms part of the data that was used for interpreting Tana ware.

1.1. Ethnolinguistic Groups, Economic Activities and Geographic Locations

The population of Kenya comprise three main linguistic groups, that is Cushitic, Nilotic and Bantu speakers as shown in (Figure 1.1). Although each linguistic group specializes in a particular dominant socio-economic activity, suitable to its ecological niche (Figure 1.2), they also engages in several other occupations to varying degree. However, the dominant socio- economic activity is sometimes mistaken for the only one, and the groups are falsely characterized as either farmers or pastoralists[1] (Bersten 1976). The following discussion outlines the ethnic composition of each linguistic group, its economic activities as well as its geographical location in the country.

[1] Farming and pastoralism are the major subsistence economies in Kenya

1.1.1. Cushitic speakers

Cushitic languages belong to a larger Afro-Asiatic family which includes Semitic, Berber, Ancient Egyptian and Chad linguistic groups (Greenberg 1950). The Cushites in Kenya are divided into Southern and Eastern Cushitic speakers. The Eastern Cushitic speakers include: the Yaaku, Dasnetch, Burji, Oromo, (Orma) Gabra, Borana, Sakuye, Garreh, Ajuran, Korokoro and Waata, Elmolo, Rendille, Somali (Leisan, Murulle, Degodia, Harti, Issaq, Ogaden, Aulihan, Abdwak and Abdalla) and Boni. The Southern group, on the other hand, consist of only the Dahalo[2]. Various sections of Eastern Cushitic speakers engage in diverse economic activities, such as pastoralism, fishing, and small-scale farming of cereal crops close to water sources. The Southern Cushitic speakers, that is, the Dahalo, engage in hunting and gathering subsistence activities. The majority of the Eastern Cushitic speakers in Kenya are mostly found in the arid and semiarid regions, within the North Eastern, and parts of Eastern provinces; the Dahalo on the other hand are found in the Coast province (Figure 1.1).

1.1.2. Nilotic speakers

The Nilotic languages in Kenya are part of the widespread Nilo-Saharan family, which extends from Eastern Africa to west of the Lake Chad basin (Lynch and Robbin 1979). In Kenya, the Nilotic speakers consist of Western, Southern and Eastern groups. The western group comprises the Luo, while the southern group comprises the Omotik and the Kalenjin. The Kalenjin group is the largest cluster of the Nilotic speakers in Kenya. The Kalenjins are divided into southern and northern groups; the southern group includes the Sogoo, the Saboat (Kony, Pok, Bongomek and Terik) and Kipsigis-Marakwet (Kipsigis, Nandi, Tugen, Keiyo and Marakwet). The northern Kalenjin group, on the other hand, is only comprised the Pokot. The third sub.division of the Nilotic speakers is the eastern group, which is composed of the Teso, Turkana and Elmolo, and the Maa (Maasai, Ilchamus and the Samburu). The economic activities of the Nilotic speakers are quite varied although different sections are rather specialized in what they do. For

[2] The linguistic and cultural affiliations of the Dahalo are not clear since they appear in both hunter-gatherer groups (hence remnants of Khoisan speakers) and as members of Cushitic language speakers.

example, the Luo people, practise farming in addition to fishing (which is their major economic activity). Likewise, besides pastoralism, the Turkana ethnic group practise fishing as one of their subsidiary economic activities around Lake Turkana basin. The Maa group engages in pastoralism of cattle and sheep besides small-scale farming. The Kalenjin on the other hand practise pastoralism and agriculture almost to the same extent, although some attach more importance to pastoral economy than crop farming. The Nilotic speakers occupy the Rift Valley region of Kenya, whose Northern section is suitable for pastoralism whilst the central and the southern sections are suitable for both pastoralism and agriculture. They also occupy parts of Western Kenya, within the Lake Victoria basin.

1.1.3 Bantu speakers

Bantu speakers occupy western, central and coastal regions. The western group comprises the Abaluhya (Bukusu, Kabras, Tsotso, Isukha, Idakho, Tiriki, Logoli, Tachoni, Nyore, Abatura Kisa, Marama, Wanga, Marachi, Khayo, Samia and Nyala), Gusii, Suba, and Kuria. The central group comprise Gikuyu (Kiambu, Murang'a, Nyeri, Mathira, Gichugu), Embu (Ndia, Mbeere), Meru (Chuka, Muthambi, Mwimbi, Igoji, Miutini, Imenti, Tharaka, Tigania and Igembe), Kamba (Mumoni, Kitui and Masaku), Taita, (Dabida-mwanda, Mgange, Bura, Werugha, Chawia, Wusi, Mbale, Mbololo and, Mrugua, Sagala, and Kasigau). The coastal group comprise the Mijikenda (Digo, Duruma, Giryama, Rabai, Kauma, Chonyi, Jibana Kambe and Ribe), Malakote, Pokomo, Swahili (Jomvu, Bajuni, Pate, Siu, Amu, Mvita, Fundi, and Vumba). Apart from the Swahili Bantu speakers who mostly inhabit urban areas, all the other groups are principally farmers. They engage in crop farming and small-scale animal keeping mostly for domestic produce. The Swahili Bantu speakers engage in fishing, making of crafts, such as furniture and pottery and selling of other merchandize in the urban areas along the coast. The western group of Bantu speakers occupies areas in the western Kenya region where the climate is suitable for crop farming, while the central group occupies areas around the Mt. Kenya region and Kenya highlands whose soils and climate are suitable for both food and cash crop farming.

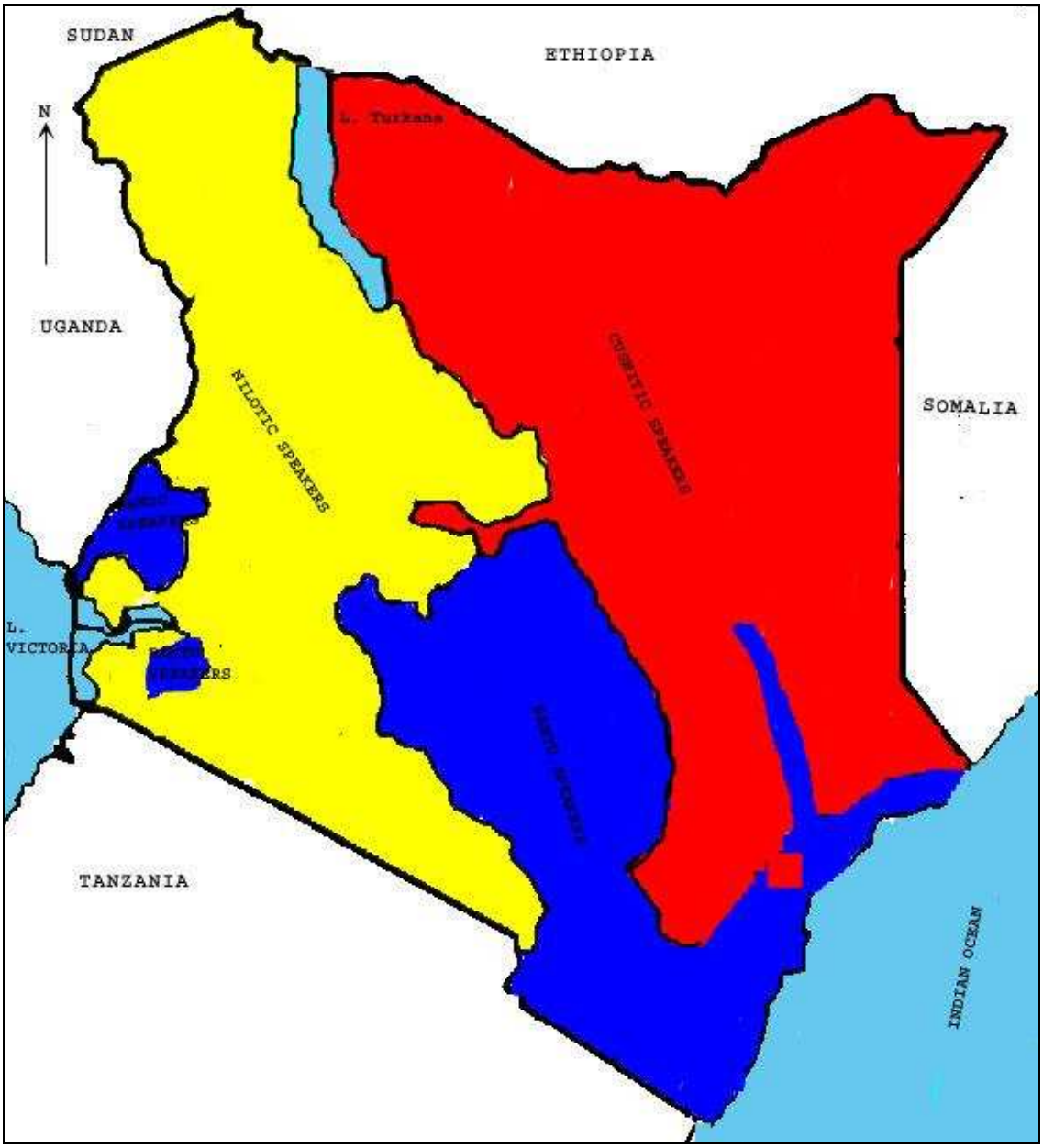

Figure 1.1: Spatial distribution of modern ethnolinguistic groups (majority) in Kenya (Drawing by the Author)

The coastal Bantu speakers occupy forested areas[3] of the coastal region where rainfall is abundant, and along the River Tana flood plains in the case of the Malakote and the Pokomo.

1.2. Archaeological Peopling of Kenya

This section deals with the later archaeological periods when it became possible for archaeologists to associate archaeological materials with linguistic groups. As such, the discussion is limited to later periods of Holocene which date approximately to between 10000 and 2000 years ago. The three linguistic families represented in Kenya today are a result of several hypothesized waves of migrations[4], which occurred in century or millennium intervals and interactions with the hunter gather community. Archaeological research has produced data that compliments historical linguistic evidence in the understanding of the prehistoric movements of the early Kenyan populations. Some populations moved into Kenya with fully developed economies and settled in areas or ecological niches that suited their ways of life, whilst others changed their mode of subsistence in order to adapt to the changing climatic conditions (Marshall 1990).

The data I will present in this section are derived from available documentary sources, with most material coming from Ambrose (1982). Ambrose's (1982) is the most comprehensive written work on the archaeological peopling of Kenya. He brings together archaeological evidence (Table 1.1), which includes cultural materials, site settlement patterns, subsistence economies, mortuary practises and skeletal remains to suggest movements and site occupation in prehistoric times by different linguistic groups in Kenya and Tanzania. To augment the archaeological data, he compares the relative sequence of prehistoric events reconstructed from linguistic data, independent of the archaeological record to the sequence reconstructed from archaeological sources. However, he cautions that correlations with historical-linguistic data are valid only if one is dealing with complete archaeological and linguistic sequences, where the entire

[3] The forested areas are mostly occupied by the Mijikenda community. These settlements are known as the Kayas. They are now protected under the World heritage program due to their historical and cultural value

[4] Migrations are so far the best hypothesis of peopling of Kenya, although it is acknowledged that language can spread independently of population movements.

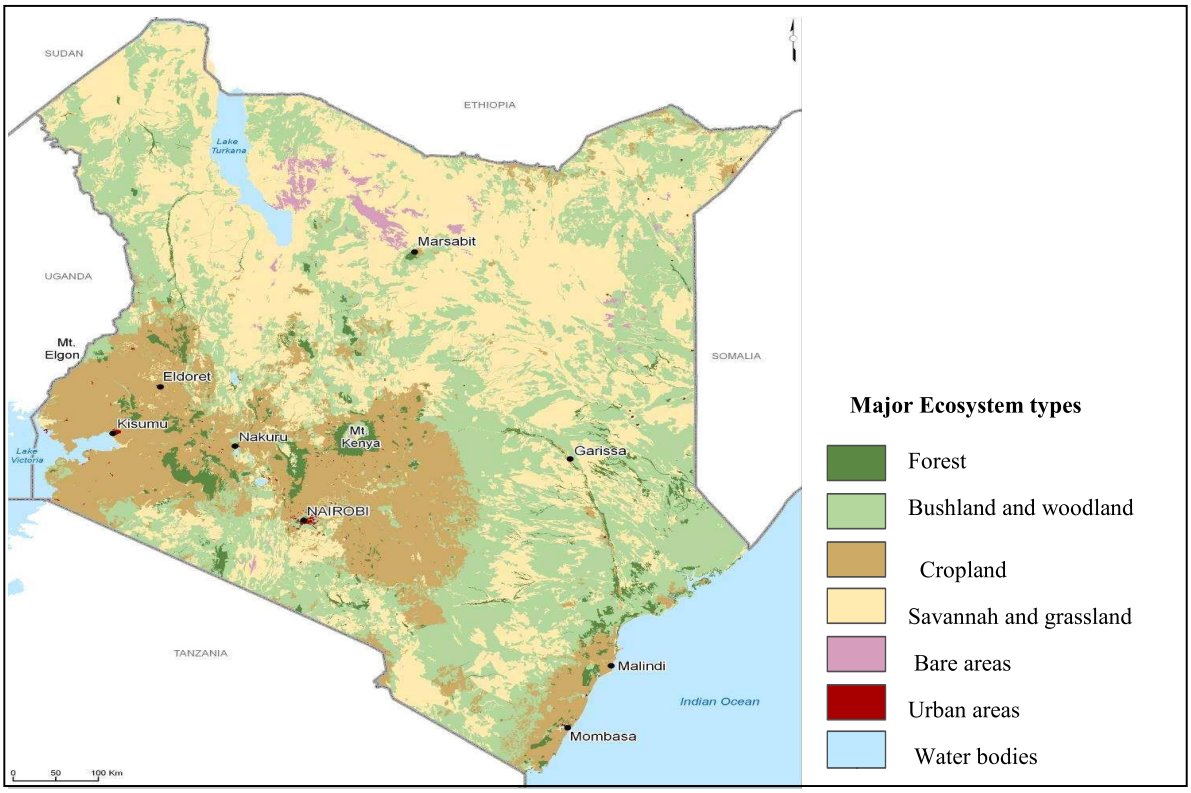

Figure 1.2: Ecology of Kenya (Sources: Ecosystem and ecosystem services)

succession, from earliest to latest, generates the modern distribution of language families and their associated material cultures. Otherwise, he points out that the lack of complete sequence from either linguistic or archaeological data results in losing the entire series of correlation hence making it unreliable (Ambrose 1982, 1984, p. 233)[5]. Investigations of the above listed archaeological remains and linguistic research has shown that peopling of Kenya began with populations related to the Khoisan speakers of Southern Africa, followed by the Cushitic speakers, then Nilotic speakers and then the Bantu speakers.

1.2.1. People related to Khoisan speakers

Although no research as provided data on how and when people related to Khoisan speakers entered Kenya, several scholars agree that these were the first people to occupy

[5] It is assumed in this discussion that all the stated conditions were met and therefore, the analyses of peopling are the most accurate given the current state of the available archaeological data.

Kenya and the East African region (Huntingford 1953; Ehret 1974; Phillipson 1977; Spear 1981; Ambrose 1982; Sutton 1993). Although Schepartz (1988) points out that, none of the provided evidence is convincing since available data shows that the Later Pleistocene and Holocene East Africans were tall and linear people as compared to the present day Khoisan speakers. Linguists claim the presence of early Khoisan speakers in East Africa due to the dental clicks in the languages of modern hunter-gatherers (Ehret 1974; Spear 1981). Dental clicks are characteristic features of the modern languages of the Yaaku ethnic group of Mt. Kenya region, Iraqwi, Hadza and Sandawe of Tanzania (Huntingford 1963; Ehret 1974; Spear 1981) and Okiek of the Kenyan Rift Valley (Kenny 1981). Dental clicks are also a feature of the Cushitic language spoken by the Dahalo. They are believed to be the remnants of Khoisan speakers who adopted the languages of their neighbours but retained some features of their original language (Ambrose 1982). Archaeologically, a Later Stone Age industry referred to as Eburran (Ambrose 1982) represents the hunter-gathers in the archaeological record. The Eburran industry is defined as a pre-food-producing industry with a broad-spectrum hunting and gathering adaptations with low occurrences of fishing and pottery. Eburran industry has four pre-Neolithic phases, which span the later terminal Pleistocene and early Holocene from 12,000 to 6000BP (Ambrose 1982, p. 136; Ambrose 1984, p. 223). After 6000BP, there is hiatus until 3000BP when Eburran phase 5 sites start to appear. Phase 5 sites are subdivided into 5A and 5B, but only Phase 5A is clearly attributed to the Khoisan speakers in the literature[6]. Phase 5A began before 2900BP and ended well after 2000BP whilst sites with Phase 5B characteristics are dated to between 2380BP and 1955BP (Ambrose 1984). These dates, as compared to the Cushitic dates seem to be too late to represent a population that is said to be the earliest in East Africa. However, it is important to note that the sites with this kind of evidence of transition from a purely hunting and gathering culture to pastoral economy are few, and that the cited dates are the only ones available.

[6] Given the small sample of sites for these phases it is possible that the sub-phases may reflect two activity faces of a single adaptive system (Ambrose 1984, p. 223).

Pottery in Phase 5A is of indefinable wares, and Savanna pastoral Neolithic wares[7]. The presence of Pastoral Neolithic pottery in the Eburran sites is attributed to probable interactions between the pastoral groups and the Eburran hunter-gatherers (Ambrose 1984). The hunting economy is evidenced by the presence of wild game fauna, while the presence of Pastoral Neolithic pottery wares and the bones of domestic animals evidence the incipient pastoralism and trade. The location of 5B sites in savanna grassland environments and the presence of large portions of domestic stock suggest that some Eburran groups had acquired significant amounts of domestic stock and had made the transition from hunting to a pastoral mode by 2400BP as exemplified by Hyrax hill and Causeway sites (Ambrose 1984, p. 232). Eburran Phase 5A sites are located in the Rift Valley margins within the ecotone between savanna grassland and montane forests. They occur in shelters located above 950m.

Another Later Stone Age industry associated with the hunter-gatherers is "Wilton" industry. The lithic in this industry is characterized by many bipolar cores, small backed microliths and occasional thumbnail scrapers and burins. Pottery which is designated as Kansyore is always found in association with Wilton industry (Ambrose 1982; Robertshaw and Collet 1983b). According to Wandibba 1990) Kansyore is the oldest pottery found in the Lake Victoria basin. Posnansky *et al*. (2005) points out that Kansyore pottery is associated with intensive populations of mid-late Holocene. It is characterized by small norrow mouthed bowls with tampering rims and necked pots. Its decorations are rounded shallow grooves and stab and drag grooves, small shallow impressions, and closely set incisions or impressions made with comb stamping which cover almost the whole body (Chapman 1967; Robertshaw and Collet 1983b; Wandibba 1990). Ambrose (1984) suggests that a continuous sequence for "Wilton" industry can be discerned from at least 8000BP to early Iron Age. The presence of Early Iron Age wares associated with stone tools and Kansyore pottery has often been attributed to a mechanical mixture, but he suggests that it could serve as evidence of the persistence of

[7] The term Pastoral Neolithic describes archaeological cultures in East Africa, which relied substantially on domestic stock for their livelihood, used pottery and employed typical Later Stone Age technologies for the manufacture of edged tools (Bower e*t al* 1977).

Table 1.1: Sites and archaeological materials of different ethnolinguistic groups.

Site/Sites	Region	Associated culture/ tradition	Other Evidences	Associated linguistic group	Radio carbon dates	Source for dates
Maasai Gorge	Rift Valley	Eburran Industry	Microliths, skeletal remains Kansyore pottery	Khoisans speakers	2865±150, 2595±135	Ambrose 1977*
Keringet caves	"	"		"	2910±115	Cohen 1970*
Gamble's cave	"	"		"	8540±180	Ambrose 1980*
Cause way	"	"		"	2380±140	Bower & Nelson 1979*
Prospect farm	"	"		"	10560±1650	Antony 1973*
Nderit drift	"	"		"	12065±365,	Ambrose 1982
		"		"	7005±175	Bower et al. 1977
				"		
Ileret	Rift Valley	Nderit ware	Cairn burials, obsidian blades, stone bowls, pestle rubbers, flat palettes	Southern Cushitic	4580±170,3405±130	Ambrose 1982
	"					
North Horr	"	Narosura ware		"	4405±130,3330±130	Maggs 1977*
Ndabibi	"			"	2225±155,410±110	Bower et al 1977
Cresent Island	"	"		"	2795±155,2405±150	Onyango-Abuje 1977*
Prolonged drift	"	"		"	2530±160,2315±150	Ambrose 1982
Narosura	"	"		"	2760±115,2660±115	Odner 1972*
Salasuni	Central Kenya	"		"	1315±135	Bower et al. 1977
Lukenya hill		"		"	2085±135,1600±130	Bower et al 1977
Prospect farm	Rift Valley	Unnamed		"	2910±110,2690±80	Cohen 1970*
Nderit drift	"	Nderit ware		"	2360±150,1370±140	Bower et al 1977
Akira	"	Akira ware		"	1965±140,1090±150	Bower et al 1977
Maringishu	"	Maringishu			1695±105	Bower et al 1977
North Horr	Rift Valley	Turkwel ware	Archaeoastronomic site	Eastern Cushitic	1525±155,748±140	Maggs 1977*
Lopoy	"	"		"	1100±80,950±80	Lynch & Robbins 1979
Turkwel	"	"		"	2285±165	Lynch & Robbins 1979
	"	"			1500±100	Robbins 1972*
Maasai gorge	Rift Valley	Elementeitan	Broad edged blades, burnished and undecorated potter, cremations	Southern Nilotic	2515±140,1545±135	Ambrose 1982
Njoro River cave	Rift Valley	"		"	2920±80	Cole 1963*
Deloraine farm		"		"	1300±140,985±130	Ambrose 1982
Maasai gorge	Rift Valley	Okieki	Iron working evidence, cattle pens (Sirikwa holes)	Eastern Nilotic	1025±130,	Ambrose 1977*
Nderit drift					260±105	Bower et al 1977
Akira	"	Lanet ware		"	60±120	Bower et al 1977
Salasuni	"	"		"	485±135	Bower et al 1977
Lukenya	Central Kenya	"		"	1185±140	Bower et al 1977
		"		"	1250±115	
Ulore	Lake Victoria	Urewe ware	Iron working evidence, domestic animals	Bantu speakers	1680±110	Soper 1969*
Yala Alego	Coast	"		"	1550±235	"
Kwale	Central Kenya	Kwale ware		"	1690	Soper 1967
Gatung'ang'a		Gatung'ang'a ware		"	850±150	Siiriainen 1971
"	"			"	"	
				"		
Upper Tana Iron Age site	Coast	Tana ware	Iron working evidence	Bantu/Cushitic	1st millennium AD	Chami 1994

the indigenous Stone Age way of life after settlement of Iron Age food producing societies. As such, Ambrose (1982) points out that since the lithic industry does not show drastic change when ceramics are introduced, it is possible that the appearance of

Kansyore ware is not accompanied by population replacements but represents diffusion of techniques and ideas. Kansyore sites are found in bush and savanna woodland (Ambrose 1982). Robertshaw and Collet (1983a) add that the sites are frequently encountered in lakeshore or riverine locales, often associated with dense aquatic debris. On the other hand, Sutton (1974, p. 544), attributes Kansyore sites to the Cushitic speakers and associates it with what he refers to as "aquatic civilization of Middle Africa", based on the presence of dotted wavy lines in its decorations and its period of appearance, which he claims corresponds with the Pastoral Neolithic cultures. However, this has been reputed on the basis that Kansyore, is unrelated to wavy line pottery after close scrutiny and that the bone harpoons associated with 'aquatic civilization" do not appear in Kansyore pottery bearing sites (Robertshaw and Collet 1983).

1.2.2. Southern Cushitic speakers

Linguistic evidence suggests that Southern Cushitic speakers arrived from Southern Ethiopia to Kenya between 5000 and 3000 years ago and eventually moved down to the Indian Ocean coast and central Tanzania (Ehret 1974). Ehret postulates that linguistic, and archaeology research offers the possibility of attaching some sort of absolute chronology, however rough, to the comparative linguistic data, at least in so far as they refer to grain and animal domesticates (Ehret 1979, p. 5). Therefore, on the basis of the correlation of archaeologically attested populations in East Africa with early Southern Cushitic speakers, he proposes a minimum period of diversification within Cushitic as a whole of 7000 years ago. However, he points out that, radiocarbon dates of 5000 BP from east Africa appear to confirm a longer linguistic time span of 9000 years.

Phillipson (1977) points out that the physical types represented from many burial cairns dating to 4000 B C in Northern Kenya and Southern Ethiopia are similar and belong to the Cushitic speakers. He points out that the burial cairns are in concordant with modern Cushitic speakers although he cites Phillip Rightmire (1975) as emphasizing that these remains are probably of other linguistic groups. Reacting to Rightmire's observation, Ambrose (1982) suggests that two groups of people of different racial and geographic origins were present in the Rift Valley during the same period. Therefore, the physical types could have represented either the Cushitic, Nilotic or Khoisan speakers, since the Cushites and Nilotes have a history of several thousand years of contact along a

major geographic and ecological boundary that follows the Ethiopia/Sudan and northern Kenya/Uganda border regions (Ambrose 1984, p. 234). Moreover, the Neolithic Era industries existed in a diverse habitat, which was varied enough to permit coexistence of three distinct lifestyles in close proximity (Ambrose 1984, p. 222).

The archaeological evidence of early Cushitic speakers in Kenya is provided by Pastoral Neolithic sites dating from 5200 to 1300 BP. The Pastoral Neolithic sites associated with Southern Cushitic speakers are located in open wooded grasslands from 1500 to 2050 m on well-drained gentle slopes in the lowland savanna around Lake Turkana and on the highland savanna environments (Ambrose 1982). Sites in the lowland and highland savanna are contemporaneous, although those from the lowlands preceded the highland ones. The lowland savanna sites are dated to between 5200 and 1300 BP while the highland Savanna sites are dated to between 3300 and 1300BP (Robertshaw and Collet 1983a; Ambrose 1984, p. 220). The characteristic pottery wares include Nderit ware, Narosura ware, Akira ware, Maringishu ware and herring bone-motif pottery[8]. Each of these wares has unique attributes, although some share a few stylistic motifs. Narosura, Akira and Maringishu wares, (Figure 1.3 and Figure 1.4) sometimes occur together in some sites and they share similar motifs, surface treatment and firing methods suggesting a close relationship (Bower *et al* 1977; Siiriainen 1977, p. 181). Burial cairns which are associated with Southern Cushitic speakers are usually associated with a few large obsidian blades, stone bowls, pestle rubbers and thin, flat palettes for grinding ochre. They also comprise either single or multiple cairn burials which are found in the open or crevices in rocky outcrops (Ambrose 1982). The Southern Cushitic speakers are theorized to have been the earliest food producers in East Africa, possessing cattle, sheep, and goats and probably cultivating grain (Bower and Nelson 1978; Ambrose 1982; Phillipson 1984; Robbins 1984). In the archaeological record, their subsistence economies are evidenced by the presence of faunal remains of both domestic animals and medium and large wild game, suggest a pastoral and hunting

[8] These wares are also found along the coast of Tanzania and Zanzibar but they are attributed to Bantu speakers (Chami and Chami 2001; Chami and Kwekason 2003)

economy. In addition, fish bones[9] which are found in the lowland savanna sites, suggest a fishing economy around the Lake Turkana area (Ambrose 1984). Although there has not been conclusive evidence of iron technology with the Southern Cushitic speakers, according to Sutton (1974, 1990) the Southern Cushitic speakers brought with them knowledge of pottery making and iron working. Sutton supports this hypothesis using the archaeological finds from the Kansyore type site. The site of Kansyore is dated to the 1st millennium BC. Evidence of iron working, pottery and the bones of domestic animals were found. However, the pottery types at this site differ significantly from the other Pastoral Neolithic pottery in Kenya.

As seen above, Ambrose (1982) attributes Kansyore site to the Khoisan speakers pointing out that the presence of domestic fauna may be seen as a transition from hunting and gathering to a herding economy by Later Stone Age populations. Bower (1991) and Dale (2007) share the stated observation by Ambrose.

1.2.3. Eastern Cushitic speakers

Linguistic reconstructions suggest that Eastern Cushitic speakers moved through Northern Kenya to the Indian Ocean coast and Central Kenya between 3000 and 2000 years ago (Heine *et al.* 1979, cited in Ambrose 1982). Linguistic evidence of Eastern Cushitic language pertains to stock raising and grain cultivation terminology. Eastern Cushitic words relating to stock raising and cultivation are inherent in Nilotic and Bantu linguistic groups in East Africa. It therefore, has been suggested that the Eastern Cushitic speakers were already familiar with stock raising and grain cultivation before they arrived in Kenya (Ehret 1974; Spear 1981).

Information on the presence of Eastern Cushitic speakers in the archaeological record is mostly derived from ethnographic analogies. The analogies are based on three archaeological burial sites named Namoratung'a, which are located on the Lake Turkana

[9] The Presence of fish bones is a major drawback in assigning archaeological sites to Cushitic speakers as they are ethnographically shown to have a strong customary prohibition against eating fish (Ehret 1974; Sutton 1974; Robbins 1979; Spear 1981). However, this might not have been necessarily true in the past.

basin, in Northern Kenya. These sites are dated to 2285±165 (335 BC) (Lynch and Robbins 1979).

One of the most conclusive pieces of archaeological evidence that the Namoratung'a sites are of Eastern Cushitic in origin is provided by the Kalokol site with its nineteen basalt stone pillars (Lynch and Robbins 1979). The pillars (Figure1.5) are oriented towards the same set of stars and constellations as those used by the Konso- an Eastern Cushitic group in southwest Ethiopia, for calculating their calendar (Lynch and Robbins 1979; Ambrose 1982). Among many present day Eastern Cushitic speakers, the rising of the seven stars or constellations are used to calculate a twelve month- 354 day year calendar. Likewise, the placing of pillars at funerary sites is still a common practise among them (Lynch and Robbins 1979).

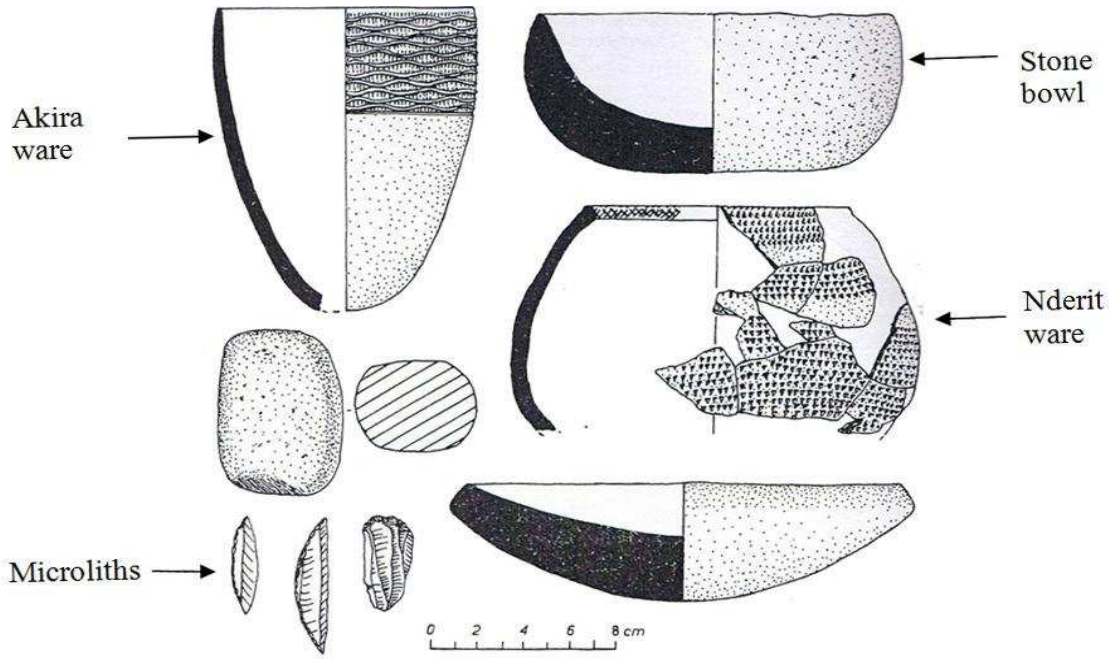

Figure 1.3: Artifacts from the early pastoral site Hyrax hill (Source: Phillipson 1977).

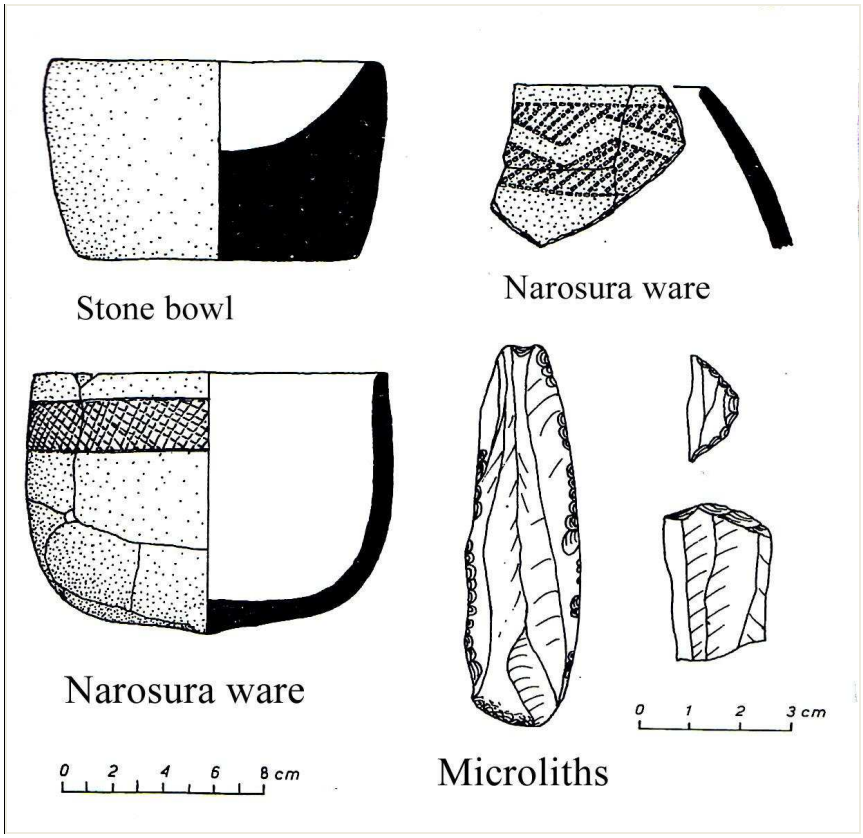

Figure 1.4: Artifacts from Narosura archaeological site (Odner 1972)

The astronomical function of the Namoratung'a site has been challenged by Soper (1982a, p. 146) who errors Lynch and Robbins hypothesis by pointing out that their survey was distorted by magnetic anomalies or instrumental error and that the alignments are in error by 1^0 to nearly 17^0. He further asserts that since the direction of the rising of stars/constellations is not significant, markers like the stones would have no practical function in the Eastern Cushitic calendar. He also questions the conteporaneity of the sites referred to as Namoratung'a. In answer to this, Lynch (same volume) replies to Soper and maintains his position. Lynch and Robbins (1979) describe and associate this

Figure 1.5: Circle 1 from Namoratung'a (Source: Soper and Lynch 1979)

structure with the Konso of Sidamo province of Ethiopia, who have a mortuary routine which closely parallels this one in many aspects. To the east of Lake Turkana, Robershaw (1984) reports excavation of ten burial cairns at the site of Kokurmatakore[10]. One of the cairns dates to 1000AD and he associates it with Eastern Cushitic speakers since similar cairns have been reported from southern Ethiopia. He argues that since ring

[10] The description of the cairns by Robbertshaw (1984) is not elaborative and no illustrations are included, therefore, it is not possible to tell whether the Namoratung'a and Korkomatokore are similar or not.

cairns today are made by Eastern Cushitic Speakers in the region, it is probable that they were the makers of the ring cairns in Kokurmatakore.

Another aspect of the mortuary practise that was considered to have an ethnographic parallel with the Konso is that, one grave contained a bundle reburial of which Lynch and Robbins (1979) argue that a similar situation appears among the Konso today, where priests are initially interred in a temporary grave and they are reburied after a period of three years.

The subsistence economy found in these sites included pastoralism, which was apparent from the presence of cattle and sheep/goat bone fragments. At Namoratung'a, there was no evidence of fishing or hunting of wild game. Here again Lynch and Robbins (1979) turn to ethnographic analogy, citing Murdock (1959) who claims that the Cushitic speakers have a strong customary prohibition against eating fish and, therefore, this may explain the absence of fish bones even though the sites are located on a lake shore. Close to the Namoratung'a sites, settlement sites dating to around 2080BP are linked with the burial sites. In these settlement sites, pottery which is predominantly thin walled with closely spaced horizontal grooves and incisions known as Turkwel ware, was found together with a later stone age lithic industry, and has been attributed to the Eastern Cushitic speakers (Ambrose 1982; Robertshaw and Collet 1983b; Robertshaw 1984). Ambrose argues that Turkwel sites are the only possible areas where the users of Namoratung'a lived since there are no other settlement sites in the area. Incidentally, the dates that are assigned to Turkwel pottery correspond with the linguistic relative dates for Eastern Cushites (Ambrose 1982). However, these sites are also associated with fishing activities which made Lynch and Robbins reject the association of Turkwel pottery with Cushitic speakers and to assign it to the Nilotic speakers (Lynch and Robbins 1979, p. 328). Besides the presence of fish bones, Lynch and Robbins base their argument on ethnographic analogies and the modern distribution of Nilotic speakers. They point out that linguistic and historical research suggests that the homeland for the Eastern Nilotes was in the region to the west of Lake Turkana in the general area where most of them live today. They also claim that ostrich shell beads similar to those that are still being used by Turkana women and red ochre- a colouring pigment (also used by East African pastoralists)- attest to the presence of Eastern Nilotic speakers in the sites. Ambrose

(1982), however, criticizes Lynch and Robbin on the grounds that, their conclusions were unaware of new dates showing the antiquity of Turkwel related sites in Baringo. Nevertheless, according to Robertshaw (1984), the only reliable date for Turkwel sites is around the 11th century AD which is, therefore, close to the 1400 AD date, used by Lynch and Robbins in suggesting that the sites belong to the Eastern Nilotes.

1.2.4. Southern Nilotic speakers

Linguists suggest that the next movement of people to be recorded in East Africa after the Cushitic speakers were the Southern Nilotic speakers. The Southern Nilotic speakers moved into Kenya from the Sudan/Uganda border in the second millennium BC (Ambrose 1982).

Southern Nilotic speakers are assumed to be represented in the archaeological record by the Elementeitan culture in the Rift Valley, which existed from 2500BP in western highlands of Kenya to the end of the Neolithic era at 1300BP (Ambrose 1982; Robertshaw 1988). The link between the makers of Elementeitan culture and speakers of Southern Nilotic languages is supported by studies of past distributions of ethnic groups recorded through oral traditions, as well as trajectories of change in pottery decorations (Robertshaw 1988). A definition of Elementeitan culture is based on the co-variance of a lithic industry, pottery types, mortuary traditions, geographic distribution, settlement patterns and economy (Ambrose 1984).

Ceramics are mainly unburnished and undecorated globular bowls. The common motifs are irregular punctations and rim milling (Leakey and Leakey 1950, cited in Ambrose 1982; Bower *et al*. 1977). Rims are usually slightly outturned and in several sites, smaller bowls have horizontal lugs or handles with small holes (Ambrose 1982). The sherds found in elementeitan levels at Maasai Gorge rockshelter are mostly from very large, thick vessels with straight sides and open mouths, whilst no spouts or lugs occur in the assemblage (Robertshaw 1988). Such large vessels also occur at Ngamuriak and other open settlements sites in southwestern Kenya, but they are burnished and spouts are a common feature. This variation seems to evidence non-conformity but Robertshaw (1988) suggests that activity differences would seem to be the most plausible explanation for this inter-assemblage disparity. The Elementeitan mortuary practises included cremation and grave goods (Sutton 1966: Cohen 1970; Siiriainen 1977). The

grave goods include stone bowls, pestle rubbers, ochre palettes, pottery and lithics. Unlike the sites of the Southern Cushitic speakers where stone bowls occur in the habitation and cairn areas, here they occur only in the grave caves. The presence of deposits of animal dung and domestic faunal assemblages may indicate the importance of livestock husbandry in the Elementeitan sites. Although it is not certain from the sites whether the Elementeitans engaged in farming activities Robbertshaw (1988), and Phillipson (1977) argue that the Elementeitan people were mixed farmers. Robbertshaw (1988) supports this argument by pointing out that carbonized gourd fragments were recovered in Njoro River Cave (Elementeitan site) and although they grow in the wild in East Africa, they are commonly cultivated along with sorghum and finger millet. Further evidence of agriculture by Elementeitan people is the Derolaine[11] site in the Rift Valley where carbonized finger millet and remains of grindstones were recovered Sutton (1993).

The Elementeitan sites are located in the savanna/forest ecotone. The low elevation sites occur in rock shelters and caves. The open settlements, on the other hand, occur above 1900m while the large settlements occur above 2600m (Phillipson 1977; Ambrose 1984; Robertshaw 1988). These sites are distributed on the western side of the Rift Valley and the adjacent western highlands (Ambrose 1982).

1.2.5. Eastern Nilotic speakers

During the 1st millennium A.D, the Eastern Nilotic Speakers entered Kenya from the Sudan/Kenya/ Uganda border (Ehret 1974). Archaeologically, the Eastern Nilotic speakers are associated with 'Sirikwa holes'[12] and Lanet pottery ware, iron tools, cowry shells, beads and a degenerated lithic industry (Figure 1.6). Sirikwa holes are depressions found all over the landscape in western highlands of the Rift Valley. Sutton argues that the holes were used as pens for livestock and were built for protecting them against stealthy rustlers (Sutton 1990, p. 49). The living areas were constructed just outside the Sirikwa holes. Based on oral traditions, Sutton (1990) and Phillipson (1977) they have been attributed to Southern Nilotic speakers- the Kalenjin- who were dislodged by the

[11] The decorative motifs of pottery from this site are completely different from the elementeitan pottery.
[12] Also known as Sirikwa hollows (Sutton 1990)

Eastern Nilotic speakers-Maa speakers-during 16th and 17th century. While Ambrose agrees with the purpose of the Sirikwa holes, he disagrees with the assumption that they were made by Southern Nilotic speakers. Ambrose (1982, p. 143) claims that use of the oral traditions by Sutton was unreliable since oral traditions do not last that long. He argues that the pottery associated with these holes dates back to about 1185BP, a date that correlates with historic linguistic time of the Eastern Nilotic speakers arrival into the Rift valley (Ambrose 1982, p. 136). Lanet ware is characterized by elongated gourd shaped vessels with handles and spout, and it is decorated with cord roulette (Bower *et al*. 1977). Using ethnographic analogies, Blackburn (1973) points out that the same kind of pottery is still made by Nilotic speakers -the Okiek and is still being used by the Maasai (Eastern Nilotic speakers) in the Rift Valley today. The faunal remains, huge amounts of dung by the entrance to the Sirikwa holes, and the holes themselves indicate a pastoral economy. However, Sutton (1990) argues that not all the Sirikwa people maintained themselves exclusively on livestock.

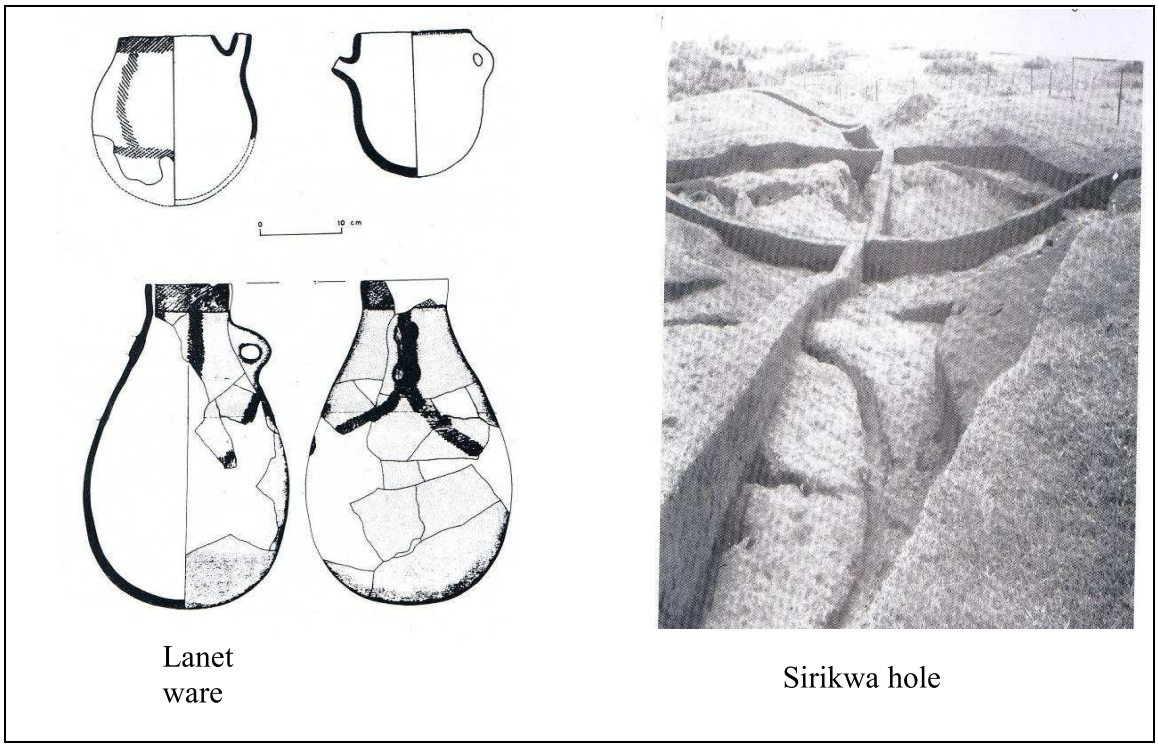

Figure 1.6: Sirikwa pots and Sirikwa hollow from Chemagel (Source: Sutton 1990)

He points out that some of them in later sites depended partly on grains, especially in wetter areas where one finds not only grindstones and more cooking pots but also more permanent houses. The Sirikwa holes occur on the hillsides in groups numbering anything between five and fifty, sometimes even a hundred (Sutton 1990, p. 46). These are areas which were previously occupied by the Elementeitan and Pastoral Neolithic cultures (Ambrose 1982).

1.2.6. Bantu speakers

The attribution of the origin of Bantu speakers to a Cameroon homeland was based on a fundamental linguistic principle, which Ehret (1982, p. 59) refers to as 'the principle of least moves'. Using phonology and lexical methods the linguists suggest that the movement of Bantu speakers to Eastern and Southern Africa took place between 2500 and 3000 years ago (Ehret 1982; Nurse 1982). However, Ehret suggests that the initial separation of the proto-Bantu speakers took place around 4000 years ago.

Ehret (1982, p. 62) uses Bantu terminology related to subsistence practises to reconstruct the probable environments that early Bantu speakers occupied. The words that pertain to subsistence are yam, palm oil and palm wine, boating and fishing, and cattle and goat vocabulary. He points out that these indicators suggest that Bantu speakers lived in areas of high rainfall environment as well as areas which were free of tsetse fly; the same kind of environment occupied by Bantu speakers in Cameroon today (ibid). Based on this reconstruction, he suggests that archaeologists should look for archaeological evidence of Bantu speakers in the equatorial rainforest, which should date from the beginning of 3rd millennium BC to at least 2nd millennium BC. He further suggests that the bearers of this tradition would be pottery makers but not ironworkers, and would probably mix food collection pursuits with fishing, cultivation and keeping of goats. Nurse (1982) gives a synopsis of early studies and suggestions of various researchers on the movement of Bantu speakers and points out that it is generally agreed that, the Bantu entry point into East Africa was Lacustrine, after which they spread to the coast of Kenya and Northern Tanzania. He, however, points out that the Bantu of Western Tanzania and Central Kenya are isolates and their movement cannot be reconstructed using the available evidence, since their language has not undergone the sound shift which must have occurred in most other East African languages a millennium

or longer ago. Contrary to this observation, Phillipson (1977) suggests that Bantu speakers of Central Kenya and other Later Iron Age Bantu speakers originated from the Shaba region of now Democratic Republic of Congo around 1000 years ago during a second dispersal. This suggestion has been criticized and it has been shown that it lacks any linguistic support (Nurse 1982, p. 222).

Evidence from archaeological studies is deduced through use of correlations with the reconstructions of historical linguistics, involving parallels in geographical distributions, relative dating, and distinctive cultural items. However, Soper (1982b, p. 223) points out that even such correlations rest upon a priori assumption that demonstrable archaeological relationships, especially in ceramics, reflect broader cultural and ethnic relationships, including language.

The coming of Bantu speakers in the archaeological record is usually associated with the Early Iron Age period in East and Southern Africa (Soper 1967, 1971, 1982b; Phillipson 1977, 2005; Schmidt 1978; Chami 1994; Huffman and Herbert 1994; Mapunda 1995; Msuya and Haaland 2000). Archaeological evidence dates Early Iron Age to the first millennium AD and it is supposed to have spread from the Interlacustrine area of East Africa to the Transvaal and Natal. Critics of the migration hypothesis e.g. Collet (1988) have pointed out that, a number of traits used to identify early iron producing communities in East Africa, in particular permanent settlement and food production, occurred thousands of years before iron production. This led to the suggestion that either iron smelting technology diffused into East Africa, or these early food-producing communities invented it.

Huffman (1982) claims that the views of the archaeologists on the migrations of Bantu speakers are either that the Bantu speakers spread into tropical forest from West Africa as root-crop agriculturalists and fishermen who only acquired grain, cattle and metal from sources in East Africa; or that, Bantu speakers spread through and around the forest into Eastern and Southern Africa as metal using mixed farmers with grain and cattle; or that Bantu speaking hunter gatherers were already in existence in the subcontinent during the Later Stone Age and that no migration occurred. However, the most popular view links Bantu speakers with both the Early and Later Iron age in East and Southern Africa. The earliest archaeological pottery associated with Bantu Speakers is Urewe ware. Schmidt

(1975) puts its date to around 2400BP based on evidence from an Early Iron Age site in Buhaya, Tanzania. Urewe pottery (Figure 1.7) is found in the Interlacustrine region between Zaire and the northeastern side of Lake Victoria and northward to Victoria Nile (Phillipson 2005). Chronologically, the pottery that follows Urewe is supposed to be Lelesu ware from Northern Tanzania. Lelesu ware is not dated but it is typologically and geographically intermediate between Urewe and Kwale ware, which is dated to 3rd century AD (Soper 1967a). Kwale pottery as been found as far south as Mozambique (Phillipson 1977).

An important detail that has been overlooked by the Early Iron Age researchers is the observation by Soper (1967a) that it was merely a suggestion that Kwale ware was a pottery of Bantu speakers and not a fact. No effort has yet been directed towards its verification.

> *"Kwale ware forms part of a very early, probably primary, Iron Age complex which includes the Dimple-based ware of the interlacustrine region of East Africa and almost certainly the Channeled wares of Zambia and Rhodesia, and given the resemblances of the pottery there must be some connection between its makers. It has been reasonably argued that this complex represents the first expansion of Bantu peoples over a large part of southern Africa* ***but this hypothesis cannot be considered proved****... Information on the economy of Iron Age populations is rather scarce owing to the rarity of sites suitable for excavations" Soper 1967a, p. 34)- emphasis added*

However, the widely unquestioned belief among archaeologists that Kwale ware is a pottery of Bantu speakers, allows me to classify it as such although M'Mbogori (2006) calls for further research in order to offer more evidence.

Later Iron Age wares like Tana ware also known as TIW (Chami 1994), Gatung'ang'a ware and Maore ware (Odner 1971b; Siiriainen 1971; Soper 1976) are also attributed to Bantu speakers. Tana ware is found along the East African coast and dates to as early as the 1st millennium AD in Tanzania and 7th century AD[13] in Kenya. Gatung'ang'a dates to between 12th and 14th centuries AD while Maore dates to about the 6th century AD (Siiriainen 1971; Soper 1982b).

[13] This makes it problematic to fit it with either the Early or Later Iron Age periods.

Due to the long time span between the production of Kwale ware at the coast and in Mt. Kenya and Pare region of Tanzania and due to the apparent variation in the pottery between the two regions, M'Mbogori (2006) questions its supposed association with the coastal material. Moreover, Gatung'ang'a and Maore sites did not produce any evidence of agriculture (the perceived archaeological mainstay of Bantu speakers) and therefore further research is required before they can conclusively be assigned to Bantu speakers (ibid).

Iron Age research in the mid-last century focused on the origins of iron technology in Africa, and its relationship with migrations of the Bantu speakers (Karega-Munene 1993). The general idea was that the Bantu-speaking peoples spread in a north-to-south direction, carrying the knowledge of iron technology, with the evidence mainly being provided by linguistic studies (Forslund 2003, p. 11).

It has been argued that the Bantu speakers pottery is found with the earliest evidence of iron metallurgy over the whole area of its distribution and must be assumed to have been responsible for its introduction (Soper 1982b, p. 224). However, though archaeological evidence ties Bantu speakers with the introduction of iron in East Africa, this has not found support among some linguists who claim that contrary to this widely held view, knowledge of ironworking cannot be linguistically reconstructed for the proto-Bantu (Ehret 1982, p. 62 citing de Maret and Nsuka 1977). Ehret (1982) points out that the earliest stages of Bantu expansion appear to belong to the Stone Age although the ancestral Eastern Bantu communities had the metallurgical terms by the last millennium BC. He therefore suggests that only the later stages of Bantu history should belong to the Iron Age (ibid). Although early Urewe sites dated by Schmidt (1978) in Buhaya had evidence of ironworking, the sites where Urewe pottery was discovered and described for the first time did not have evidence of ironworking (Phillipson 1977). Likewise, dates by Schmidt (1978) and their association with Urewe have been received with skepticism since he does not discuss or even illustrate any of the pottery in the publication or mention any of the typological variations with dates but instead links it with Bantu speakers through use of oral traditions (Soper 1982b, p. 228 &233).

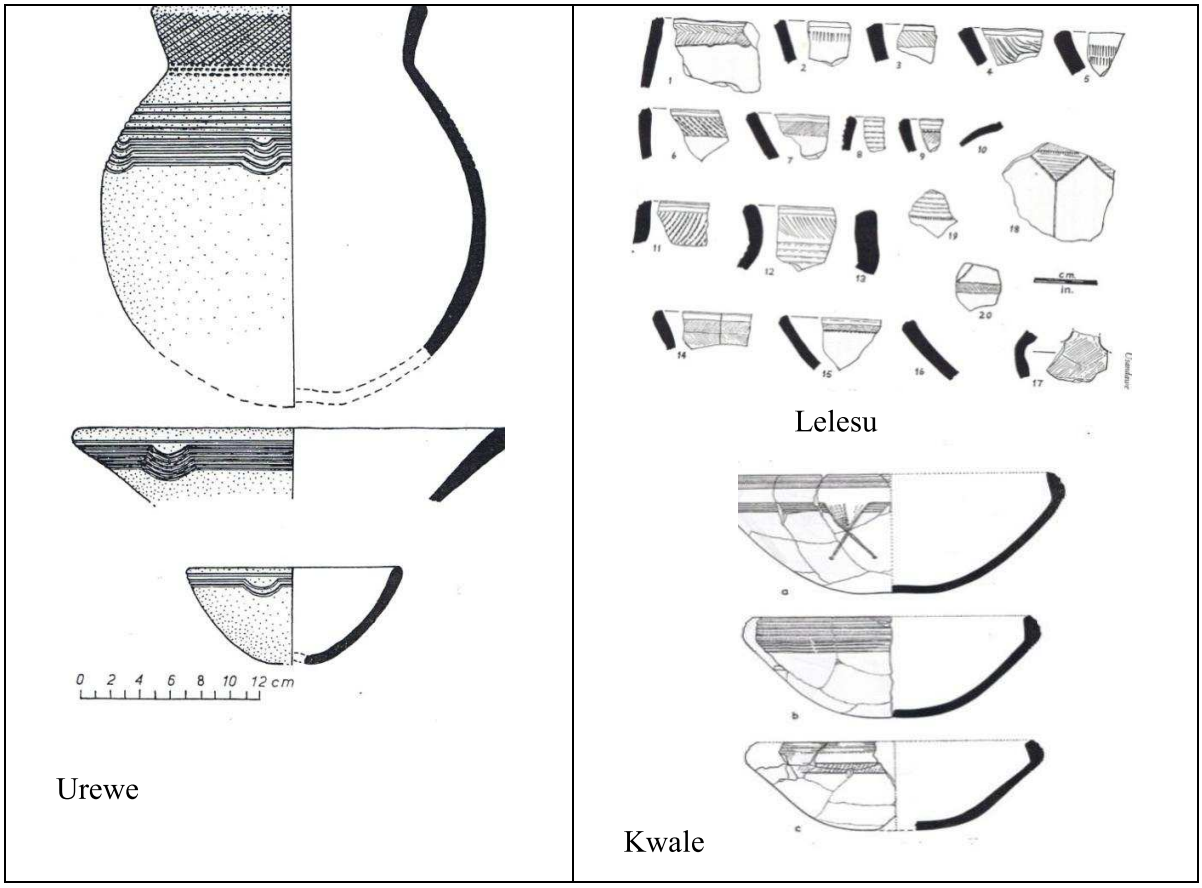

Figure 1.7: Early Iron Age Bantu speakers pottery (Source: Phillipson 1977; Soper 1967b)

Contrary to the supposition that Bantu speakers introduced iron in East Africa, traces of iron forge and slag dated to 4th and 8th century AD, were found in association with sorghum grains, pottery, and cattle pens in a site at Engaruka in the southern end of the Rift Valley (Oliver & Fagan 1975). Engaruka site is currently attributed to either Cushitic or Nilotic speakers. Also, Phillipson (2005) reported traces of iron working from a site in Winam Gulf in southwestern Kenya dating to the middle of the 1st millennium BC - another Cushitic speakers site. These occurrences and linguistic observations indicate a need for further research on ironworking introduction in East Africa. The discussions about the Bantu speakers expansion to East, Central and Southern Africa, took centre stage in archaeological investigations and linguistic circles between the 1960s and 1990s. These discussions continue to linger on as more

archaeological data continue to be recovered. Using channeled pottery ware, which is akin to Urewe ware, Oliver (1966) proposed a south to north Bantu speakers movement. This argument claimed that pottery of the Bantu speakers from the south had earlier dates than pottery of the Bantu speakers in the north. Other researchers (e.g., Schmidt, 1975; Nurse 1982) who argue that the random nature of Oliver's early dates did not constitute sufficient evidence discredit this proposal. Phillipson (1977) has offered an alternative model of the possible routes from West Africa, which proposes a north to south movement. Phillipson (ibid) proposed a westerly and easterly stream based on the Early Iron Age industrial complex believed to belong to Bantu speakers. The Easterly stream route corresponds well with the routes proposed by the linguists up to the interlacustrine region and the East African coast. Phillipson puts the earliest stage of migration from the Cameroons north of the forest to the interlacustrine area to between 400 and 300 BC based on Urewe ware. From the interlacustrine region, the Eastern Bantu speakers moved to southeast Kenya and northeast Tanzania between 100 and 200 AD based on the dates of Kwale ware, and from the East African coast, they moved down to as far as South Africa between 300 and 400AD. He proposes a second dispersal during the Later Iron Age from Shaba in Zaire to the eastern half of the continent around 1000-1100 AD. Linguists have, however, disagreed with the two-stage dispersal pointing out that there is no linguistic evidence to support such an occurrence. Soper (1982b) claims that researchers found this proposal to be unacceptable on the grounds that Phillipson lacked methodology and the reconstructions of migration routes were based on intuition. Based on technical linguistic evidence, Ehret (2001) is questioning the existence of a Westerly branch. He points out that the Bantu of the Eastern side of the continent encountered time and again over the past 3000years well established communities of quite different historical backgrounds and adopted their ideas and practises which made them diverse. He maintains that there is no single genetic primary branch of Bantu that can be called Western Bantu. In the light of the available archaeological evidence, Soper (1982b) suggests that historically linked and roughly, contemporaneous movements are linguistically much more probable than successive ones in the early Eastern Bantu case. Likewise, Ehret points out that the evidence of Bantu dialect chaining in the early period of differentiations is so strong that it can be argued that for some centuries they broke

into a large number of small communities, and expanded only slowly over a relatively compact territory before spilling out into the great expansion (Ehret 1982). Likewise, Vansina (1995), just as Ehret (1982, 2001) argues for a gradual expansion of families and mixed groups of people. His argument corresponds with the wave of advance model as discussed by Anthony (1990).

In addition to iron, pottery (Urewe, Lelesu and Kwale) and agriculture, Phillipson (2005) adds that, the Bantu speakers had settled village life, and it is these cultural aspects that he collectively named the Chifumbaze complex[14]. On the other hand, Oliver (1966) points out that whereas the Early Iron Age sites are very closely confined to the neighbourhood of lakes and river valleys, the later Iron Age pottery has been recovered from every type of country. It also occurs in the dry lands suited only for pastoralism and he therefore suggests that its users must have included specialized cattle herders.

1.3. Interactions, Absorptions and Displacements During Late Holocene and Early Iron Age

Spear (1981) asserts that loanwords from southern Cushitic languages are in many of the present languages of Eastern Africa. Thus even if a small population speaks southern Cushitic languages today, one would still have to infer their former existence and wide distribution over Eastern Africa. This observation by Spear is demonstrated by the fact that all the other groups displaced or absorbed a section of the Southern Cushitic speakers leaving only a small modern population of the Dahalo in Kenya. According to Fedders and Salvodori (1988), the language of the Dahalo not only contains dental click but also includes loan words from the Eastern Cushitic , Nilotic and Bantu languages.

Likewise, the language spoken by the Okiek (hunter-gatherers) is predominantly Nilotic but it also contains words with dental click (Kenny 1981) and Bantu languages (Hollis 1909). Observation by Huntingford (1963) is that hunter-gatherer communities tend to take the language and cultures of their neighbours.

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[14] He introduced this term, to differentiate the early Bantu speakers culture from other Early Iron Age societies in Africa (Phillipson 1983)

Table 1.1 different site occupation periods may represent different linguistic groups although the pottery wares remain unchanged. This means that particular pottery wares continued to be produced by linguistically diverse groups. However, the gap between the earliest dates and the later dates of site occupation is quite wide and it is somewhat interesting that the groups made the same pottery wares. While it may be true that different linguistic groups occupied the same sites, population continuity cannot be ruled out. Likewise, Wandibba (1995) suggests that wares of different pottery traditions are frequently found in the same occupation horizon, due to activities such as trade, intermarriages, and joint occupation by culturally distinct groups or maintenance of different stylistic tradition for different social or ritual functions. Pottery wares are, however, not well studied in Kenya and East Africa since there does not exist a standardized way of defining particular traditions, therefore, the supposed site habitation by different language groups is based only on linguistic and archaeological dates and the accompanying lithic industries.

By accepting the suggested occupation of various sites through use of cultural materials and carbon 14 dates together with linguistic evidence, it is apparent as shown on (Table 1.2) that as different groups moved into Kenya, they occupied common areas, and they must have mixed and interacted in different ways. It appears that the Southern/Eastern Cushitic and Bantu speakers occupied the Coastal region at some point and Central Kenya region, which is predominantly a Bantu speakers region. Also, it is apparent that the central region was previously occupied by the Eastern Cushitic and Eastern Nilotic speakers before the arrival of the Bantu speakers, just as the Rift Valley which is predominantly occupied by Nilotic speakers hosted early Cushitic speakers. The Interlacustrine region, on the other hand, was a host to both Bantu and Nilotic speakers as well as Khoisan speakers. According to Ambrose (1982), Southern Nilotic speakers may have displaced and absorbed most of the Southern Cushitic speakers in Western Kenya, the Rift Valley, and Northern Tanzania. Likewise, the Eastern Cushitic speakers may have displaced or absorbed the Southern Cushitic speakers who were previously in control of the Turkana Basin. Heine (1979 cited by Stiles 1981) argues that the Southern Cushitic speaking people were absorbed by Eastern Cushitic and Southern Nilotic speakers beginning as early as 1000BC. Similarly, Ambrose (1982) points out that the

history of the Nilo-Saharan/Afro-asiatic contacts has considerable antiquity in the Sudan/Ethiopia region as well as in the Kenya/Uganda region.

1.3.1. Linguistic evidence

Evidence of loan words[15] between people who are spatially far removed attest to these interactions. Early contacts between the Cushitic and Khoisan speakers are evident in some modern languages of Cushitic speakers through loanwords. Cronk (1991), Gifford-Godnzalez (2005) suggest that borrowing may have occurred after one community lost their livelihood and started to seek food security from a different ethnolinguistic group as evidenced in modern times. A segment of Eastern Cushitic speakers in Mt. Kenya region, share some basic words like, 'mother', 'man', and 'horn', with the Hadza and Sandawe of Tanzania who speak Khoisan languages (Ehret 1974; Spear 1981; Ambrose 1982). Also, the evidence of interactions with Cushitic speakers is entrenched in the modern languages of the Nilotic and Bantu speakers. The words borrowed from the Cushitic speakers pertain to cultivation of crops and iron working (Ehret 1974; Spear 1981; Nurse 1983a). Spear (1981) asserts that loanwords from southern Cushitic languages are in many of the present languages of Eastern Africa. Thus even if a small population speaks southern Cushitic languages today, one would still have to infer their former existence and wide distribution over Eastern Africa. This observation by Spear is demonstrated by the fact that all the other groups displaced or absorbed a section of the Southern Cushitic speakers leaving only a small modern population of the Dahalo in Kenya. According to Fedders and Salvodori (1988), the language of the Dahalo not only contains dental click but also includes loan words from the Eastern Cushitic , Nilotic and Bantu languages.

Likewise, the language spoken by the Okiek (hunter-gatherers) is predominantly Nilotic but it also contains words with dental click (Kenny 1981) and Bantu languages (Hollis 1909). Observation by Huntingford (1963) is that hunter-gatherer communities tend to take the language and cultures of their neighbours.

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[15] Nurse (1982, 204) describes loans as those words that are taken from a source language into one or more other languages and thereafter used regularly in the latter.

Table 1.2: Periods and regions of interactions

Region	Southern Cushitic	Eastern Cushitic	Southern Nilotic	Eastern Nilotic	Bantu
Mt. Kenya	3000-5000BP	2000-3000BP		Approx. 2000BP	After 2000BP
Tana River	"	"			"
Indian Ocean/Coastal region	"	"			
Central Kenya	"	"		"	
Rift Valley	"	"	Earlier than 2000BP	"	

1.3.2. Cultural evidence

Cultural influences are apparent among different linguistic groups that either bordered each other or occupied common areas. For example, the behavior of circumcising boys and girls, age set systems, and bleeding of cattle were acquired through contacts with Cushitic speakers by the speakers of Bantu and Nilotic languages, who had contacts with Cushitic speakers around the Mt. Kenya region (Sutton 1966; Ehret 1974). Apparently, the only Nilotic speakers who practise circumcision are those that came into contact with the Cushitic speakers since the ones living around the Lake Victoria region (Luo) do not circumcise.

1.3.3. Economic evidence

Other practises that communities living in close proximity with the Cushitic speakers acquired include farming techniques like the use of irrigation systems (Huntingford 1963; Sutton 1966; Lynch and Robbins 1979). For example, prehistoric elaborate irrigation terraces and furrows, are reported in the Rift Valley region occupied by Pokot Nilotic speakers (Davies 2008). Likewise, use of secondary products like milking and bleeding of domestic animals was learnt from the Cushitic speakers by both the Nilotic and Bantu speakers (Spear 1981).

1.4. Interactions and the Later Iron Age Pottery of the Bantu Speakers

While the Early Iron Age pottery attracted no disputes as to who its makers were, or as to whether it was a legitimate Bantu speakers pottery, Later Iron Age pottery became complicated and difficult to assign to any particular linguistic group. Along the East African Coast, Later Iron Age pottery, namely, Tana ware, replaced Kwale ware (Early Iron Age pottery of Bantu speakers) and therefore, it is believed to represent Bantu speakers of this period. In the hinterland of Tanzania and areas around Mt. Kenya and Kilimanjaro, Gatung'ang'a and Maore wares were identified as Later Iron Age pottery which replaced Kwale ware and represents Bantu speakers there (Odner 1971a, 1971b; Siriiainen 1971; Soper 1979). Odner (1971a) concluded that Maore and Kwale wares represented cultural continuity of the makers, especially when sherds exhibited traits of both wares, although he pointed out that the nature of their relationship was not clear. Of all the three wares, the most widely distributed Later Iron Age pottery of Bantu speakers is Tana ware.

On the Kenyan coast, Tana ware is found along the Tana River up to Garissa area. The major Kenyan coastal sites, which have contributed Tana ware, are Shanga and Manda on the Lamu archipelago and Ungwana on the lower Tana River basin. Others include sites in the Mijikenda Kayas and Mombasa area. Besides Kenyan sites, Tana ware is found in both coastal and inland sites of Tanzania and also in Pemba, Zanzibar, Mozambique, Northern Madagascar and Comoros islands (Mutoro 1987, Chittick 1984; Horton 1984; Abungu 1989; Chami 1994).

The morphological attributes of Tana pottery include bowls with slightly convergent rims, in-turned rims; bowls with open mouths; narrow mouthed globular vessels; large jars with out-turned rims; and short necked vessels. Its decorative attributes include incised triangular designs, lines of punctates, zigzagging double incisions and oblique incisions (Chami 1994). Some of these morphological and decorative attributes are also found in Kwale ware an early Iron Age pottery assigned to the Bantu speakers. Also, common attributes with Tana ware are apparent in Narosura ware, an earlier Pastoral Neolithic pottery assigned to Cushitic/Nilotic speakers (Table 1.3 and 1.4).

Table 1.3: Morphological attributes of Narosura, Kwale and Tana wares.

Narosura Ware (Pastoral Neolithic – Cushitic/Nilotic speakers pottery	Kwale ware (Early Iron Age – Bantu speakers pottery)	Tana Ware (Later Iron Age-Cushitic/Bantu speakers pottery?)
Bowls with slightly everted rim	Bowls with upturned and upwards curved rims	Bowls with slightly convergent rims, in-turned rims
Beaker-shaped vessels	Spherical bodies	
Narrow-mouthed bowls	Narrow mouthed bowls	Narrow mouthed globular vessels
Hemispherical bowls	Hemispherical bowls	
Open mouthed bowls	Open mouthed bowls	Open mouthed bowls
Globular vessels	Globular vessels	Large jars with out-turned rims
Short necked vessels	Necked pots	Short necked vessels

Nevertheless, since Kwale ware and Tana ware are mostly found at the coastal archaeological sites, they are attributed to Bantu speakers who live there, and Narosura ware, which is mostly found in the Rift Valley, is attributed to Nilotic or Cushitic speakers who live there. Although archaeological evidence has not demonstrated beyond any reasonable doubt who the makers and users of various cultures are, it was generally assumed that the archaeological sites in the Rift Valley and Western Kenya are of either Cushitic or Nilotic speakers, and the ones along the coast and Mt. Kenya region of Bantu speakers[16] (Chami 2001). These assumptions have rised heated debates among the Iron Age archaeologists of East Africa regarding the origin of Tana ware with different hypotheses being proposed as summarized on Table 1.5.

[16] The assignment of archaeological cultures correspond with modern population distribution in Kenya. Such that sites assigned to Cushitic and Nilotic speakers correspond with their modern habitations-the Rift Valley, while the ones of the Bantu speakers are in Mt. Kenya and coast regions- where they currently live.

Table 1.4: Decorative motifs of Narosura, Kwale and Tana ware.

Narosura Ware (Pastoral Neolithic- Nilotic/Cushitic speakers pottery)	Kwale Ware (Early Iron Age – Bantu speakers pottery)	Tana Ware (Later Iron Age- Cushitic/Bantu speakers pottery?)
Oblique incisions	Oblique incisions	Oblique incisions
Pendant-hatched triangles	Pendant- hatched triangles	Pendant- hatched triangles
Incised cross-hatched bands	Cross hatching	Narrow crosshatching Wider crosshatching
Zigzag reserved bands	Zigzag impression Rocked zigzag	Zigzag incisions
Comb stamping	Comb stamping	Comb stamping
Lip decorations	Lip decoration	Lip decoration
Grooves	Grooves Bevels Flutes	Grooves Bevels Flutes
Drilled holes	-	-
-	Shell impressions	Shell impressions
-	V-shaped kinks Curved lines	-

1.5. Proposed Hypotheses on the Makers of Tana Ware

1.5.1 Hypothesis A: Cushitic speakers origins

This hypothesis is supported by, among others, Abungu (1989, 1994/1995), and Horton (1984). They point out that morphological attributes of Tana Ware are similar to the ones of the Neolithic pottery (Narosura/Akira ware) of Cushitic speakers (Figure 1.8 and 1.9 to Figure 1.14). Based on his extensive research and archaeological excavations on the lower Tana River basin, Abungu (1994/1995) proposes a relationship between Tana ware and pre-Iron Age pottery of the highlands and Rift Valley, belonging to the

Pastoral Neolithic period. He claims that the decorations in these wares (Pastoral Neolithic and Tana ware) suggest cultural continuity and, therefore, they may have been made by Southern Cushitic speakers. Similarly, Gramly (1971) suggests that the ceramic styles from sites that are occupied by early iron producing communities could be a development from the styles found on early pastoralist sites in East Africa. He points out that the definition of Narosura ware, could also apply to some of the assemblages from sites occupied by early iron producing communities, e.g., Kwale.

1.5.2 Hypothesis B: Bantu origins

The proponents of this hypothesis postulate that Tana ware is a later development of Kwale ware, which they claim is also a pottery of the Bantu speakers. Chami (1994) studied the origins of Tana ware through excavations of sites in the hinterland and littoral of Tanzania. He addressed the question of the time gap between Kwale and Tana ware and the cultural connections between the two traditions; he found common features in the pottery decoration and he suggested a transitional phase from Kwale to Tana ware in the 4th century AD. (Also see Helm 2000) Chami concluded that Tana pottery was a product of the Bantu farmers and it may have originated from the hinterland of Tanzania and later spread to the coast. Msuya (2007) and Msuya and Haaland (2000) excavated Dakawa site in Tanzania and here, just like Chami, they found a sequence of Kwale and Tana ware, which supported its origins from the Bantu speakers. Abungu (1994/1995), however, argues that Chami's arguments fail to appreciate the much more complex interactions on and behind the northern coast and the impact of pastoralists there during the Iron Age and before, during the Pastoral Neolithic.

However, more recently Horton has altered his earlier opinion based on the new Tana ware sites in the East African coast (Horton and Middleton 2000). They point out that the reassessment of the evidence and some new discoveries suggest that Bantu speakers were at the coast earlier than what had been proposed.

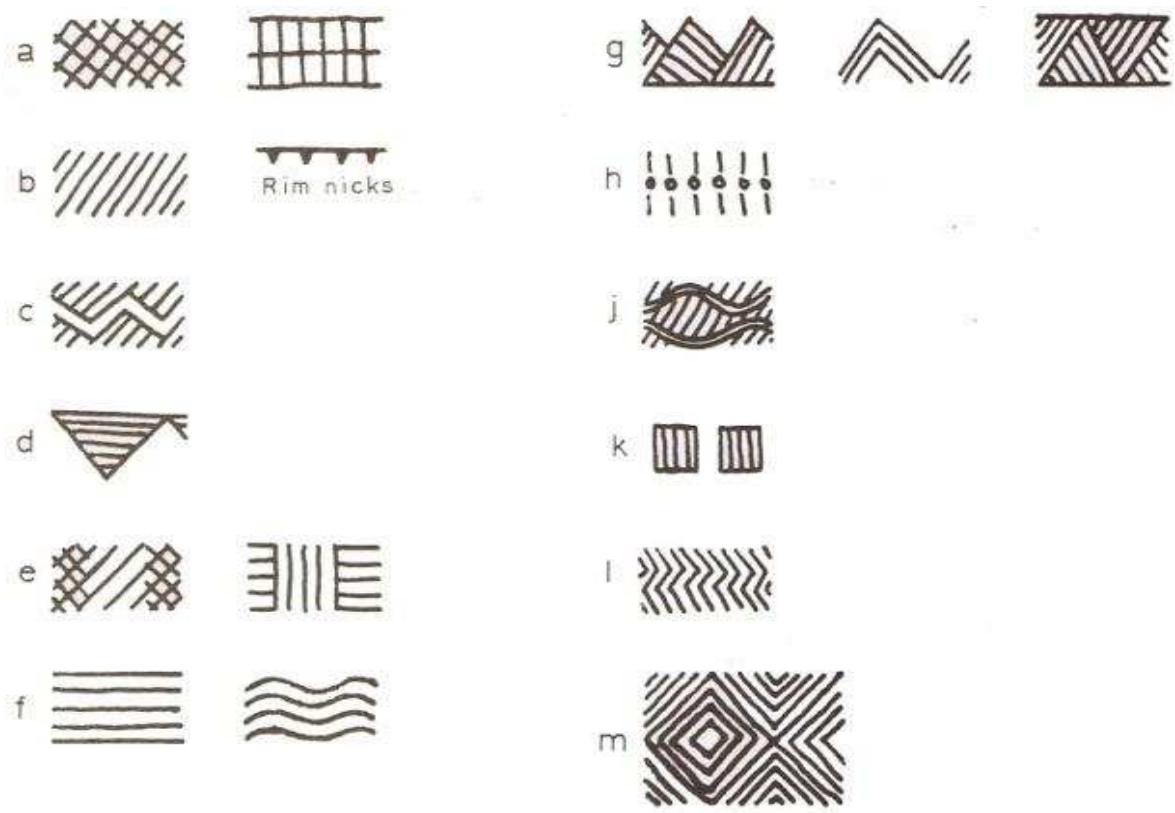

Figure 1.8: Decorations of Narosura ware (Source: Odner 1972)

The earlier carbon 14 dates upon which he had based his arguments in favour of Cushitic speakers, were based on Kwale type site which had large error margins. He saw no connection between the Bantu speakers (agriculturalists) with the East African coastal trade until when earlier dates for Bantu presence had been produced by new research (Horton and Middleton 2000, p. 38). He also recognizes a more complicated relationship.

1.5.3 Recent Archaeological Findings and New Hypothesis

Recent research has produced Neolithic pottery in regions where scholars never thought it would occur, leading Chami (2006a) to reverse his earlier position and argue that pottery of different kinds had spread over the larger part of Africa and that there is no strict correlation between race/ethnicity and pottery traditions. Excavations at the coast of Tanzania by Chami and Kwekason (2003) have produced Neolithic pottery which dates back to 3000BP. Upon studying this pottery, they concluded that it is related to

Narosura ware since it has the same characteristics as the Rift Valley material. Chami (2001; 2006b) likens the morphology of his finds with Narosura bowls as described by Odner (1972). He points out that some sherds seem to have an element of necked-pots which could be of the type described by Odner (1972) as bowls with slightly everted rims. He also claims that this coastal assemblage contains potsherds which are decorated by comb stamping with a blunt tool and others which have crosshatches just as it is the case with Narosura ware (Chami 2001, p. 29). Likewise, Chami and Kwekason (2003) report more pottery related to Nderit and Narosura wares from both coastal and inland sites of Tanzania and Zanzibar. In these sites, besides the Neolithic pottery and stone tools, they also report the occurrence of pestle rubber which is a common artifact with the Rift Valley Pastoral Neolithic sites (Chami and Kwekason 2003, p. 75). Further, they argue that although in the Rift Valley Neolithic is associated with pastoralism, the Neolithic period in Zanzibar is associated with microliths, Narosura pottery, fish bones, harpoons, shells, chicken and cat bones, bones of wild animals but no evidence of cattle goat/sheep (Chami 2001, p. 32). With this kind of evidence, they suggest that people who were not pastoralists may have been responsible for the Neolithic artifacts and sites found along the coast of Tanzania and the island of Zanzibar. They point out that artifacts of the Neolithic period have been found in coastal sites in the same context with Early Iron Age artifacts or the latter on the later levels in the same archaeological site (Chami and Kwekason 2003, p. 79). They therefore propose a continuation of Bantu population from Neolithic to Early Iron Age (ibid, p. 78, 2006b)

Evidently, use of pottery decorations and forms is clearly responsible for the disagreements outlined in the preceding paragraphs. The proposed hypotheses, promoted the need to use different analytical tools as discussed in Chapter 2 to offer more insights into the origins of Tana ware.

Table1.5: Summary of the proposed origns of Tana ware

Stated Hypotheses	Earliest pottery with Tana ware characteristics	Intermediate ware with Tana ware characteristics	Later Iron age	Proponents of the hypothesis and source
Neolithic Pastoralist Origin	Narosura/Akira pottery ware	Kwale ware	Tana ware	Horton (1996) Abungu (1989) Gramly (1971)
Iron Age Bantu Speakers Origin	Urewe ware	Kwale ware	Tana ware	Chami (1994) Msuya and Haaland (2000)
Neolithic Farmers Origin (recent findings	Narosura ware (at the coast)	Kwale ware	Tana ware	Chami (2006)

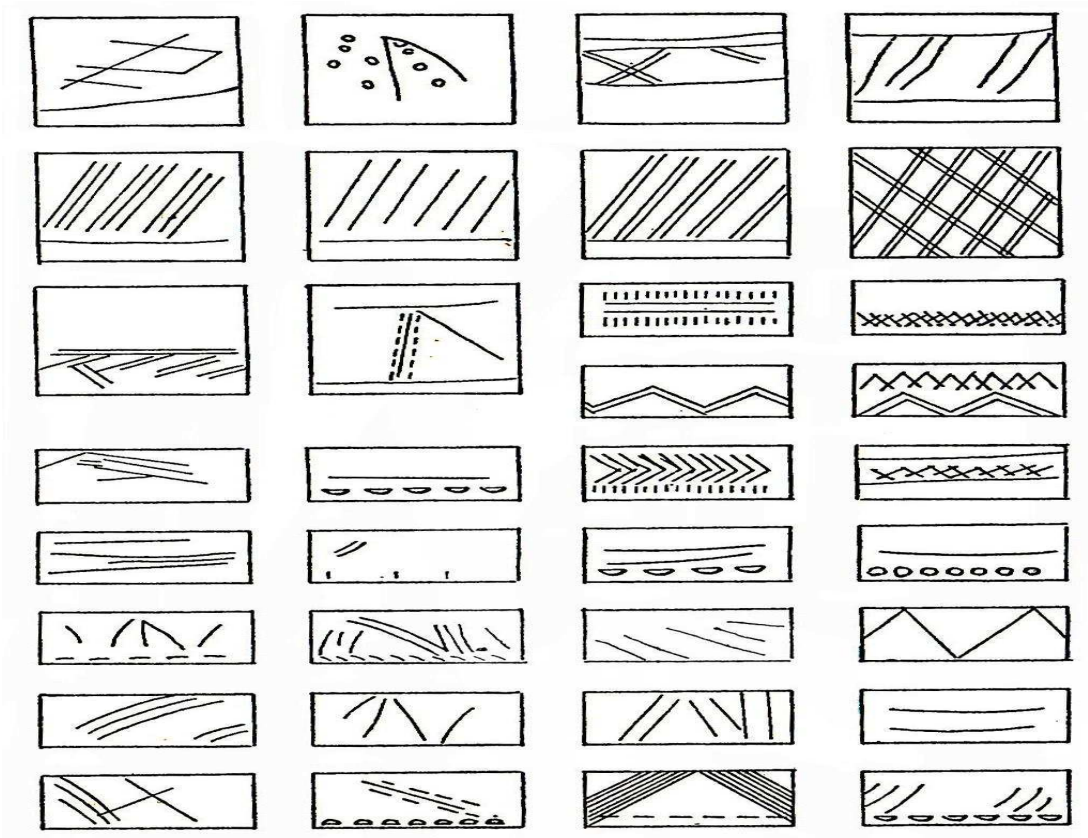

Figure 1.9: Tana ware decoration (Source: Kirkman 1966)

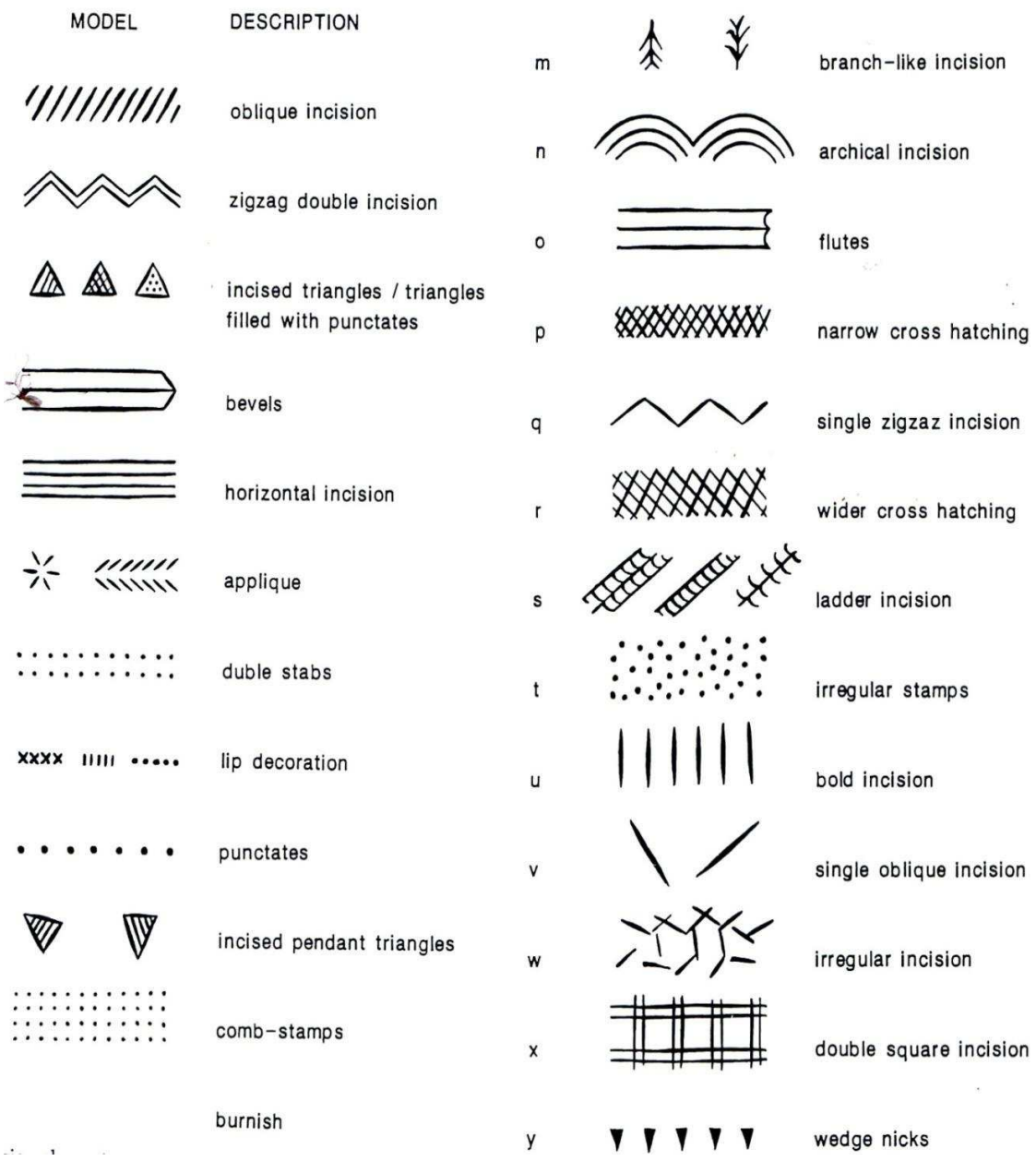

Figure 1.10: Tana ware decorations (Source: Chami 1994)

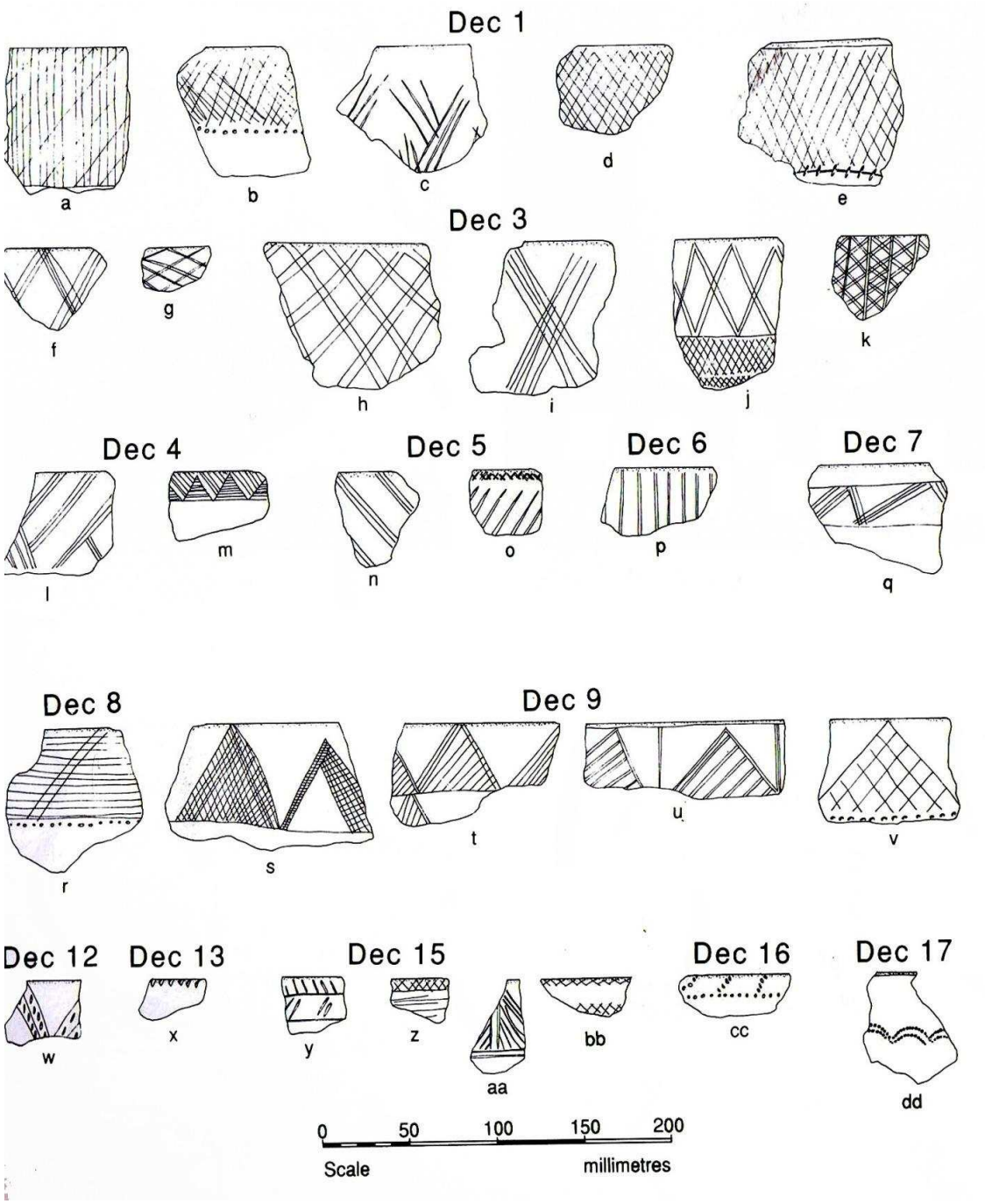

Figure 1.11: Tana ware decorations (Source: Horton 1996)

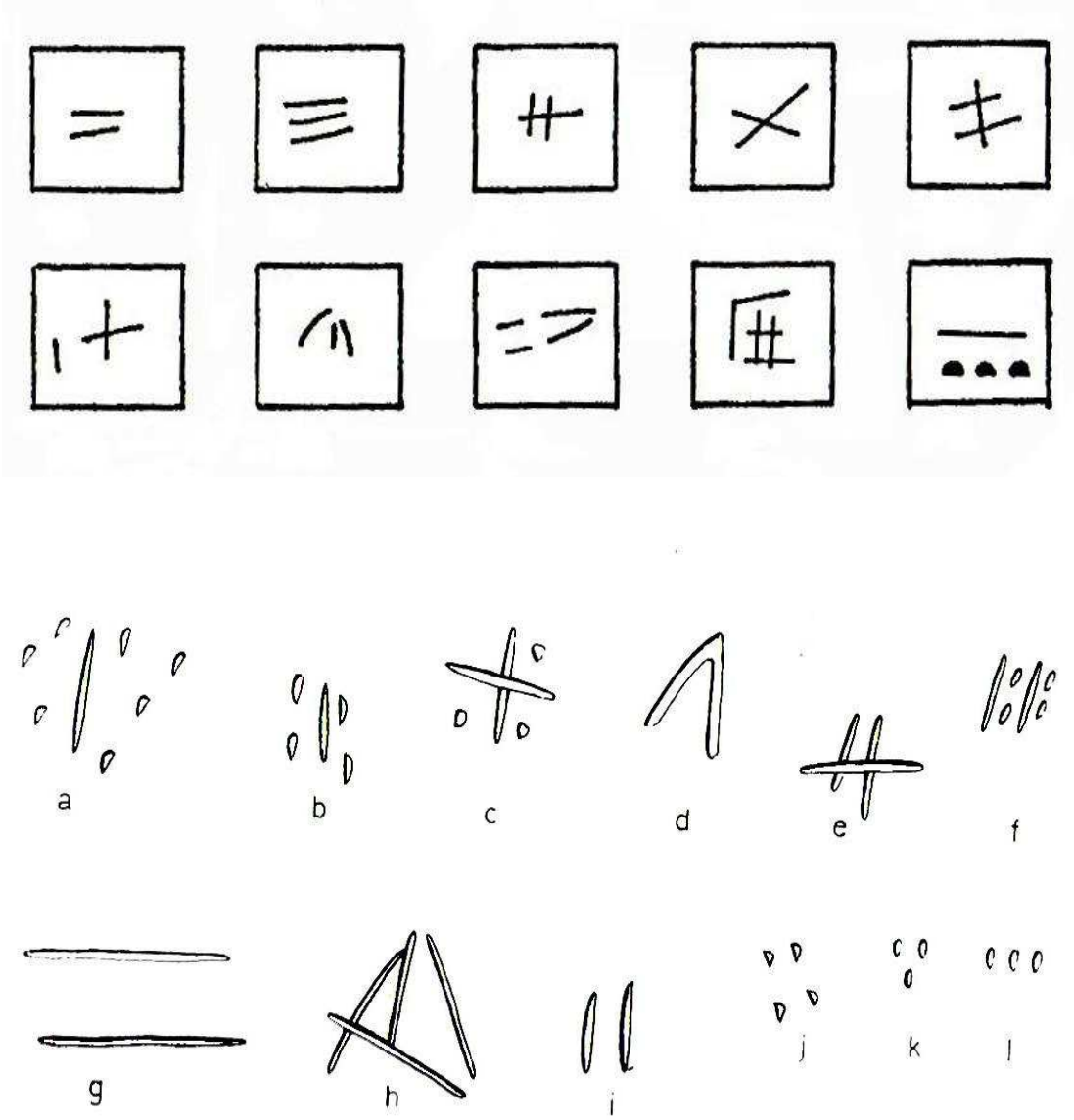

Figure 1.12: Potter's marks (Source: Kirkman 1966 and Chittick 1984).

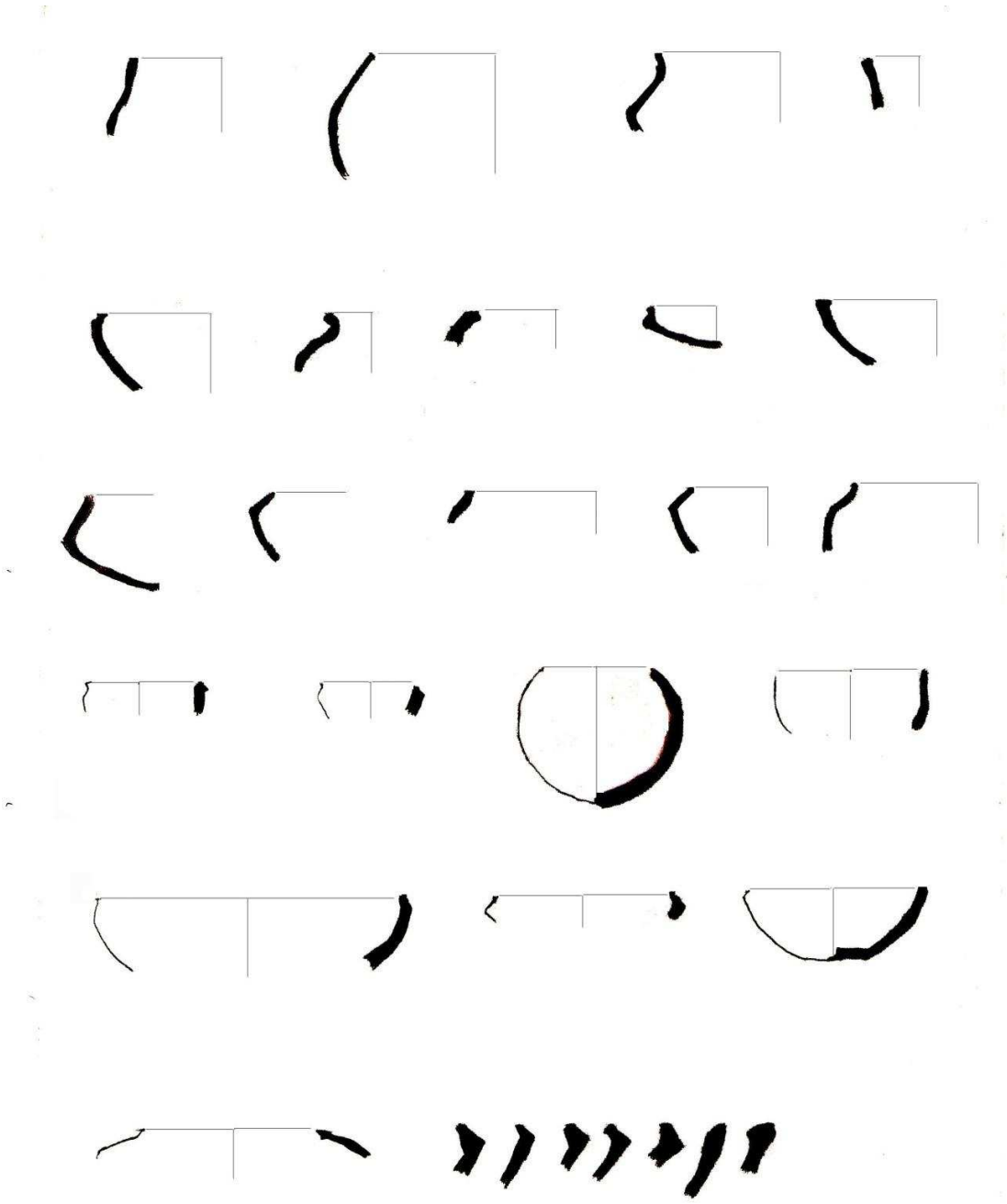

Figure 1.13: Tana ware profiles (after Kirkman 1966)

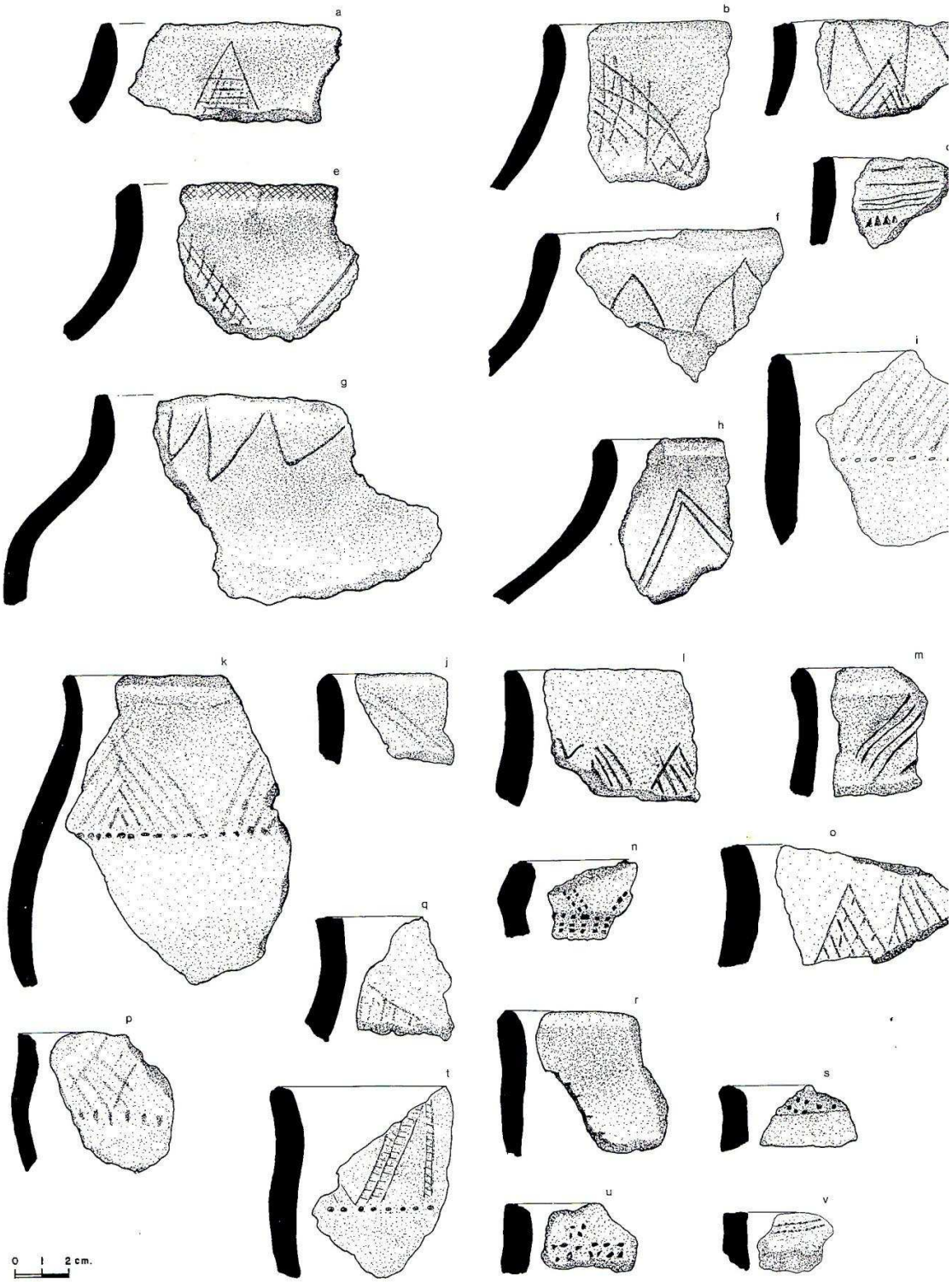

Figure 1.14 Tana ware profiles (Source: Chami 1994)

CHAPTER 1

PART II

INTRODUCTION TO THE MODERN CUSHITIC AND BANTU SPEAKERS IN KENYA

In this section, I give an overview of historical background of both the Cushitic and Bantu speakers who were interviewed for this research. In the presentation, I show that the Mt. Kenya Bantu speakers, the Coastal Bantu speakers and the Cushitic speakers had historical links which may be manifested in the archaeological cultural materials. The historical background information is mostly derived from the available historical linguistics records and histories recorded from oral traditions. The Kenyan historical records lack depth since they started to be written as late as the 19th century, with the coming of the British colonialists. The available documents from the 1900s relate to administrative issues and personal accounts of ethnographers, geographers and missionaries. Later in the mid 1900s, Kenyans started to agitate for independence and the records that followed relate to struggle for independence, the State of Emergency period and immediately after, political groupings and the final events leading to Kenya's independence in 1963. Therefore, most of the oral traditions regarding the origins and cultures of Kenyan people started to be collected long after they had settled in their current homes. Hence, the oral traditions and accounts of historical events as recorded by historians are not always in agreement. The dates, places of origin as well as ethnic displacements differ from oneAuthor to the other. As such, the following section presents different views as they occur in the literature and tries to derive the common aspects so as to give a coherent account for each group.

1.6 Origins of the Cushitic Speakers in Kenya: A Historical Perspective

The history of migrations within the River Tana basin is poorly understood since very little research has been done there. Spear (1981) claims that while a lot is known about the farming communities, very little is known about the herders. Some questions pertaining to the sequence of events and activities in Northern Kenya and along the River

Tana before the 16th century remain unresolved. Historians, however, have reconstructed the known events, though marked with inconsistencies, from explorers' accounts, missionary documents, linguistics and oral traditions. The two groups of interest in this thesis are the Somali and the Oromo/Orma[17], whose movements into Northern Kenya and along the Tana River between the 14th and the 19th centuries were characterized by fights, raids, and displacements.

The Somali allege their genealogy and their descent either from Aqil bin Abu Talib, the uncle of the Prophet Mohamed, or from the legendary well-digging giants (Madanleh)- the assumed autochhtothons of the country. The claim on the descent from the Prophet points out that the Somali dispersed from the far north and descended from migrants from the Arabian Peninsula (Stiles 1981; Fedders and Salvadori 1988; Schlee 1989). Schlee (1989) argues that both claims may have an element of truth but the first one has the ideology of proving Islamic legitimacy whilst the second one justifies territorial claim. These claims do not contain any linguistic or historical support: as such, the Somali are rather shown to have dispersed from a region of southern Ethiopia from where they spread to the tip of the horn in the northeast and to the Tana River in the south (Fedders and Salvadori 1988; Spear 1981; Schlee 1989; Turton 1975). Spear (1981) gives an account of movement of Cushitic speakers into Northeastern Kenya as having began in the 14th century AD. He argues that the first clan of the Somali people to populate Northeastern Kenya were the Hawiye family (Figure 1.15) from Ogaden who followed River Shebelle (Figure 1.16) to the Bendaadir coast, where they gained control of the interior trade to Mogadishu, Merka, Brava and created the Ajuran state. They were later followed by the Gurgate family of Hawiye who overthrew the Ajuran and forced them to cross Juba River (Figure 1.16) and enter northern Kenya.

Although the history of the Oromo and the Somali is considered together due to their past contacts, there has been no evidence to show that the Oromo ever lived in the Horn. Schlee (1989), however, posits that the two lived peacefully as neighbours in the horn for several years, within which they acquired cultural traits from each other. On the other

[17] Oromo or Orma are a section of Eastern Cushitic speakers who occupy most of Southern Ethiopia and parts of eastern and northeastern Kenya where they include the Waata, the Gabra and the Borana.

hand, Lewis (1966) states that both originated from Southern Ethiopia and the Somali expanded to the east and north much earlier than the Oromo, who only lived in Southern Ethiopia and Northern Kenya until they started their migration in 1530. Citing the Arab geographer Ibn Sa'id, and the victory song by King Yeshaq of Ethiopia who reigned 1440-1429, to support his claims, Lewis (1966) argues that Merca was continuously occupied by the Somali for over 800 years and the Hawiye and pre-Hawiye spread to the west and south from Merca long before the Oromo ever came to the coast.

Around 1530, the Oromo moved in along Tana River from Southern Ethiopia via the Lorian Swamp drove the Mijikenda to Sabaki River and pushed the Somali from Juba/Tana region. The Somali became clients of the Borana Oromo and were subsequently absorbed by them (Spear 1981; Schlee 1989). This situation lasted until the 19th century, around 1860, when the Somali started to expand again and took control of the Juba/Tana region of the Darod Somali, then expanded to northern Kenya having been forced out of Ogaden by Ethiopian expansion and the Muslim holy war of Mohamed Abdille Hassan (Turton 1975). According to Heine (1978) they passed through the Lorian swamp and down the Tana River, to the Indian ocean, before they continued north into the Horn. Natural calamities contributed to the defeat of the Oromo. They were weakened by smallpox, livestock pleural pneumonia and rinderpest (Kassam and Bashuna 2004).

1.6.1 Waata

The section of the Oromo that I interviewed belongs to Waata[18] group known as Monyuyaya. The potter lives in Mwororo village on the outskirts of Garissa town. Although the language and cultural practises of the Waata are similar to the ones of the Oromo, their economic practises are different. Whilst the rest of the Oromo are principally pastoralists, the Waata practised hunting and gathering until recently. This distinct occupation of the Waata is still a question of research among anthropologists and historians. Three theories of how they came to be hunters and gatherers have been

[18] Waata is a name given by the Oromo to the hunter/gathering section of their community. The Swahili call them Wasanye, Ariangulo in Giriama,Walangulo in Duruma (Stiles 1981)

projected: there are those who view them as survivors of the aboriginal and possibly Stone Age populations, others see them as a group of recent ethnic formations made up of runaway slaves, destitute pastoralists, and peoples displaced by war, while others maintain that they are a true section of the Oromo only differentiated by their occupation (Turton 1975; Spear 1981; Stiles 1981; Kassam and Bashuna 2004). Historical and linguistic research, however, shows that the Waata and the other coastal hunting and gathering groups are a mosaic of the three (Stiles 1981). It is postulated that the coastal hunting communities as seen today originated in the 16th century. Stiles (1981) maintains that these people were originally of Somali origin from the Garre section who inhabited the Juba/Tana region before the arrival of the Oromo in the 17th century. He further points out that, upon being dispersed by the Oromo, the Garre fled to the forest to become Waata, Boni and Dahalo. These later absorbed elements of Bantu populations to become mixed groups (Stiles 1981). Although Stiles considers the Dahalo together with the Waata and Boni, it is worth noting that only the Dahalo have elements of dental click in their language. Therefore, they are the only group which probably fits with the 'survivors of Stone Age hunting and gathering' theory. It is widely agreed that this mode of livelihood by the Waata is a 16th and 19th centuries' occurrence (Turton 1975; Spear 1981; Kassam and Bashuna 2004).

The inconsistence that occurs in the literature is on whether they are descended from the Somali or the Oromo pastoralist communities. Although Stiles (1981) argues for Somali origins (Garre), Kassam and Bashuna (2004) argue that natural calamities such as rinderpest, bovine pleural pneumonia and smallpox in 1880-1890 weakened some sections of the Borana, Gabra (Oromo) which led them into the forest to become the Waata. It was also around this time that the Somali Darod clan defeated the Oromo in northeastern Kenya and Juba region, dispersing them to other areas including the Tana River (Schlee 1989). Therefore, it can be argued that a combination of natural calamities and continuous unrest between the Somali and the Oromo led to the formation of the Waata and the Boni. The possibility that they were already Waata before they migrated from southern Ethiopia is suggested by Stiles (1981) and demonstrated by Kassam and Bashuna (2004). Stiles suggests that the Waata arrived with Oromo at the beginning of the 17th century as accompanying clients since they speak a dialect of Oromo. However,

he argues that if the Oromo arrived at the coast with an insufficient number of Waata or none, it would have been in their interest to absorb the coastal hunters through acculturation.

Contrary to Stiles' (1981) postulation, the Borana myths of origin always have an element of Waata and the reasons for their mode of subsistence. Some claim that they had the same father who had three sons. One day the father fell and his naked body was exposed: one son laughed, the second one turned away, and the third son took his cloth and covered his father. The father blessed the last son by the following words, "You, strength of my loins will have cattle and deep wells, you will conquer your enemies and be feared by all" these became the Borana. To the second son he said "You, honor my loins, you will own camel and will live in peace." These became the Gabra. To the first son he said, "You will be with dogs and you will find your food by hunting." These became the Waata (Tablino 1999, p. 137).

Several other myths are told and they all point to the Waata as having the same origin as the rest of the Oromo people. Their different mode of livelihood is also attributed to various failures by the Waata in the past. One of the myths blames their lack of domestic animals to their late appearance at the scene of distribution of camels to other Oromo people (Tablino 1999), and a different myth points out that the Waata were rude to the gods and their animals were taken away from them (Kassam and Bashuna 2004). These myths of origin show that the relationship between the Waata and the other Oromo populations may be deeper than the relationships that emerged during the 16th century after the natural calamities and the Somali/Oromo wars. It is most probable that members of the Waata groups who went to the forest during this time joined an already existing group.

Besides the myths, the traditional value attached to the Waata is entrenched in the customs of the Oromo community. Kassam and Bashuna have highlighted the importance of "first born phenomena" and the role of the Waata in the life cycle transition ceremonies of the Oromo communities. Citing Kassam (1986), they claim that the Waata are entrusted by the rest of the Oromo community to find the *qaalluu* (the ethnic priest) in the wild. And due to this, they are respected and they live in the ceremonial village of Borana *qaalluu* tending his special livestock (Kassam and Bashuna

2004, p. 200). Also, in the traditional Borana *gada* system of government, Waata families were entrusted with bringing up the first born sons of members of the worrior class (Raba) and they acted as their surrogate parents for eight years (Baxter 1978: 172 cited in Kassam and Bashuna 2004, p. 200). Consequently, Kassam and Bashuna do not consider the Waata as a different ethnic group from the Oromo. Instead, they assert that the differences are only in the occupational hierarchy. According to them, the Oromo comprise cattle pastoralists, camel pastoralists and hunter-gatherers in that hierarchical order. People specializing in these economies engaged in trade and gift exchange such that, the Waata exchanged honey, game meat, pots, ivory and other forest products for domestic products.

Nonetheless, although Kassam and Bashuna (2004) have succeeded in portraying the important role of the Waata in the Borana and Gabra communities, a contradiction arises since these communities regard the Waata as people of low status. They are believed to be polluting and intermarriage is prohibited between them and non-hunting communities. Their habit of consuming foods which are considered impure like wild pig and porcupines earned them this status but, nevertheless, they are considered an economic asset and therefore close contact is maintained between the two communities (Stiles 1981; Kassam and Bashuna 2004). Based on this "lower status" concept, researchers have applied words like 'low caste' to the Waata, but Kassam and Bashuna argue that the term is not applicable to the Waata because it does not exist in the Oromo language. Moreover, the perceived meaning of the term as applied in India and other places for 'untouchables' is different from the Waata/Oromo realities.

The naming of the Waata sections is based on their localities after the 19th century wars with the Somali. For example, the Waata Enotu, who live between Hola and Garsen in Kenya, the Waata Wanduu, who live in the Sagan Valley in Southern Ethiopia, or Waata Golboo or Galole, who live in the Chalbi Desert in Northern Kenya (Heine 1981, p. 9 cited in Kassam and Bashuna 2004). Besides the locational names, in Kenya the Kamba and Mijikenda groups call them Waliangulu (eaters of meat) and the Swahili call them Wasanye (foragers), while in Ethiopia, the Amhara know them as Weyto. On the other hand, early travel documents use the generic term 'Dorobo', which is derived from

the Maasai Il-Torobo, to refer to all hunters, regardless of their language and ethnic affiliation.

Along the Tana River, the Waata speak a dialect of Oromo although many groups claim to have previously spoken a language of their own, but which may have been simply a specialized hunting jargon (Cerulli 1922; Heine 1981; Hobley 1911, 1912, cited in Kassam and Bashuna 2004). However, they have adopted the Bantu language of the Giriama farmers, with whom they live in close neighbourhood.

The Waata lived in a symbiosis relationship with the Giriama farmers along the Tana River, with whom, they maintained close personal partnerships and conducted gift exchange. They gave meat, ivory and rhino horn to the Giriama in exchange for grain, livestock, and palm wine. Besides tangible items of exchange, they also practised blood brother relationships and intermarriages in contrast to the pastoral groups (Fedders and Salvadori 1988; Stiles 1981).

The Waata formerly hunted elephants in the forests along the Galana River and on the plains of Taru until they were expelled from this area by the Wardens of Tsavo National Park (Spear 1981). The process of dispossessing the Waata of their livelihood started when the colonial government found it necessary to 'protect' the wildlife in Kenya. Reports of game destruction through massive killing of elephants, and the extinction of rhinocerous in the area between Mount Kulal and North Horr by hunting parties from Abyssinia led to the stoppage of rhino hunting in 1923 by the government. Later in 1948, all game reserves in Marsabit district became National parks, and in 1951 the government declared hunting without possession of a license illegal through the 1951 Wild Animal Protection Ordinance which was issued by the game department. The game reserves were thus transformed into National Parks (Kassam and Bashuna 2004).

Following these developments, conflicts between the coastal hunters and the game wardens of Tsavo National Park ensued causing the former to be driven out of the forest bythe Authorities. They are today dispersed from near the mouth of Tana River to the Tanzanian boarder in the south where they practise woodcraft, pottery making, small-scale farming and herding besides engaging in construction jobs.

1.6.2 Jareer (Somali Bantu)

We observed and interviewed four potters from the Jareer community of Somalia currently living in Garissa town and its environs, Bula Punda, Bula Jaribu and Baraka village. The Jareer are late comers in the district, who first settled in Mandera (northeastern Kenya border town) as refugees from Somalia and later moved to Garissa in search of new markets for their products 20 years ago. The Jareer community in Garissa refer to themselves as Rahanweyn whilst the rest of the Somali people refer to them as Somali Bantu or Ooji. In order to understand the history of the Jareer community, I discuss the Somali clan structure, with special emphasis to the Rahanweyn, and then discuss how the Jareer community fits into its environment and the circumstances that led to their presence in Kenya.

i) Somali clan structure

The segmentary lineage model of Somali society as described by Lewis (1966) contains six major clan families (Isaaq, Darod, Dir, Hawiye, Digil, and Rahanweyn), which are themselves divided into clans of 10,000-100,000 members each (Figure 1.15). These in turn are divided into subclans, sub-subclans, and patrilineages (Besteman 1996). Each clan contains status distinctions that serve to divide people into categories based on their purported ancestry. These categories are roughly defined as 'nobles' and 'commoners' (ibid). The significance of the noble-commoner divide reverberates throughout Somali society in both inter and intra-clan levels. Nobles are considered to be lineally pure in that they can trace their ancestry to the (mythic) founding member of the clan. The basis of these groups was the collective payment of diya, or blood compensation, for wrongs committed by any group member. Commoners are those people, or descendants of those people, who have been adopted into a clan or whose descent is not lineally pure (ibid).

Only the dominantly nomadic Hawiye, Darod, Dir and Isaaq clan families, collectively known as Samaal, are considered "noble"(Besteman 1996; Declich 2000; Webersik 2004). The "commoners" are the minority groups, for example, the Jareer community. Although the Digil and the Rahanweyn who live in the Interriverine region of Southern

Somalia have a common origin with the Samaal, they are viewed with a degree of contempt by the Samaal due to their cultural and economic modes (Besteman 1996).

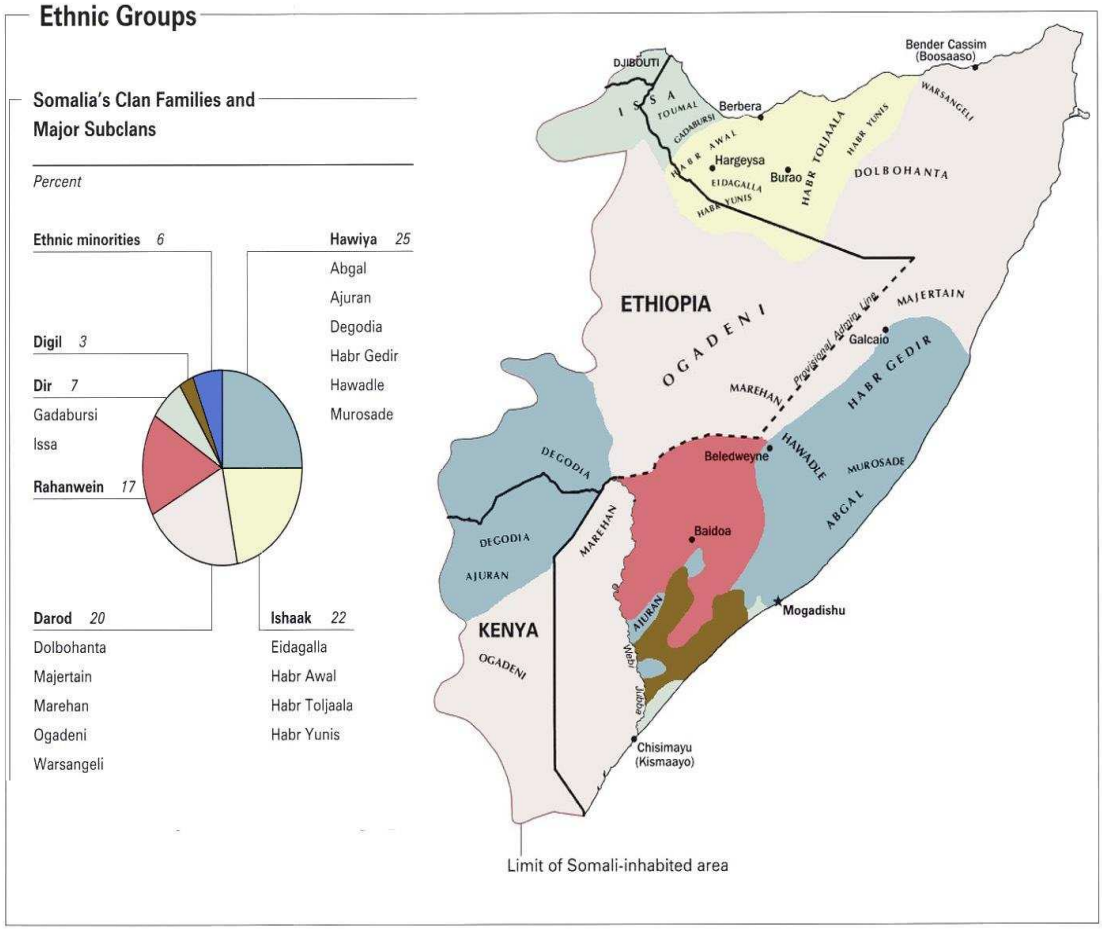

Figure 1.15: Somalia people and Map of ethnic groups (Source: CIA World factbook)

ii) Interriverine region of Southern Somalia

Together with Rahanweyn, the Jareer live in the Interriverine region of southern Somalia (Figure 1.16). They are distinguished from the nomads who occupy the northern Somalia region partly by their agro-pastoral mode of production and their settled mode of life which produced a distinct culture and social organization (Mukhtar 1996). Unlike the nomads, the settled communities have well organized social and political structures based on hierarchicalAuthority.

At the advent of colonialism, the Interriverine region was divided not only along clan lines, but also on the basis of Sufi order affiliation (Mukhtar 1996). Moreover, the region had absorbed people from neighbouring regions, Arabs, Oromos and Bantu. These

people did not identify themselves as members of Somali clans, although by the 1970s they saw themselves as Somali citizens (Mukhtar 1996; Webersik 2004). Historically, the areas along the Shabelle River were inhabited by non-Somali farmers whose ancestors had probably arrived there before the pastoralist Somali invasion of the Horn approximately during the 13th Century (Lewis 1966; Turton 1975; Declich 2000).

In this region people live in the vicinity of either Shabelle or Juba Rivers. The rivers originate in the Ethiopian highlands and generally run southwards through the bottom half of Somalia. . The Juba River flows out to the Indian Ocean just north of Kismayu while the Shabelle River ends in a series of swamp basins. Unlike the Shabelle River, which usually dries up from January to March, the Juba River is permanent. The Juba region is a fertile agricultural land, which stretches between the Kenyan border to the west and the Indian Ocean to the east (Van Lehman and Eno 2003). Land, particularly farmland, is one of the most important possessions in the river valley and its environs (ibid).

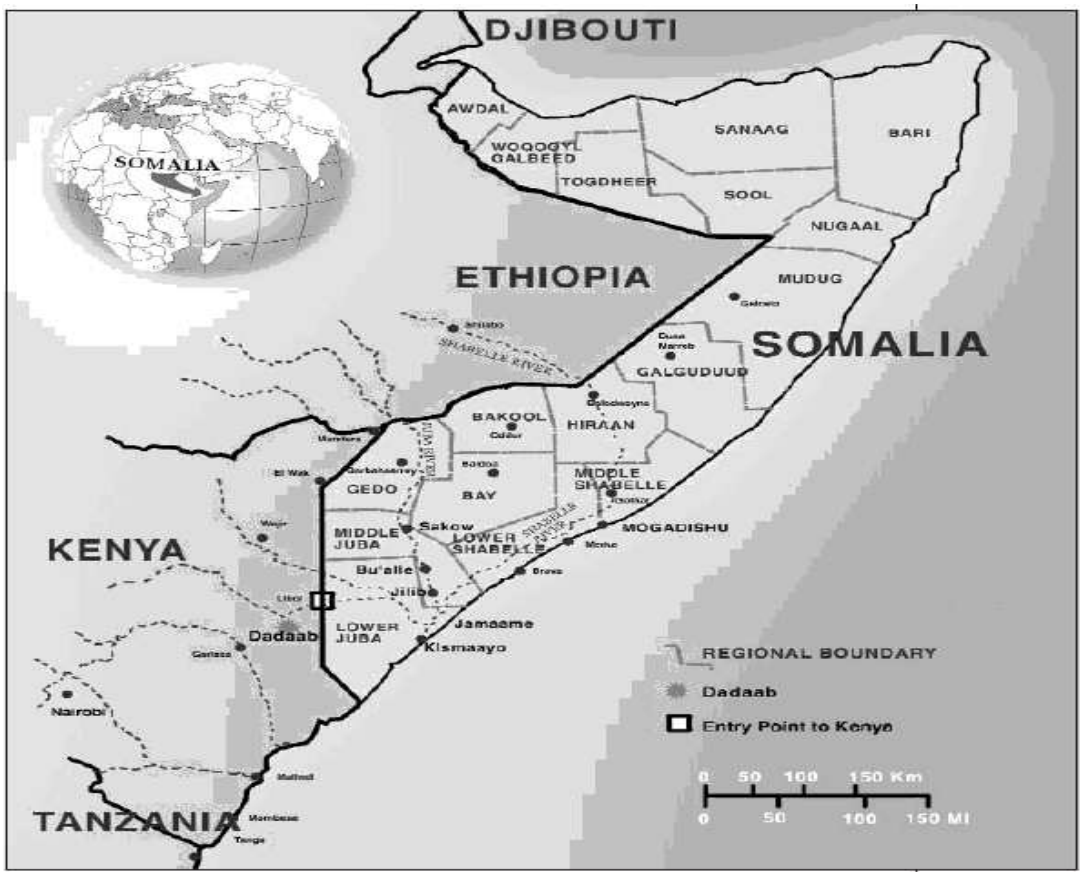

Figure 1.16: The Interriverine region of Somalia. (Source: Van Lehman and Eno 2003)

Most of the Juba River valley receives about 61cm of rain per year. There are two rainy seasons in this region that correspond with the river's high points, which, combined with water from the Juba River, allows farmers to grow crops throughout the year (Van Lehman and Eno 2003). Most farmers in the region practise a mixed farming system, with rain-fed production of sorghum and beans (Webersik 2004). This makes the Bantu-occupied areas of the Juba River valley extremely productive and valuable and thus the backbone of agricultural production for national and international markets in southern Somalia (Van Lehman and Eno 2003).

iii) The Rahanweyn

The inter-riverine region is mainly populated by the Digil and Mirifle clans, the descendants of the two sons of Mad (Mahamad) Rahanweyn, Digil being the older and Mirifle the younger son (Webersik 2004). The two clans are collectively known as Rahanweyn. Today, the descendants of the Digil inhabit the Banadir, Juba and Shabelle regions, while the descendants of the Mirifle live in the central and western parts of the region. The Mirifle are divided into two main groups, the Sagaal (nine) and the Siyeed (eight) while the Digil are divided into seven clans. In addition, groups of Bantu origin live among the Digil/Mirifle clans.

Most Rahanweyn speak Af-maymay language, which is related to Af-maxatiri spoken in the central and northern regions of Somalia which was made the official Somali language when the Latin orthography was adopted in 1972 (Webersik 2004). The distinction of speech between the Digil/Mirifle and the nomadic clans of the central and northern regions is part of a wider cultural, geographical and social primary division (Webersik 2004). More important aspects of Rahanweyn have been put forward by Helander (1996) to demonstrate why the clan is different from the Samaal besides their agricultural and pastoral mode of economy. First, the status of adopted members within their host clans: through an adoption institution (*sheegad*), the adopted members do not become second-class citizens within their Rahanweyn clans. Over time, most adopted groups and individuals tend to become fully integrated. They are also allowed to fully participate in community affairs of all kinds, including, competing to become elected in the posts of suldaan or malaq- the leader of a clan or lineage. The adopted family is also

allowed to keep ties with its clan of birth. Second, the nature of *diya*-paying groups and settlement of *diya* payments is different. The *diya* is negotiable and is imposed depending on the family's ability. It is also a responsibility of the whole clan irrespective of whether they are of blood lineage or adopted. Third, the social and cultural role of marital ties: once married, one is allowed to be adopted in the in-law's clan. Fourth, they live in villages and the village institution is considered important for clan cohension and sharing of chores. The village is a meeting point for the clan members who include both lineage members and the adopted ones. Decisions about resource use, inter- and intra village affairs and dispute mediation are often handled by village committees, rather than lineage elders (although there may be significant overlap between the two categories).

Contrary to the above, the Samaal 'standard Somali' principle is that descent determines membership in a *diya*-paying group, and the mutual responsibility that members in such a group have, serves to strengthen further the descent ties between them. Among the northern Somali, marriage to a woman of another clan creates a bond between the parents-in-law; a woman from another clan can be used as a messenger to her own clan in times of warfare (ibid).

Their practise of adopting outsiders into their clans, combined with the perception that the Interriverine Somali show racial evidence of intermarriage with Bantu farmers-who may have arrived before the Somali invasion of the Horn (discussed below) renders their ancestry suspect and arguably "impure" (Besteman 1996; Helander 1996). Their greater dependence on the lower-status occupation of cultivation and their distinct dialect, called Maay-Maay (which deviates from "standard" Somali) contribute to the inferior position they hold in wider Somali society. "Traditionally these distinctions (between the pastoralist northerner and the agro-pastoralist southerner) are entrenched by the nomad's assumption of proud superiority and contempt for his southern countrymen, and the latter's corresponding resentment and isolation" (Besteman 1996 citing I. M Lewis 1988:14). This isolation is evidenced in the southerners' exclusion from participation in national politics.

iv) The Jareer (Somali Bantu)

The Somali Bantu, on the other hand, comprise a proximately 600,000 of the Somali population (Van Lehman and Eno 2003). The Somali Bantu are classified into those that

are indigenous to Somalia, those who were brought to Somalia as slaves from Bantu speaking but integrated into Somali society and those who were brought to Somali as slaves but maintained to a varying degree their ancestral culture and language (ibid).

Declich (2000) points out that racist anthropologists, like Puccioni (1937), used the word “Bantu” to identify riverine peoples of Somalia in colonial times but it was not commonly used in the Somali language before the war. Instead, the ethnic Somali who were more likely to treat all Bantu as a common group, use terms like Jareer' (Webersik 2004). Other derogatory terms used by the Somalis for Bantu people include adoon, which can be translated as 'slave', or oggi/ooji, which in Italian means 'today', reflecting the belief that the Somali Bantu only live for the moment without the ability to think beyond their immediate needs (ibid; Van Lehman and Eno 2003). During the colonial era, both British and Italian administrators in the south supported and enhanced this division by categorizing the Jareer as racially distinct and socially inferior to the other Somali. In the first decades of the twentieth century, the Italian colonialists reinforced such an ideology by emphasizing the pastoralists power (Declich 2000). This sort of ethnic categorization had been used as a political tool for administrative purposes (Besteman 1996). Although they knew that many different lineages and group identities existed among the riverine agriculturalists, Italians did not hesitate to lump them all together into a unique whole of those who could be of some use as forced manpower (Declich 2000). Such categorization reflected and emphasized an existing local ideology which considers all agriculturalists together with occupational castes (Ybir, Midgan, Tumal, Gacan-sibir, Muusa Deryo, Ribi, Bon, Kabtol, etc.), inferior groups in comparison to pastoralists. Disregard of both kinds of people was part of the ideology which magnified the image of pastoral nomads. Later, from 1925 to the end of Fascist rule in Somalia determined in 1941 by the upwind of the British Military administration, Italians continued to base ethnic categorizations on economic activities, in order to "recruit" people into forced labour to build public infrastructures and work on farms (Declich 2000, citing Serrazanetti 1933: 20 and Del Boca 1992: 203). Colonial policy thus reinforced and encouraged an awareness of racial distinctiveness.

The Bantu refugees generally refer to themselves simply as the Bantu[19] (Declich 2000). Despite the derogatory names given to the Bantu communities by the other Somali people and the colonial governments, they have names that distinguish themselves from each other. For example, those who trace their origins to an East African tribe refer to themselves collectively as Shanbara, Shangama, or Wagosha, Mushunguli or according to their East African tribe names, such as Zigua. These are the Banadiris, Jareer and Bajuni, who are mostly merchants, fishermen, hunters and cultivators, and inhabit the coastal strip bordering the Juba and Shabelle valleys and the southern islands of the Indian Ocean.

Somali clans with large Bantu-client populations, in particular the Bimal, Dabare and Geledi in Lower Shabelle, however reject the term 'Bantu' not for moral reasons but because they see the danger of their Bantu members breaking away and making political and economic claims (Webersik 2004, citing Menkhaus 1999).

Most of the Bantu livings in contemporary southern Somalia are descendants of Bantu who were enslaved by the Sultanate of Zanzibar. During the 18th century industrial revolution, a need for cheap labour and products caused the sultan of Zanzibar to abduct Africans along the East African coast to go and work in forced labour in the plantations near the Indian Ocean coast and in the Shabelle river valley (Van Lehman and Eno 2003; Webersik 2004). The movement to southern Somalia was further instigated by famine in Tanzania in 1830, which forced more people to accept wage labour in distant land by Oman Arabs, which landed them into slavery in Somalia (Besteman 1996; Van Lehman and Eno 2003). Their ancestral tribes came largely from present-day Southern Tanzania, Northern Mozambique, Zambia and Malawi, and included the Digo, Makale, Nyamwezi and Nyika among others (Van Lehman and Eno 2003). They were shipped along the East African coast to serve as labourers in the agricultural sector, mainly on plantation farms. It is estimated that between 25,000 and 50,000 East African slaves were assimilated into riverine areas between 1800 and 1890 (Besteman 1996).

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[19] They call themselves “Bantu” in the refugee camps since it has the advantage of showing more vulnerability and hence attracts more sympathy from the aid providers.

The Italian administration started to free the first slaves at the end of the nineteenth century. Then, at the beginning of the twentieth century, they officially abolished slavery according to the Belgium Protocol. After slavery, the Jareer were subordinated under whichever Somali clan that had owned their parents (Webersik 2004). Others joined settlements of fugitive Bantu slaves in Lower Juba where they retained their ancestral religion and language. Because "Bantu" slaves were predominantly used by southern-based clans (the Digil and Mirifle), few Jareer affiliated with northern-based clans following manumission or escape (Besteman 1996).

In order to serve the labour needs of the agricultural industry, the Italian administration passed labour laws to conscript freed slaves into the plantations, with the help of former Somali slave-owners (Besteman 1996). They attempted to reclaim control over freed slaves (many of whom had established themselves as landholders and farmers) by targeting only the Jareer population during the forced labor campaigns (Besteman 1996). Van Lehman and Eno (2003) maintain that the forced labour was in fact indistinguishable from slavery.

v) Adoption and Patronage

Patronage in Somalia is a relation in which groups of people seek an agreement of mutual dependence although one becomes a patron and the other a client. A patron-client relationship, for instance, occurs when agriculturalists give to a certain lineage/clan of pastoral people exclusive rights to river access points close to their village. In exchange for such an exclusive license, the agriculturalists may receive an annual payment in animals and a permanent protection against the intrusion of other foreign shepherds who might not respect their cultivated fields while approaching the river access points (Declich 2000). There are also relationships of patronage between pastoralists, for example, the scattered Somali (Harti, Ogaadeen and Marrehaan) entered the lower Juba area as clients of the Oromo people. Initially, the Somali looked after the Oromo's animals. Before colonial times, a patron-client relationship was one of mutual support in different economic activities or for the control of a territory rather than one of domination of a group over another (ibid).

Besides patronage, there is adoption where a clan takes in members of other clans and allows them full privileges and rights (in case of Rahanweyn) or limited rights (in case of

Samaal). The institution of adoption in Somali clans is known as *sheegad*. The adopted client status (sheegad), is practised by minority groups, including the Bantu, who may be seeking the protection of more powerful clans (Webersik 2004). Sheegad also allows peaceful integration of newcomers into resident clans. However, it does not sever their links with their clans of birth. Even generations after such a move children will be taught their real genealogies by their mother, not the genealogy of the lineage that has adopted them. An adopted family may also still retain claims to inheritance within their clan of birth. Yet, when such a family faces demands of diya-payment, they are expected to turn to their host clan for support, not to their clan of birth (Helander 1996). Research has also shown that some Somali pastoral groups were adopted in the villages of riverine people; for instance, in the Shidle village of Shanloo, along the Shebeli, lived families of Somali Wacesla, and in the Zigula village of Mugambo, along the Juba, lived families of the Somali who spoke a Bantu language, kizigula (ibid.; 82). Therefore, it is evident that the adoption could go either way although it was mostly Somali clans adopting the Bantu people.

Adoptions also included assimilation of people of occupational castes that are considered inferior. This involved incorporation of people practising special jobs that are considered vile and suspect, like blacksmiths, wood workers, potters, tanners, magicians, shoemakers, hunters and gatherers and sometimes fishermen (Besteman 1996). Therefore, according to Cerulli (cited in Declich 2000) people considered to belong to the 'low castes' necessarily shared similarities in development and historical formation rather than linguistic, cultural or geographic origins. Another common characteristic of the occupational castes in Somalia is that they have established long-term patron/client relationships with one of the predominant lineages in the area where they live. The long-term relation of adoption survives because their specialized work is necessary to any lineage (ibid). The names of the most well known 'low castes' in Somalia are Ybir, Midgan, Tumal, Gacan-sibir, Muusa Deryo, Ribi, Bon, and Kabtol.

vi) Social status of the Jareer

The Jareer make their living from casual labour and smallholder farming (Webersik 2004). By virtue of their visibly non-Somali origins, maintained by (loose) prohibitions on intermarriage with other Somali clans, ex-slaves and their descendants: they are

clearly not lineally pure members of any clan, and are thus lumped into the commoner category in a relation of social inferiority to Somali nobles (Webersik 2004). In southern Somalia, economic marginalization and the political exclusion of minority groups, such as the Jareer (or Bantu), are based on external-rather than invisible-markers. This boundary between the 'ethnic' Somali and the Jareer is mainly based on racial stereotypes, according to which adopted members, the Jareer, display more pronounced 'African' features. The term Jareer literally means 'hard' and refers to people with hard and curly hair and large noses; these features clearly identify them as originating from East Africa, and associates them with descendants from slaves who are believed to deserve scorn (Besteman 1996; Declich 2000; Webersik 2004). This is despite the fact that by the 1980s most descendants of slaves were fully Somali in terms of language/dialect, custom, religion, and participation in the Somali clan system (through adoption). Nevertheless, they maintained their physical distinctiveness and are said to look more "African" (Besteman 1996). Although the Jareer were legally allowed to participate in politics, they had neither the economic means nor the educational skills to defend their interests (Webersik 2004).

Webersik (2004) sums up the Jareer social vulnerability when he points out that, it is due to their lack of control over physical force, i.e., local militias who engage in looting and predatory behaviour. Further, as most of the Jareer are descendants of former slaves, they were integrated into the clan system by being taken into the clan family that owned their parents. They thus became divided among different clans making them a weak unit. A third reason for their weak standing in the region was the lack of an educated leadership that could represent their interests in the political arena. Although they account for a large part of the overall population, in particular in the riverine areas, they are considered a minority by the Somali.

vii) Events leading to migration of the Jareer people into Kenya

During the dictatorial regime of Siyad Barre, a modern land law was passed, decreeing that a land title had to be acquired from the state by the person who 'owned' the land. Many smallholders lost their entitlement to farm their land as they simply could not afford to register for land titles. This led to 'land grabbing' by civil servants (Webersik 2004; Besteman 1996). In addition, the development boom of the 1980s targeted the rich

agricultural resources of the south. Millions of donor dollars flooded through Somali ministries in anticipation of the construction on the upper Juba River of the second largest dam in Africa, to be primarily funded by the World Bank (Besteman 1996). Elites with cash to invest looked to the relatively durable asset of land, which appeared especially promising in light of planned irrigation projects and roads (Webersik 2004). The battle over agricultural resources raged between urban elites, with money to invest and connections to state offices that controlled rural resources, and local farmers who had noAuthority, power, or connections in the national arena. The farmers of the agricultural south thus became doubly subjugated, both by race-based status and by class. Defined and marginalized as subordinates on the basis of ancestry manifest in physical distinctions, southern farmers increasingly lost their means of production-land and water-to more powerful members of the urban elite. Entire villages in the lower Juba were dispossessed of their land during the 1980s, their inhabitants surviving as gleaners and wage labourers for the new owners (Menkhaus 1989, cited in Besteman 1996). Many villagers and Bantu farmers became rural labourers employed by internationally financed state farms (ibid). This development had already started under the Italian administration when methods, including violence, were used to capture land from the Jareer so as to develop large-scale plantations (Van Lehman and Eno 2003).

In the period of the civil war and thereafter, the Jareer continued to be subjected to discrimination. They became victims of famine, forced migration and the diversion of humanitarian aid. Other accounts mention the illegitimate taxation of Jareer farmers for water extraction from the river and canals which are situated close to their villages. Webersik (2004) cites Prendergast (1994: 68) as arguing that the farming communities were targeted because of their vulnerability and weaknesses and because of the valuable farmland coveted by other clans, a problem which pre-dated the civil war and intensified during it.

The presence of Jareer in Somali society has a regional dimension as well. Under Siyad Barre's regime Jareer southerners were frequently targeted for forced conscription into Siyad's military through kidnapping, which in the north resulted in the association of Jareer people with government, enhancing the perception of the former as undesirable outsiders (Besteman 1996).

Following the onset of the civil war in 1991-1992 when Somali clans were clashing, the soldiers stole, raped and murdered the Somali Bantu, which forced them to flee into northeastern Kenya through the Liboi town border. By the beginning of October 1992, Kenya hosted approximately 412,000 registered refugees and it was estimated that another 100,000 unregistered refugees were living in the country. More than 300,000 of these were Somali (Declich 2000, citing Oromogher & Forbes Martin 1992: 16). Most of those who fled from the riverine areas surrounding the Juba River poured into refugee camps along the boundaries with Kenya in Liboi and Dadaab (Declich 2000; Van Lehman and Eno 2003)

1.7 Origins of Bantu Speakers: a Historical Perspective

In this section, I discuss the origins of the Digo, Chonyi, Jomvu, Kamba and Meru Bantu speakers who were interviewed during the research. In the course of examining their histories, other ethnic groups are mentioned who are not a part of these communities today but were important during their early formations as shown on Figure 1.17. It is not within the scope of this thesis to examine these other communities in detail, but their association with the interviewee is noted.

1.7.1. Coastal Bantu

The Digo and Chonyi Bantu speakers are closely related and, therefore, their history is usually presented together in the literature. The Jomvu on the other hand are members of the Swahili community who live in the urban areas of the Kenyan coast and therefore, their history is always presented together with theirs.

i) Chonyi and Digo

The Chonyi and Digo Bantu speakers are two of the nine Bantu ethnic groups which form the Mijikenda[20] community. The Mijikenda belong to the Sabaki group of Northeastern Bantu as classified by Bennett (1967). In the 18th century literature, the Proto-Mijikenda are referred to as Mosungullos or Mosengejous, and in the 19th century as Monica or Vanica or Nyika- meaning people of the wilderness (Spear 1978; Were *et*

[20] Mijikenda is a Kiswahili word meaning nine vilages

al.1987). However, as regards the Mosungullos, Ochieng' (1985) points out that the Mijikenda found them in their present land upon their arrival, and they subsequently absorbed them. They adopted the name Mijikenda in 1940 (Spear 1978, p. 5). The Mijikenda are unified by their tradition of a common origin, their language, their economy and their living environment (Ochieng' 1985). They trace their origin in Shungwaya, which is believed by some historians to have been a historical flourishing city in Southern Somalia (Were *et al*. 1987). Spear (1974) points out that according to the Digo oral traditions, these people left Shungwaya in the company of the Segeju before the other Bantu groups, in order to escape from the Oromo. They state that they had killed one of the Oromo during a traditional ceremony and the Oromo were seeking revenge (ibid). They travelled south together as far as the Tana River where they separated. The Digo proceeded south to their present location in Kwale (Spear 1977). Later, the remaining Mijikenda, the Pokomo, and the Taita followed the Digo in the southern direction. The Pokomo were the first to settle, stopping along the banks of the Tana River, while the rest continued south to Mwangea, a hill inland from Malindi (Spear 1978; Ochieng' 1985). Sometime later the Taita left Mwangea for the Taita Hills while the Mijikenda- the Giriama, Ribe, Kambe, Jibana, and Chonyi, proceeded south to their present locations along the ridge running from Takaungu to south of Mombasa (Spear 1977). Although the Mijikenda have their story, some historians, e.g., Turton (1975) asserts that the Bantu people were pushed by the Oromo while they were expanding in search of pasturelands.

The Mijikenda practiced agriculture and in addition, pottery making was an important traditional occupation performed by specialized women and their daughters in the Mijikenda community. Clay was fetched by the Digo from Kwa Jomvu[21] and a few scattered localities near Kwale town (Were *et al.* 1987)

[21] Although this is recorded by Were *et al* (1987) the Jomvu potters get their clay over 20km from Jomvu area and the Digo get their clay from Matuga as discussed in the text

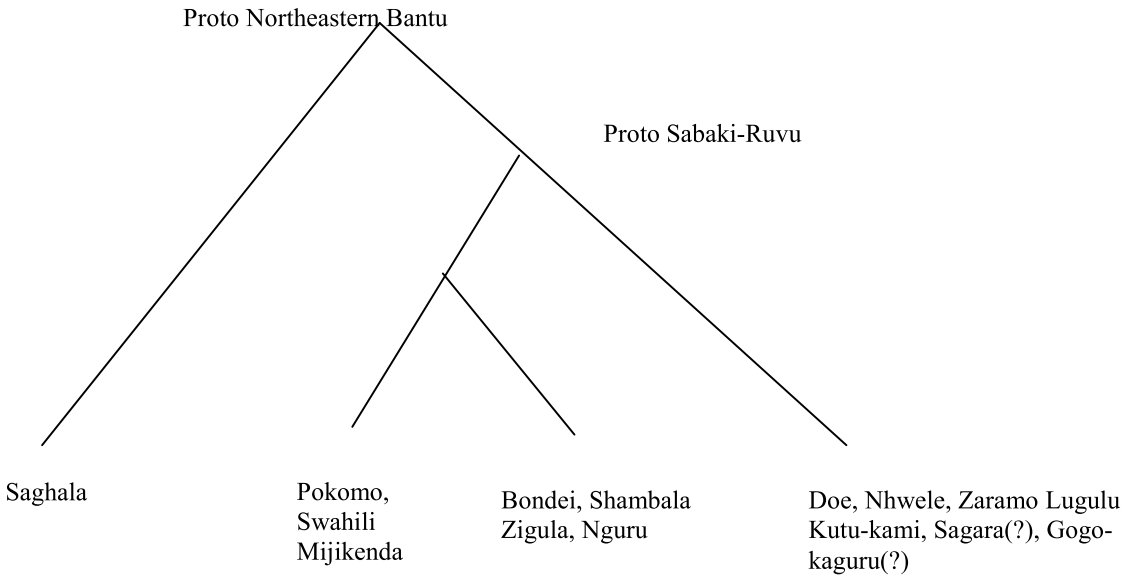

Figure 1.17: Relationship of Sabaki Bantu speakers to the other Northeastern Bantu speakers (Source: Spear 1977).

ii) Jomvu

The Jomvu are a section of the Swahili population who inhabit the coastal strip and the offshore Islands. Historians argue that the Swahili are the descendants of indigenous Bantu speakers (Sabaki) and either Cushitic speaking people or the Arabs known as the Shirazi who originated from Persia (Chittick 1968; Spear 1977; Pouwels 1984). Berg (1968) argues that since ruling families from the coast were from Shirazi, the claims seemed to have been adopted by the hypothetical descendants of their retainers and subjects. This view is not, however, readily acceptable since Pouwels (1984) claims that the Shirazi form the core of the Swahili people. On the other hand, Spear seems to hold a moderate opinion and claims that the Shirazi historically became a part of the coastal people and were more of a "historical phenomena" (Pouwels 1984, p. 251; citing Spear). The earliest Arabic settlement was around Brava and Mogadishu where Shirazi culture developed as a result of interaction with local people (Pouwels 1984; Spear 1977; Fedders and Salvadori 1988). The oral traditions of the Jomvu and the Kilindini sections of Swahili community asserts that they came from Shungwaya in the company of the Mijikenda and the Pokomo from where they had been expelled by the Oromo (Spear

1977; Pouwels 1984). These assertions are largely supported by the linguistic evidence using the principal of least moves (Pouwels 2001). Other evidence that has been provided is the presence of Kwale pottery dating to 11thcentury and 15thcentury in Muhigia near Brava, which is believed to belong to Bantu speakers (Spear 1977). This evidence is, however, questioned by Pouwels (2001), who argues that although the pottery might be of Bantu origin, it is impossible to tell which group of Bantu made it using the current archaeological methods. The presence of a Bantu speaking community in the supposed locality of Shungwaya, according to Spear, offers further evidence although not enough is known about them to enable Bantu language classification, even though he also argues that a language (chi-miini) spoken in Barava is an archaic form of Swahili (Spear 1977). Besides the Jomvu and the Kilindini Swahili, the other Swahili people claim to have come from Southern Somalia and they do not necessarily mention Shungwaya (Spear 1977; Pouwels 1984). When they arrived in Mombasa, they organized themselves into federations or tribes which are named according to their areas of residence (Berg 1968). In total, there are twelve federations namely, Wa-Changamwe, Wa Kilindini, Wa Tangani, Wa Mvita, Wa Jomvu, Wa Kilifi, Wa Mtwapa, Wa pate, Wa faza, Wa Shaka, Wa Banjuni and Wa Katwa. The distinctive feature of the tribes, besides language and culture, are the local independent governments that they subsequently formed with each town under Tamim, and a council of Wazee (Salim 1974).

1.7.2. Highland Bantu

Linguistic sources have classified all the Bantu speakers of Mt. Kenya region as Thagicu. Bennett (1967) explains that Thagicu is a group of Bantu dialects, or very closely related languages, spoken to the east and south of Mt. Kenya. It includes the Kikuyu, Kamba, Mbeere, Meru, Chuka of Kenya as well as the Segeju, and Sonjo of Tanzania. The Mt. Kenya Bantu, also referred to as Central Kenya Bantu have different myths of origin although their language and cultures are closely related (Kenyatta 1938; Muriuki 1974, 1978). The Meru tradition of origin is closely related to the coastal people, while those of the Kamba have more relevance to the migrations of the Kikuyu, Embu and Mbeere groups than have the Meru traditions (Munro 1967).

i) Kamba

All the Kamba traditions agree in their oral traditions that they originated from the plains around Mt. Kilimanjaro in Tanzania except for a section known as Mumoni who claim to have come from the coast (Ndeti 1972). However, even where coast is mentioned, there is no mention of Shungwaya (Were *et al*, 1987). The Kamba body of tradition suggests that they came to their present land not from the northeast but from the south, possibly somewhere around Mt. Kilimanjaro (Munro 1967; Fedders and Salvadori 1988). They migrated northwards from the grasslands of Mt. Kilimanjaro (*kiima kya kyeu)* to the dry area north of Tana River and possibly up to Eweso Ngiro. Due to the aridity in this area they changed their direction back south along the Tana River to the Kilimanjaro area (Ochieng' 1985). They later migrated to Giriama and Chaggaland, before settling in their present day land between 1450 and 1550 (Mwaniki 1973; Ochieng' 1985; Fedders and Salvadori 1988), after they were pushed away from around Kilimanjaro to their present day location by Maasai (Ndeti 1972, citing Krapf; Mwaniki 1973). Chittick (1968), however, argues that the proto-Kamba came down the coast from North of the Tana River, with one section entering modern Ukambani[22] directly from the coast above the river Sabaki while the others came in via Taita and Kilimanjaro.

One of the points that come out clearly in these migration accounts of the Kamba people is that at some point they lived along the Kenyan coast. The account by Chittick (1968) seems to be like the second stage of the Kamba movement as described by other historians. It is therefore probable that the inconsistence between the two accounts is not important.

ii) Meru

Meru oral traditions were recorded in detail by Jeffrey Fadiman (1973, 1993) in the latter half of the 20th century. He posits that the Meru arrived in the Mt. Kenya region later than the other Bantu speakers, and that may have descended from contacts in the Shungwaya area. He suggests that they are probably descended from Bantu speakers and

[22] Ukambani refers to Machakos and Kitui in Eastern province of Kenya where the Kamba ethinic group lives today.

Somali populations. From Shungwaya they migrated in response to attacks by the *Nguo ntune*[23] (red clothes) and settled for a period at Kigairo/Urumba or Ugairo.[24] In this area which is between Lamu and the Lower Tana, the proto-Meru branched off from the proto- Digo. There is mention of crossing of the River Tana upon which, the Meru divided into several groups. The Tharaka remained close to the Tana while the others moved into their present day country. In their traditions, however, the Meru do not mention Shungwaya; instead, they recount their movement from the Coastal area, which they remember as Mbwa (Imanyara 1992; Fadman 1993). To trace the location of Mbwa, Fadiman talks of its most unusual feature, which was the behaviour of the tides. He points out that the informants from every Meru community described these with the phrase *"ruuji rugwita kuria nyaki"* (the water has gone to eat grass). This happened twice in a day, that is, during daylight, and once at night, when the tide would flow swiftly toward the mainland ('to eat grass'), leaving an area recalled as "dry" (which Fadiman suggests was actually mud, sprinkled with tidal pools). Cited in Fadiman (1993) H. E. Lambert, a linguist and former commissioner of Meru district (in 1933–1935 and 1940–1941), suggests, for example, that the Meru word *Mbwaa* (or *Mbwa*) is derived from the Swahili term *pwani* (beach, shore). However, Fadiman offers a different opinion and using, linguistic methods, reconstructs the word Mbwa to become Mbwara and links it with Mbwara Matanga- a region in western side of Manda Island (Figure 5.1). He also mentions that the term *Mkanda* does appear within the Mbwaa chronicles, to describe a people living separate from the ancestral Meru, on the mainland. He however acknowledges the fact that similarity in names is inconclusive. Nevertheless, he further examines the word and points out that in the Manda dialect it means "sands" and refers to a type of sand containing iron ore. The evidence of iron ore seemed to support the Mbwaa traditions, in which frequent references to ironworking (e.g., spear points, smelting, ironsmiths) suggested there was easy access to the ore.

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[23] Some sources associate *nguo ntune* with the Oromo, others with the Bajuni and others with the Arabs.

[24] Ugairo corresponds with Kirao resettlement area, which is mentioned in the traditions of the Digo, Segeju and Kilindini (Were *et al* 1987).

Besides linguistic support, Fadiman provides historical evidence to maintain his arguments. He points out that the oral traditions speak of neighbouring the peoples of 'Buu,' 'Nderi,' and 'Dzund', who lived on an island near Mbwa, remembered as 'Bua'. These are sections of Pokomo-speaking peoples currently inhabiting both banks of the Tana River. Fadiman further points out that the oral traditions recorded among all the three groups confirm that several of their clans did live on islands in the distant past. One group recalls that its home island was once called Bua; it is known today as Lamu Island and is located only a mile or so from Manda's western shore. This evidence is also supported by linguist research conducted by Nurse (1983b).

1.8. Indications of Historical Interactions

There are some indications of historical interaction between the Oromo, Somali, Mijikenda, Pokomo, Swahili and Mt. Kenya Bantu speakers in the historical records and oral traditions as presented above. All the ethnic groups mentioned in the preceding sections recall some movement from the coast at one point or the other. As shown in the text, these movements occurred between the 16th and 17th centuries for all of them. This suggests that these communities either lived together or in close proximity before their dispersal. The Portuguese travelers noted the presence of the Segeju and the Mijikenda and the pursuing Oromo (as alleged by the traditions) at both Malindi and Mombasa in latter half of the 16th century (Spear 1977). This assumption that they existed together, is further evidenced by the mention of Shungwaya or Southern Somalia in their traditions. Six of the ethnic groups mentioned above (including the Meru, some sections of Oromo and Somali), trace their origin in Shungwaya (Townsend 1976). Archaeological work has not found the real location of Shungwaya as yet although historians believe it was the birthplace of the coastal Bantu language institutions with an elaborate system of government controlled by elders (Spear 1977). McIntosh (1968) points out that from written accounts, oral traditions and inferences; it is possible to speculate on the general nature of Shungwaya culture, which he claims was elaborate. On the English maps of 1670AD Were *et al* (1987) points out that Shungwaya is referred to as Tungaya, Singauya or Zungaka. Contemporary maps locate Shingwaya just south of the present day Bur Gao.

The Shungwaya myth of origins has been challenged by a number of historians for, example, Morton (1972), who points out that the Shungwaya tradition entered Mijikenda oral literature only after 1897, and as such, it is a 19th century invention. He argues that the tradition lacks solid support from historical documents, oral traditions or archaeology. Munro (1967) argues that the coastal people refer to the other coastal people only in their myths of origin and they do not mention the highland Bantu, which supports Morton's observation that Shungwaya is a recent invention by various traditions of origin. Nevertheless, Spear (1974, 1977, 1978) has shown the validity of the Shungwaya origin claims pointing out that, the oral traditions of people who are far removed in distance agree in substantial detail as to the sequence and routes of migrations. These include those of the Oromo who drove the Bantu out of Shungwaya, the Swahili who migrated south independently and the Waata hunters who welcomed them in their places of settlement in the south (Spear 1977). Besides indicating the validity of Shungwaya myth, the justification also provides evidence for interactions. Likewise, the signs of interactions are also provided by Pouwels (1984) who points out that Shungwaya included people who spoke Thangicu, Nilotic or Cushitic languages (with hunting and herding activities) in existence with the Sabaki.

The Bantu groups from the Coast and Mt. Kenya region belong to one language group (Northeastern Bantu speakers) which in some way shows that they originated from a common area in the distant past. Citing Hinnebusch, Spear (1977) argues that the Swahili language shares a common proto-language with Mijikenda and Pokomo but later it included the Arabic language. He also asserts that the intensive interaction of the Sabaki speakers with the Swahilli around Brava, before their exodus is linguistically indisputable and is confirmed by their traditions (ibid).

Linguistic evidence connecting Mt. Kenya Bantu speakers and the Coastal Bantu speakers has also been established. The Meru and the smaller related groups (Muthambi and Mwimbi) show closer affinity with coastal languages (Pokomo, Mijikenda) than with the languages of the other Bantu speakers around the Mt. Kenya region (Munro 1967). Also, Nurse (1983b) conducted detailed linguistic research among the communities of Tana River whom he claims represent the extreme northeast border of the Bantu speaking area and it is the meeting point for northern pastoralists and southern farmers. Kusimba

(1999) attributes this to the diverse environmental mosaic that allowed more than one kind of food getting strategies to prevail there. This assertion is evidenced by what he calls "Ormaization" which include technical terminology for cattle and stock, age sets, dress, personal names, societal institutions, ceremonies, animals iron working all from the Orma/Oromo in all the Pokomo and Malakonte Bantu languages (Townsend 1976; Nurse 1983a, 1983b). Also, words for part of the body (normally considered resistant to borrowing) are borrowed from the Dahalo, which suggests intermarriage or absorption of the Dahalo. The final source of loan words for the Pokomo is Thagicu languages of Mt. Kenya region. Nurse (1983b) points out that the name Tana for example, is a loan word from some Thagicu language that has lost "g"; he suspects Meru-Tigania or Kamba. The only Thagicu dialect in which both Dahl's law and g- loss have occurred consistently are the Meru dialects around Tigania (Nurse 1983b).

" The large size of the loan set and the fact that it is limited to lower Pokomo, which is the most distant of the Pokomo dialects from Central Kenya, makes it extremely likely that we are not dealing with the result of lexical dissemination down the Tana but rather with the outcome of interactions of Pokomo and Thagicu speakers at the mouth of the Tana." (Nurse 1983b, p. 221)

In summary, Nurse (1983b) points out that Upper Pokomo vocabulary has been influenced by Orma primarily, northern Swahili and some Thagicu language (Meru) and Dahalo in that order. He however, acknowledges that Meru, Dahalo, Swahili and orma have all been prominent in Pokomo history and yet, the oral records do not make proper reference to them.

Likewise, Townsend (1976) asserts that the northern section of the Pokomo speaks Orma only and lexicons of the other Pokomo people contain a high degree of Cushitic words. As such, the high proportion of Orma borrowing by the Pokomo indicates a long period of bilingualism among them.

CHAPTER TWO

METHODOLOGY

The aim of this Chapter is to outline and discuss in detail the methods that were used in order to offer testable evidence into the origins of Tana ware. The first part is a brief theoretical framework of the methodology and its justification, whilst the second part presents the actual procedures of each strategy. The strategies which were adopted for this study include, study of Tana ware chaîne opératoire and use of experimental, ethnographic and ethno-historical studies to interpret the results. Use of these strategies, were deemed the most appropriate due to the nature of archaeological peopling of Kenya, the historical movements and interactions believed to have influenced the character of the modern cultural materials and archaeological assemblages.

2.1. Chaîne Opératoire

The main method that was used to conduct this research was technological approach through use of chaîne opératoire as the analytical tool. New research has questioned the paradigm of equating pots with people acknowledging that pots have several stages and units, which are capable of telling multiple stories, otherwise limited by use of typology. Lemonnier (1993) argues that even when anthropologists partake of culture they limit their study to the style of artefacts, thus reducing the social content of techniques to details of shape or decoration. He sees techniques as social products and not something to which, some meaning is simply added, but a complex phenomenon in which wide symbolic considerations are involved from the start; he hence points out that it becomes tricky to separate 'technical' from 'social.' Thus, by including the social context in the analysis of techniques, technology is given a very different and potentially much more central role in anthropological and archaeological research, because it becomes convenient and a broad avenue to understanding the organizational and representational principles underlying the society which uses them (Van der Leeuw 1993).

Chaîne opératoire method was first proposed 50 years ago by a French anthropologist A. Leroi-Gourhan while seeking to characterize technology (Lemonnier 1993; Roux and Rosen 2009). The chaîne opératoire methodology has the advantage of offering results that are more objective since it investigates both decorated and undecorated potsherds, unlike other methodologies that rely on the decorated sherds, which are apparently the minority in most archaeological assemblages. Creswell (1976:13 cited in Roux and Rosen 2009; Roux 2011) defines chaîne opératoire as a series of operations that transform raw material into finished products (either consumption objects or tools). Using chaîne opératoire method, it is also possible to distinguish the borrowed aspects in an assemblage from the originally learnt ones. Chaîne opératoire can also be instrumental in establishing chronological sequences of pottery as well as its temporal and spatial distribution. Since 1980's, there are technological studies which have shown that each stage of the manufacturing process varies according to social groups. Depending on the level of interactions between communities, different ethnic groups may share pottery-making attributes. For example, Gosselain (2000) suggests that clay sources may be frequented by different potters as pottery forms and decorations may be shared by unbounded individuals because they are visible on the finished products. He further points out that distinct communities in Africa, may fire their pots in similar ways because this is done in the open and people can learn from watching. However, pots of the same size, forms and decorations can be fashioned in different ways which are not visible on the finished product and, therefore, fashioning techniques can only be shared by bounded individuals (Gosselain 1998, 2000; Roux 2011). Experimental and ethnographic work has shown that fashioning or forming techniques are passed through kinship and thus it is the most stable stage of pottery making since it is resistant to change (Gosselain 2000; Roux 2007). As such, a careful study of pottery making stages can accurately reveal archaeological social boundaries and different stages of social interactions (Gosselain 1998, 2000; Stark 1998; Gelbert 2003; Roux 2007; Mayor 2010). The social aspects of a community are also reflected in pottery making processes and tools- the pottery making aspects are dynamic and flexible as seen in the adaptability of certain tools, postures, pottery styles, and other social factors since the craft does not exist independent of other practises and value systems. Potters may adapt tools which are

used for other purposes or even make pottery forms which resemble aluminum cooking pots in the market for example (Langenkamp 2000; Gosselain 2010; Wyne-Jones and Mapunda 2008).

One of the most important studies on chaîne opératoire of ethnographic pottery making of Bantu speakers is by Gosselain (2000) who showed that it was possible to identify pottery from Bantu speakers in the archaeological record, and to positively point to their routes of migration from the Western Africa to the rest of Africa. He claims that fashioning is characterized by a greater stability through time and space, an intimate connection to the spatial development of learning networks and hence a tendency to reflect those most rooted and enduring facets of identity. Further, Gosselain (1998) points out that populations that are linguistically affiliated and share a common history tend to fashion their vessels in much the same way or tend to use similar techniques that differ significantly from those of their neighbours because this knowledge is passed through kinship and it takes many years of learning. As such, his study of 350 populations in the sub continent, led him to conclude that most Bantu speakers classified as Benue-Congo family distributed in west, east and southern Africa fashion their pots by drawing a ring shaped lump (Gosselain 2000, p. 204). Endurance of pottery fashioning techniques is further demonstrated by Gelbert's (2003) study of borrowing phenomena in Senegal valley, she points out that decoration and forms were shared by ethnically and linguistically distinct groups after a few years of contact, while fashioning techniques were adopted or borrowed after generations of settling among a foreign community. Langenkamp (2000) points out that efforts by government and non-governmental organizations in Kenya to improve pottery making by providing potters' wheels failed and this is evidenced by numerous discarded wheels in the country. Thus, it is evident that fashioning or roughing out is a question of motor habits, which are difficult to replace (Arnold 1989; Stark 1998; Gosselain 2000; Livingstone-Smith 2000). Consequently, given the length of time necessary to learn pottery making using traditional knowledge and techniques, the most effective and efficient learning occurs during childhood (Arnold 1989; Crown 2007). Besides the early and length of time needed to master the motor skills, Crown claims that learning takes place within domestic contexts in traditional societies. She however points out that there are also many

particular cases in which women first learn or relearn to make pottery after they marry and move to different villages (also see Dietler and Herbich 1998 and Gelbert 2003). Roux (2007) points out that fashioning must be learnt through repeated practise during early learning and subsequently internalizing; as such, it proves to be especially resistant to change. Should the learner make any inventions during apprenticeship they would only involve operations like decoration of vessels rather than invention of new forming skills (Roux 2011, citing Herbich 1997). Therefore, if detected in the archaeological record, it is possible to associate the pots in question with the modern populations who use the same fashioning techniques (Arnold 1989; Djordjevic 2003; Roux 2007, citing Bril 2002).

In contrast to fashioning, research has shown that pottery decorations and forms are visible on the finished products which make it easy for them to be copied and hence, the same forms and decorations can be experienced among unrelated populations who share boundaries or other social networks (Gosselain 2000). Likewise, ethnographic studies have shown that potters are readily willing to use any decorating tools handed to them by researchers, just as individuals within a potting community sometimes create their own decorative styles different from the rest (Dietler and Herbich 1998; Gosselain 2000).

Therefore, in order to study ceramic assemblages in terms of social groups, it is necessary to identify the chaînes opératoires and more specifically the fashioning techniques. Most archaeological research on chaîne opératoire in Kenya has been conducted on stone tool technology and little has been done on archaeological pottery, although, a lot has been done on ethnographic pottery chaîne opératoire in the West African region.

Having identified the ceramic assemblage chaînes opératoires it follows that an interpretation framework for fashioning techniques and the nature of social groups need to be built up. To this end, ethnographic and experimental reference data of various social groups were used for this research in addition to ethno-historical data. Research in East Africa and Kenya in particular is still using the "decoration/form" attributes to define cultures and pottery distributions and study of archaeological pottery technology is in its infancy. As such reference data from ethnographic work are completely lacking.

Study of Tana ware chaîne opératoire and use of ethnographic, ethno-historical and experimental data for its interpretation was deemed as the most appropriate strategy due to the nature of archaeological peopling of Kenya, where different ethno-linguistic groups occupied the same regions and interacted since archaeological, historical times and today (Ambrose 1982; Spear 1981). Such interactions/contacts may have created suitable environments for different ethno-linguistic groups to borrow material culture traits from each other.

The next section, therefore, describes specific actions that were taken during the collection of Ethnographic, ethno-historical and archaeological data.

2.2. Ethnographic data

Since the debate on Tana ware is about its makers, that is Bantu or Cushitic, it was necessary to establish why different schools of thought proposed and supported either of the groups. This could only be achieved by recording the similarities and differences in pottery making techniques between the groups in question and the disputed pottery.

In order then to build an ethnographic reference database linking ceramic traditions with diagnostic attributes and ceramic traditions with ethnolinguistic groups, I engaged in field research on ethnographic pottery making. This was necessary since there is no available elaborate work on ethnographic pottery making in Kenya. The only attempt is an edited volume by Barbour and Wandibba (1989), which covers pottery making among 13 out of 42 ethnic groups in Kenya. However, this reference is not detailed enough to correlate ethnic groups and ceramic chaînes opératoires.

2.2.1. Selection of ethnic groups

The case studies were selected based on the location of the potters, the location of the sites with Tana ware, and the historical background of the potters.

i) Cushitic ethnic groups

The Cushitic ethnic groups, that is the Jareer (Somali) and the Waata (Orma) live in Garissa district, on the lower Tana basin during the month of Feburuary 2008. Although they belong to different ethnic groups they live about five kilometers away from each other. It was therefore to my advantage to use the same logistic resources to reach both

ethnic groups. Also, communities in this region were chosen because lower Tana Basin is one of the regions where Tana pottery has been found. Abungu (1989) proposes possible archaeological contacts between communities living here, which may have resulted in the emergence of Tana ware along the coast of East Africa. For example, the Somali and the Waata have long history of peaceful coexistence as well as periods of war. Likewise, the historical backgrounds of both Cushitic groups recount their past interactions with the Bantu speakers of this region, and indeed to a common place of origin.

ii) Bantu ethnic groups

The Bantu ethnic groups were selected from two different regions, that is the Coastal and Mt. Kenya regions.

a) Coastal Bantu ethnic groups

Research was conducted among the Digo, Chonyi and the Jomvu ethnic groups from the Coastal region during the month of June in 2008. This is because Tana ware has been reported from several sites along the coast of Kenya. Also, these Coastal ethnic groups live within the same locality and it was, therefore, logistically manageable for me to coordinate different pottery making activities[25] between potters of different ethnic groups, hence economizing on time and financial constraints.

b) Mt. Kenya Bantu ethnic groups

The pottery making techniques of Mt. Kenya Bantu speakers were studied among the Meru-Tigania and the Kamba ethnic groups during the month of March in 2009. These two groups were chosen, firstly, because the Meru-Tigania history points to the coast as their place of origin, while the Kamba point to the area around Mt. Kilimanjaro, with a secondary migration via the coast to their present location. Secondly, because of archaeological considerations: pottery which is stylistically and typologically similar to coastal pottery has been reported from this region (Siiriainen 1971; Cummings 1978; Mahdsted and Diblasi 1978; Soper 1979; Kiriama *et al*. 1996; Ngari 2004). Thirdly, both

[25]Steps that needed to be allowed time before the next stage can be achieved- for example drying before firing

ethnic groups were chosen because they live in close proximity which helped in overcoming the logistical shortfalls.

The relevance of studying these groups of diverse origins was to help in interpreting the causes of variations in archaeological Tana ware chaînes opératoires and to build a wider range of reference data.

2.2.2 Selection of Potters

The choice of potters in both Cushitic and Bantu ethnolinguistic groups was based on their availability and accessibility. The original idea was to sample from both younger and older potters within the same community as well as potters who were taught the craft by different tutors. This was necessary in order to see if we could recognize any variability in their chaînes opératoires. This was, however, unattainable because the craft is no longer practised actively in many areas. We, therefore, worked with the range of potters who were available as directed by the local informers. In most cases, we had to request the potters to stage the craft for our video recording and photographs.

i) Cushitic Potters

a) Jareer potters

Among the Cushitic potters in Garissa district, 4 Jareer potters of Somali origin were interviewed. They live in Bula Punda and Bula Jaribu and Baraka villages. They were all males[26] aged between 60 and 30 years. Two of them were blood brothers, while the other 2 did not claim any blood relationship with any of the potters.

b) Waata Potters

Only one Waata potter of Oromo origin was interviewed. He was about 61 years of age and lives in Mwororo village within the outskirts of Garissa town. Among the Waata, we were not able to find any more potters who were practising or who had practised in the past. This would have been possible if we were able to proceed further south along the Tana River, but due to security concerns and inaccessibility caused by poor road networks, this was not achievable at the time.

[26] Only males make pots among the Somali people

ii) Bantu Potters

a) Coastal potters

Among the Coastal ethnic groups, two Digo potters of about 80 and 50 years of age were interviewed. These are mother and daughter living in Mwambala, Kwale district. The second ethnic group is the Chonyi, where four potters aged between 75 and 48 were interviewed. They live in different villages within Kilifi district and they stated that they were not related in any way. Among the Jomvu ethnic group, 2 potters who live in Kwajomvu were interviewed. They did not claim any form of blood relationship to each other except for ancestral kinship. They were from aged 70 and 52 years.

While the Jomvu potters are still actively involved in pottery making, the Digo and Chonyi potters make pots only for domestic use or only if a customer places an order.

b) Mt. Kenya region potters

Five potters of between ages 50 and 60 years from Katithini village of Tigania, Meru, were interviewed but only one staged the craft in the presence of the other 4. Among the Kamba ethnic group, only one potter of age 50 was interviewed. She lives 11km south of the Meru potters and both ethnic groups have a long history of interactions and frequent the same market (Katithini).

2.2.3. Socio-economic and manufacturing processes data collection strategies

Two different levels of data collection were established in order to answer various questions of the chaîne opératoires. The first level involved creating a set of questions which would help in establishing the socio-economic context of the potter, while the second dealt with the pottery making processes beginning from the collection of clay to the after firing processes. To collect these data, different strategies were employed depending on the level of information that was needed. The techniques included: - direct observation, interviews, and experiments. The tools for data collection included: - questionnaires, still Photograph cameras, and video cameras.

i) Questionnaire

The questionnaire was adopted from Gosselain (1995) and the queries (appendix) included the following:-

a) Sets of questions to help in the understanding of the socio-economic context

These questions were structured to include :- identity of the potter, his/her learning environment (identification of the tutor and the processes of learning), history of the craft, clay fetching practises, status of the craft in the society, distribution of the products and the associated rituals, and prohibitions. Although some of these questions are not directly related to the performance of the craft, they were necessary in order to establish whether the pottery making was passed through kinship, whether the potter had other choices of economic subsistence, and to determine forms of modern distribution networks.

b) Set of questions for technical aspects of the craft

The first set of questions dealt with issues of clay preparation, which involved recording of the specific amounts used by each potter at a given time, his/her style of clay wedging, posture and whether s/he added temper or whether s/he used two different types of clay. The second set of questions included recording of forming techniques. The potter answered questions as to whether s/he was aware of other forming techniques and if s/he used them at all, also his/her opinion of techniques used by other communities. The questions on finishing techniques were mostly on use of tools- types and why they were used on either interior or exterior surfaces only. The third set of questions was to understand if the pottery decorations and styles were also inherited or if the potters could make their own. Also, the questions dealt with information on pottery functions and specific decorations especially as to whether the motifs have names and particular meanings or if they were dictated by market demands. We also sought to know if application of decorations depended on the functions of the pots. The fourth set of questions were specific to the durations and intervals between finishing one section of the pot and beginning the next section (especially for the potters who build their pots in different parts) and the time allowed before firing. The firing questions dealt with the number of pots that are considered enough for firing at any given time, the source and

types of combustibles, the firing locations, the placement of pots and combustibles and the duration of firing. The questions on after firing treatment were meant to establish why the potter found it necessary (if s/he did) to perform after firing treatment, including painting or dying.

ii) Interviews

Interviews were used to complement the questionnaire. In most cases, the interviews involved a follow-up of the listed questions in the questionnaire based on how much information the artisan had volunteered. For example, if the artisan introduced a new aspect which was not in the questionnaire or if clarification was required regarding the pottery making process, further probing through interview was done. This method was used simultaneously with the pottery forming processes.

The other form of interview was quite informal where informers from other communities (outside the case studies) were interviewed. The information that was sought from them was quite basic, it was only meant to give a rough Photograph of what techniques are used in their communities. These included informers from other Cushitic and Bantu ethnic groups. This information was not intended to form any part of the database, but was important in finding out whether (time and resources allowing) it would be worthwhile to carry out research among those communities.

iii) Direct observation

This was the most important part of the exercise which constitutes a data set which was to be used directly on the archaeological materials. Specifically, direct observation involved taking photographs and video recording of various surface features left by each technical action. This strategy also verified the verbal information by the potters regarding the processes, and it helped in noting the details that were not mentioned during the interviews.

iv) Experiments

The experiments involved use of various tools on humid and leather hard clay to see precisely what kind of striations they would leave behind during different stages of clay hygrometry. This data complemented the observations which were derived from the

actual pottery making. The potters were introduced and asked to make a pot using a different technique. For example, potters who use coiling were asked to make a pot by drawing, and vice versa. This was done in order to ascertain their claims on whether or not they could use other pottery making techniques.

2.2.4. Comparative information from other Bantu and Cushitic speakers' pottery making data

After establishing the chaîne opératoires of Cushitic and Bantu speakers in the case studies, more information was needed in order to verify whether the noted chaînes opératoires are specific to these Kenyan groups. This was done through comparing and recording differences and similarities in pottery making of potters from other regions. Comparative Cushitic data was derived from southern Somalia through use of a videotaped 25 minutes DVD on pottery making among the potters of Burr Hybe. The DVD is a 1990 production by Tera Belkina. This tape was found to be very important since I was able to observe all the necessary information as opposed to the limitation of reading only whatthe Author finds necessary to record. Comparative data for Bantu speakers was derived from Lawton (1967), who recorded pottery making processes among Southern Africa communities. Lawton's work was selected due to its extensiveness and it was considered quite authentic because it was done when pottery making was still a major economic activity in Southern Africa. the Author also gives enough basic information, useful in creating an overall Photograph of how the craft was practised at the time of his research. For Central and Western Africa, data was derived from Gosselain (2000), whose work was found to be comprehensive and quite representative since it is based on a large number of potters (350 potters) of different ethnolinguistic groups.

2.3. Ethno-Historical Data

Ethno-historical data was mostly retrieved from documentary sources. (Spear 1981, 1978, 1974, 1977; Schlee 1989; Fedders and Salvadori 1988; Stile 1981; Turton 1975; Lewis 1966; Heine 1978; Kassam and Bashuna 2004; Tablino 1999; Besteman 1996; Declich 2000; Webersik 2004; Mukhtar 1996; Lehman 2003; Helander 1996; Bennet 1967; Ochieng' 1985, 1990; Were et al 1987, Chittick 1968; Pouwels 1984, 2001; Berg

1968; Muriuki 1974, 1978; Salim 1984; Ndeti 1972; Mwaniki 1973; Fadiman 1993, 1973; Imanyara 1992; Townsend 1976; Mc Intosh 1968; Morton 1972; Munro 1967; Nurse 1983a, 1983b; Nurse and Hinnebusch 1993; Nurse and Phillipson 2003; and Kusimba 1999). Any available and accessible historical information pertaining to Bantu and Cushitic speakers' movements and interactions was consulted. Likewise, information regarding the social and economic practises of the potters in each of the groups was studied, beginning from the historical times to present. This was important in order to understand what the craft means to them and their social standing in the society. The information recorded here would form a reference database for the overall interpretation of diachronic and synchronic variability in Tana ware.

2.4. Archaeological Data

2.4.1 Selection of sites

Although there are several sites along the Coast of Kenya which have yielded Tana ware pottery, only Manda and Ungwana sites were selected for this research since they have a good comparative database and the debates concerning Tana ware emanates from them. They have produced large quantities of Tana ware materials, and they belong to similar types of settlements (town ruins). The two sites were also inhabited during the same archaeological periods and they have similar history and interpretations. They also provide data on what may have been the modes of pottery distribution patterns, bearing in mind that archaeological, linguistic and historical sources show that communities of different linguistic affiliations have inhabited areas a long Tana River since the early peopling of Kenya. Ungwana has been explicitly associated with hinterland communities and networks of interactions along the Tana River. Manda is one of the sites on the Coast with the highest proportion of imported ceramics originally interpreted as a foreign settlement by none African colonialists. The site was later reinterpreted largely on the basis of Tana ware, as an indigenous African town with rich trade connections by Horton (1996). Both these sites have been linked to foreign colonialists and as such, Tana ware has become emblematic of the Swahili origins debate. Consequently, Tana ware functions as an African ethnic marker. Thus, it is interesting to see if the Tana ware from the two are actually as similar.

2.4.2. Body of data

Materials that were studied are stored in both Lamu and Fort Jesus museums. The samples were from the early levels of both Manda and Ungwana sites. These levels represent pottery which is widely accepted as having the morphological and decoration attributes of Tana pottery (Chittick 1984; Abungu 1989). Except for sherds which appeared to be from mixed contexts, Period 1 and Period II Tana ware pottery stored in Fort Jesus Museum and Lamu Museums was analyzed. From Manda site 180 bags were sorted from contexts[27] LP, MH, AW, PW, GW, ES, DP, UA, RW, HW and MAI of Manda site for analysis. The contexts represent different areas of the site (Figure 5.1). The sorting involved going through all the bags and pulling out all sherds from the stated contexts. From Ungwana site, pottery excavated by Abungu (1989) was analyzed. This was all the early pottery of Period I and II coming from Trench 3, levels 9-11, and Trench 4, levels 21-24. This procedure ensured collection of a comprehensive sample of those contexts and levels, and since everything in each context (in the case of Manda) and each level (in the case Ungwana) should be contemporary, the sample was deemed to be representative.

As the main aim of this research is technological aspect of Tana ware, all sherds belonging to these periods, were important regardless of shape, colour, portion, size or stylistic attributes.

Unfortunately, the bases were not studied. This was for two reasons. Firstly, during the excavations of Manda site, potsherds which did not have attributes which could be used for setting up a chronology (decorations and forms), were discarded (Chittick 1984, p. 107). Secondly, within the Tana pottery, bases are rounded, hence, they were indistinguishable from the body sherds (Chittick 1984, 107 footnote; Abungu 1989). Therefore, it follows that during the excavations of Manda site, bases were discarded together with sherds which did not have identifiable characteristics. This was not so with

[27] The contexts are described in Chapter 5 part 1

the collections from Ungwana, but unfortunately, the Ungwana material is very fragmentary, which makes it difficult to recognize the bases. In both sites, 1475 potsherds were analyzed. Some of these sherds were badly eroded and were only useful in determining the forming and fashioning methods and as well as the petrographic groups.

2.4.3 Identification of chaînes opératoires

In order to identify the chaîne opératoire of Tana ware, both pottery assemblage from Manda and Ungwana were classified according to the method proposed by Roux (2011). This involves initial examination of surface features on both external and external surfaces of every sherd with naked eye for a quick classification. She explains that surface features may reveal the fashioning, finishing and firing techniques bearing in mind that each vessel may have undergone distinct making techniques. Also surface features describe the sherds' topography, the surfaces and the fractures. According to Roux (ibid) this initial classification makes it possible to group them according to traditions which may be of variable sociological nature and include several production units which may be revealed by further detailed examination of pastes. Study of pastes was done using a binocular microscope and petrographic microscope as necessary enabling identification of techno-petrographic groups. Finally, Roux (2011) points out that techno-stylistic attributes are obtained by study of forms and decoration within each unit.

i) Clay pastes

Clay attributes were studied in order to identify the clay recipe and its' degree of preparation. The degree of clay preparation corresponding to the quality of wedging was recorded as 'well' 'medium' or 'poorly' prepared. For each sherd, the type and size of petrographic inclusions were observed and recorded. The identified inclusion types included fine grit sand, grit sand, grit rocky, mica, shell and coral. Sand grains with sizes ranging between 0.07mm and 1mm were considered fine sandy, while sandy grains ranging between 1mm and 2mm were considered coarse sand. Grit rocky group was assigned to any sand grains above 2mm. Mica, coral and shell were easily distinguishable from sand grains. Non-visible on the other hand means inclusions were

not visible to the naked eye or the hand lens that was used. However, with the use of binocular microscope, non-visible group appears to contain fine grit sand. Fine grit sand, grit sand and grit rocky inclusions are usually mixed up such that one sample may contain more than one of the grain sizes (Figure 5.5). Therefore, due to the mixed nature of the inclusions, although they were recorded separately, it was found necessary to lump the sandy groups into one unit of 'coarse sand' inclusions and the 'non-visible' as 'fine sand' since it forms a distinctive petrographic group.

ii) Forming techniques

All the sherds regardless of whether they were rims, bodies or bases, were examined by looking at both exterior and interior surfaces to identify any surface features that were likely to indicate the forming techniques and the potter's gestures. Interpretation of surface features was done by reference to our ethnographic field research, and published reference work (Shepard 1956; Rye 1981; Orton *et. al.*1993; Rice 2005). The binocular microscope confirmed the arrangement and orientation of pores which result from different techniques of stretching clay (Pierret 1995)

iii) Finishing techniques

After recording of the forming techniques, sherds were examined for finishing techniques based on the identifiable surface features. They were inspected for various striations, which may have been left by finishing tools; such as wood, shell, wet cloth or wet fingers when the clay was in a humid state; or facets from smoothing tools when the clay was in a leather hard state. The examination was done on both the exterior and interior surfaces. Shepard (1956), Rye (1981), and the ethnographic reference database, which was created earlier for this research, informed this exercise. Features from various finishing techniques were recorded from each sherds. Scraping striations were distinguished as either from wood or shell. Wood and shell striations present distinctive features. Wood striations are widely spaced and they lack dentations or jaggedness. They also seem to appear broken as compared to shell striations which are mostly continuous and curved.

iv) Firing techniques

All the sherds were examined for indication of the firing atmosphere. They were recorded as either reduced or oxidized or irregular. This was done by visually examining the colour of the external surfaces of each potsherd. The sherd was recorded as reduced if it had a dark color and oxidized if it had a red color.

v) Stylistic and Morphological Classification

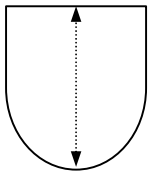
a) Decorations

Decorations were recorded according to the motif classification of Tana pottery from Shanga by Horton (1996). Application techniques, motifs and themes were identified and recorded. Further, the decorations were recorded according to whether they were fine or thick, careless or neat. This gave an indication of the clay hygrometry at the time of execution and the kind of tool that was used. This precision was found necessary since it would help in making a better classification of the assemblage through use of decorations and it would be useful for making comparisons with ethnographic Cushitic and Bantu pottery with more accuracy.

b) Morphology

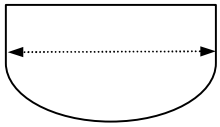
Morphological attributes were recorded; these included, rim diameter, and percentage measurements in order to identify the pot sizes, whilst mouth, lip and body shapes were identified through visual observations. Broadly, they are categorized as bowls and jars, which are further subcategorized as open or closed (Figure 2.1). All the vessels whose depth is greater or equal to the maximum diameter are considered jars and those vessels whose maximum diameter is greater than depth are considered bowls. Bowls and jars are classified as open if the orifice is greater or equal to the maximum diameter or closed if the orifice is less than the maximum diameter of the vessel. While considering the vessel sizes rim diameters were taken using a rim diameter chart. The diameters were divided in 4 groups with a range difference of 5cms between the lowest and the highest measurements in each group.

All vessels whose depth is greater than its maximum diameter



Jar

All vessels whose maximum diameter is greater than its depth



Bowl

Figure 2.1: Description of bowls and jars

The observed body characteristics or shapes were categorized as vessels with carination, vessels with globular shapes, constricted vessels and vessels which are both globular and constricted (Figure 2.2).

2.5. Analytical Tools

Analysis was done at both macroscopic and microscopic levels. Macroscopic level involved use of the naked eye for surface features, firing atmosphere, typological attributes and initial study of forming techniques and petrographic inclusions. Microscopic analysis involved study of the micro fabrics for further identification of the forming techniques and petrographic inclusions.

a) Constricted/globular vessels
These are vessels with a spherical shape but are slightly constricted (short neck)

b) Constricted Vessels
These are 'S' shaped vessels with a long neck

c) Vessels with carination
These are vessels with sharp angled shoulders and mostly short necked

d) Globular vessels
These are vessels with a spherical shape and mostly without a neck

Figure 2.2: Description of vessel shapes (Drawings by the Author)

For microscopic identification of forming techniques, the orientation of the voids in the clay were studied by cutting a vertical section of the sherd and examining it under X10 magnification. The orientation and arrangement of the voids gave an indication of the direction of the pressure applied on the clay during the forming process. This in return suggested whether the clay was drawn or coiled (Pierret 1995; Rye 1981). The sherds were then subjected to further analysis through a binocular microscope. This was instrumental in confirming inclusion sizes, distributions and densities as well as quality of wedging.

2. 6. Classification Procedure

After collection of data, all the information was collated in order to establish the range of chaînes opératoires according to the classification procedure by Roux (2011). Having identified (where possible) the chaîne opératoire for each sherd the next step was to group

them according to the characteristics that they shared. First level of analysis involved grouping together all the sherds which were made according to the same forming technique, and which shared the same finishing techniques both on the exterior and interior surfaces. These groupings were necessary in order to identify the range of technical entities.

After identification of technical entities, the second level involved grouping together all the potsherds which shared forming techniques, finishing techniques and petrographic inclusions. For example, sherds that were formed in a particular way and were finished on the exterior and interior surfaces in a similar way and had fine sand, were categorized as one techno-petrographic group, sherds with the same forming and finishing techniques and included coarse sand formed another techno-petrographic group and so on. Therefore, one techno-petrographic group meant one chaîne opératoire. This level of classification aimed to establish the range of techno-petrographic groups. Then range of vessels made according to each chaîne opératoire was examined in order to establish techno-morphological groups. This enabled me to establish whether the observed variability was functional or cultural.

CHAPTER THREE

ETHNOGRAPHIC POTTERY MAKING CHAÎNE OPÉRATOIRE OF CUSHITIC AND BANTU SPEAKERS

In this Chapter, pottery making procedures and the socio- economic context of the Cushitic and Bantu linguistic groups living in Garissa, Kenyan coast and Mt. Kenya region (Figure 3.1) are considered. After which, comparison of inter-ethnic pottery making technology is made followed by comparisons between the two main linguistic groups. The information in this Chapter was used as reference data for archaeological pottery. This is followed by a brief presentation of supplementary pottery making data from a wider context from other regions in Africa- Somalia, West, Central and Southern Africa.

3.1. Cushitic Speakers

Ethnographic pottery-making technology was observed and recorded from two ethnic groups of Cushitic speakers originating in Garissa district. These are the Jareer from the Somali Cushitic speakers and the Waata from the Orma Cushitic speakers. Garissa district is situated in the North Eastern province of Kenya (3.1) which is about 380 kilometres north-east of Nairobi. The district is located between Tana River district to the west and Ijara district to the south at coordinates S $0^0$272 and E. $39^0$393. It is divided into twelve administrative divisions: Balambala, Benane, Bura, Central, Dadaab, Danyere, Jarajila, Liboi, Modogashe, Sankuri and Shant Abaq with the headquarters in Garissa town.

3.1.1. Socio-economic context of the Jareer potters

The Jareer potters live in villages within Garissa town, among pastoral Somali clans, whose major economic activity is rearing of domestic animals. For the Jareer, pottery making is a major economic activity since they do not own domestic animals and the area is too dry to practise meaningful farming activities.

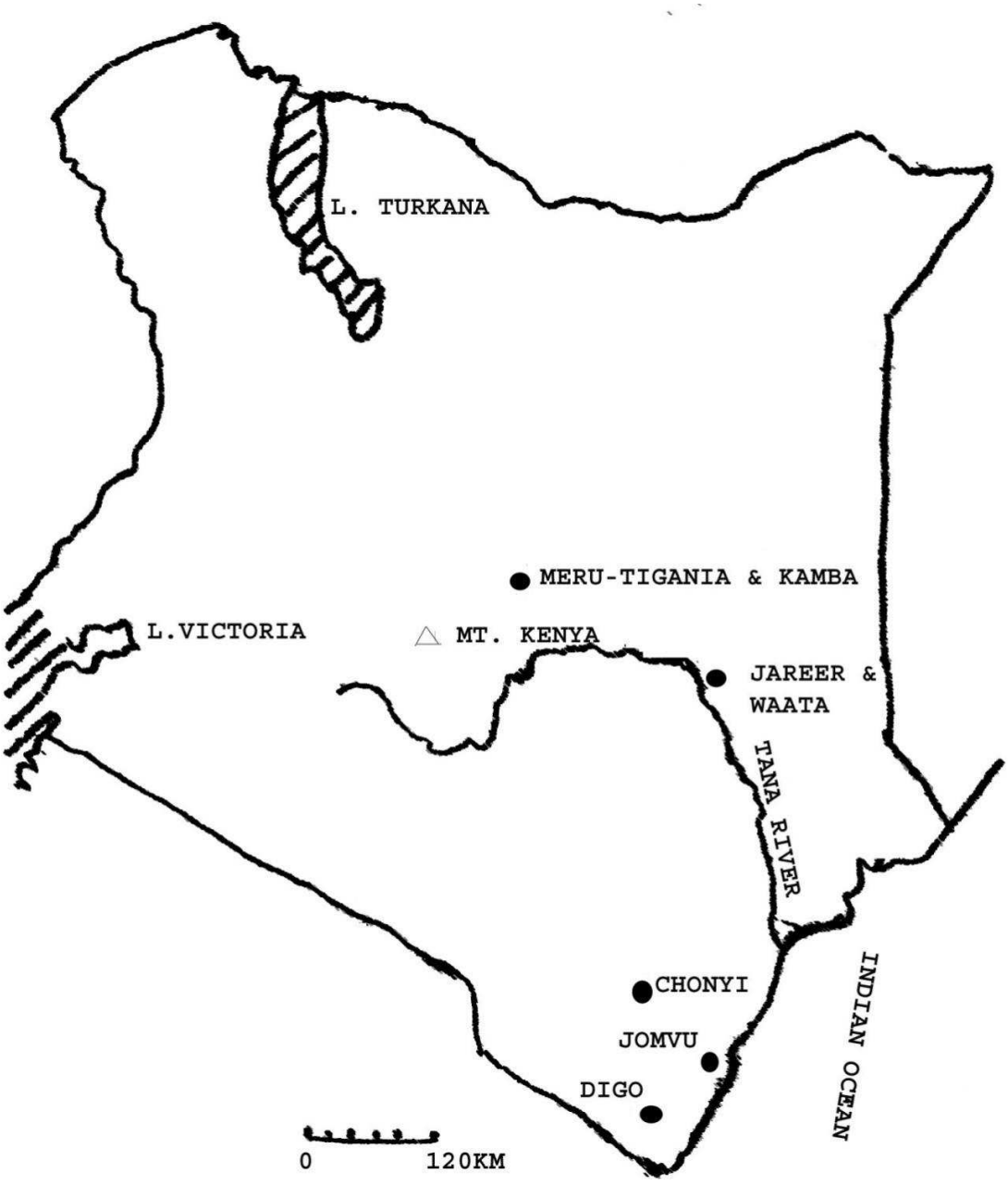


Figure 3.1: Location of the interviewed potters (Drawing by the Author)

Besides, they are refugees or descendants of refugees who first migrated to Mandera (Somali/Kenya border) and later to Garissa, where they have lived for the last 20 to 30 years, and they do not own land. However, some own a minimum number of goats and sheep and farm on a very small scale on the flood plains of the Tana River. Learning

craft of potting is by choice and members of the Jareer families can choose to be or not to be potters. As seen in the history section of Chapter 1, potting is regarded as a low status craft and, as such the pastoral Somali clans in Garissa do not pot and they have low regard for the Jareer. Nevertheless, the two live in an economic symbiosis as the non-potting Somalis buy pots from the Jareer and the Jareer buy animal products from them. While Jareer men engage in clay sourcing and pottery making, women do domestic chores, help with gathering of combustibles for pottery firing and assist in firing processes. Also, women help with sales and distribution of finished vessels. All the interviewed potters within Garissa were males of between ages 30 and 60. Two were brothers living a kilometre apart while the others did not claim any relationship. They assert that potting is a very specialized job, which can only be practised by men. Some of the reasons given why women cannot make pots were that they do not have the ability to sit the way men do when potting or that they are not trainable. They also pointed out that women do not need to acquire the skills of pottery making since the man is the sole breadwinner and in the unfortunate event of his death, the woman would remarry.

All the potters except one maintain that they were taught the craft by their kinsmen, namely, the father. They assert that their grandfathers taught their fathers and that the craft has been practised through generations. However, one of the potters asserts that he learnt from a potter who used to practise 11km away from his home. He was curious about the craft and this made him want to learn, which he did by visiting his tutor every day after school. The potters started to learn the craft at around age 7, when they watched and imitated their tutors. They practised by playing with clay and tried to reproduce what their tutors were making. During these times, they got instructions on posture, how to fix the coils and shape the pots. Meanwhile, they assisted their tutors with fetching of water, clay collection, kneading and firing, which gave them firsthand experience into the practises. On average, it took them up to age 15 or 18 to sell their first pots after rigorously engaging in all the technical processes, and first producing small vessels before being able to make the large ones.

The pots made by the Jareer who live within Garissa town are sold in Garissa market and they are also transported for sale to Dadaab Refugee Camp by public means. Customers often place orders and collect their products from the potter's homestead. The

distribution of pots by Jareer is limited to Garissa town and Dadaab Refugee Camps due to the poor road networks which make it difficult for motor vehicle transportation. Besides, there are potters who are able to satisfy pottery needs within the other divisions of Garissa. As such, customers do not need to travel long distances only to purchase pots in Garissa district headquarters or elsewhere.

3.1.2 Socio-economic context of Waata potter

The Waata potter (Mzee Ndala) lives in Bura division of Garissa district. He is about 61 years of age and he lives in Mwororo village, in the outskirts of Garissa town where he owns a farm on the banks of the Tana River. At the time preceding the interview the river had burst its banks and he had been forced to move his family away from the farm. However, during the interview we were able to observe him from his farm since the water had calmed down and people were going back to their homes. He lives among members of his own ethnic group and he is a highly-respected potter. Among the Orma Cushitic speakers, pottery making is viewed as a low class occupation, and the Pastoral Orma do not practise it although they live in social and economic symbiosis with the pottery-making societies, as noted in Chapter 1.

Mzee Ndala, however, stopped practising the craft 6 years before the interview date. He stated that the economic returns of potting were quite low and therefore it was not a viable occupation. This he blamed on the Jareer potters whom he accused of making low quality pots and selling them at throwaway prices. Before he stopped engaging in pottery making, he would make an average of ten pots during the night and work on the farm or do other activities during the day. He sold his pots in Garissa market, in competition with the Jareer potters. He also, made pots on order, which the customers collected from his home.

Today, just like the other Waata people, he engages in small-scale farming, small-scale rearing of animals, woodcraft such as the construction of canoes; he also works as an unskilled casual labourer on construction sites. He also stated that he is a fine chef. We persuaded him to stage the craft since he was the only known (ex) potter in Mwororo village and its neighbourhood.

He was able to become a fine potter by watching his mother at work and imitating all the steps as well as by trying to reproduce whatever she was making. Besides, he assisted

with non-technical activities like fetching of water, firewood and firing. Similarly, as he grew older, he assisted with crafting of pottery-making tools like the turntable and paddles, and started to make little pots for sale while still a teenager. He learnt pottery making out of personal interest although none of the other siblings took any interest in the craft, therefore he is the only one that inherited his mother's skills. From his account, the origin of pottery making in his family is mythical. He claimed that his mother had been taught pottery-making by *mashetani*, demons from the forest. As a young girl, *mashetani* used to abduct her and take her into the forest for lessons. From them, she learnt both the pottery making procedures and the rules that govern it[28]. Besides being a potter, she was also a medicine woman and he inherited both occupations from her. Unfortunately, he pointed out that his late mother would not disclose any more information about her tutors. Ndala pointed out that both women and men in his community could make pots as it was a question of personal choice.

3.1.3 Links with the Metaphysical World

Ethnographic Pottery-making among the Cushitic speakers is associated with supernatural forces. The success of the craft is dependent upon the good mood of the beings in the immaterial world. These spirits, or devils/demons/ancestors, as different artisans would refer to them, must be appeased during different stages of the chaîne opératoire (Table 3.1). Among the Jareer, the Eleye clan elders perform the initial ceremonies. They sacrifice a goat and perform special prayers to the spirits on behalf of the artisan. One of the Jareer potters pointed out that before he went for these prayers he was not able to make more than two pots in a day but now he makes more than ten.

[28] As opposed to other Cushitic speakers, the Waata potter was taught by his mother whose tutors are not evident. It is most probable that this story is meant to obscure the true tutors who might have been the Somali neighbours after the Waata abandoned hunting.

Table 3.1: Cushitic pottery making forbidden acts

Forbidden acts	Consequences	Remedy
Stepping on the clay in the potting area, *awar*	This would cause the clay not to produce pots such that they break during firing.	The artisan must gather other artisans and elders, slaughter a goat and pour the blood on the clay source to appease the offended spirits.
Potting while unclean. No one is allowed to do potting if he has had intercourse and has not bathed.	This would provoke the wrath of the spirits and cause pots to break.	Goat sacrifice
Looking inside the pot[29] During the forming of the pot, apart from the potter no other individual is allowed to look inside the pot until it is completed.	Otherwise it would crack during this forming stage.	Potter did not explain
Potting when there is death in the family	Spirits will not allow the potter to pot. Pots will keep collapsing as a way of communication with him.	One must stop until after one month
ii) Other spiritually-related acts Selling problems Breaking pots	If the pots take a long time before selling, then the artisan realizes that the spirits are not happy. If the pots keep breaking during the forming process or firing, it is a sign of unhappy spirits	He takes one pot by the rim and smashes it as a form of sacrifice. The potter must take a chicken and sacrifice it at the clay source.

A narrative is given of how the pots of the pioneer artisans kept breaking and they had to sacrifice a girl by the name Rahma. The soil from which her blood poured was always sprinkled on the pots during firing and her name chanted; this is the only way the firing

[29] This prohibition is unique to the Waata

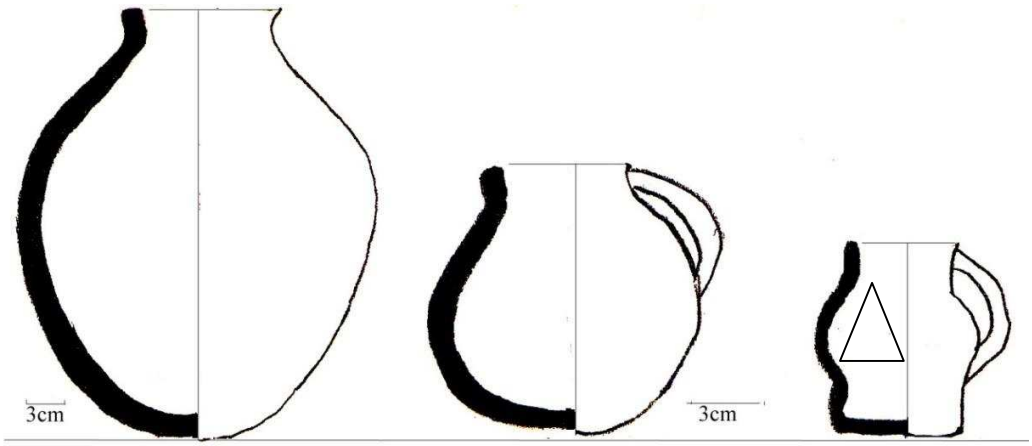
could to succeed. Some of the other necessary rules, which are linked to the supernatural and must be observed if the potter expects to have a successful operation are summarized on Table 3.1

3.1.4. Pottery forms

The Jareer and Waata potters make a variety of pottery with different forms and sizes depending on the function. The commonly-made pots are water pots, cooking pots and incense burners (Figure 3.2).

i) Water pots

The water pots have a volume of approximately 20 litres. They are closed and globular in shape with slightly thickened rims which are flattened and folded outwards. They have narrow mouths and short necks. The maximum diameter of the water pot is in the middle, while the bases which are rounded and pointed have the minimum diameter (Figure 3.2). The pots are used for both storage and transportation of water from water sources.



Water pot b) Cooking pot c) Incense burner

Figure 3.2: Pottery forms of Jareer and Waata (Drawings by the Author)

ii) Cooking pots

Cooking pots on the other hand have a volume of approximately 5 litres. They are short- necked globular vessels with slightly thickened rims and relatively wide mouths. They have round bases with the maximum diameter on the lower body. They have two handles attached on the opposite sides of the body between the shoulder and the upper part of the rim. These pots are used for cooking meat or vegetable stew (Figure 3.2).

iii) Incense burners

The third commonly-used vessel is the incense burner (Figure 3.2) which has a volume of approximately 250 millilitres. On average the incense burners are about 20 centimetres tall and 10 centimetres in diameter. They are usually open and contain an average of three windows which are located on the body. They have ring bases and two handles which are attached on the opposing sides of the body between the shoulder and the upper part of the rim. Somali women use these for perfuming their bodies, clothes and houses.

Other traditional pots include ovens for baking bread, flask-shaped containers for serving beverages, and a special pot for performing prayers. Due to the availability of cheap factory-made versions, the clay ovens and thermoses have lost their appeal. Also, due to low market demand for the prayer pots, production is only on demand. Therefore at the time of this research we were not able to see them.

3.1.5. Pottery-making chaînes opératoires among the Cushitic speakers

In the following account pottery making of the Jareer and Waata is considered together since only one Waata potter was interviewed and his pottery-making techniques seem to be a variant of the Jareers' and his tutor's learning environment seems to be mythical. Nonetheless, most of the noted observations are identical and therefore only the differing aspects of Waata pottery-making practises will be highlighted and illustrated in the description.

i) Clay acquisition

The clay source that was in use by the Jareer potters at the time of the study is an anthill, which is about 2 kilometres away from the potting areas, within close proximity

of Tana River. It was a communal source, for which the owner of the land did not charge an access fee (Figure 3.3). The potters stated that there were other available anthills but they could not use them because they were required to pay an access fee. They discover clay sources by searching through uncultivated lands, paying particular attention to clay that contains sand inclusions since it is less sticky according to them. Once they have found a potential source, they test its suitability by making a pot and firing it; if it resists the heat then the clay is considered suitable for pottery making. They extract the clay in the evenings using hoes and spades and transport it by donkey carts to the working areas where they prepare it for the following day's use. The Waata potter on the other hand, extracts his clay from an anthill within his compound (Figure 3.3). He asserted that he was the sole owner and no one else was allowed to fetch from this source without his permission. In praise of his source, he pointed out that businessmen came from long distances including Nairobi to purchase his clay. He was not worried that the source would get exhausted because it replenishes itself. All he needed to do was to perform a ritual to the *mashetani*, demons who provide the source to him by placing one prophylactic leaf on the clay source and one on the extracted clay before transporting it to the potting area.

a) Clay extraction by Waata b) Communal clay extraction by Jareer

Figure 3.3: Clay acquisition (Photographs by the Author)

ii) Clay preparation

Upon reaching the potting areas the Jareer potters soak 90% of the clay overnight in 20 litre containers. They spread the remaining 10% on a mat and beat it using wooden

sticks, after which it is sifted (The Waata potter does not sift his clay; he removes the impurities during the wedging). The soaked clay is then divided into manageable proportions of about 10-15 cm in diameter. To wedge these proportions, the potter squats (Figure 3.4) and presses on the moist clay with both hands while turning and rolling it on a synthetic mat. The fine sifted clay is occasionally sprinkled on the dough of clay as the potter continues to wedge in order to reduce the sogginess of the soaked clay and improve its plasticity. Once it is ready, he moves it to the shade where he performs his craft.

a) Clay sifting by Jareer

b) Clay wedging by Waata

c) Clay wedging by Jareer

The rags on which the clay is wedged by both Jareer and Waata are old pieces of polyester sacks.

Figure 3.4: Preparation of clay (Photographs by the Author)

Potter's tools

The main pottery-forming tools used by the Jareer and Waata potters are, wooden circular turntables, *Kathathi ndokea**[30] shells, *ongol/kashe ndokea**, wooden and metal scrapers, *far /alafaki ndokea** and paddles, *titibule/ miko ndokea**, and mats for placing clay *awelwel*. The wooden turntables are either modified commercial boards that are used for making pastries or traditional ones that the artisans make for themselves. The traditional turntables are made from local trees by the artisans using machetes while the pastry boards are acquired from the market and modified for the purpose (Figure 3.5). The modification is usually by drilling a socket in the middle, which acts as the pivot point. The turntables are usually in varied dimensions, which correspond to the size of the pots. The sizes range from a diameter of 17 to about 25 centimetres. The potter mounts the turntable on a wooden pivot which is normally pegged on the ground; this keeps it in an elevated position and helps it to rotate freely. The size of the socket and pivot head is standard for each potter since turntables of various sizes are alternatively mounted on the same pivot according to the preconceived size of the pot to be made. However, the average diameter of the socket and upper section of the pivot is about 3 centimetres. The lower section of the pivot is usually pointed since it must be pegged on the ground. On average, a potter's working areas contains 10 to 20 turntables. They are able to use the same turntable for more than 10 years. The wooden scrapers and paddles are made locally although the paddles can also be acquired from the market. The market paddles are made for preparing a local staple dish of Kenyans known as ugali. The metal scrapers on the other hand are discarded metal cutting blades which the potters adapt for the work. The proximal end of the paddles is usually between 6 and 15 centimetres wide and usually about 30 to 40 centimetres long.

The wooden and metal scrapers are only about 1.5 centimetres wide and 15 centimetres long (Figure 3.5). One or two pieces of paddles and scrapers are usually to be found in the potter's working shed.

[30] The local names are in Jareer/Waata language. * Indicates Waata language

Figure 3.5: Somali potters'working tools (Photographs by the Author)

Both Jareer and Waata potters form their pots in two parts; starting from the maximum diameter of the body moving towards the rim, and then they form the lower body and the base. They form their pots while seated.

iii) Forming the body and the rim

To describe the body and rim forming by both Jareer and Waata, I use an example of a pot of approximately 25 centimetres maximum diameter (Figure 3.6), which requires approximately six coils of 4 to 6 centimetres in diameter to form the body up to the shoulder, and two coils to form the rim. The length of the coil is usually about 30 centimetres on average, but it reduces as the pot starts to close in. The potter approximates the length of the coils such that he makes a coil which is long enough to cover the circumference of the pot. However, on some occasions, the coil is shorter but it is rarely longer than the required amount and when this happens, he cuts it when he reaches the beginning point. The coils are fixed diagonally hence forming a bevelled joint at the end of the circle. To make the pot, first the potter sprinkles dry clay on the wooden turntable before placing the first coil. The placing and crushing of the coil on the interior, are done simultaneously in an anticlockwise direction (Figure 3.6) using pressure

from the index finger in order to stretch the clay horizontally. During the operation, the potter uses the left hand to support and to exert a little opposing pressure on the exterior wall, while the fingers of the right hand fix the coil and exert pressure on the interior wall in order to bulge it outwards. All the while, he rotates the turntable using both the big and the second toes of his right foot. He applies the next two coils on the interior wall surface using horizontal pressure from the index finger to join, thin and shape the vessel. It is only after joining, thinning and shaping with the finger that he uses a wooden or metal scraper to join and thin the exterior wall using vertical movements. To regularize the walls, he removes the over layers which were left from joining the coils, using a shell and horizontal pressure on the interior walls and applies vertical pressure on the exterior walls with a wooden or metal scraper. This same process is repeated for the next three coils to reach the shoulder of the pot. At this point, the Waata potter paddles the area around the shoulder to thin and shape the pot and to curve it inwards to form the shoulder and the neck. He then places the first rim coil on the exterior wall (Figure 3.6), joins and thins it on the exterior with a wooden scraper using vertical movements. The second rim coil which is also the last is added to the rim on the interior surface, which he joins and thins with his fingers and uses the shell (Figure 3.6) to scrape off the over laying clay. He then shapes the rim using continuous movement with wet tips of his thumb, index and middle fingers. The Jareer potter, on the other hand, does not use a paddle until he is through with placing and thinning the coils. Instead, he continues to add coils, thinning and shaping the vessel until the rim is completely formed, after which he smoothes the inside walls with a shell and the exterior walls with a wooden scraper. Then he forms the upper part of the rim the same way as the Waata potter. They both use a paddle at this point to even out the whole pot, and then a wooden scraper to smooth the upper exterior wall before finally smoothing with wet hands. During the rim smoothing stage, the potters rotate the turntable using the left hand while the right hand does the smoothing. The hand is used instead of the toes since the pot at this point is bigger and heavier and, since the rim is smoothed using continuous movement, better control of the rotating energy is achievable this way. After finishing the body and rim forming processes, the potter adds two handles on the cooking pots by making and curving two coils of about 15 centimetres, which he adheres on the direct opposite exterior walls. He then moves the

pot while still on the turntable to another corner of the working shed in order to allow time for drying before making the base. As the pot dries, he starts working on other pots using the same procedure and techniques. After two or so hours of drying, the pot is considered strong enough to withstand the base making processes. However, he does not necessarily make the base immediately after drying. Sometimes he prefers to make about ten bodies and rims of vessels before he can start forming the bases.

iv) Making of the base

The base is formed after the upper body and rim are leather hard. At this point, a new wooden wheel is placed on the rim of the pot and the potter turns it upside down together with the previous turntable (Figure 3.7). This way, the rim rests on the new turntable and the potter removes the previous one from the bottom (which is now up). The Waata potter, first paddles the body and especially the extreme end (widest diameter) which starts to curve in as he shapes it to form the base. Then he adds a coil or two on the exterior wall surface which he joins with the finger and thins with a scraper then paddles it until the entire base closes up in a tuft which he flattens, with the paddle Then he rubs the whole base and lower body with wet fingers and palm. The Jareer potters, on the other hand, form the base by adding coils. They add the coils on the interior wall surface while applying horizontal pressure with the index finger of the left hand and supporting the vessel with the right hand. The last coil is added on the exterior wall and thinned until the base closes. Upon completion of initial forming of the base with finger and tool pressure, the potter uses paddle percussions for the whole body to even out the vessel surfaces before firing.

v) Making of the incense burner

The incense burner[31] is made differently from the other pots due to its function and size. The potter sprinkles dry clay on a small wooden turntable and places a lump of clay on it. To rotate the turntable due to its small size (about fifteen centimetres in diameter), he uses his left hand, to turn it in a clockwise direction, while the right hand

[31] Only incense burners are made in this way. All the other pots are made by coiling from the bottom to the end and the base is usually the last to be made.

Figure 3.6: Making of the upper body by Cushitic potters (Photographs by the Author)

forms the burner. He uses the thumb of his right hand to press the middle in order to make a hollow, which he widens using the other fingers in a horizontal movement.

He then makes a thin plate of clay (the same width as the hollow) and uses it to close the mouth of the hollow. To make the rest of the vessel, he places thin coils of clay while crushing them internally. He joins and thins the coils with his fingers applying horizontal pressure on the exterior. Upon placement of two coils, he uses a wooden scraper to join and thin the exterior wall after which he forms the rim. The coil that forms the rim is placed on the exterior wall surface and scraped vertically using a wooden scraper. Using wet fingers of his right hand, he smoothes the exterior of the neck and the rim and uses a metal scraper to make vertical grooves on the body. Using a knife he cuts approximately three triangular windows on the body of the finished burner before cutting the edges of the base in order to detach it from the turntable while still in humid state.

vi) Finishing

The Jareer and Waata finish their pots either by smoothing the exterior with wet hands or a wooden scraper. They dip their hands in water and lightly smooth the exterior wall of the base and of the shoulder in a circular motion. Alternatively, they wet the scrapers and use the blunt edge to finish the exterior walls using vertical movements. After completing the forming processes, unlike on the exterior wall, no finishing is done on the interior wall.

vii) Decorations

The Jareer and Waata decorate their vessels when they are leather hard by incising and, by impressing when they are still in a humid state. The incisions are made using a sharp pointed tool, while fingers or blunt tools make the impressions. The decorations do not depend on the type of vessels as any vessel can be decorated using any technique and motif. The only exceptions are incense burners whose exterior walls are always impressed with a toothed tool (saw) to produce vertical jagged grooves.

The potters use a combination of single line incisions, crosshatches, punctates and rocker stamps to produce various designs (Figure 3.8).

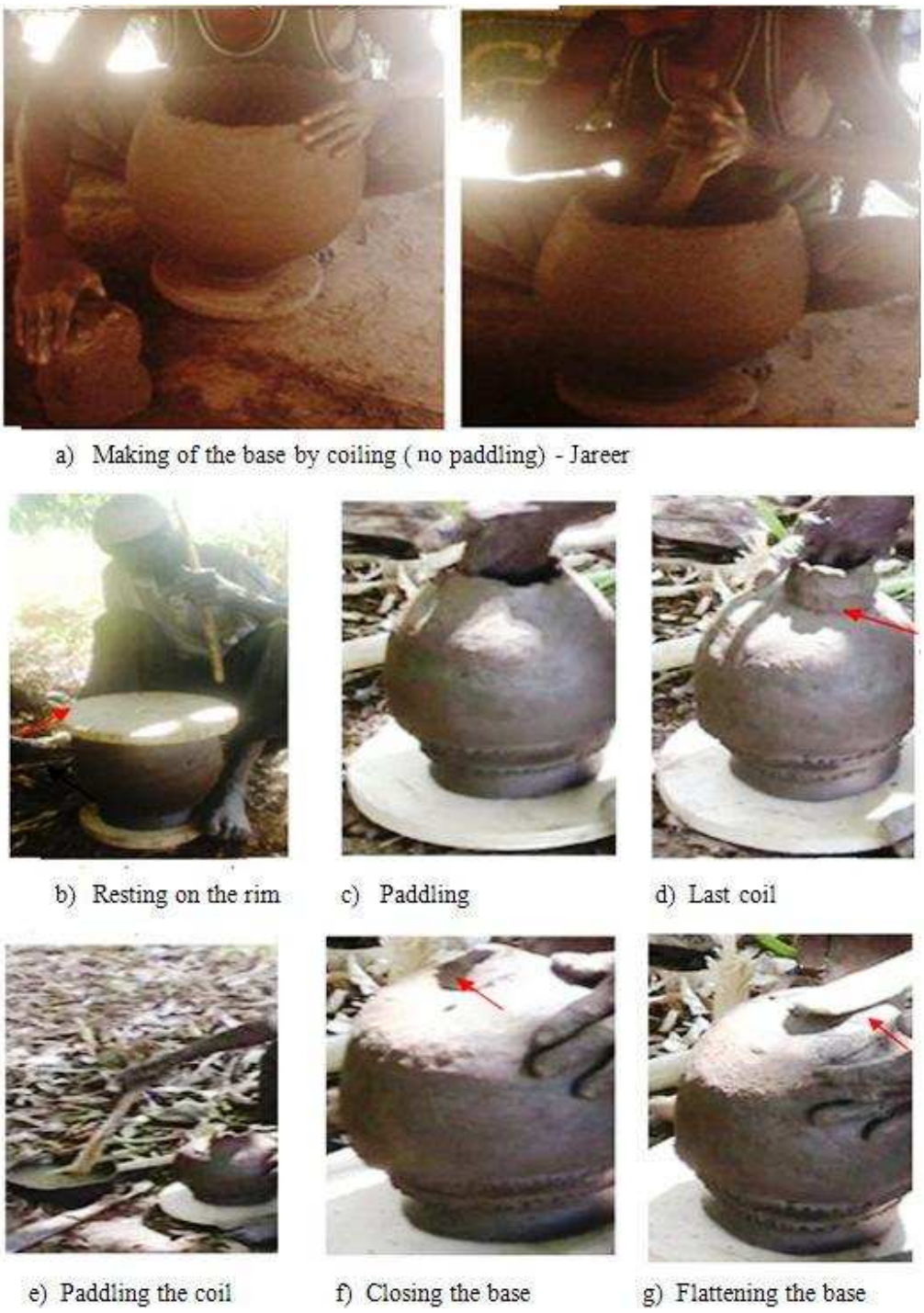


Figure 3.7: Making of the base by Somali potters (Photographs by the Author)

These may appear in different motifs either as a combination of crosshatches with single line incisions, as a combination of all on one pot or a selection of any number of motifs[32]. Although the decorations are mostly concentrated on the upper part, some of the lines of vertical incisions extend to the lower body of the pot. Crosshatching is one of the principal decoration motifs. The crosshatching may appear as a continuous motif between the rim and the shoulder bordered by upper and lower single lines of incisions. They may also appear as triangular shapes or panels around the rim bordered by horizontal single lines of incision.

The crosshatched triangles may also appear alternatively with bands of line incisions. The sizes of crosshatches vary depending on the potter. In addition, some decorations are simple crosses running all around the rim. Punctates appear on a ridge applied below the crosshatches and incisions. A ridge is added in some cases as a form of decoration and rock stamped or impressed with the tip of a finger while still humid (Figure 3.9). In addition, the Waata potter pointed out that he would apply decorations of his own choice. For example we watched him draw flowers on some of his cooking pots.

viii) Firing

The potters dry their pots in the sun for a day before firing. Just like all the other pottery-making processes, each potter fires his pots individually in his compound and in areas where the compound is shared, he finds space in-between the houses but mostly near his own house (Figure 3.10). The pots to be fired in one batch depend on the size and the number that is ready. As many as 100 incense burners can be fired at the same time, and as few as four water pots are considered enough for firing. The potters are helped by their wives and children to perform this task.

[32] The potters claim that the motifs do not mean anything although a film by Tara Belkin (1990) explains some of the meanings of the marks.

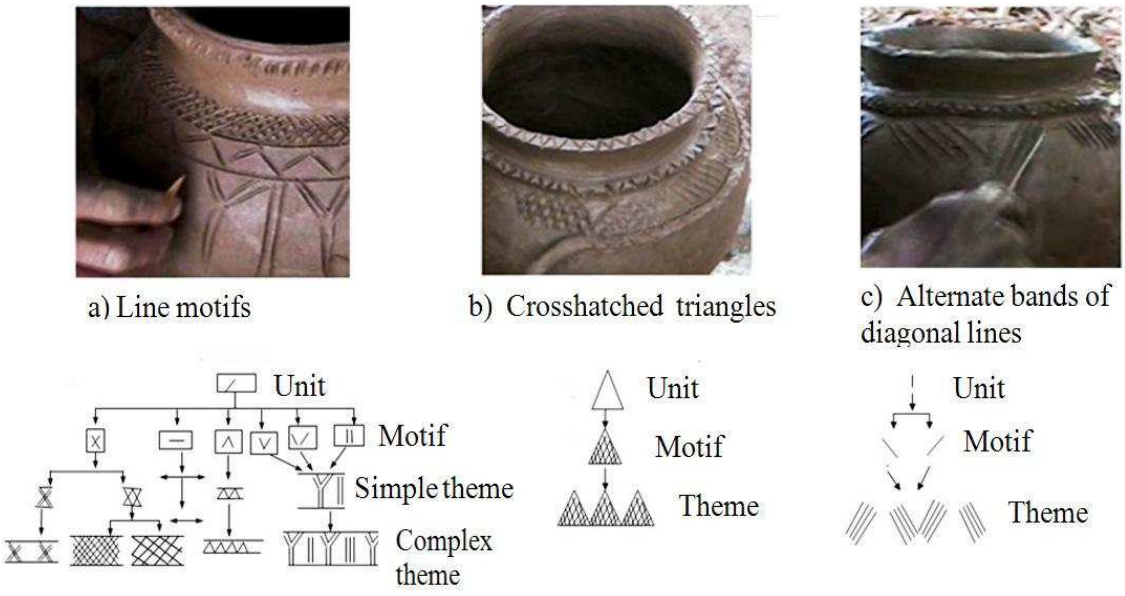


Figure 3.8: Cushitic decorations- incised motifs (by the Author)

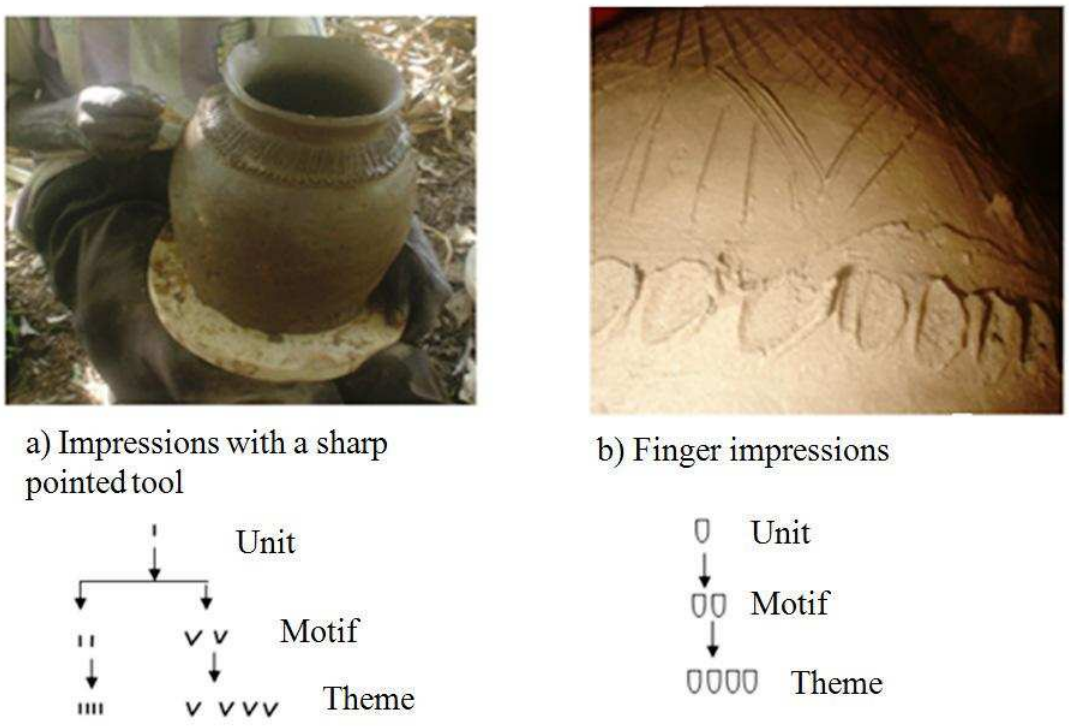


Figure 3.9: Cushitc speakers' impressed motifs (by the Author)

They gather all the vessels and place them on a pre-prepared layer of firewood in an upside-down position in a circular formation. After the first layer of vessels has been placed, more pots are superimposed still facing downwards leaving gaps in between the vessels to allow easy circulation of oxygen. In-between and above the pots the potters place more pieces of firewood, which do not necessarily cover all the surfaces of the pots but they add straw which covers the entire surfaces. The firewood is mostly waste from old households like broken stools and timber which is collected by the women from the waste disposals around the town. After lighting the fire, he covers the flames with iron sheets in order to contain the fire and to keep it going for a longer period. The firing lasts between 30 minutes and one hour when the fuel is completely exhausted.

ix) Post-firing treatment

Surface treatment is the last stage of this chaîne opératoire. As soon as the firing is complete, the vessels are removed with wooden sticks while still hot. Upon removal from the fire, the Jareer pour cold water on the vessels to cool and to give them an orange colour. The process of pouring cold water is a matter of choice. However, for further treatment, the Jareer and Waata potters use a local tree known as *mkoma* in Waata language for dye extraction. The bark is cut into small pieces (dry or fresh), beaten, and boiled (Figure 3.10). The extracted concoction is applied using a piece of cloth on all the vessels while they are still hot (Figure 3.10). The potters say that this concoction helps with aesthetics and permeability. This being the last technical action, the pots are now ready to be picked by the customers or to be transported to the market.

3.2. Variations in pottery making practises and chaînes opératoires of the Jareer and Waata Cushitic speakers

In the following section, aspects of the socio-economic and the pottery making chaînes opératoire of Jareer and Waata are compared in order to establish common features which can be considered typical of the Kenyan Cushitic speakers pottery making processes. A critical view is also offered which may explain the sources of the apparent variations.

The pottery making chaînes opératoire of the Jareer and Waata are similar except for a few aspects of both social and technical practises that are worth mentioning.

Figure 3.10: Firing and dying processes (Photographs by the Author)

The learning environment of the Waata potter differed from the Jareer in the fact that the Waata potter was taught by his mother while the Jareer potters were taught by their fathers. Anybody in the Waata community, whether man or woman can engage in the craft unlike the Jareer community. Likewise, while the Jareer get their clay from a common source, the Waata potter uses a source from his farm. A difference also occurs in the clay treatment after extraction. The Waata potter performs rituals at the clay

source unlike in the Jareer. He also does not sift his clay before use, but the Jareer always do.

On the technical aspects, application of coils are identical except that the last coil that makes the base is applied on the exterior wall surface by the Waata while the Jareer applies it on the interior wall surface. Likewise, the Jareer potters use the paddle to even out the vessels after they have finished all the other forming processes. The Waata, on the other hand, paddles to shape the neck and the base and also to flatten the base.

The most common forms of decoration were not shared by the Jareer potters and Waata potters. This difference may have been influenced by the Waata learning environment, or his tutor may have learnt through interactions with potters from other communities. The similarities and differences as highlighted on Table 3.2, among the Cushitic speakers appear to have been caused by the difference in their modes of livelihood and history. In view of the Waata, having been hunters until the 19th century when they were driven out of the forest, it is likely that they adopted pottery making as an alternative occupation. They may have adopted some aspects from their Jareer neighbours, whom they are reluctant to acknowledge as their tutors. The learning process of the Waata potter, unlike that of the Jareer potters, has no time depth. It is only a generation old, beginning with his mother who was taught by *mashetani*, demons from the forest. Likewise, the difference in clay acquisition lies in the fact that the Waata potter owns a farm which happens to have an anthill. On the other hand, the Jareer potters are descendants of refugees (Chapter 1) who came from a background where clay sources are communal as will be seen in the last section of this Chapter. It is also worth noting that the Waata potter descends from a family of traditional medicine men/women, so it is likely that the ritual he performs on the clay source maybe an adaptation from other traditional healing practises.

Table 3.2 shows that the Kenyan Cushitic speakers pottery-making chaîne opératoire is unified in certain ways, such as use of a turntable, making the vessels from the maximum diameter, use of vertical movements for scraping the exterior walls and horizontal movements for scraping internal walls. The rim and body are formed by use of coils and smoothed with wet fingers or wood using continuous horizontal pressure.

Table 3.2: Similarities and differences between Jareer and Waata pottery making.

	Potters	
Potters tools, tutors and techniques	Jareer Cushitic speakers	Waata Cushitic speakers
Working tools	Turntables, wood/metal scraper shell, paddle	Turntables, wood scraper, paddle
Tutor	Father	Mother
Starting point	Maximum diameter	Maximum diameter
Technique	Superimposition of coils	Super imposition of coils
Coil placement	Middle of previous coil	Middle of previous coil
Coil length	Long enough to complete the circuit without cutting	Long enough to complete the circuit without cutting
Fashioning	Vertical pressure on exterior surface with wood and horizontal pressure on the interior surface with a shell	Vertical pressure on exterior surface with wood and horizontal pressure on the interior surface with a shell
Forming the rim	Addition of coils and fashioning as above	Starts by paddling to curve it inwards, in order to form the neck.. Adds coils to complete the rim and fashions as above
Drying phase to leather hard	Two to three hours	Two to three hours
Decorations	Incised lines, crosshatches, punctates	Incised lines, crosshatches, and hatched triangles, ridges.
Forming the base	Application of coils on the interior wall, fashions as above, when addition of last coil on the exterior wall, thinning and scraping with wood and smoothing with wet fingers or wood	Paddles the lower body to curve in, then applies coils on the exterior surface, scrapes with wood, collects the last bits in the middle of the base, cuts, scrapes with wood, paddles, scrapes again and smoothes with wet fingers
Drying phase	One day	Minimum three days
Firing	Grass and wood	Grass and wood
After firing treatment	Dying with vegetal material	Dying with vegetal material
Distribution	Garrisa,market, Dadaab, orders picked from home	Garissa market, orders picked from home

The base is formed last by application of oils and a paddle is used to even out the vessel after completing the forming stages. It can be characterized as illustrated in Figure 3.11

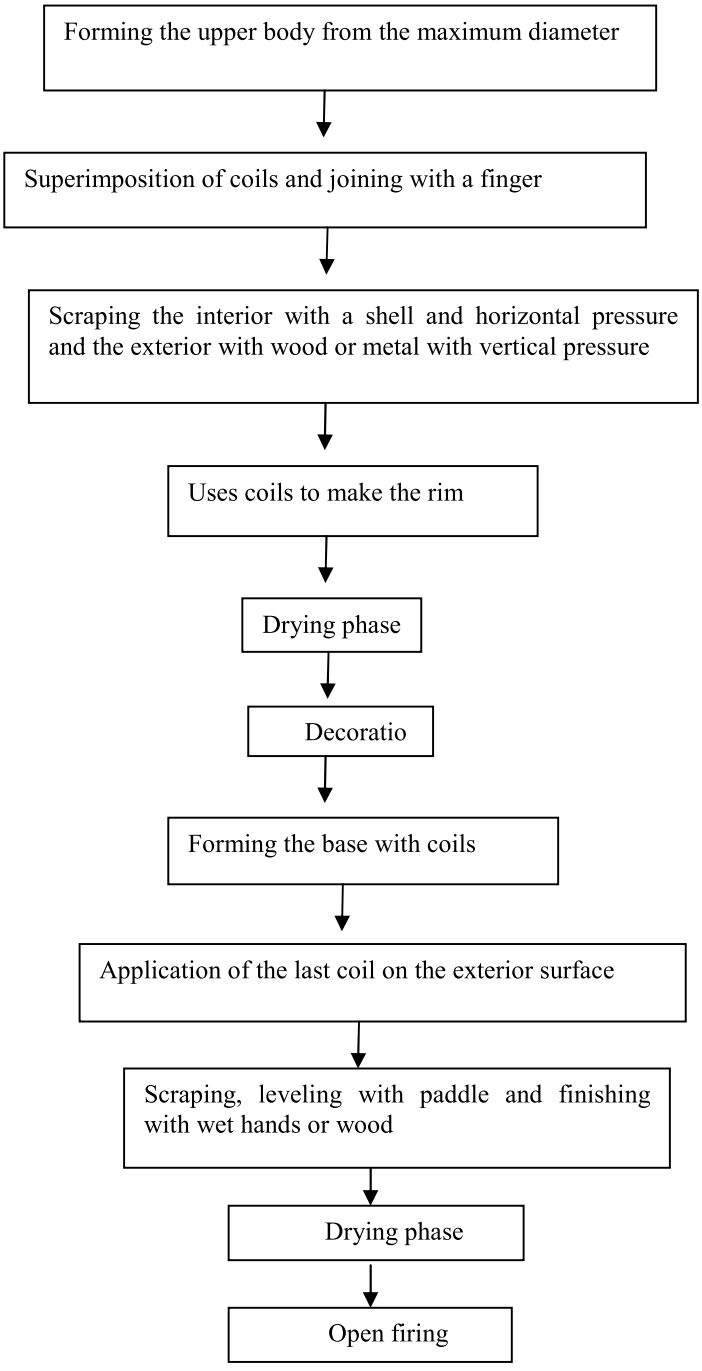


Figure 3.11: Cushitic tradition

It is, therefore, evident that these Cushitic pottery forming techniques may have originated from the same ancestor and have resisted change, while the decorations and forms seem to be different partially due to market demands and partially personal innovation as evidenced by the Waata potter who draws flowers as a form of decoration in addition to the more standardized lines of incisions, crosshatches and punctates.

3.3. Bantu Speakers

We interviewed 14 Bantu speakers from the Coast and the Highlands of Kenya. Eight of the potters were from the Coast and six were from the Highlands. Unlike among the Cushitic speakers, Bantu pottery makersin in both the Coastal and Highland regions are women. They claim that pottery making is a craft done by women and men are never involved although in some instances they could help with the firing process.

3.3.1. Coastal Bantu speakers

The Coastal potters comprised 2 from Digo, 4 from Chonyi and 2 from Jomvu ethnic groups. The Digo live in Kwale district, the Chonyi in Kilifi district and the Jomvu in Mombasa. Kenya's coastal region extends for 480 km along the Indian Ocean from the Somalian border in the north to Tanzania in the south.

i) Socio-economic context of the Digo potters

The Digo do not make pots actively anymore. They make them only occasionally for domestic use, such that we had to be directed to one elderly woman of about 80 years of age, who staged the craft for us. She is a well respected potter who has passed the skills to her last-born daughter who was about 50 years of age at the time of interview. We interviewed and recorded pottery-making procedures from both the mother and daughter.

Although the Digo people have stopped making pots as a form of economic activity, the elderly potter had stopped 3 years before the interview data due to her age and not because the pots were not fetching enough money. When she used to make them for economic purposes, she used to sell them for cash, or exchange them for cereals. An interested customer was expected either to pay cash or to fill the pot of her interest with cereals. These transactions were done either at the market place or in the potter's homestead. As such her pottery distribution was among her neighbours at a village level

and ethnic members at the market level. Today, she engages in tending a small part of her farm to fulfil her food needs, and making of basketry products which require less energy than potting.

On the other hand, her daughter, who is an elementary school teacher, has never engaged full-time in pottery making, but she has always potted as a part-time job. Today, she does not pot for economic gain. She stated that pots do not fetch much and, therefore, she would rather engage in other activities like horticultural farming. The Digo potters live among other members of the Digo ethnic group who practise farming of coconuts, cashew nuts, fruits, and a dye plant known as "bixa" mainly as cash crops, and maize, cassava, cowpeas, and rice as the main food staples. They also practise fishing which is the common income-generating activity in the area. Rarely are large livestock such as cattle kept because of a lack of availability of pastures. Three-quarters of households have at least one member involved in off-farm employment (Were *et al* 1987).

In this community, although pottery making is regarded as a job for the p oor, the potters are not treated as a low class: they can participate in community activities at the same level as the farmers, fishers and everyone else. Any woman can learn and practise pottery making by choice. It is traditionally passed through kinship and the elderly potter claimed to have learnt from her mother, who had learnt from her grandmother. She claimed to have learnt while helping her mother with lesser technical jobs like fetching of clay, water and firewood. She gradually graduated into assisting with firing and later she made small pots for sale before she started selling all sizes of pots after she got married and had her first child.

ii) Socio-economic context of the Chonyi potters

Four potters from the Chonyi ethnic group were interviewed. The potters were women of ages 75, 48, 55 and 58. The potters live in different villages among other members of their community. They still make pots on a part-time basis, but only on request since the demand is low as a result of factory-made aluminium and porcelain products. They mostly make pots in the evening after spending the day in their farms where they grow cashew nuts and coconut as cash crops and cereals for food. Before they stopped making pots regularly for economic purposes, they used to sell them in the

market and also to vend them from home to home. They also made them on order and the customers could either collect them from the potter's home or the potter could drop them to their customers. Therefore, the distribution was mainly at a village level except when they carried them to the market place which is frequented by people from other villages.

Among the Chonyi, just like the Digo, pottery making is viewed as an occupation of the poor in the society, but they are not treated differently from non-potters. The craft is practised by only women and any woman is allowed to learn if she so wishes, although most of the potters asserted that they learnt the skills from their relatives. They maintained that it is passed through kinship but it is not mandatory for anyone. Two of the women pointed out that they started learning the craft from their mothers at about age 7 but sold their first pots during their teenage years. One learnt from her grandmother, as a young girl (could not recall the age) but she did not start making actively until she was married. She asserted that although she learnt from her grandmother, and had the opportunity to start potting, she did not begin until she got married in her current village where the clay source is closeby and abundant. She stated that, she was attracted to the activity while in the current village by the closeness of this clay source. She did not have to go long distances to fetch it unlike where she was born. The second Chonyi potter of about 48 years of age claims that her mother was a potter. Just like the elder one, she did not start practising until she got married. Although as a young girl she helped her mother with non-technical jobs, like fetching water, fetching of clay (which she disliked) and firing, she did not take any interest in learning how to pot. Her sister who is married in the same area as she (where the clay source is very close to the potting area) taught her. She claims just like the older Chonyi potter that she could not pot in the place where she was born because the clay source was too far and disliked walking the long distance to fetch it. Since she had watched her mother during her childhood, she claimed to have taken a short period (not specified) to learn as an adult from her sister. The third and fourth potters live in a different village about 5 kilometres away from the first and second. They learnt the craft from their mothers, who had been taught by their grandmothers. Their grandmothers did not only pass the skills to their mothers but to all the daughters. However, these potters claimed not to have passed the skills to their

children since they were not interested and besides, it is a dying craft. They claim to have started by making small pots for domestic use while learning with their mothers until later they started to sell them in their late teenage years. On average, they made 15 to 20 pots per day.

iii) Socio-economic context of the Jomvu potters

Two potters from the Jomvu community were interviewed. The 2 are sisters of ages 70 and 52. They make pots on a full-time basis and sell them in Mombasa town where they have permanently secured a market section for themselves. The market space is shared by members of other Jomvu potting families. Although they engage in pottery making on regular basis, they do not work in groups but as individuals. Each potter works from the veranda of her house since the space between the houses are quite narrow. Unlike the Digo and Chonyi who live in the rural areas, the Jomvu potters live in what can be described as a township among other members of their ethnic group. While pottery making is the most important occupation for the potters, they also engage in small businesses of selling vegetables next to the potting areas so that both activities can take place simultaneously. They purchase vegetables from Mombasa town using the profits from the pots which they resell to their neighbours at a higher price.

The Jomvu potters are all women and they claimed to have learnt the craft through kinship. In particular, the interviewed potters learned from their mother, as small girls between ages 7 and 15. However, they did not start making pots for sale until they got married. Before then, they assisted their mother with the potting activities and they also made pots to be used by the family. They have not taught any of their children since the children have not shown any interest. The craft is despised and this has contributed to their children's lack of interest, and also because it is not mandatory for potters' children to become potters. Despite the low status of the craft, the potters are treated the same way as the other members of the community and any woman who may be interested in learning the craft is allowed to do so.

iv) Pottery forms

The pottery repertoire of the coastal Bantu speaker consists of both bowls and jars.[33] Bowls come in various sizes and are the most produced. Some are shallow with pronounced shoulders, whilst others are deeper. They have slightly everted rims, and rounded bases. These are used for cooking. Likewise, jars come in various sizes; they are necked vessels with everted rims, round bases and are used for storage. The Jomvu pottery repertoire also include incense burners (Figure 3.12).

v) Societal prohibition[34]

- One is not allowed to go to the clay source when pregnant because digging of clay is likened with digging a grave
- One is not allowed to go to the clay source with an infant, who had not developed
- One must not make pots during one's menses
- After sexual intercourse one should not collect clay or make pots

3.3.2. Pottery-making chaînes opératoires of the coastal potters

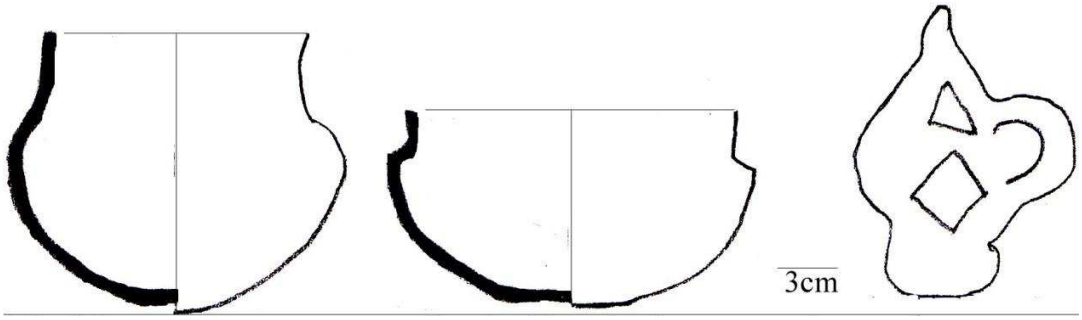
The pottery making processes of the Digo, Chonyi and Jomvu are considered together in the following section since the practises are almost the same. Within each stage of the chaînes opératoires, however, the differing aspects between the groups are pointed out.

i) Clay collection

The Digo potters collect clay from a communal source about 24 kilometres from home. They take public transport to go to the source in a place known as Matuga (within their district) and must pay for the cargo, making it impossible for them to fetch a lot at a time. They are, therefore occasionally forced to use clay from their farms which is not of the same quality as the preferred one. Sometimes they buy clay from vendors, or customers may bring their own. When the customers bring their own clay, the pots produced are shared equally between the potter and clay owner. Likewise, some of the

[33] During this research, only various bowls were made.
[34] These are from Chonyi and Digo communities.

Chonyi potters must go about a kilometre or two to fetch the clay while others fetch it from a few metres from the potting areas. They use two types of clay, white or red clay, depending on the colour of the pot they want to produce. The colour is mostly determined by customer demands. The clay source can be utilized by any potter without having to pay any access fee. The Jomvu, on the other hand, never go to the clay source because it is about 25 kilometres away from their village. They wait for vendors from a different ethnic group to bring it. Mostly the clay is brought from an area known as Rabai while the temper is fetched from about 15 kilometres from Jomvu. The Jomvu maintain that the vendors from the Giriama ethnic group bring them these materials but the latter do not make pots.



a) Cooking pot b) Bowl with carination c) Incense burner

Figure 3.12: Main forms of pottery from the Coastal Bantu speakers (Drawings by the Author)

ii) Clay preparation

The Digo and the Chonyi do not add any temper to the clay (Figure 3.13). The Jomvu, on the other hand mix their clay with sand temper, which they purchase from Giriama vendors. The clay used by the Jomvu has not been studied to establish whether adding temper is to enhance the properties or if it was just a cultural practise. All the three ethnic groups soak the clay overnight before wedging it the following day.

a) Clay preparation by Digo b) Clay preparation by Chonyi c) Clay temper by Jomvu

Figure 3.13: Clay preparation by the three ethnic groups (Photographs by the Author)

iii) Forming of the vessel

The Digo, the Chonyi and the Jomvu make their pots starting from the base and the lower body. After kneading the clay, they create lumps by subdividing the kneaded clay into the sizes corresponding to the sizes of the pots they plan to make. They hit the lump against the ground, turning it so that it forms a conical shape (Figure 3.14a-c). Once the conical shape is attained, each group has a different way of positioning the lump for drawing (Figure 3.14 d-f).

a) Digo clay lump b) Chonyi clay lump c) Jomvu clay lump

d) Digo digging a hole e) Chonyi lump on the leaf f) Jomvu shallow bowl

Figure 3.14: Forming and positioning a lump of clay. (Photographs by the Author)

The Digo dig a hole in the ground where they place the lump. The Chonyi place the conical lump on a piece of green leaf while the Jomvu place it on a ceramic plate containing approximately one glass of water.

Pottery making tools

The working tools of the coastal Bantu seem to be improvised from other activities except for the *ukomb*a (sea shell) and the *kijiwe* (smoothing stone) others include, *kivimbo* (wooden tool for smoothing), *ubao* (plank), k*isu* (knife) *kalamu* (pen for decorating and smoothing) *tambara* and *kiuno* (metal ring) used for shaping (Figure 3.15)

Figure 3.15: Coastal Bantu pottery making tools (Photographs by the Author)

Upon positioning the clay, they start drawing from the middle of the lump using vertical movements. They use the four fingers of the right hand to draw, while supporting the rest of the lump with the left hand from the outside wall surface. They turn the lump in either a clockwise or an anticlockwise direction depending on the potter,

as they continue to draw it. Once they have drawn the clay and thinned the lump to form the body, they start applying coils. At this point, the lump cannot be drawn any further without destroying the rough-out, and so the coils are used to finish the rest of the pot. With the Digo potters no coils are added; the whole pot is built from the base to the rim by drawing. While younger Chonyi potters applied one to three coils to complete the pot, the older potters made their pots entirely by drawing (Figure 3.16). However, for those that made the entire pot by drawing, if gaps developed during the modelling, they rolled small pieces of clay (about 5cm) to fill them.

Figure 3.16: First coil application and method of placement (Photographs by the Author)

Chonyi potters apply the coils on the interior with the lower edge of the coil overlapping the upper edge of the existing wall. They crush the coil internally with the index finger of the left hand while supporting the exterior wall with the palm of the left hand as they join and bulge the walls outwards. After application and joining of each

coil, they thin it with the finger in horizontal movements before placing the next coil. After the application of coils, the potter uses a shell to scrape the interior walls using vertical movements while bulging walls outwards in order to shape the pot. She then finishes the exterior walls by smoothing it with a wooden tool which she keeps dipping in water. The coils are usually about 30 centimetres long and they are placed from one end to the other end without cutting. After, another coil is added to continue with the formation. The Jomvu potters place the new coil on the already thinned upper wall edges of the vessel. In order to ensure that the joint between them is strongly sealed, they add a little piece of clay which they thin and stretch with both horizontal and vertical movements

After placing and fixing of the coils with fingers, the potter uses a shell to thin and shape the inside and a wooden tool to thin and shape the outside (Figure 3.17). The inside movement for the open bowls are horizontal while it is vertical for the closed pots. However, the closed pots are also thinned with horizontal movements on the upper body where the application of coils began. This is so probably because the drawing occurs in the deep interior of the vessel which makes it difficult for horizontal movements. On the other hand, the outside movements for both bowls and pots are always vertical.

The Chonyi and Digo potters fashion the rims by thinning the clay with wet tips of the thumb, index and middle fingers and sometimes flatten the upper edge with a piece of wood (Figure 3.17). The Jomvu, on the other hand, thicken the rim by adding more clay to the interior wall surface. The clay used for thickening the rim is usually not rolled. Upon completion of the rim, they use a piece of wet cloth to shape it (Figure 3.18)

Afterwards the pot is moved to the shade and allowed to dry for three to five hours before the potter cuts the base with a knife and paddles it with a plank to even it out.

iv) Finishing

The coastal potters use the back of the shell[35] or wooden tool to smooth the pot both inside and outside before applying decorations. In addition to using the shell and wooden tool, they use a stone to smooth the pot using vertical movements.

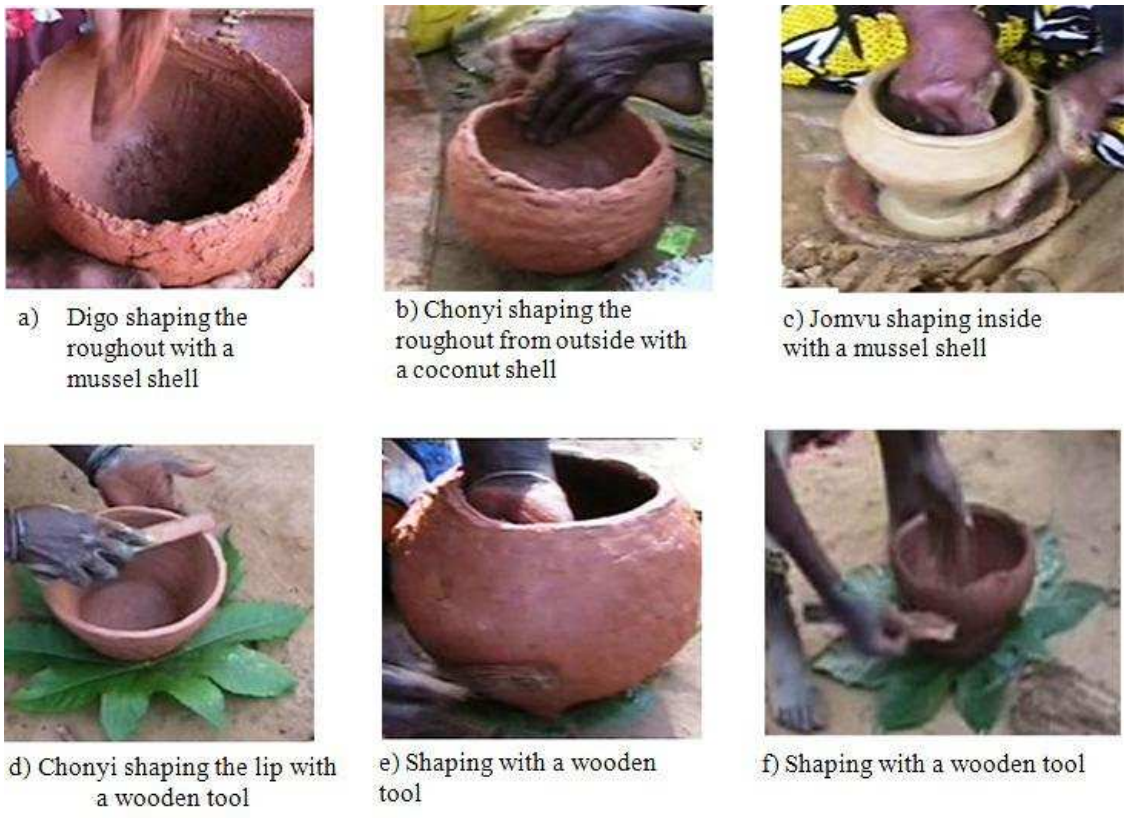


Figure 3.17: Using shell and wooden tools to shape the pot (Photographs by the Author)

v) Decorations

Decorations are done either with finger or shell impressions or by making of grooves on the clay while the pot is still humid. The finger or shell impressions are made on a ridge, which is applied on the shoulder of the pot. The Digo make the ridge by applying

[35] While the Digo and the Chonyi use coconut shell, the Jomvu use marine shell. The environment in which they live probably influences this. The Jomvu live very close to the sea and have no farms unlike the other two.

a thin piece of rolled clay and pasting its edges against the exterior surface of the pot. After securing it on the wall, they impress it with a finger to produce punctates. In the case of the Jomvu, after securing the ridge on the wall, they first flare it with a shell, and then they fold it inwards with a finger. The folds are separated by shell impressions which are made on the ridge after every few millimetres (Figure 3.19). The Chonyi, on the other hand, use pointed tools to make dots on the shoulder of the pot or to draw crosses. A pot will usually have one to three crosses. In some cases, the crosses are enclosed in a box but in other cases they are left open. The Chonyi may also model shapes of breasts from clay and fix 2 on the opposing sides of the pot.

Figure 3.18: Forming of the lip and completing the base (Photographs by the Author)

Firing

Among the Digo and Chonyi, firing is done using dry coconut leaves. The pots are placed facing downwards on the leaves, and then more leaves are added on top to cover

all the surfaces. After one hour of firing, the pots are turned to face upwards and more leaves are added so that the fire runs for another hour. They are left in the ashes to cool until the potter is ready to take them to the market or when the client comes for them. The Jomvu, on the other hand, use dry coconut shells which they spread on the ground before placing the pots. The pots are placed facing opposite directions. After placing the first layer, they may place others on top depending on the number that is ready for firing. The pots are then covered with more coconut shells and grass, which they claim is the only kind that can be used for the purpose (Figure 3.20). The fire is then ignited and lasts for about one hour before they are removed. The number of pots considered enough for

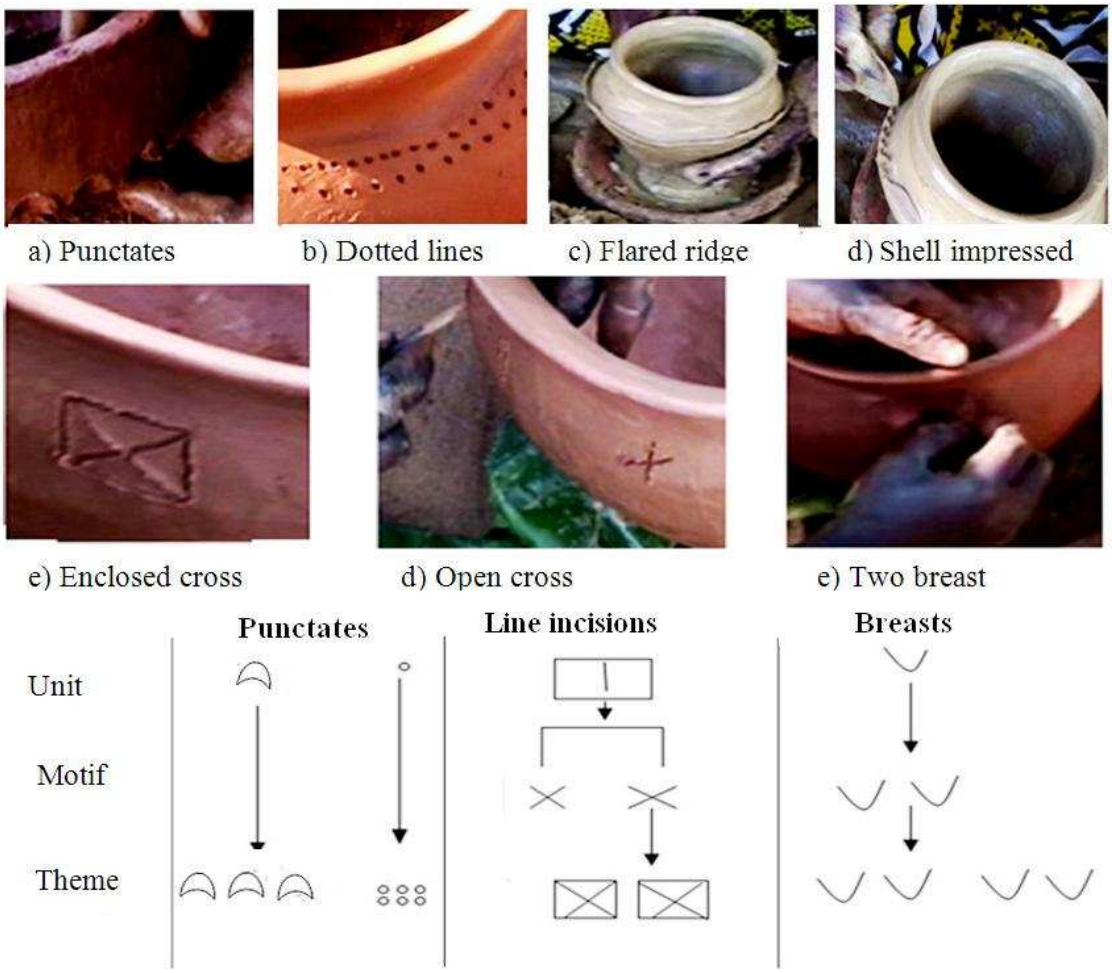


Figure 3.19: Some decorations of the Coastal Bantu speakers (Photographs by the Author)

firing is between 10 and 15. However, smaller number of pots could be fired depending on the urgency of the order.

a) Pots placed on coconut shells b) Special grass

Figure 3. 20: Firing by Coastal Bantu (Photographs by the Author)

3.3.3. Variations in pottery making practises and chaînes opératoire of Coastal Bantu Speakers

Among the Jomvu, Chonyi and Digo, variations start from the early stages of the chaîne opératoire. While the Jomvu buy clay from vendors, who bring it to their villages, the Digo potter gets clay from her farm or she can travel 24 kilometres to get it from a communal clay source. Also, her customers may bring their own clay. On the other hand, the Chonyi fetch their clay from an area of less than 1 kilometre or farther depending on whether they want a reddish or grayish pot. The clay acquisition practises seem to be determined by both availability and market demands. The Chonyi and the Digo seek the higher quality clay only if the potter needs to make pots that are different from her usual wares. On the other hand, in the case of Jomvu there exists no clay source within their areas and so they must work with whatever the vendors bring to them. In the clay treatment, the Chonyi and Digo potters, do not add temper, whilst the Jomvu potters must add sand.

The forming techniques in the three ethnic groups are almost identical; they all form their pots by drawing a conical lump of clay from the interior surface walls. They also use the same type of tools for shaping and finishing. However, one of the exceptions is apparent in the placement of the lump of clay when they are building the vessel. The

Digo dig a hole on the ground and place the pointed end of the lump inside it, the Chonyi place it on green leaves, while the Jomvu use a shallow ceramic plate. Older potters in Chonyi and Digo ethnic groups use a lump of clay to build the entire pot without adding any rolls to complete the upper body and the rim. However, younger potters in Chonyi and all the Jomvu potters always had rolls of clay to complete the upper half of the pot. Although they both add rolls of clay, the methods of application differ. The Chonyi crush the rolls internally, while the Jomvu add clay to join and seal the joints as summarized on Table 3.3

The variations in the placement of clay seem to be generations old since the potters always claimed that their tutors had been taught by their grandmothers. However, the addition of coils by Chonyi potters seems to be of less antiquity since older potters (over 80 years of age) modelled their pots entirely by drawing of the conical lump, although in some cases, they rolled pieces of clay in order to fill the gaps/cracks which developed during drawing. Therefore, pottery making tradition of the Coastal Bantu speakers can be summarized as shown on Figure 3.21. While the forming and fashioning techniques appear to have originated from a common tradition, decorations seem to be a question of personal preference. The Digo make a ridge on the shoulder of the pot and make punctates using a finger, some Chonyi potters make crosses, others make breasts or boxes. Although these may appear like potters' marks (due to their simplicity) they all did not consider them as such, since they are able to identify their pots regardless of whether they have decorations/marks.

Table 3.3: Similarities and differences in Coastal Bantus'pottery making chaîne operratoire

	Costal Bantu potters		
Potters' tools, techniques and tutor	Digo	Chonyi	Jomvu
Working tools	Shell, wood, stone cloth	Shell, wood, stone cloth	Shell, wood, stone cloth, shallow basin
Tutor	Mother	Mother, grandmother, sister	Mother
Starting point	Base	Base	Base
Technique (body/base)	Drawing of a lump	Drawing of a lump	Drawing of a lump
Lump placement	Hole	Leaves	Shallow basin
Fashioning	Scraping interior wall with shell and exterior wall with wood	Scraping interior wall with shell and exterior wall with wood	Scraping interior wall with shell and exterior wall with wood
Making the rim	Drawing	Coils/drawing	Coils
Finishing	Wet hands and cloth	Wet hands and cloth	Wet hands and cloth
Drying phase	Three hours	Three hours	Three hours
Decorations	Ridge and finger impressions	Dotted impressions, crosses, boxes and breast	Ridge, finger impressions and shell impressions
Drying phase	3-5 days	3-5 days	3-5 days
Firing	Grass and coconut branches	Grass and coconut branches	Grass and coconut shells
Distribution	Village and market	Village	market

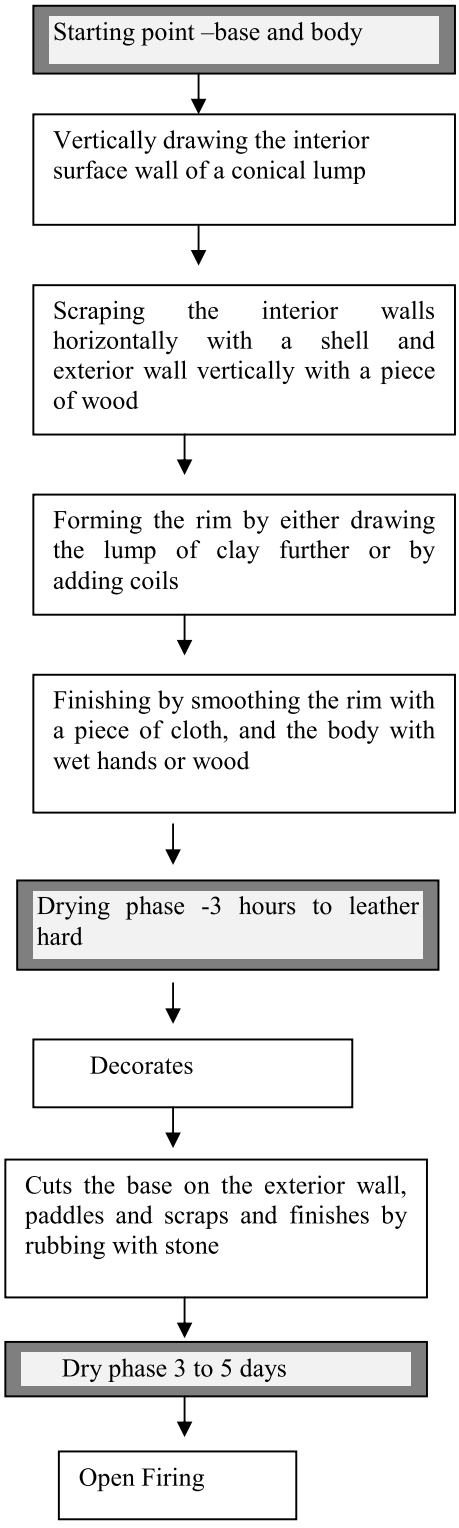


Figure 3.21: Pottery making tradition of the Coastal Bantu Speakers

3.3.4 Mt. Kenya Region Bantu speakers

Research was conducted among 5 Meru-Tigania potters and one Kamba potter of Katithini location. Katithini which is under the jurisdiction of Meru district, it borders Mwingi North and Tharaka-Nithi districts. Three ethnic groups of Bantu Speakers, Tigania, Kamba and Tharaka, inhabit Katithini location and frequent the same market. While the Kamba people are recognized as an independent ethnic group, Tigania and Tharaka are considered as sub- groups of Meru ethnic group. In some instances, the Tharaka sub-group is regarded as an independent ethnic group with its own history and culture while in other instances, it is considered together with the Meru ethnic group. Tigania on the other hand, is considered as one of the core sub-ethnic groups of Meru together with Igembe and Imenti. Therefore, although there were potters in the three communities, due to logistic considerations, research was conducted among the two who seemed to have a stable ethnic status. Katithini environment is quite dry (Figure 3.22) but several food crops are raised. The main food crops are maize, beans, pigeon peas, cowpeas, millet, and green-grams, while sunflower, cotton, and livestock are the main sources of money from the farms.

i) Socio-economic context of Meru-Tigania Potters

The Meru-Tigania potters who were interviewed live in Ngongoaka village which lies between N00°.068 and E037°.965. Although 5 Tigania women of between 50 and 60 years of age were interviewed, only Mrs Joyce Kaariu (55 years old) performed the craft for us since it is no longer done actively. The performance was done in the presence of the other four potters who were in agreement with all the steps that were taken by Mrs Kaariu. They asserted that they were no longer interested in pottery making because it is labour intensive and does not fetch enough income for their families. Three to 4 years before the date of this interview, these potters claim to have made pots actively besides farming activities. They did farming and casual jobs in the neighbouring farms to supplement the income from pottery making business. Nowadays, they spend most time in their farms and as casual labourers. They make pots only for clients who come home to order. Orders are, however, rare and are usually for single pots which the potters find

uneconomical to supply; therefore, they wait until they get substantial requests. When they used to pot on a more regular basis, they claim to have made at least 10 pots in a day. They sold them in the market and also villagers could come to their homes to buy. Due to the interethnic neighbourhood and the fact that Tigania frequents the same market as the other two ethnic groups, it is likely that Tigania pottery distribution is not only limited to Meru-Tigania but can also be found among the Tharaka and Kamba ethnic groups.

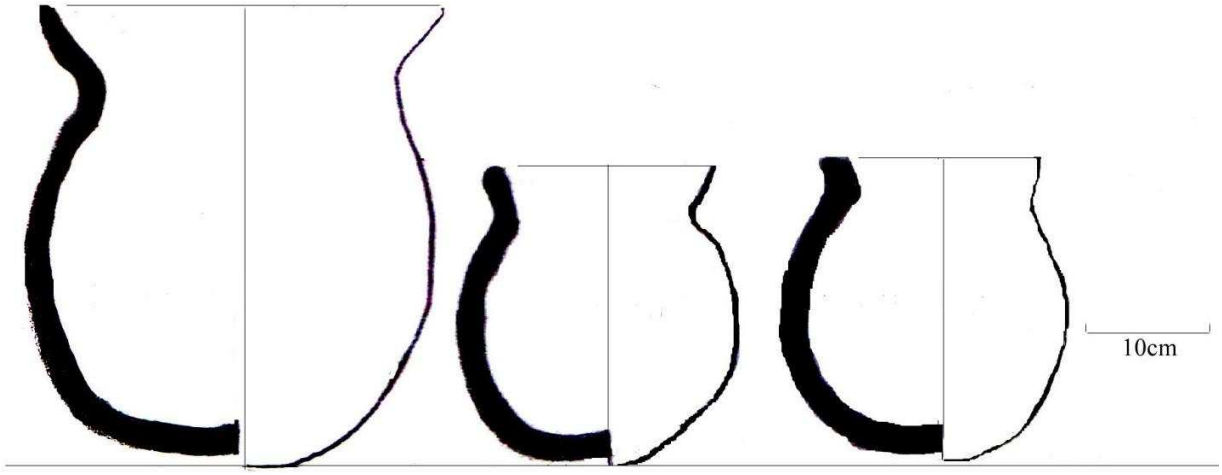
a) Katithine vegitation b) Potter' homestead c) Pottery making area

Figure 3.22: Potter's environment (Photographs by Patrick Munene)

The women claimed to have learnt the craft from their mother in laws. All informed us that they did not know how to make pots before they married into to their present homes. It is always the duty of the mothers-in-law to teach their daughters-in-law the craft in the pottery making families. The craft is regarded as of low status, thus not many people are interested in it. Mrs Kaariu claimed that she was the only one among the other daughters in law that had agreed to learn the craft. She learnt the craft within one year of marriage and sold her first pottery merchandize after the birth of her first-born. Her children, however, are not interested in learning although they help with fetching of clay, water, firewood and firing activities. Pottery making is viewed as a woman's job and men are not allowed to do it. No reasons were given as to why they could not, but if one was found attempting to do so he would be forced by elders to make a sacrifice to the gods. The women insisted that men could simply not learn how to make pots. The learning accounts of the other potters confirmed Mrs Kaariu's story.

ii) Pottery forms of Meru-Tigania people

The pottery forms of Tigania are basically the same but of varied sizes[36]. They range from small pots, *tuungu*, of 3 litres to beer pots, *kithiiri,* of 60 litres in volume. They are used for cooking and for storage of grains, porridge, water and beer (Figure 3.23). The beer pots are usually the largest ranging from 30 to 60 litres in volume. There is no pot that is specific for preparing or storing any particular foodstuffs. All pots, except for the beer pots, can be used for cooking any food depending on the number of people to be fed.



a) Beer pot b) Porridge pot c) Cooking pot

Figure 3.23: Tigania West Pottery forms (Drawings by the Author.)

3.3.5. Pottery making chaîne opératoire of the Meru-Tigania potters

i) Clay source

Ngongoaka potters combine two forms of clay due to their unique qualities. The clay is mined from red and white anthills. The white clay is the main ingredient while the red is used for adding colour. Mrs Kaariu mines her white clay about 200 metres from her home where she performs the craft, while the red clay is about 1 kilometre away. These

[36] Since most people use aluminum pots, it is no longer possible to find clay pots in the market, making it difficult to find a variety for photographs.

sources are communal and anybody within the neighbourhood is free to use them (Figure 3.24). The potters discovered these clay sources after moving into the area about 20 years ago[37]. A clay source was considered appropriate after the potter made and fired a pot successfully. No prohibitions[38] or taboos are associated with pottery making or clay sourcing in this region. Mining is done using a machete and a hammer stone. The pointed end of a machete is placed on the ground and held with the left hand, while the right hand hammers it to remove chunks of clay. Roots, dead leaves and other impurities are removed continuously as the mining progresses.

ii) Clay preparation

Treatment of clay begins the night before pottery forming. Having collected enough white clay to fill a 20 litre vessel, the potter pours it on the ground and mixes it with red clay collected in a 10 litre vessel (Figure 3.25). She sprinkles it with about 2 litres of water and covers it with leaves overnight (Figure 3.25). This is the process of soaking the clay to make it soft and soggy for kneading. The following day, the clay is uncovered and kneaded in bits depending on the size of the pot to be made. No temper is added.

a) Mining of clay b) Soaking of clay c) Covered clay for the night

Figure 3.24: Mining and clay treatment (Photographs by Patrick Munene)

[37] The movement to the area was necessary so that they could protect their farms as they were in danger of being grabbed.

[38] This however, appeared to be a later development since it was obvious that the potters were not willing to discuss any form of taboo.

The Meru-Tigania pot is made from the maximum diameter towards the rim and the base is made last.

iii) Forming the body and the rim

Pottery making is done in the shade of a tree within the homestead (Figure 3.22). On average they claim to make a maximum of 6 pots per day. The potter starts by sweeping the ground to remove the loose soil, and then places fresh banana leaves in a circular formation. She then places a lump of clay on a plank, where she wedges it thoroughly before rolling and flattening by hitting it with her palm in order to make slabs of about 30 cm long and 15cm width (Figure 3.25). The pots are made from the maximum diameter to the rim and later the base. She makes two slabs, which she places on the pre-prepared banana leaves with the edges overlapping each other (Figure 3.25). She joins them from inside by drawing clay from the contact points, and then she vertically draws the exterior wall surface with wet fingers of the right hand while supporting the interior wall with the left hand (3.25). The pot is not moved at any point during the forming; instead, the potter rotates around it. While drawing the clay, the potter is careful to leave enough clay at the bottom of the slabs, which she will use later for making the base. For a pot with a diameter of approximately 20cm and a height of 30cm, she draws the clay until the rough-out reaches the height of 24 centimetres before she starts shaping and smoothing it. At this point, she uses a piece of wet calabash, *kauga,* to shape and smooth the inside still using vertical strokes. The potter follows this by smoothing the exterior wall and shaping the neck with a piece of wet wood, *kamuti gagutenderia,* using vertical movements. The forming of the rim and removal of accumulated clay during body formation is done using a calabash.

She uses a wet calabash to scrape the interior walls of the rim and a wet wooden tool to smooth the exterior walls of the rim and neck. She then slightly everts the lip with the wooden tool, after which she finishes by smoothing the completed section of the pot with wet fingers (Figure 3.26). She then lifts the edges of the banana leaves upon which the pot sits, and ties them around without moving the pot (Figure 3.27). The lower part of the finished section is covered so as to retain the moisture in the reserved clay which will be used later to build the base. Meanwhile, she makes other pots.

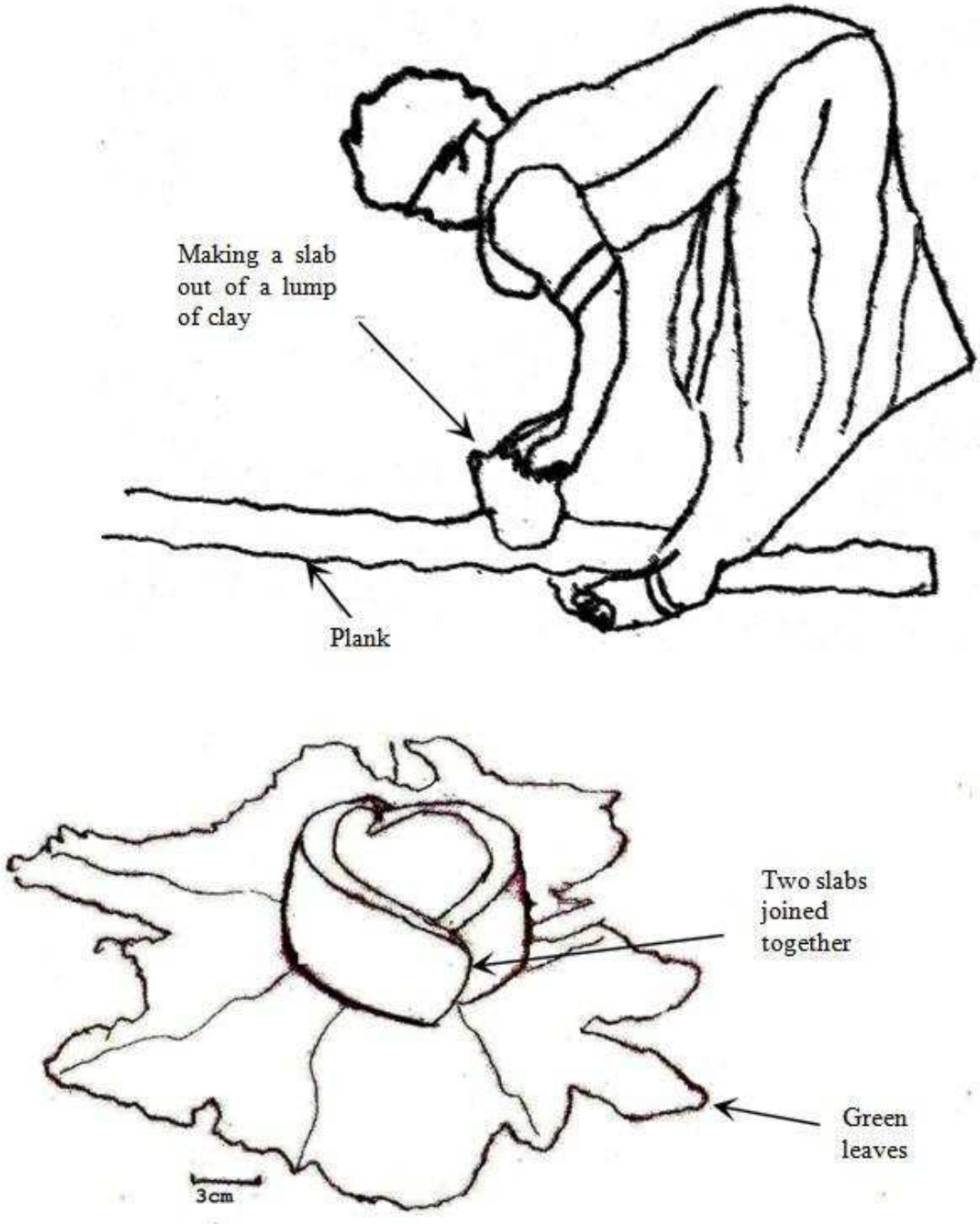


Figure 3. 25: Making of the slabs (drawings by the Author)

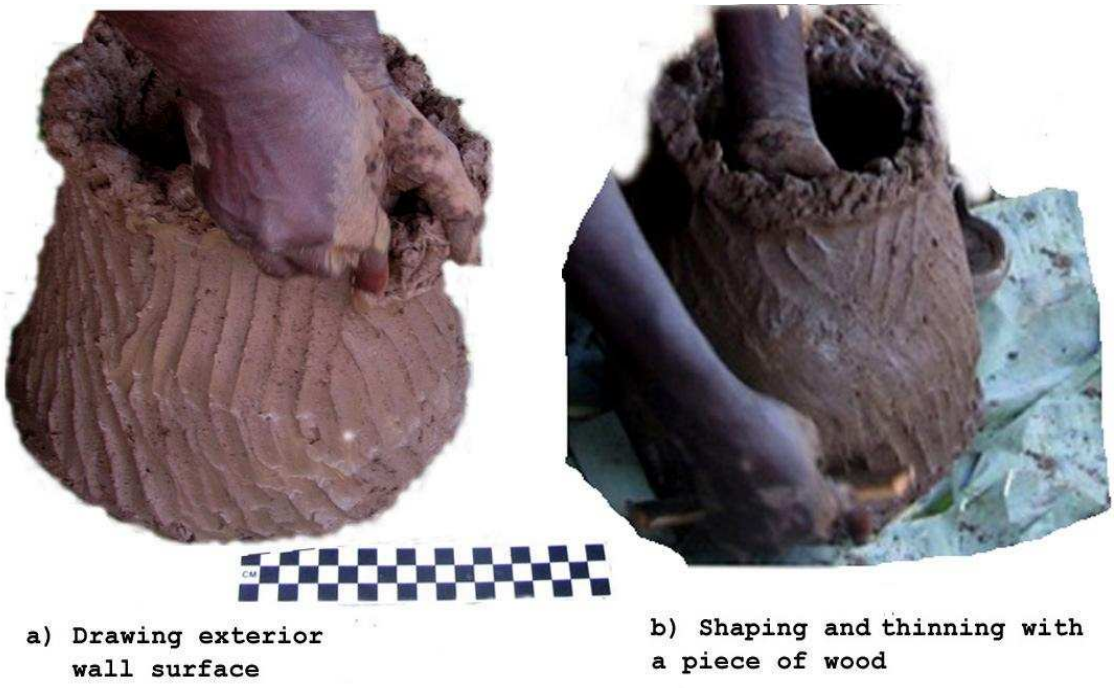


Figure 3.26: Drawing of the slab and shaping with a wooden tool (Photographs by the Author)

The pot is covered for a minimum of two hours to allow time for the finished part to attain the leather-hard state.

iv) Decorations

Mostly the pottery repertoire of the Meru-Tigania is undecorated and where the decorations appear, they are broken wavy line incisions which are executed on the shoulder using a piece of stick after completion of the upper part (Figure 3.28).

v) Forming the base

Once the pot attains its leather-hard state, it is turned upside down so that the pot sits on its rim to facilitate the formation of the base (Figure 3.28). The leaves are untied and removed and then, the potter draws vertically the exterior walls of the previously conserved clay with the fingers of her right hand while supporting the interior with her left hand as she moves around the pot (Figure 3.28). After drawing she shapes and smoothes the interior walls using a wet calabash and the exterior walls using a wooden tool until the formerly preserved clay is fully used up. In some instances, the potter adds

a small thin coil of about 5cm in length to complete the base in case she overestimated the size of the slabs (Figure 3.29).

a) Shaping of the rim with wet fingers

b) Covering the underside in order to preserve the moisture in the clay

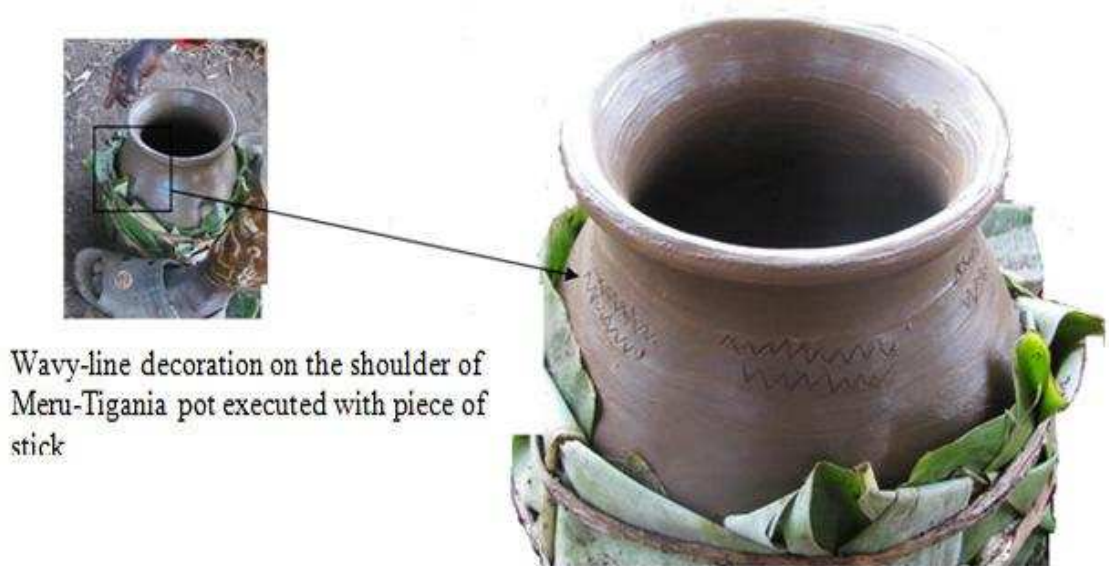
Figure 3.27: Completion of the upper body (Photographs by the Author)

Otherwise, no clay or coils are added throughout the forming and fashioning processes.[39] When she adds a small coil to finish the base, the potter places it on the exterior wall surface and draws it vertically. The last bits of clay are folded towards the inside so as to close the base, before it is left to dry (Figure 3.30).

vi) Finishing

After two hours, the base has attained leather hard condition and the potter takes the pot in her lap where she smoothes and removes the folds from the inside with a calabash (Figure 3.30). Then she uses the wooden tool to smooth the exterior walls for the last time before finishing with wet hands after which the pots are subsequently moved into a wind-free area where they are allowed to dry for three to five days before firing.

[39]Mrs Kariu was actually disappointed that she had to add a coil. She almost felt incompetent.



Wavy-line decoration on the shoulder of Meru-Tigania pot executed with piece of stick

Figure 3.28: Meru-Tigania decorations (Photographs by the Author)

Turned upside down in order to remove the leaves and form the base

Forming the base using previously preserved clay

Figure 3.29: Forming of the base (Photographs by the Author)

vii) Firing

Firing is done in the evening when wind force is low. The potters may wait for about one week before firing, depending on the weather and the number of pots ready for firing. They consider approximately six to ten pots enough for firing. Apart from wind, they avoid firing the pots during the rainy season since this is done over an open fire.

However, depending on their needs and needs of their customers, they sometimes make pots during rainy season and fire as soon as the rain subsides. The process of firing involves laying pieces of wood on the ground and placing the pots to be fired next to each other (Figure 3. 31). The body of each pot is supported with a stone on each side to avoid rolling or rubbing against each other.

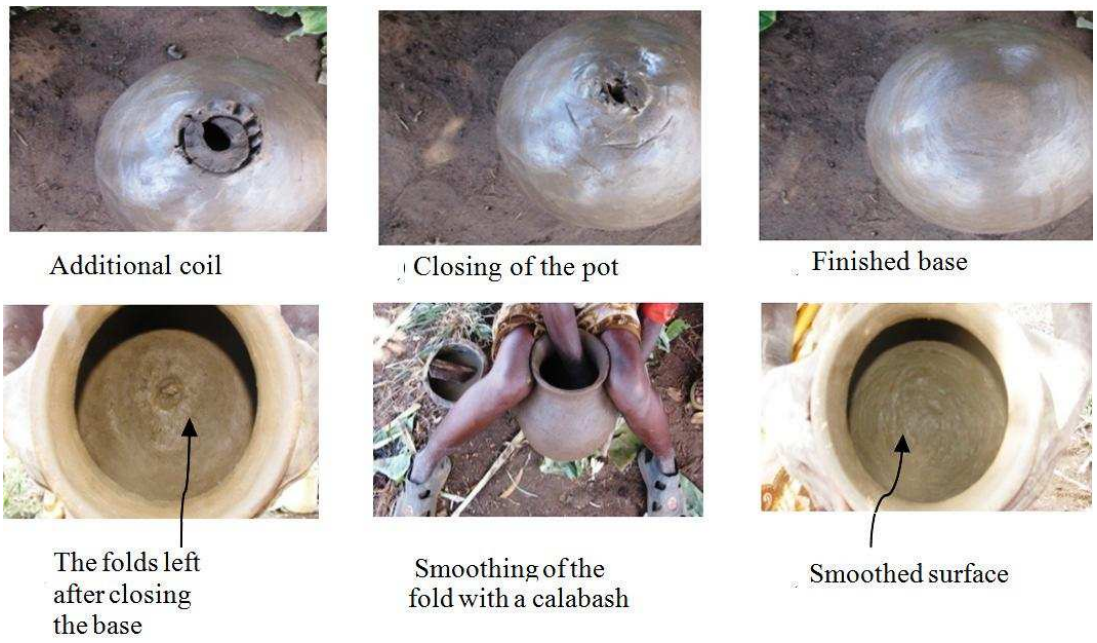


Figure 3.30: Completion of the base and smoothing of the folds (Photographs by the Author)

Figure 3.31: Firing process (Photographs by the Author)

They are placed with mouths facing all directions except for upward or downward directions. After placing the first layer, other pots are placed on it. The placing depends on how many pots are ready for firing. More firewood is added on the pots after they have been placed and supported. The placing of firewood is followed by grass, which is used for covering all the parts of the pots. Finally, a large amount of millet chuff is spread to cover all the spaces which may have remained after covering with the grass, and also to make the grass fire last longer.

After one hour, the firing is considered complete. During the wet season the pots are removed using long sticks. During the dry season they remain on the ground until market day. No further treatment is done to the pots after the firing. Meru-Tigania Bantu tradition can be summarized as shown on Table 3.4.

3.3.6. Kamba Potters

i) Kamba potter socio-economic context

The interview and observation of the Kamba potter was done about 11km from Ngongoaka village. The interviewee was Mrs Nzambi wa Manzi of about 50 years. Just like the Tigania potters, she does not pot full time but only on order. Instead, she engages in farm work either as a casual labourer or in her own farm. Like most of the other potters, she claims that pottery making is not economically viable and she engages in it on a more regular basis during times of drought when rains have failed so as to supplement her economic needs.

Mrs Manzi sells her pottery at Katithini market and to her fellow villagers. She lives among other Kamba people and Tharaka community. Therefore her pottery distribution is mostly among the Kamba and Tharaka. However, due to the shared market, it is likely that the Meru-Tigania could also purchase pots from the Kamba, and vice versa. Mrs Manzi was born of Kamba parents and moved to her present land at age 8 she started learning pottery making at age 12. She initially learnt the craft from Mrs Ciairumi, a Tigania potter who was the previous owner of the land which she currently occupies. Mrs Manzi, however, did not actively practise pottery making until 1998 after she moved back from the ethnic borderland to Kamba land where she was taught the Kamba way of

Table 3.4: Meru-Tigania pottery making tradition

PHASE	STAGE	TECHNIQUE
Forming the body	1	Rolls and flattens 2 slabs before placing them on banana leaves with crisscrossed edges
	2	Starts by drawing clay on the joints from the interior with vertical strokes then continues to draw upwards from the exterior using wet finger of the right hand while the left hand supports the inside
	3	Smoothes and shapes the pot from inside using the smooth side of a wet piece of calabash with right hand and supporting the inside with the left hand
	4	Smoothes outside using vertical strokes with a wooden tool
Forming of the neck, rim and lip	5	Shapes the neck using a wet wooden tool with vertical strokes
	6	Makes the rim using wet fingers through thinning and shaping the accumulated clay
	7	Smoothes the rim interior walls with the smooth side of a wet calabash
	8	Smoothes the rim/neck exterior walls with a wet wooden tool
	9	Smoothes the interior of the rim with wet hands
	10	Slightly everts the lip with the wet wooden tool
	11	Smoothes the whole pot with wet fingers
Decor ating	12	Covers the bottom with wet leaves and then decorates around the neck with a stick while still humid
Drying phase		Rests the pot for 2 hours then turns the it upside down after it gets leather hard condition
Forming the base	13	Removes the leaves and makes the base by drawing the previously covered clay from the exterior using vertically using wet fingers of the right hand while support the interior with her left hand
	14	Smoothes the interior walls sing the smooth side of a wet calabash
	15	Smoothes and shapes outside using a wet wooden tool with vertical strokes until the original clay is fully used up
	16	Uses a coil of about 5 cm to close up the pot
	17	Finishes by smoothing the whole pot with wet fingers
Drying phase		Pot rests for 2 hours for the base to get to leather dry condition
Removing folds and finishing	18	Places the pot in her lap and smoothes the interior of the base using a calabash to remove the folds which formed when the pot was closing up
	19	Smoothes the whole pot again except for the rim and the neck using wooden tool and vertical strokes
	20	Finishes by smoothing with wet fingers
Firing	21	On open fire -after 1 week

making pots by her daughter- in- law. She had been forced to move back to Kambaland in search of food since there was draught in Katithini at the time. When she moved to Kambaland she realized the only way she was going to make a living was by making pottery, therefore, she started learning and, due to her previous knowledge from Mrs Ciairumi, she learnt quickly and within a week she started selling her pottery at the nearby market. After the drought, she moved back to Katithini where she continued to pot. When she was an active potter, she made over 10 pots per day either from orders or to sell in the market. Pottery making in Kambaland is only by women and any woman is allowed to learn if they so wish. The craft is viewed as important as any other economic activity and so, there is no stigmatization attached to it.

ii) Pottery forms of Kamba people

The forms are basically the same as those of the Meru-Tigania, short-necked pots. The pots are used for cooking and for storing honey and beer. The cooking pots, *mbisu/kiruri,* range from 3 to 20 litres in volume while the honey honey/beer pots, *kithiri,* are about 60 litres in volume. Besides the traditional clay pots, the Kamba potter also makes some that resemble the aluminium ones, which are available in the market (Figure 3.32).

3.3.7. Pottery making chaîne opératoire of the Kamba people

i) Clay source

Mrs Manzi collects her clay about 500 metres away from her homestead, which is also her potting area. She uses a machete which she hammers in the ground to remove chunks of clay, or a digging hoe. She mines enough clay to make a proximately 5 pots of 29cm height and 20cm diameter each time. The clay source is free and any potter in the neighbourhood is at liberty to use. However, at the time of this research only Mrs Manzi was utilizing the clay source she showed us. She explained that clay mining and potting in Kambaland was subject to societal taboos such as women in their menses were not allowed to pot or even to collect clay until three days later after the period; sexual abstinence was a requirement the night before performing the craft and use of digging hoes and machetes was prohibited. These taboos have now been forgotten and potters do not observe them anymore.

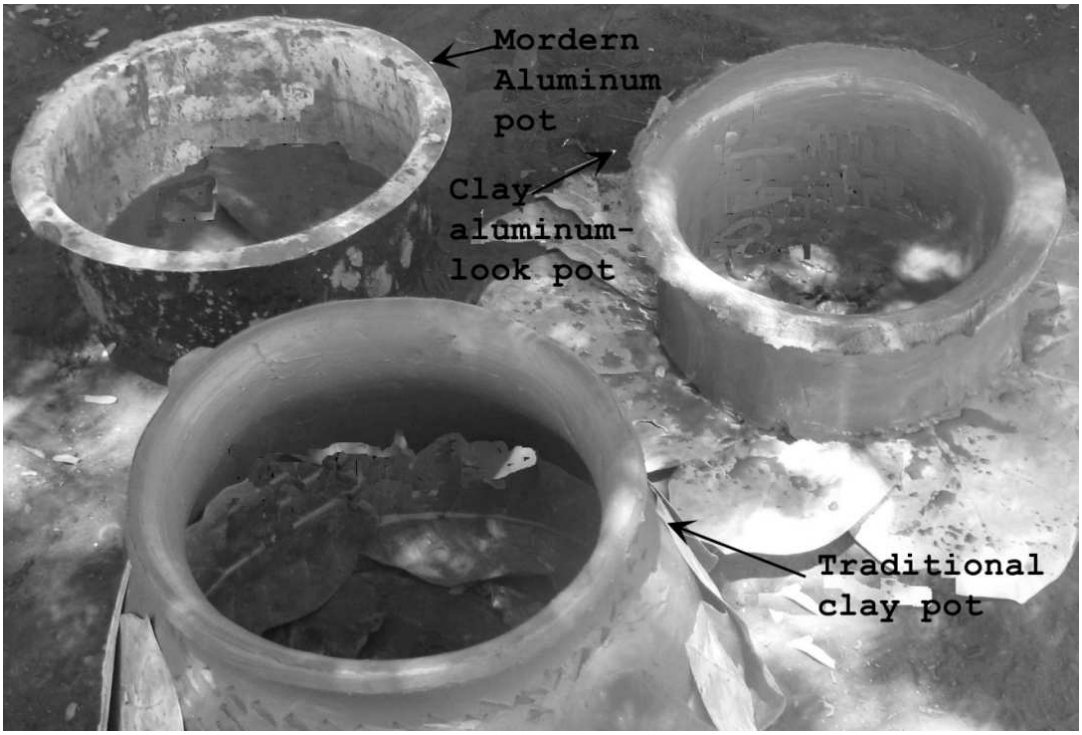


Figure 3.32: Traditional and modern aluminum-look clay pots (Photographs by the Author)

ii) Clay preparation

Clay is carried on the back to the homestead where it is soaked for the night. Once it gets home, the potter puts it in an old 20- litre pot or inside a hole. She pours about 2.5 litres of water on the clay before covering it with green leaves for the night. She does not add any temper or different type of clay to improve the colour.

Pottery making tools

The tools used by Kamba people are simple and few. These are a piece of calabash (Figure 3.33) a piece of wood and a rag which is used for kneading the clay.

Figure 3.33: Calabash smoothing tools (Photograph by the Author)

iii) Forming of the body and rim

The vessel is formed from the maximum diameter to the rim while the base is the last to be formed. Pottery making is done in the shade in order to avoid direct sunlight. In the early days, Mrs Manzi used to have a shade purpose-made for the craft but this does not exist anymore since she does not spend much time carrying out the activity. The only tools used during the performance are a piece of calabash, an old sack (mat), and a bowl of water. To start potting, Mrs Manzi removes the green leaves from the previously-soaked clay and spreads them on the ground in a circular formation. She then picks a chunk of clay enough to make the upper body of a pot of 29 cm in height and 20cm in diameter (Figure 3.34). She wedges the clay chunk on the mat and flattens it to make one huge slab, which she places on the prepared leaves. Once the slab is on the leaves, she curves it inwards to make a big collar of about 50cm length. She then vertically draws the interior wall with one hand while the other hand supports the exterior walls. She then uses the rough side (inside) of the calabash to scrap the interior walls and follows this with the smooth side of the calabash to smooth first the interior and then the exterior. During the smoothing, she uses one of her hands to bulge the inside walls outwardly so as to shape the pot. Soon she starts shaping the neck using the smooth side of the calabash through vertical strokes from the exterior walls. The rim is formed using wet hands while the upper edge is made using the thumb and index finger. During the whole forming process, she keeps dipping the calabash in a bowl of water after every few strokes.

Figure 3.34: Kamba slab (Photograph by the Author)

Just like Meru-Tigania potters, at no point does she move the pot; instead, she rotates around it (Figure 3.35). She then smoothes the rim with wet hands and lifts the leaves at the bottom to cover the underside of the pot (where she left some clay for forming the base). Finally, she picks a piece of stick and decorates the neck before putting the pot aside in the shade to dry for a few hours in preparation for base formation.

iv) Forming the base

After 2 hours, she turns the pot upside down and removes the leaves. She draws the clay vertically and inwards to form the base. Unlike Meru-Tigania potters, the Kamba potter must add a huge amount of clay in form of a coil to finish the base. She rolls the coil and fixes it by pasting it on the exterior wall of the pot and draws it until the pot closes up. Although she draws the inside walls during the forming of the body and rim, for the base she draws the exterior wall of the added base coil. Closing of the pot is done by assembling the last bits of clay (on the exterior) into a tuft and cutting it. She then scrapes the whole base with a calabash after cutting and then adds another small chunk, which she smoothes with the inner side and outer side of the calabash to finish.

The pot is then moved to a shady, wind-free area where it rests for three days before firing. The firing process is identical to that of Meru- Tigania.

Figure 3.35: Kamba pottery making processes (Photographs by the Author)

3.4 Variations in Pottery Making Practises and Chaînes Opératoire of the Highland Bantu Speakers

The methods of clay acquisition among the highland Bantu are similar but the treatment differs as summarized on Table 3.5. The Meru-Tigania potters mix clay from two sources while the Kamba potter uses only one. The Kamba potter soaks her clay in an old pot, while the Meru-Tigania potters sprinkle some water on it and cover it overnight.

It is also evident from the presentation that the pottery forms are influenced by market demands. For example, the Kamba potter makes the same pottery forms as her Meru neighbours, but, in addition, makes some in the shape of modern aluminium pots commonly used Kenya.

Three notable differences occur in the forming techniques: (1) the Meru-Tigania potters use two slabs of clay to build their vessels while the Kamba potters use one slab; (2) Meru-Tigania potters draw the slabs from the exterior wall surface, while Kamba potter draws from the interior wall surface; (3) Meru-Tigania potters do not add rolls of clay to complete the base, but the Kamba always do.

The variations do not seem to be radical, meaning that the differences might have occurred not too long ago. However, it is difficult to tell using the available data which among the two chaînes opératoire has deeper time depth. Nonetheless, based on the history of the Kamba potter, it is likely that she mixes aspects of both Meru-Tigania pottery making practises and Kamba practises. Likewise, Katithini being an ethnic border town, intermarriages must have existed (as proved by the Kamba potter social background) and so, technical borrowing might have occurred in either direction.

Table 3.5: Similarities and differences in pottery making of the Highland Bantu

	Potters	
Potters tools, tutors and techniques	Meru-Tigania	Kamba
Working tools	Calabash, plunk wood, wood,	Calabash, wood, mat
Tutor	Mother in law	Sister in law
Starting point	Maximum diameter	Maximum diameter
Technique	Vertically the exterior walls of two slabs of clay	Vertically drawing exterior walls of one slab of clay
Fashioning	Vertical pressure on exterior surface with wood and horizontal pressure on the interior with a shell	Vertical pressure on exterior surface with wood and horizontal pressure on the interior with a shell
Forming the Rim	Drawing clay from the body and shaping with wooden tool	Drawing clay from the body and shaping with wooden tool
Drying phase to leather hard	Two to three hours	Two to three hour
Decorations	Dotted motifs	Wavy line motifs
Forming the base	Drawing the preserved clay until the base closes by assembling the last bits of clay into a tuft in the middle of the base and cutting it.	Drawing the preserved clay and adding a coil on the exterior wall and drawing it until the base closes.
Finishing	With wet piece of wood or wet hands	With wet piece of wood or wet hands
Drying phase	One day	Minimum three days
Firing	Wood, grass and millet chuff	Wood, Grass and chuff
Distribution	Kathithini market and individual orders from clients	Kathithini market and individual orders from clients

3.5. Characterizing the Bantu Speakers' Tradition

One of the most important common technical aspects of all the Bantu-speakers' pottery-making chaînes opératoire is that they all model the body of their pots through vertically drawing of the clay. They stretch the clay upwards with fingers until the original amount is exhausted before they add a coil or two. The difference here is that the

highland Bantu form the body and the rim before the base while the coastal Bantu do the opposite. They form their pots from the base to the rim as one unit. The highland Bantu speakers add a coil as necessary to provide additional clay for completing the base, while the coastal Bantu speakers add coils to complete the upper body and to form the rim. The posture of the potters during pottery making also differs such that when modelling, the coastal Bantu work while seated and rotate the pot, but the Highland Bantu bend during the whole process and usually move around the pot. The use of a piece of wood for thinning the exterior wall surface and shell for thinning the interior wall is common to both groups. However, the shell used by the coastal potter is from mussel, while for the highland Bantu it is a piece of calabash. Finishing also differs in the fact that the Highland Bantu do not use cloth to smooth or a stone to polish their pots (Figure 3.36).

On the other hand, forms and decorations are quite different. The highland Bantu speakers do not make bowls as opposed to the coastal Bantu whose pottery repertoire mainly consist of bowls. Decorations seem to be very varied too. It seems that each potter decides on what motifs they need on their pots. It is, however, a common practise to both coastal and highland Bantu speakers not to decorate their pots.

3.6. Similarities and Difference between Bantu and Cushitic Speakers' Pottery Making Practises and Chaînes Opératoire

The pottery makers in the Cushitic community are men while only women pot in the Bantu communities. In their response as to why, the Bantu said that men could never learn and the Cushitic said women were not trainable. Likewise, the Cushitic speakers use wooden turntables as supports, while Bantu speakers use leaves, holes in the ground or shallow plates.

While all the Bantu speakers draw clay vertically from a lump or slab, the Cushitic speakers build their pots by internally placing a huge coil in the middle of the previous one and crushing it with fingers as they join and thin them. Also, although the Bantu speakers add a coil while forming the rim, the technique of adding is different from that of the Cushitic speakers. The Jomvu Bantu speakers place the coil on top of the previous one and add some clay along the joint to strengthen it.

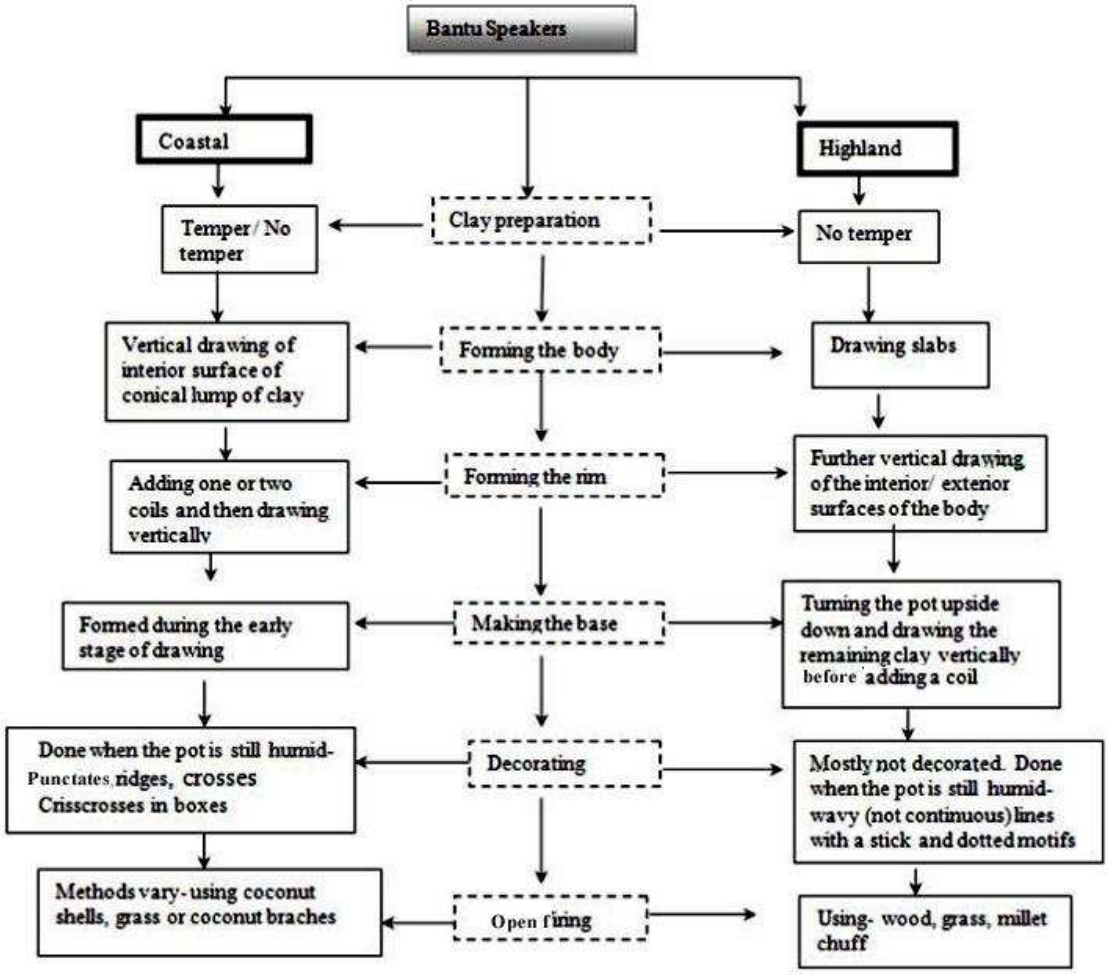


Figure 3.36: Similarities and differences between Coastal and Highland Bantu speakers

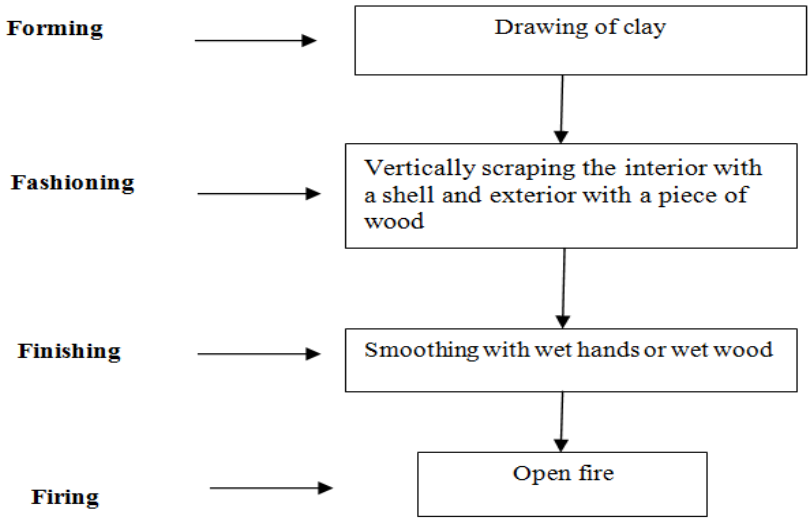


Figure 3. 37: Bantu speakers pottery making tradition

The base is the last to be formed by the Cushitic speakers just like the highland Bantu speakers although the techniques are different. They both turn the pot upside down and the Cushitic speakers add coils, while the highland Bantu speakers draw the previously reserved clay from the upper body. The Cushitic speakers do not use a cloth or a stone to finish their pots, but, instead, use wet hands or a piece of wood.

The differences in practises and pottery-making chaînes opératoire of both Cushitic and Bantu speakers appear to be quite important as opposed to the ones that are apparent among potters who share a language. From the above presentation, it is plausible to suggest that they originate from completely different ancestors. It seems that, spatial separation has not contributed to the noted differences, since both Cushitic and coastal Bantu speakers share the coastal region and yet they have not influenced each others' pottery making technology or practises.

In summary, the distinguishing features of Cushitic and Bantu pottery making practises and chaînes opératoire can be characterized as shown in Figure 3:38. It is, therefore, apparent from the available data that core aspects of pottery making techniques like drawing among the Bantu speakers or coiling among the Cushitic speakers remain unchanged regardless of space and time. Likewise, use of turntable remains a feature of the Cushitic people only, although it could be more efficient in providing continuous movements which the Bantu speakers seek by either going round the pot or by holding it in order to rotate it at the risk of collapsing it by accident. Moreover, it is apparent that for both ethnolinguistic groups, fashioning and forming techniques are resistant to change and are the same for populations who share a language despite their spatial distribution unlike the pottery making tools, pottery forms and decorations which seem to be varied may be as a result of market demands, environment or anything that can serve the purpose (in the case of tools).

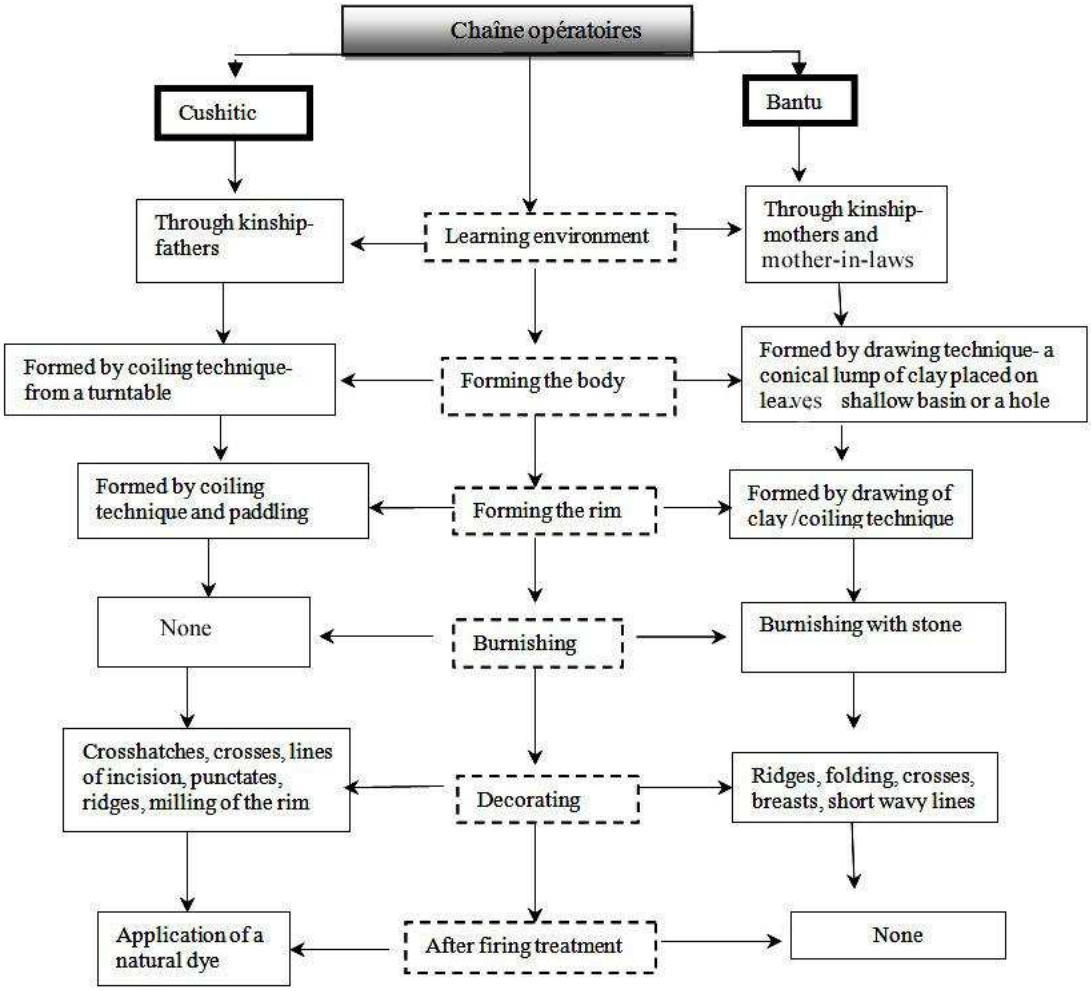


Figure 3.38: Distinguishing features of Cushitic and Bantu speakers' chaîne opératoires

3.7. Supplementary Information on Bantu and Cushitic Speaker's Pottery Making Chaînes Opératoire from a Wider Context

After establishing pottery-making patterns among some of the Cushitic and Bantu speakers in Kenya, it was considered important to see if the tentative conclusions above can hold in a wider perspective. This informs this research as to whether the established chaînes opératoires are restricted to Kenya or if they are characteristic to other Bantu and Cushitic speakers in the rest of Africa. For this purpose, data are drawn from Western and Southern Africa in the case of the Bantu speakers, while they are drawn from Somalia in the case of the Cushitic speakers.

3.7.1 Potters of Buur Heybe in Southern Somalia

A comparative study of Cushitic pottery making techniques is made possible by the availability of a recorded video in the market. As this was the only resource available to me, I do not consider this comparison either exhaustive or representative. Nevertheless, the comparison helps in pointing out the possible similarities between pottery making in this region of Somali and the craft of the Kenyan Cushitic speakers.

The Potters of Buur Heybe is a DVD recording from Southern Somalia by Tara Belkina (1990). The chaîne opératoire and pottery forms of the Southern Somalia as presented in the DVD are similar to those of the Jareer potters and aspects of Waata potters in Kenya. However, in Buur Heybe, unlike among the Kenyan Cushitic potters, it is the job of women in the potter's family to collect, beat and sift the clay at the source before transporting it back to the pottery making areas, to be used by the men. The clay source is communal and no access fee is charged for it. Some women fetch the clay daily while others visit three times in a week. The potter makes about 30 pots in a day. The potters are farmers, who live among nomads with whom they trade. The pots are sold in the market but individuals can pick up their orders from the potter's home.

The pots are made by coiling beginning from the maximum diameter to the rim. The potter sprinkles water and clay on the turntable before placing the first coil. The coil is placed and crushed at the same time as the potter rotates the turntable with the toes of the right foot. The subsequent coil is placed on the middle of the previous coil (forming a beveled junction) on the inside wall surface after which successive coils are placed in the same way until the pot is made up to the rim. The potter uses a shell to scrape the interior wall with continuous horizontal movements while bulging it outwards in order to shape it. He then uses wood to smooth the exterior surface wall using continuous vertical movements. Then he moves the pot to a shady place where it is allowed to get to leather dry before the decorations are applied. The pot is then turned upside down in order to make the base. He forms the base the same way as the Waata potter. First the potter paddles the pot curving it inwards before applying a coil on the inside wall. He joins and thins the coil with his fingers and then applies another coil on the exterior wall surface, which he joins to the existing wall with his thumb of the right hand while the fingers of the left hand support the pot from interior. When the fingers of the left hand cannot fit in

the centre of the base anymore, he gathers the last bits of clay on the exterior surface into a tuft and cuts it before scraping and paddling it and then smoothing with the wood to finish.

It is therefore, apparent that the Kenyan Cushitic pottery making chaîne opératoire is found elsewhere among other Cushitic speakers. Based on the comparative case provided by the Potters of Buur Heybe DVD, it is plausible to conclude that, the Cushitic potters of the Somali origin (living in Kenya) brought their pottery making knowledge with them. They must have practised the craft while in Somalia or they may have learnt from people who were of Somali origin. This confirmation verifies the claim that the Kenyan Somali potters learnt from their fathers since it is evident from Somali practise. It is also likely that the role of fetching clay, which is traditionally assumed by women, has been altered by the potters of Garissa. We can infer that the change of this tradition happened in Kenya since all the other practises, and the women's participation in firing is identical. There are no taboos associated with the fetching of the clay; therefore, the division of labour could be altered easily.

As such, this demonstrates that, the Cushitic forming and fashioning techniques as experienced in the Kenyan context, is not unique to Kenyan potters but it is a practise which is well rooted and maintained through family lineage among the Cushitic Somali speakers.

3.7.2. Ethnographic pottery making in Southern Africa

Since no other extensive work on pottery making in the Southern African region was accessible for this research, the case studies presented below are solely from Lawton (1967). As he carried out this research when pottery making was still a widely-practised occupation, I consider his work authentic and representational although in some cases, he did not observe the performance of the craft but only interviewed the potters. In addition, he also retrieved his information from documentary sources and museum collections. As such, although this work serves as an important source of ethnographic pottery making in Southern Africa, it is not based fully on eyewitness account and therefore it is not precise on specific actions for each stage.

The research was conducted among the Southern Africa Bantu speakers living in the South of Zambezi and Cunene rivers. The region covers Namibia, Botswana, Zimbabwe,

Mozambique, Lesotho, Swaziland and parts of South Africa. Although Lawton presents data from many ethnic groups, only a few are presented in this section. Also, I have limited the presentation to the pottery making aspects which were clear and are comparable to the Bantu case studies as presented above.

The potters of Southern Africa are largely women. An exception is in southwestern Africa, where among the Diriko and Mampukushu men are responsible for the craft, while in Kuangari and Bergdama both genders are involved in pottery making. Although most of the interviewed potters learnt their craft from either their mothers or grandmothers, some stated that they learnt from watching others at work or at government or mission schools. However, citing Martin (1941) and Schapra (1953), Lawton clarifies that in the past, the pottery making knowledge was guarded within certain families and that it was a hereditary craft.

As regards clay treatment, it appears that it was a matter of personal preference based on the type of clay, climate and the amount needed for the size as observed by Lawton. A variety of tools was used by potters either as supports for the pot during modelling, or as finishing and decorating implements. The supports could be in form of flat stones, potsherds, basins, plates, grass rings, iron lids and dishes. Finishing tools included pieces of calabash, wet clothes, ox ribs, metal blades, wood, clamshells, mussel shells, bean pods, maize cobs, and glass. The decorating tools comprised thorns, hairpins, plastic combs, nail heads, stone pebbles, glass, grass stalk stamps, tin strips and knives (Table 3.6). From these lists, we can safely conclude that there was great innovation in the choice of tools. Potters used any available natural or artificial objects as long as they served the intended purpose.

Pottery-building techniques in the surveyed area included modelling of a lump of clay, making of coil, use of slabs and use of rings (Table 3.7). They used either one of the methods (simple) or combined two (compound) during certain stages of modelling.

Since the explanations of the learning process by the potters did not go beyond grandmother, Lawton was not able to establish the origin of each particular technique. He, however, suggests that, modelling of a lump of clay is the most primitive forming technique while the other techniques were most probably developments from it with variations taking place in different directions and levels (Figure 3.39).

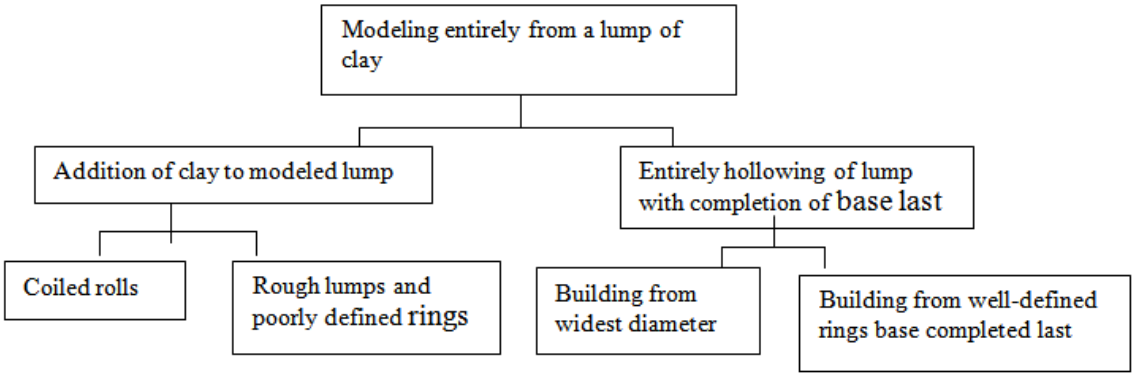


Figure 3.39: Development of pottery making techniques (After Lawton 1967)

From his description, it is evident that most of the potters made their pots by modelling the lower body from a lump of clay and the upper body by using either spirals or rolls/rings of clay. However, some used only a lump of clay to build the entire pot without adding any coils. The lump of clay would either be conical or in the shape of a ball. The other method that was commonly used was coiling of the entire pot. The application of coils also varied, such that there was a difference in the size and number of coils used by different potters. Likewise, while some placed and crushed the rolls internally, others made spirals or made rings, which they attached through a superimposition process. The other but less commonly used methods were building with one or two slabs or building of the entire pot with several pieces of slabs.

The use of several pottery making techniques within the Southern Africa Bantu community, is likely to have developed from the learning methods. Although some potters claimed to have learnt through kinship, others learnt from government institutions or schools as stated above. Since it is unlikely that schools will teach only one way of making pots, it is logical to suggest that different teachers were well versed with different techniques of pottery making, which they disseminated to their students. Therefore, students of the craft were likely to adopt the methods that they found easier to grasp and to use routinely, and, passed them on to their kin.

Table 3.6: Types of pottery making tools in Southern Africa

Ethnic group / Technique & tools	Support	Finishing tools	Decorating tools	Compound forming technique	Simple forming technique	Slabs
Mabaso	Flat stone	Calabash	Hairpin, pebble	X		
Zulu of Eshowe	-	Calabash tin	Haircomb, tin, pebble	X		
Zulu of Melmoth	Grass ring	Calabash flat wood	Nail, tin, pebble	X		
Nguni of S. Tsonga	-	Flat wood, spoon head, shell, wet cloth	Clam shell		X	
Tshagana of Mozambique	Potsherd	Mussel shell, calabash,	Notching rim-calabash		X	
Fokeng of S. Sotho	tin or enamel plate or basin	Knife blade	Grass stem, nail, knife, stone, glass, hoof		X	
West Venda	Any hard flat object	Calabash, leather	Stick, thorn stone	X		
South Venda	Potsherd	Pin pod, skin	Pin, pebble		X	
Lemba of N. Transvaal	Potsherd	Pod, wet cloth	Stick, grass stalk stamps	X		
Lemba of Belingwe	Potsherd	mealie cob, stick, pod	Grass stalk, pebble			
Zezuru of Karanga	Enamel or tin plate	Wood, cob metal, calabash				
Kwanyama	-	Hoof of ox/horse	-		X	
Manyika	Wooden, or enamel plate	Calabash, wood	Grass stalk		X	
Teve	Wooden plate	Cob, bamboo, calabash, cloth, leaf	pebble		X	
Swazi of Swaziland	Flat stone, potsherd, grass ring, metal lid, enamel dish	Flat wood, stone, calabash, tin, spoonhead	Stick, thorn nail, pebble	X		
Karanga of Belingwe	Plate	-	Stick	X		
Rozwi	Plate	Calabash, stick	Pin, stick, stone		X	
Kualuthi	Potsherd	Wood, bone, flat pebble	-		X	
Kuangari	-	Wood, calabash	-		X	
Susura	-	-	-		X	
Kwena	Enamel basin	Wood	Grass stem, pebble			X
Kgatla	Enamel basin, iron lid	Ox rib, wood	Knife, stone			X
Kgalagadi	Enamel dish	-	Pebble, thorn		X	

.

Table 3.7: Summary of pottery making techniques in Southern Africa

Ethnic group / Technique	Lump + Rings	Lump +rolls	Entirely lump	Spiral coiling	Rings	One or two slabs	Slab building
Mabaso	X						
Zulu of Eshowe	X						
Zulu of Melmoth	X						
Nguni of S. Tsonga			X				
Tshagana of Mozambique			X				
Fokeng of S. Sotho			X				
West Venda		X				X	
South Venda			X				
Lemba of N. Transvaal		X					
Lemba of Belingwe			X				
Zezuru of Karanga					X		
Kwanyama			X				
Manyika					X		
Teve				X			
Swazi of Swaziland				X			
Karanga of Belingwe		X					
Rozwi					X		
Kualuthi						X	
Kuangari						X	
Susura						X	
Kwena							X
Kgatla							X
Kgalagadi						X	

3.7.3. Ethnographic pottery-making techniques at a sub-continental level

These comparative data are solely derived from the work of Gosselain (2000). His work is one of the most extensive ethnographic studies on pottery-making in Sub-Saharan Africa. The work was found most appropriate since he has summarized pottery-making techniques from 350 populations, a number considered sufficient for this purpose. Moreover, his work covers a large number of countries within western and central Africa making it relatively representative. However, not all his research is based on eyewitness

accounts, but he includes accounts from databases and information collected from museum objects. Therefore, the current presentation does not aim at giving detailed pottery-making processes in the said regions but an overview that makes it possible for us to give a deeper meaning to the findings in the ethnographic cases studies of this research.

Gosselain's data are drawn from Senegal, Togo, Burkina Faso, Nigeria, Cameroon, Chad, D. R. Congo, Ghana, Mali, and L. Chad area. He claims to have found 50 techniques of roughing out vessels, but he points out that since the distinctions are not very clear, he used only the basic ones for his comparative study. These are: (1) pounding in a concave mould; (2) coiling; (3) superimposing and drawing of large rings; (4) drawing of a ring-shaped lump; (5) moulding over a convex mould; and (6) drawing of a lump.

Based on this study, he argues that techniques such as pounding and moulding tend to be associated with Afro-Asiatic (ancestral language of the Cushitic speakers) and Nilo-Saharan (ancestral language of the Nilotic) languages whereas coiling, drawing of a lump, drawing of a ring-shaped lump and superimposing and drawing of large rings are present either exclusively or primarily among Niger-Congo family[40]. He asserts that within the Mande group of the Niger-Congo family, drawing of a lump of clay is found among linguistically isolated populations, which have been separated from the Mande core for the longest period; therefore, he suggests that it could be the oldest tradition in the area. His findings on the Benue-Congo family who have the same ancestor as the Mande, and are distributed in west, east and southern Africa was that they make their pots by drawing a ring shaped lump of clay. Specifically, this technique is apparent among people who speak Kwa, Plateau, Mambiloid, Adamawa, Ubangian, Bantoid and Bantu languages (Figure 3:40)

The similarities in pottery-making techniques among the Bantu potters from west, east and southern Africa point to a common ancestor. The presentation of techniques at sub-regional level shows that members of the Niger-Congo family, who include the Mande, Benue-Congo and Bantu speakers, all draw a piece of clay to fashion their pots.

[40] Niger-Congo family is the ancestor of both Mande, Benue-Congo and Bantu speakers.

Likewise, it is apparent from both Southern and Western Africa that, although other fashioning techniques exist, drawing proves to be the earliest, upon which the others were built. This seems to correspond with the conclusions arrived at in the Kenyan case studies, where drawing was found to be the core method of forming among the Bantu speakers; although the shapes of the clay that was drawn differed. While it is common for Bantu potters in Western Africa to use ring-shaped clay, this technique was not detected among the Kenyans. Although not all the potters were visited, personal communication with members of other Bantu communities like the Kikuyu the Luyia and the Gusii claimed that they either used slabs or coiling techniques. It is, therefore possible to tentatively suggest that building from a ring-shaped lump of clay does not exist and if it does, it is at a negligible scale. Likewise, use of conical lump of clay and slabs, though important among the Kenyans, is it not mentioned as significant among West and Central Africans. Also, there is no mention of drawing of a ring shaped lump of clay in the Southern Africa case although this does not mean it was absent, since the descriptions are not very clear and there was no information on technology in several ethnic groups within the area of study. Yet if it were a major technique, we would have expected it to have appeared among the large number of ethnic groups that were presented. Among the Southern Africans though, it is evident that some of the potters use identical techniques with either the Highland Bantu or the Coastal Bantu speakers in Kenya. This may suggest that some of the variations observed between the coastal and Mt. Kenya Bantu speakers must have occurred in the distant past, even before the groups were separated to become 'coastal', 'highland' or 'Southern Africa' Bantu speakers. However, since both slab and conical lump of clay techniques occur in both regions, it is not possible to tell which one is older.

It appears that the Southern Africa Bantu speakers unlike, the Bantu speakers in the other regions, use several chaînes opératoires such that one ethnic group may show variation among its potters. The Southern Africa case is special since pottery-making is taught in schools thus making it difficult to distinguish between traditional techniques belonging to any particular group from those that were taught in schools. Nevertheless, based on the emerging patterns in the region, and the suggestions made by Lawton, we

can tentatively accept that drawing of a lump is of greater antiquity than the other techniques.

The pottery-making tools also show a great variation in all the regions. Although the whole package of pottery making skills is passed on to members of the family, the tools exhibit a lot of innovation. Use of felt pens for smoothing, in the case of Jomvu, and use of plastic hair combs, hair pins, nail heads, and enamel plates by southern Africa Bantu speakers demonstrate the adoption of modern materials for traditional pottery making. In this sense, it is evident that pottery making tools evolve as the forming techniques remain largely unchanged.

This ethnographic research therefore concludes that pottery forming and fashioning techniques by people who share a language within the studied ethnolinguistic groups in Kenya and the comparative data from speakers of related languages from other regions seem to have originated from a common tradition in the distant past. On the other hand, tools, forms and decorations seem to be very varied and may be influenced by various factors as seen earlier. Therefore, it is clear that among the Bantu and Cushitic speakers, correlation in pottery making should be sought in the fashioning techniques rather than in the tools, decorations and forms. Similarly, it would be a daunting task to try to establish with precision the finishing techniques in unknown chaînes opératoires using ethnographic case studies as reference data.

CHAPTER FOUR

SURFACE FEATURES FROM ETHNOGRAPHIC POTTERY MAKING

This Chapter describes surface features which are left on pottery surfaces as a result of forming techniques or pottery making tools. This data is derived from Cushitic and Bantu pottery making chaînes opératoires. Features left from forming techniques are presented, followed by the ones left by finishing tools. These served as reference data for Tana ware assemblage.

4.1. Forming Techniques

4.1.1. Coiling

Coiling technique as observed during the ethnographic research and as explained by Rye (1981) and Shepard (1967) generally leaves coil seams or joints, coil fractures and uneven surfaces. Ethnographic pottery by Cushitic speakers and the rim sherds of the coastal potters exhibit such features as shown on the figures below. The coil seams or joints show the point of contact between two coils, while the coil fracture is a breakage along the joint (Figure 4.1 and Figure 4.2). The Jomvu potters add clay on the joint and stretch it along it in order to make it strong (Figure 4.1). Also uneven surfaces may occur due to the coil application method. In the case of Cushitic speakers, crushing of the coil internally is done by pressing it with a bent finger. As such, some areas are raised while others get depressed (Figure 4.2).

4.1.2. Drawing marks

The technique of stretching of clay with fingers either from a lump or a slab in order to build a pot leaves deep grooves (drawing marks), on the walls. The Marks appear as either continuous or broken depending on the strokes of the potter. They occur parallel to each other in either vertical, diagonal or horizontal directions, or sometimes haphazardly depending on the gestures of the potter. In the case of the coastal potters, the drawing

marks run horizontally or haphazardly on the upper body- beginning from where the coils are applied (Figure 4.3 and 4.4). They are vertical on the lower section of the vessel up to the first coil joint. They are approximately 0.7mm to 13mm in width.

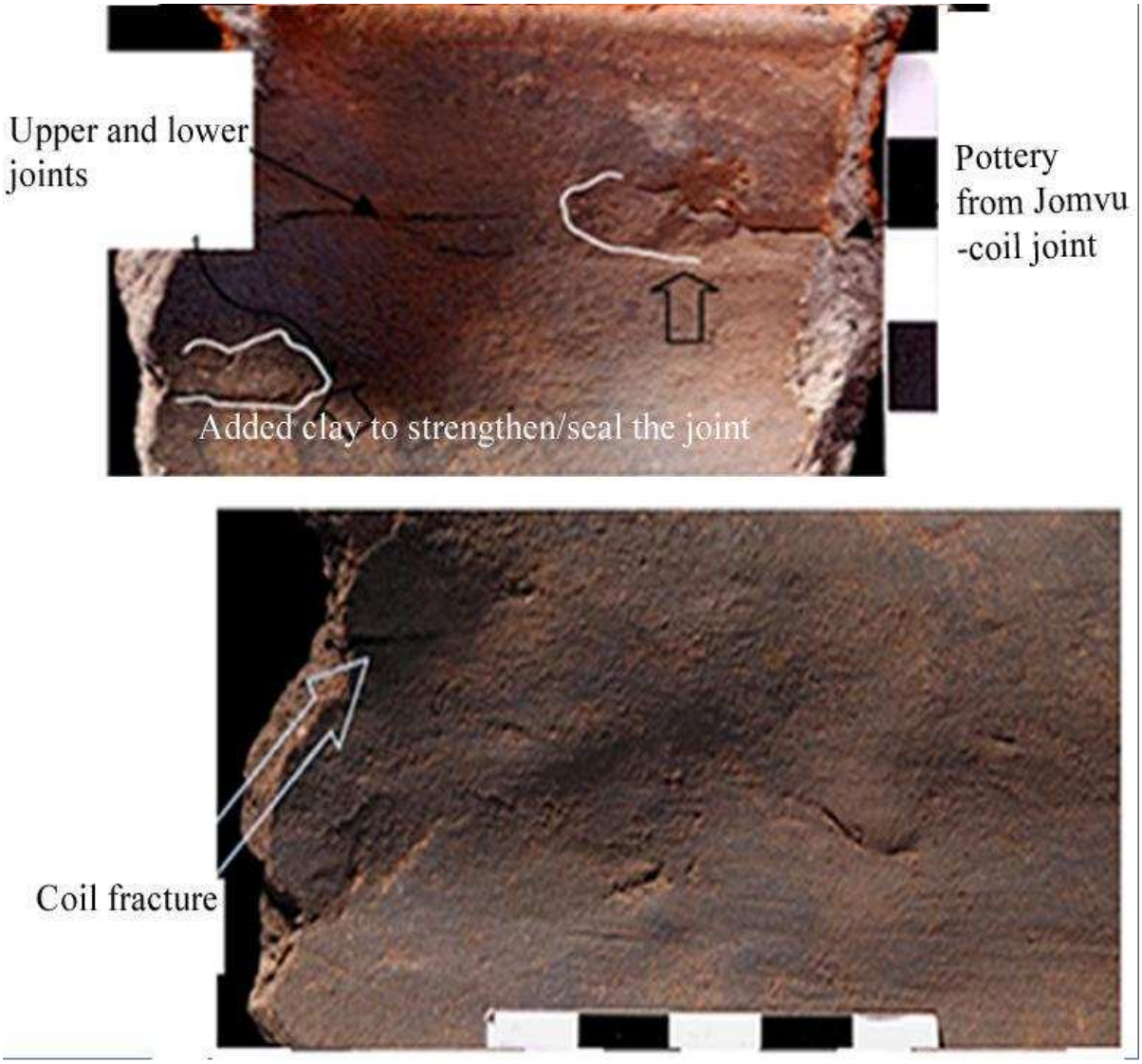
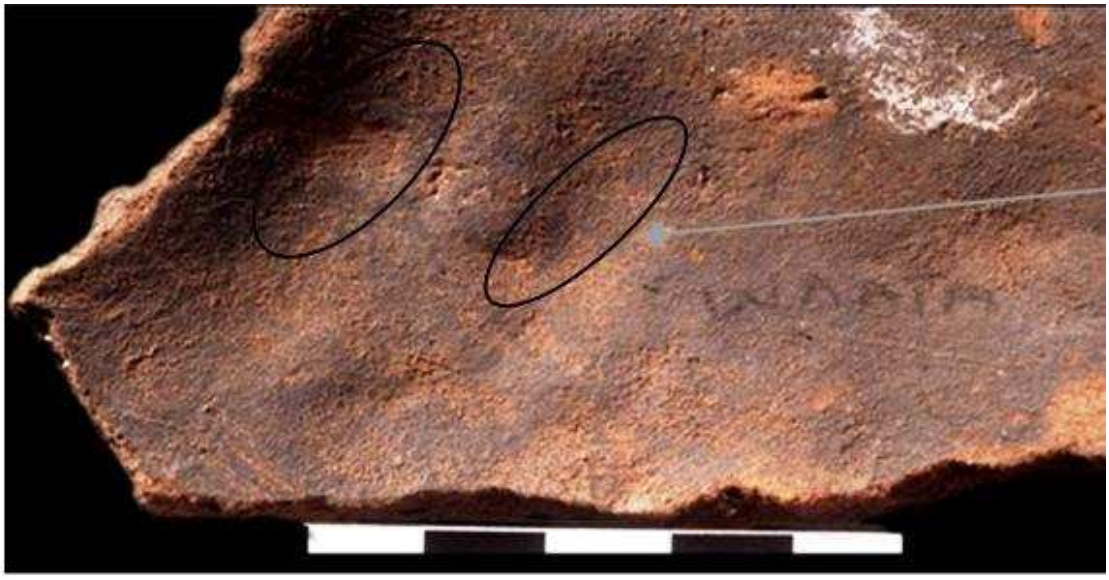


Figure 4.1: Coil joint and coil fracture (Photograph by S. Oboukoff)



Uneven surfaces example from Cushitic pottery

Coil seams example from Cushitic pottery

Figure 4.2: Showing uneven surfaces and joints from Cushitic pottery (Photograph by S. Oboukoff)

Drawing marks occur on the internal wall surfaces in Kamba and Coastal pottery, while in the case of Meru-Tigania potters, they appear on the exterior wall surfaces. The

marks are fully or partially concealed during the subsequent actions of the pottery making processes as shown on Figure 4.4.

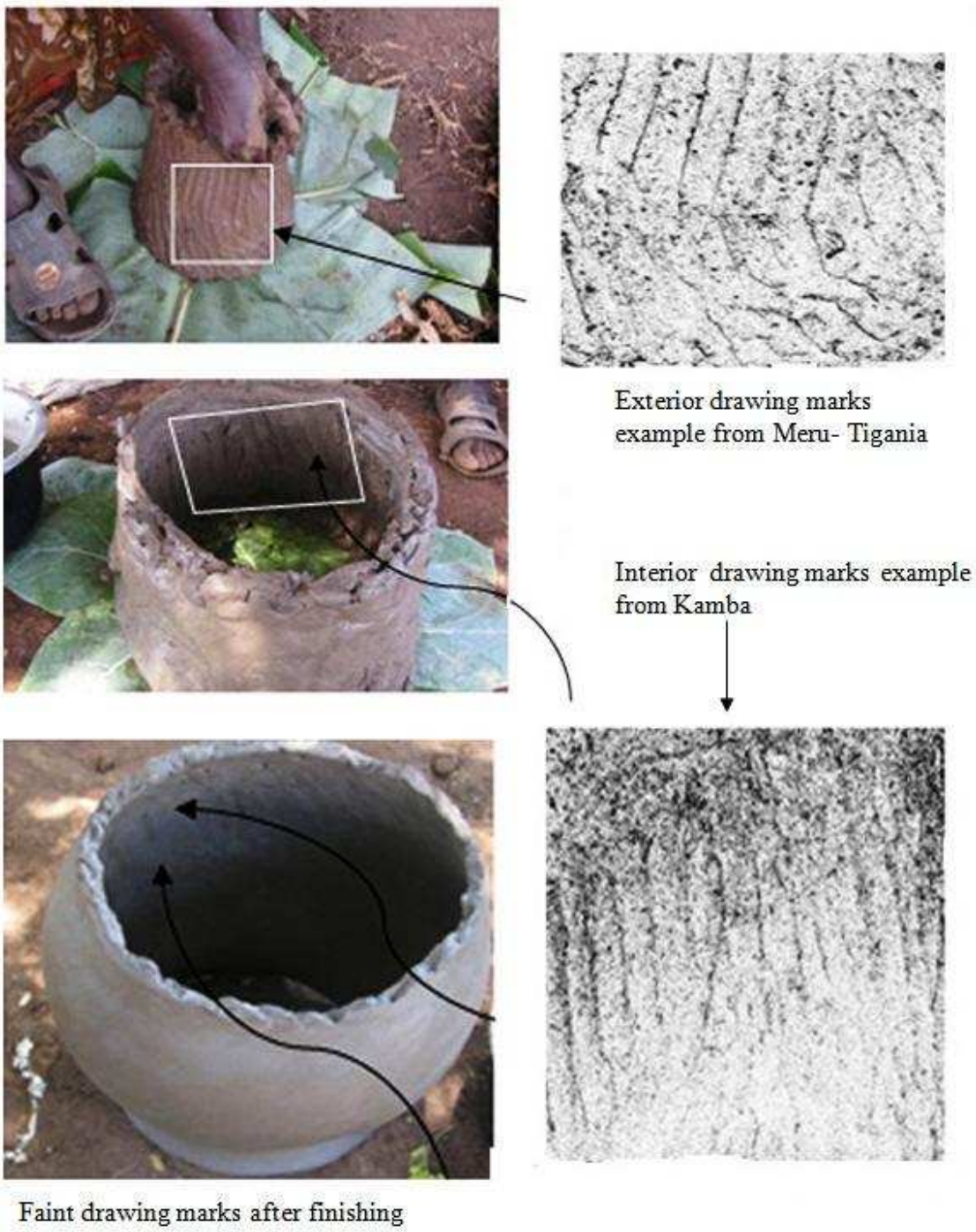


Figure 4.3: Drawing marks before smoothing and after (by theAuthor)

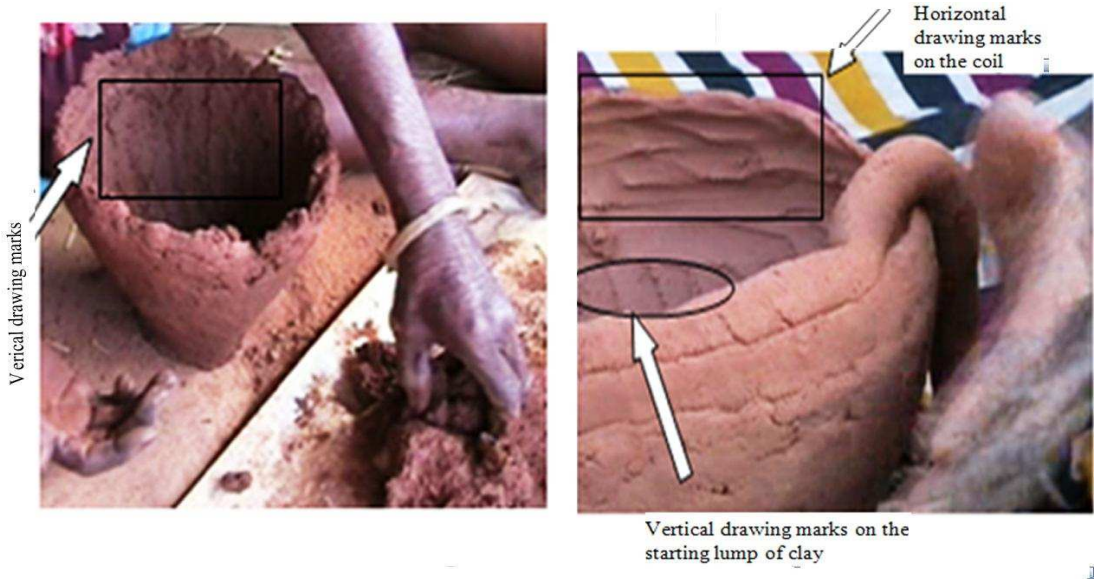


Figure 4.4: Interior drawing marks from coastal Bantu pottery making techniques (Photograph: by the Author)

4.1.3. Paddling

Cushitic speakers use a paddle on moist clay in order to shape the rim or the base. Due to the sogginess of the clay, the paddle lift particles of clay so that they leave a rough surface texture (Figure 4.5).

Figure 4.5: Surface from paddling (Photograph by S. Oboukoff)

4.1.4. Folds

To complete the pot, in both cases of the Highland Bantu and Waata Cushitic speakers, the potter folds the last bits of clay (at the tip of the base) inwards, in order to close it (Figure 4.6). However, Bantu potters remove the folds after the pot is leather hard with a calabash. On the other hand, Cushitic speakers do not remove the folds.

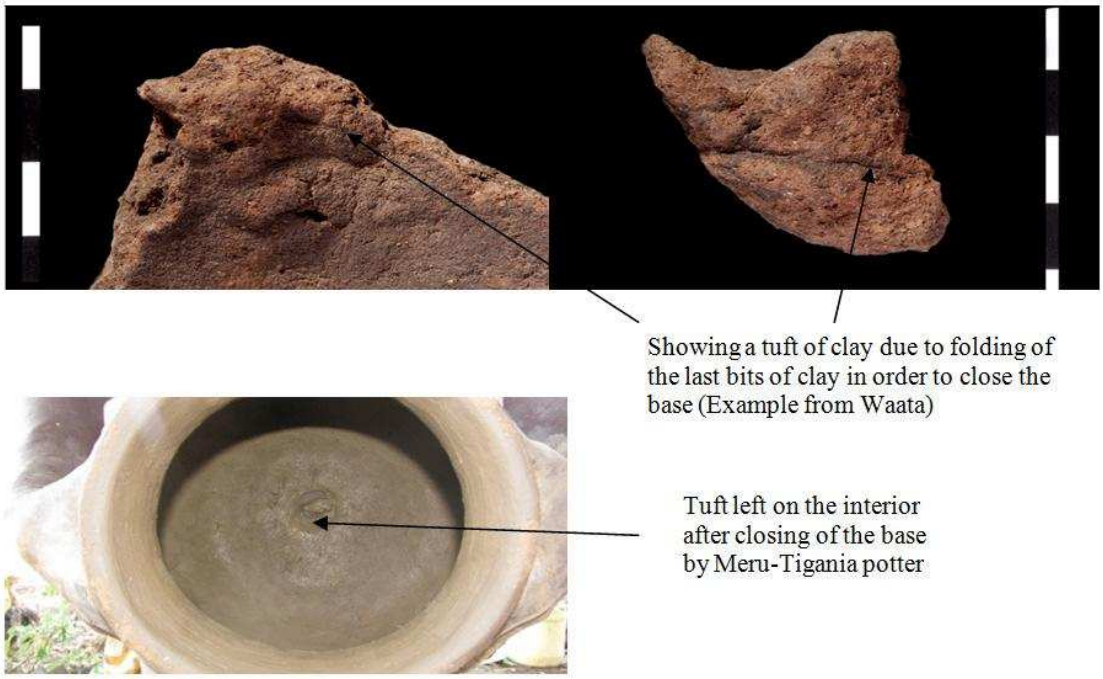


Figure 4.6: Folds left on the interior of the base (Photograph by S. Oboukoff and the Author)

4.2. Finishing Techniques

4.2.1 Soft tools

The striations left behind by cloth or wet hands are very thin faint lines. They are, however, very neat and shallow and appear to be very closely packed. They appear to take the gradient of the pot such that they tend to be curved around the rim and circular on the base (Figure 4.7). These striations are the impressions left behind by the fabric of the smoothing cloth or the marks left by the underside of the tips of the fingers. The impressions are formed by a pattern of ridges on the skin surface. The coastal potters use

a piece of cloth to finish and shape the rim as seen in Chapter 3, but the highland Bantu and the Cushitic speakers on the other hand often use wet fingers or wood to finish their pots.

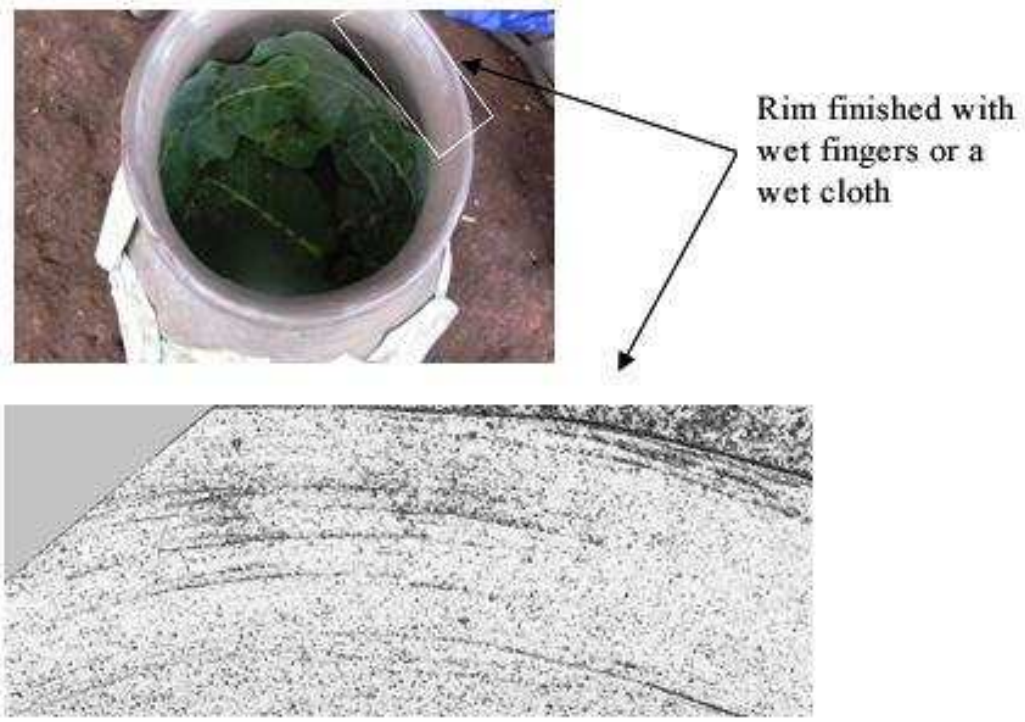


Figure 4.7: Soft tool striations (by the Author)

4.2.2. Shell

Shell is used by both Coastal Bantu and Cushitic speakers during the fashioning, finishing and decorating processes. When shell is used for fashioning or finishing it leaves stiriations on the surface which is thin and appear to be neat in most cases

Although these striations are thin, sometimes they appear to be wide and relatively deep due to the amount of pressure applied by the potter or in cases where the shell accidentally drags a grain of sand. The striations may appear curved following the gradient of the vessel around the bottom or the rim and straight on the body surfaces. They may run horizontally, vertically, or randomly since the shell is small and curved,

enabling the potter to move it in any direction without compromising the vessel. However, they are mostly observed from the interior surfaces as on Figure 4.8.

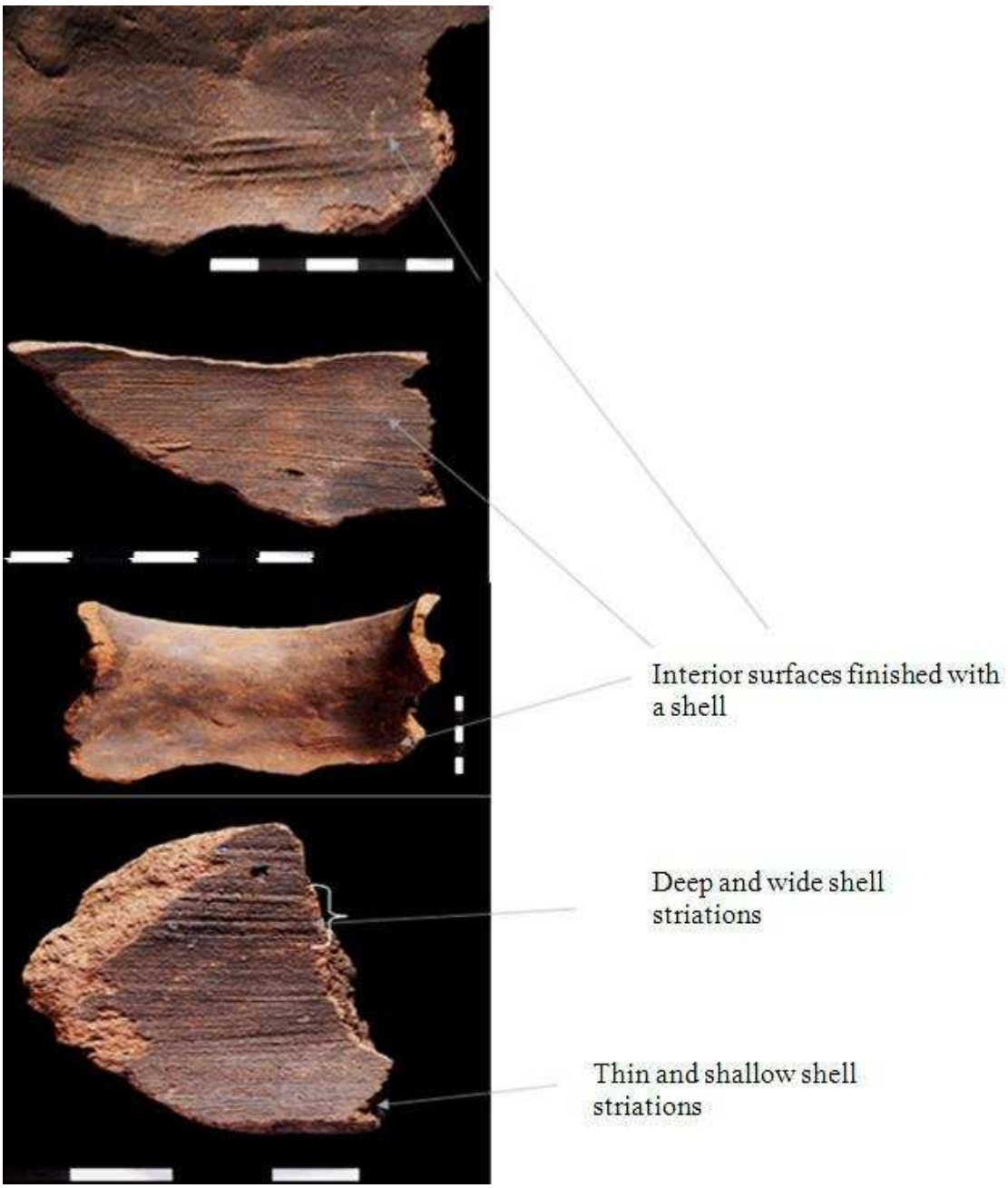


Figure 4.8: Shell striations (Photographs by S. Oboukoff)

4.2.3. Wood

In all the case studies, the potters used pieces of wood to finish the exterior wall surfaces. The edge of the wood is usually smooth and, therefore, leaves no obvious marks on the pot surfaces if it is used for finishing because the potter uses the smooth side of the wood as opposed to the edge (Figure 4.9).

Figure 4.9: Smooth surface without striations (Photograph by the Author)

However, if used for scraping off the excessive clay from the surfaces the potter uses the edge which leaves straight deep, wide striations. These are different from shell or soft tool because wood is stiff and hence it does not follow the gradient of the pot. Therefore, the striations tend to be short and discontinuous.

4.2.4. Calabash

The calabash is a vegetal material and therefore, when broken, it leaves fibers of uneven lengths on the edge. When the interviewed potters used a piece of calabash as a finishing tool, it left unclear surface features, since sometimes the loose fibers on the edge left faint secondary striations on the surface. However, the pressure by the potter

left impressions that resemble the shell striations. Although due to the interference by the loose fibers, they are not as neat or as even as the shell striations (Figure 4.10). Pieces of calabash were used for working the interior wall surfaces and therefore, this is where the striations are commonly observable.

Figure 4.10: Striations made by a calabash in the interior wall (Photograph by the Author)

4.2.5. Stone

Although the coastal Bantu speakers use stones to burnish their pots, the burnishing by the Jomvu potters is not lustrous while the burnishing by the Digo is lustrous. Burnishing is done when the pot is in a leather hard state, although in the example below, the pot was too dry and hence the burnishing was not well executed (Figure 4.11).

Figure 4.11: Burnished pottery from the Digo potters (Photograph by S. Oboukoff)

The above described surfaces features were used as reference data for Tana ware only when they were clearly visible and identifiable.

CHAPTER FIVE

PART I

MANDA AND UNGWANA ARCHAEOLOGICAL SITES

This Chapter is divided into two parts. The first part will give the general description of the sampled archaeological sites, periods and information on the excavations. The information for Manda site is derived from Chittick (1984), whereas for Ungwana site is derived from both Kirkman (1956, 1966) and Abungu (1989). The second part of the Chapter will present the results of the pottery analysis.

5.1. Manda Archaeological Site

5.1.1. Geographical location

Manda archaeological site is located on the northern end of Manda island within the Lamu Archipelago, Kenya. Lamu Archipelago is a small group of islands situated on Kenya's northern coastline, near Somalia. It is made up of Lamu, Manda, Pate, and Kiwayu Islands (Figure 5.1). Lamu town borders the Indian Ocean to the east, Tana River district to the south-west, Garissa district to the north and the Republic of Somalia to the north-east. Manda Island is separated from the mainland by the narrow Mkanda channel.

5.1.2. Manda Periods

Dating of Manda periods of occupation was done through use of dates deduced in the regions where the imported pottery was made (mostly China and Iran), and these were verified by a Fatimid coin retrieved from the early levels of the site (Table 5.1). The division of periods as described by Chittick (1984) begins with Period I which dates from the mid 9th to 11th century, Period IIa mid 11th to late 12th century, Period IIb, late 12th to late 13th century, Period III late 13th to 14th century, Period IV 15th to 16th century, Period

V mid 16th to 17th century and Period VI after 17th century. However, the earliest dates have since been revised by Horton (1996) to 7th century AD.

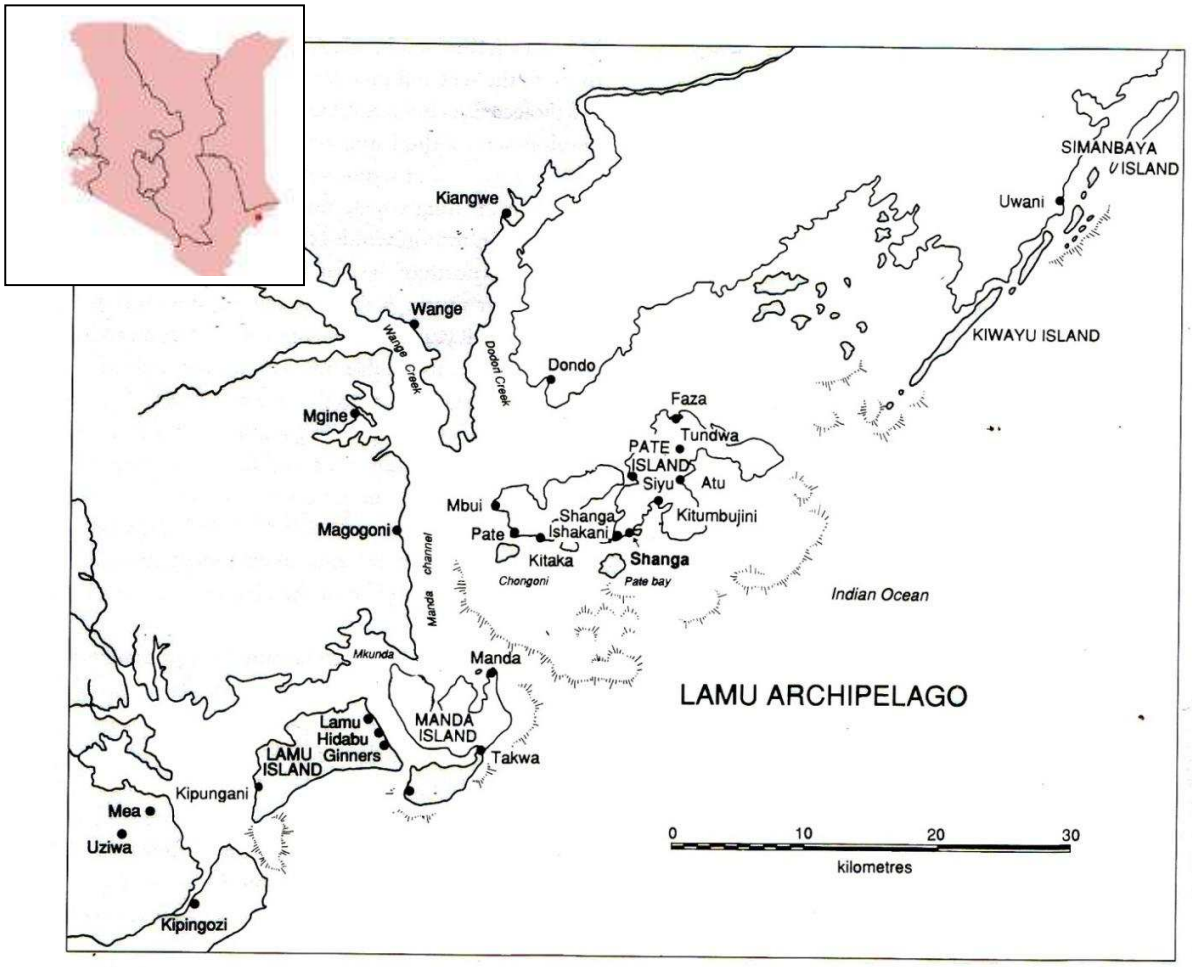


Figure 5.1: Lamu Archipelago (Source: Horton 1996)

5.1.3. Site description

The total area of Manda dry land is about 5000 hectares. The area is in part sandy scrubland and partly red loam over coral rock. The extent of the site is difficult to estimate although the area of stone structures extended over more than 18 acres. Chittick, therefore, estimates the total area of the town to have been about 36 acres (Figure 5.2).

Table 5.1: Periods distinguishing items (After Chittick 1984)

Period	Date (century AD)	Distinguishing Items
I	Mid 9^{th} – 11^{th}	**Glazed Islamic**- Sasanian- Islamic, white-glazed ware, mottled bowls (green, brown, yellow). **Chinese**: Sherds of 'Dusun' jars and green-glazed bowls; rare specimens of polychrome stoneware and white porcelain. **Unglazed 'Siraf'** ware common, **Glass**- straight walled beaker usually flat base. Colourless fabric
IIa	Mid 11^{th} –late 12^{th}	**Islamic**: Good quality sgraffiato **Chinese**: Ch'ing Pai ware? **Glass**: beads become more common
IIb	Late 12^{th}-late 13^{th}	**Islamic**: Poor quality and 'late green' sgraffiato-includes shoddy hatched specimen and 'wide line' sgraffiato, rare jars with green sgraffiato-type glaze but few or no scattered lines. Few bowls with same glaze display; **Chinese**: rare Ch'ing Pai
II	Late 13^{th}-14^{th}	**Islamic**: black on yellow. Some poor sgraffiato, early Islamic monochrome (lightish green glaze over buff body), **Chinese**; rare celadon
IV	15^{th} to early 16^{th}	**Islamic**: Standard Islamic monochrome, Chinese; rare celadon and stoneware
V	Mid 16^{th} -17^{th}	**Islamic**: Manganese Purple ware; late Islamic monochrome
VI	Post 17^{th}	Very little material; some late Chinese blue and white and Islamic 'imitation stoneware'(poor yellowish-brown glaze over grey body)

The site contains archaeological remains of 17th to 11th century town ruins which were first explored by Neville Chittick in 1965. Chittick attributes the origin and growth of the archaeological town to Arab traders who frequented and settled in Manda when the trade of elephant ivory, rhinoceros horn and mangrove among other commodities flourished on the East African Coast. According to the Pate chronicles, the town was destroyed in 1569 by Portuguese when the Arabs failed to pay them tribute and was finally abandoned in 1806 (Chittick 1984, p. 1).

At the time of the excavations, Chittick (1984) points out that most of the ruins that survived above the ground were remains of settlements which flourished around the 17th century and there were hardly any remains of early settlements. The only remains are lengths of walls built of large blocks of coral without mortar on, and adjacent to the shore in the northern part of the site.

Chittick (ibid) points out that the building materials of the town walls comprise blocks of coral rag, bricks, mud and wattle. Coral rag is a stone obtained from dead coral reefs; these were roughly squared and set in courses in the early period of Manda while random rubble was employed extensively in both middle and later periods. He describes the brickwork (of period 1) as having been set in mud mortar on rough stone footing projecting from the wall. The size of the bricks varies but they average at 18 cm length and 4.5cm thick. Mud and wattle were found in the form of lumps of burnt daub in some early strata.

Chittick describes two types of sea walls; “mega walls” which were built with coral blocks without mortar and “maxi walls” which were built with rubble set in lime mortar. The mega walls are employed on the seashore, while the maxi walls are employed parallel to the shore (Chittick 1984, p. 19).

5.1.4. Excavations

Trenches at Manda site were dug primarily with the object of coming to an understanding of the system of the sea walls (Chittick 1984, p. 22). In many cases, they were sited for the purpose of picking up the lines of walls with a view to the reconstruction of a plan. Trenches were dug on different areas of the sea walls which extend along the north western perimeter of the site and inland from the present shore, down to the region of the House of the Cisterns. The areas of these walls were

distinguished by the prefix AW, DP, GW, RW, HW, LP, MH, PW with a roman numeral number indicating the trench in the area concerned (Figure 5. 2). AW – trenches were dug to investigate the 8m length of mega-wall that fronts the shore, at the north-eastern end of the site; DP -the House of the Sunken Courtyard area ; GW -trenches were dug to investigate the sea walls to the west of the AW area; HW- Chittick comments that the numerous walls and corresponding complicated stratification render its interpretation difficult; MH- the house of the Cisterns,; PW- the sea walls close to the House of the Cisterns with the extension inland to the immediate south of the House. RW- the sea wall extending far onto the shore at the northwest corner of the site, between HW and GW. LP- Trenches were dug to expose the sea-walls and structures inland from the area north of MH. The earliest building in Period 1 was found in MH area and was named "House of the Cisterns." The other structures are "house of the sunken court yard" situated 125m inland from the central part of the site- ascribed to Period II and another structure with open sides and arched doorways dubbed "kiosk" which is ascribed to Period III. Mosques were also excavated but they did not produce good pottery samples for dating. Also, graves whose bodies were placed in Muslim fashion were excavated but no dating was done either. However, based on their construction style, they were compared to Kilwa and assigned a correlation date of 17th and 18th century AD.

Among the moveable materials recovered in Manda sites were imported trade items like Chinese and Arabic porcelain, beads, rock crystal, iron, domestic faunal bones, ivory, shell, glass and local pottery. Pottery was excavated from all the areas although no site where it was actually manufactured was found and no obvious sources of suitable clay is available in Manda island (Chittick 1984, p. 107 ; Wilding 1977, p. 437). It was also excavated in circumstances rather ill-adapted for setting up a chronological typology (Chittick 1984, p. 243). Nevertheless, chronological sequence was set using occurrence of imported wares of mixed dates as an indicator of undetected disturbance or re-deposition (Chittick 1984, p. 107).

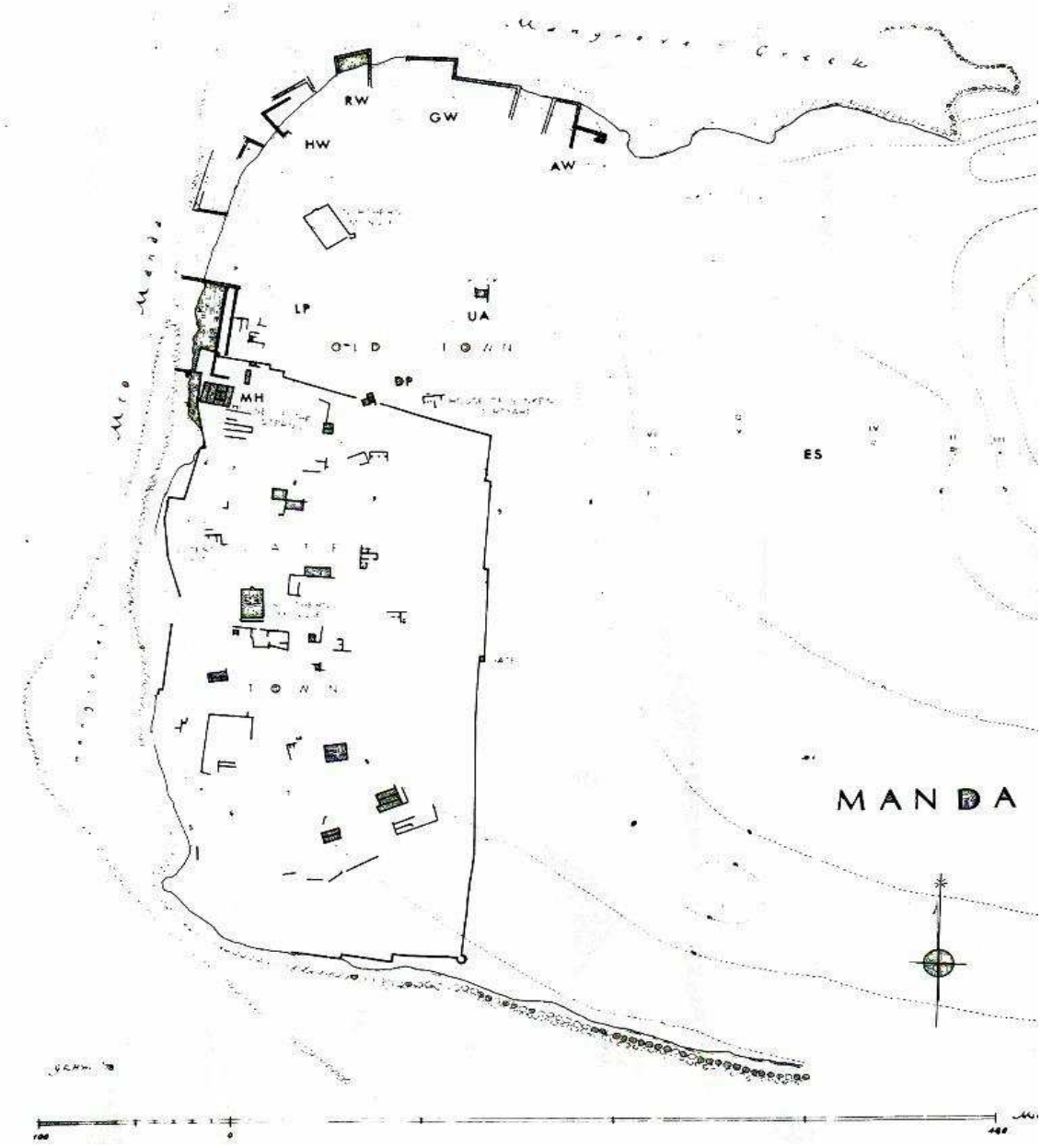


Figure 5.2: Plan of Manda Archaeological site (Source: Chittick 1984)

5.2 Ungwana Archaeological Site

5.2.1 Geographical location

Ungwana is one of the most important archaeological sites along the Tana River Delta. It is an archaeological settlement which is located on the present mouth of Tana River, along the Kenyan coast at Kipini. The Tana Delta is the name loosely given to the floodplain ecosystem of the lower Tana River, a vast wetland complex. The delta is roughly triangular, with its apex at Lake Bilisa (north of Garsen) and its base is a 50 km stretch of beach along Ungwana Bay, stretching from Kipini in the north-east to Mto Kilifi in the south-west (Figure 5. 3).

5.2.2 Ungwana Periods

Kirkman assigned 6 periods to Ungwana site using the imported ceramic wares (Kirkman 1966, p. 17). In the earliest levels, Kirkman was only able to recover local pottery and he points out that no imported wares were present. He therefore assigns periods to the site based on when the first imported pottery starts to appear. The earliest periods, recognized as Period I and II are dated from 1200 to 1350 AD.

The characteristic materials that were used included glazed ware which was commonly sgraffiato, a red bodied earthenware covered in yellow or green, often mottled glaze with incised patterns of random curling lines or arabesques on a hatched background showing the under glaze. Islamic sgraffiato is known from the Samara period (9^{th} and 10^{th} c). Some sherds are also identical to Bhambor in Scinde dated to 8^{th} and 12^{th} c AD. Period III and IV are dated from 1350-1500 c. AD. During this priod, a great diversity of materials starts to occur. Kirkman (1956) suggests that it was probably due to movements of Orma and Amharic from Ethiopia to the delta due to its heavy equatorial rains which gave security and abundance agricultural produce. As a result, the Arabs moved further to the south. The other characteristic of this period was Islamic ware which was yellow and black glazed on red body. Others were plain wares which occurred in great quantity with the tint varying from bright yellow to yellow green. These continued to be made into the 15^{th} century. Period V and VI are dated from 1500 - 1600 AD. During this period, partially glazed celadon starts to appear in large quantities, and the standards of the Chinese ware also started to decline. The Islamic ware which

consisted of yellow and black disappeared and was replaced by glossy monochromes-usually in blue or green but also in purple, lavendor, grey , brown, yellow, and white.

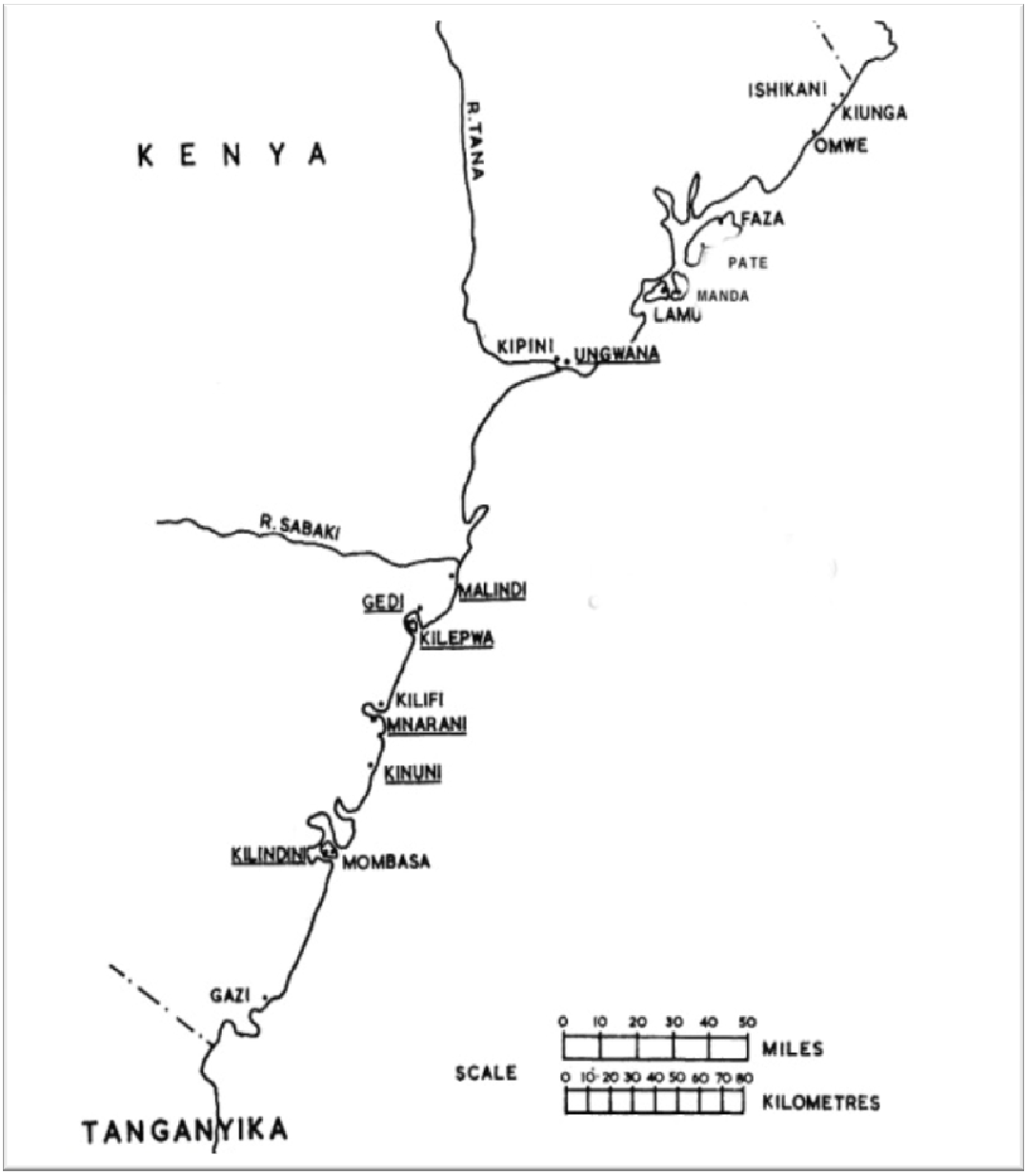


Figure 5.3: Location of Ungwana site (Source: Kirkman 1966)

While Kirkman used imported pottery to assign periods to Ungwana, Abungu (1989) revised these periods using local pottery and correlations with materials from other sites along the coast which produced similar collections; for example Manda and Shanga.

Abungu's periods pushed Ungwana dates backwards to between 950 AD and 1600AD (Table 5.2). According to Abungu, the correct periods should be: Period I (950-1150AD), Period II (1150-1200AD), Period III (1200-1350 AD) Period IV (1350-1450 AD), Period V (1450-1500AD) and Period VI (1500 -1600 AD).

5.2.3. Site description

The site is built on a line of sand dunes about 6 meters above sea level. It covers an area of 45 acres which lie 0.4 kilometers from the sea (Kirkman 1966). Kirkman attributes this archaeological settlement is to Arabs who occupied it between 12th and 16th centuries AD.

Table 5.2: Different dates by Kirkman (1966) and Abungu (1989)

	Dates in AD	
Periods	Kirkman (1966)	Abungu (1989)
Period I	1200-1350	950-1150
Period II		1150-1200
Period III	1350-1500	1200-1350
Period IV		1350-1450
Period V	1500-1600	1450-1500
Period VI		1500-1600

He proposes that it would have served as entrepôt for the produce of lower Tana, particularly ivory which would have been carried to ports easily accessible to large ships, like Lamu (ibid). He gives two versions of events that led to the destruction of the settlement; that the Arabs left on demand by the Orma, or that, the town was destroyed by Orma in a night attack in which the whole population was massacred in the great mosque (ibid).

Surviving buildings include six mosques, of which 2 are Jamia, 3 other mosques, large houses and decorated tombs (Kirkman 1966, 1956). Both the mosques and other buildings were constructed using coral rag with red earth and coral like mortar (Figure 5.4). The roofs are made of coral tiles which are set in lime concrete and wooden beams (Kirkman 1966). Kirkman likens the style of these buildings with that of the rural buildings in the less advanced parts of the Arab world at the time of his writing (Kirkman 1966). The pillar tombs are described as being rectangular paneled enclosures which are

usually open to the sky with a tall pillar at the end. They are square, polygonal or fluted in shape. These pillar (phallic) tombs are frequently found associated with tombs with paneled walls but without the pillar or with an oval slab ornamented with a carved boss or plate in place of a pillar. Also, some of the tombs are ornamented with porcelain bowls or carved arabesques or inscriptions (Kirkman 1956, 1966). He points out that these are Muslim tombs although the pillar tomb are unknown elsewhere in the Muslim world in such proportions. Therefore, he links them to the phallic monoliths in Orma country or with the standing stones of Madagascar (Kirkman 1966, p. 347).

5.2.4. Excavations

First excavations of Ungwana were carried out by Kirkman in 1953. Later less extensive work was done by Wilding (cited in Abungu 1989). However, more recent and extensive excavations were carried out by Abungu in 1987/88 and are reported in his PhD thesis (1989). Whereas Kirkman concentrated his work on the large spectacular stone structures, Abungu (1989) focused on excavations of middens and mud/thatched houses.

Excavations by both Abungu and Kirkman produced enormous amounts of pottery, of which 95% comprised local wares while 5% comprised imported ceramics (Abungu 1989). Other materials include imported pottery, glass, shell, ivory, horn, semi precious stones and fish bones.

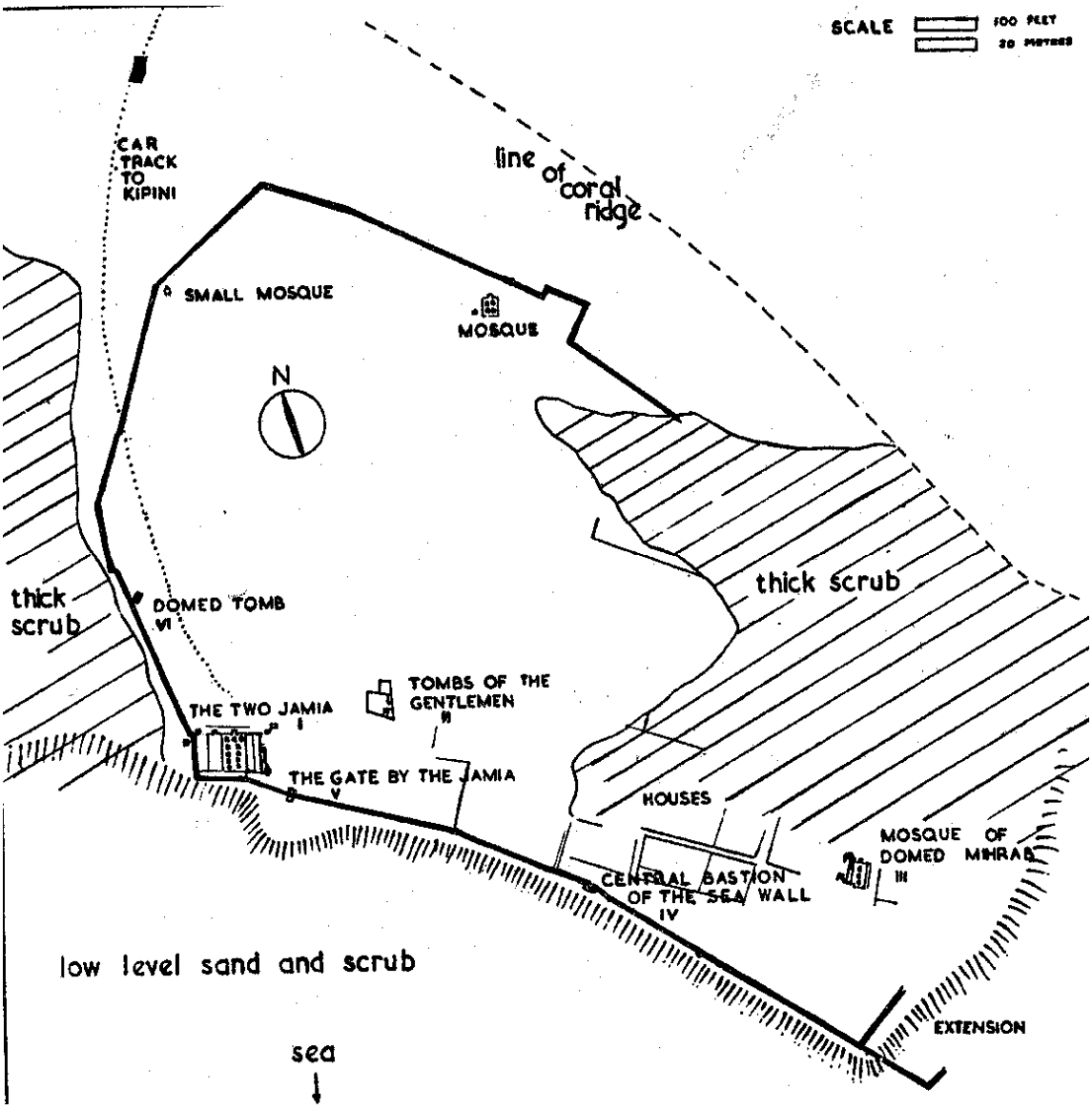


Figure 5.4: Plan of Ungwana site (Source: Kirkman 1966)

PART II

THE TANA WARE TRADITION

The ceramic technological traditions of Manda and Ungwana site are presented consecutively below. For each assemblage, firstly variability of the technical and morpho-stylistic traits is presented. Secondly, the different chaînes opératoires, which are responsible for producing different morpho-functional categories are characterized. Finally, technological traditions are discussed. In conclusion, both assemblages are compared and the Tana ware tradition characterized.

5.3. Manda Ceramic Assemblage

5.3.1. Clay material and preparation

The clay material presents diverse petrographic groups and different levels of paste preparation (Figure 5.5). Some pots are made with well prepared paste while others are made with medium or poorly wedged clay. The level of clay preparation does not depend on petrographic groups since similar clay pastes may be wedged differently. To put it in Wilding's words, "paste was so poorly mixed such that different results could emerge from sherds originating from the same vessel" (Wilding 1977, p. 437).

The paste presents 5 consistent distinctive petrographic groups, which are here distinguished as coarse sand, fine sand, mica, shell and coral rag petrographic groups. The distribution of each petrographic group is presented on table 5.3 below.

Table 5.3: Petrographic group frequencies

Clay pastes	Coarse sand	Fine sand	Mica	Shell	Coral rag	Total
Quantity	423	165	52	55	5	700

This quantitative distribution shows that the most important category of clay pastes is represented by sand grain pastes forming 84% of the sample. It is made up of 60% coarse sand pastes and 24% fine sand pastes. On the other hand, mica, shell and coral rag

pastes form the remaining 7%, 8%, and 1% respectively. The last seems to be anomalous since the number of sherds it represents is very low in comparison to the rest.

5.3.2. The forming techniques

i) Body forming technique

The forming technique of the body is by modelling a lump of clay through drawing it upwards. This is evident from surface features and micro fabrics.

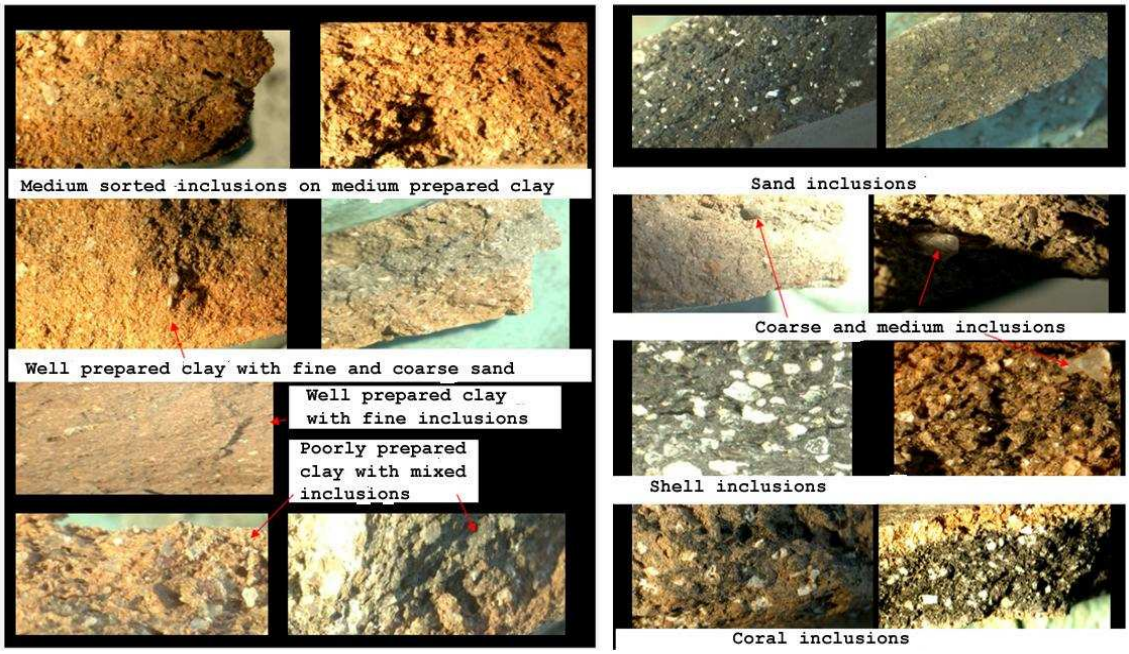


Figure 5.5: Paste preparation and clay inclusions X10 magnifaction (Photographs by the Author)

a) Surface features

Characteristic surface features are drawing marks and absence of coil joins or seams, or preferential horizontal fractures as described by Shepard (1956), Rye (1981) Rice (2005) and the ethnographic section of this work. Drawing marks are visible on the sherds where finishing is not perfect or where no attempt at finishing is made. In the latter case, the drawing marks are deeper. They mostly appear on the interior surface of the sherds although they are also observable on the exterior surfaces of a few sherds in the sampled collection. They run parallel to each other either in a vertical or diagonal direction. However, the grooves are not uniform in length, some appear to be long while

others are short or have breaks depending on the strokes of the potter (Figure 5.6a and Figure 5.6b).

b) Micro- fabrics

Micro-fabric analyses show that the body sherds in the studied collection were made through stretching of clay. This is evidenced by the sub-parallel and elongated nature of the clay vesicle. The elongated vesicles are apparent in all the body sherds regardless of whether the clay was well prepared or not. No oblique elongated voids indicating junction of coils were observed.

ii) Rim forming techniques

The rims are made through a coiling technique. The surface features include seams, which are evident at the point where the rim is joined to the body. There is also evidence of coil fractures in many rim sherds (Figure 5.6d and Figure 5.7). However, the number of coils per rim sherd is not determinable due to the fragmentary nature of the pots as well as the consequent actions of the potter which conceal most of the coiling evidence. In order to strengthen the coil seam, it seems that more clay was adhered and spread along the length of the joint. This way of strengthening the joint, is evident from over-hanging layers of clay where it was not well smoothed, and also by differential flaking of clay along the coil joint. At the coil joint, the previously adhered clay flakes off leaving a fresh under layer (Figure 5.7)

5.3.3. Surface finishing techniques

A majority (63%) of the sherds were finished while the clay was humid by either scraping or smoothing while 37% of the sherds were finished by burnishing when the clay was in a leather hard condition (Figure 5.8). The direction of the striations is vertical, diagonal or horizontal as shown in Figure 5.9.

i) Finishing on humid clay

Of the 700 sherds 442 were finished while the clay was still in a humid state either by smoothing or scraping.

a) Scraped with a piece of wood

Seven of the examined sherds have wood striations on the exterior while 19 of them have on the interior surfaces. Two sherds were found to have wood striations on both surfaces. For the sherds that are scraped with wood on the interior surfaces, the striations are mostly observable on the upper part, specifically where the rim coil and the body are joined (Figure 5.9). However, on the ones that are scraped on the exterior wall surface, the striations appear on any part of the body.

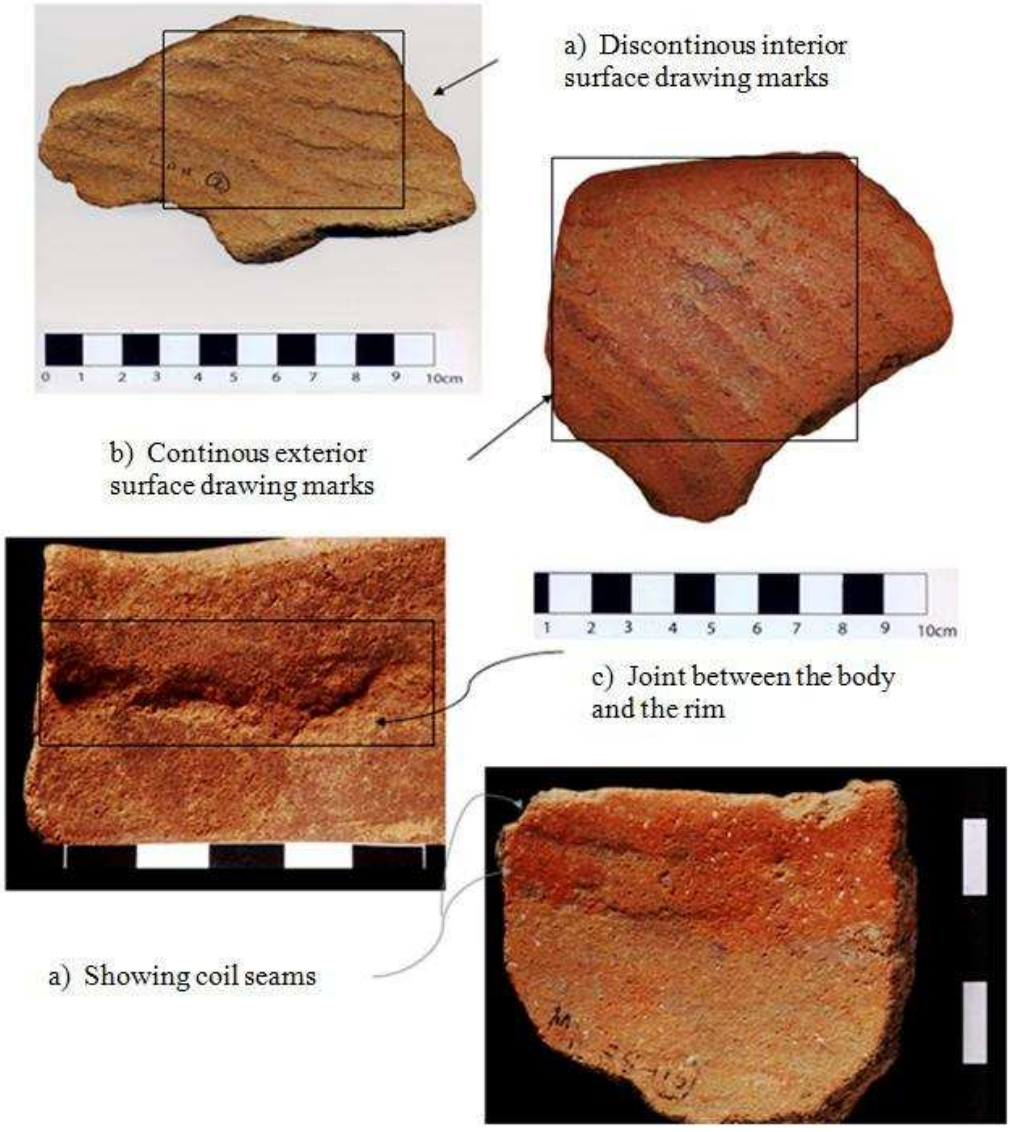


Figure 5.6: Evidence of forming techniques (Photographs: S. Okoko and S. Oboukoff)

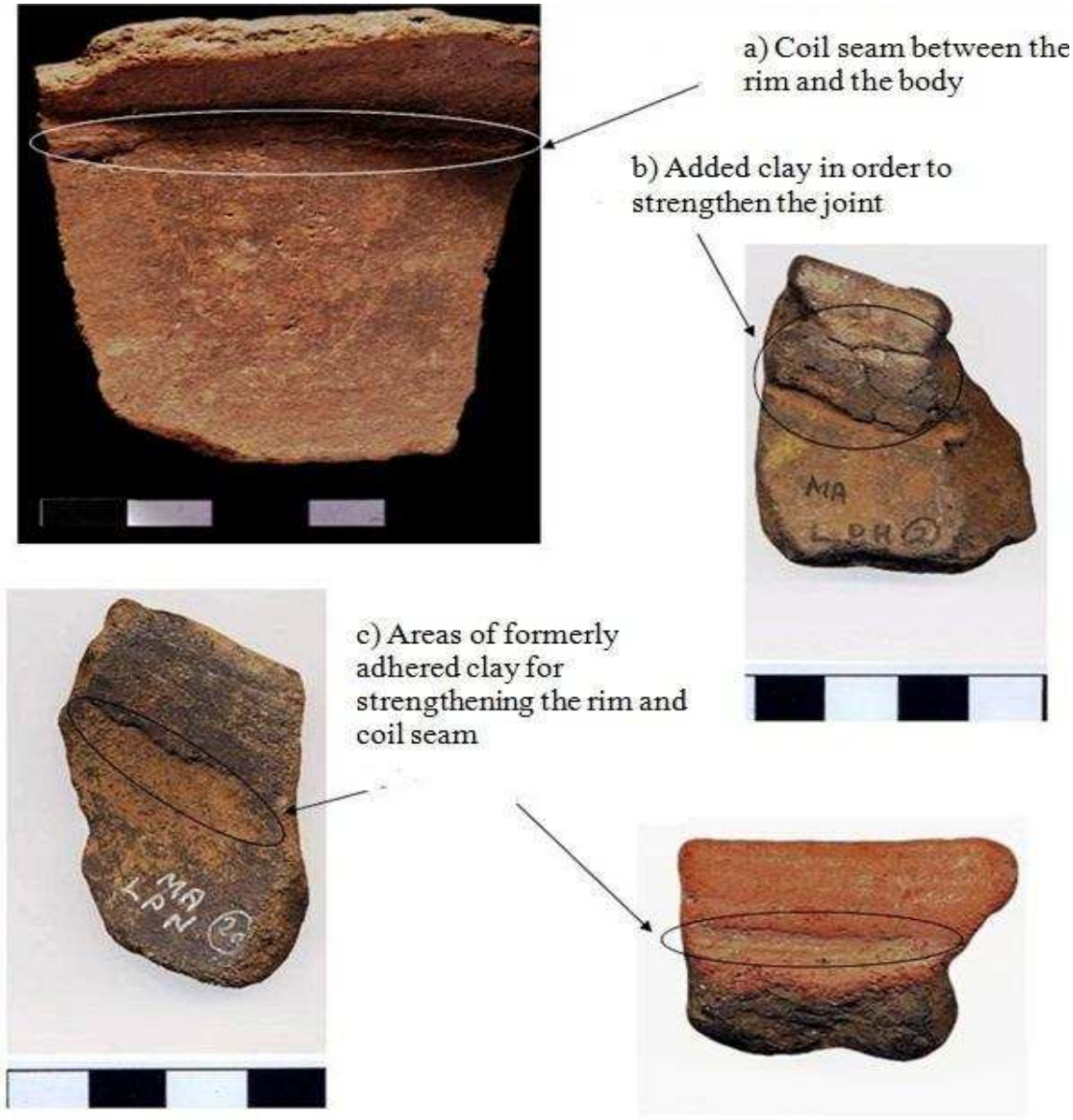


Figure 5.7: Evidence of coil forming techniques (Photographs by S. Oboukoff and S. Okoko)

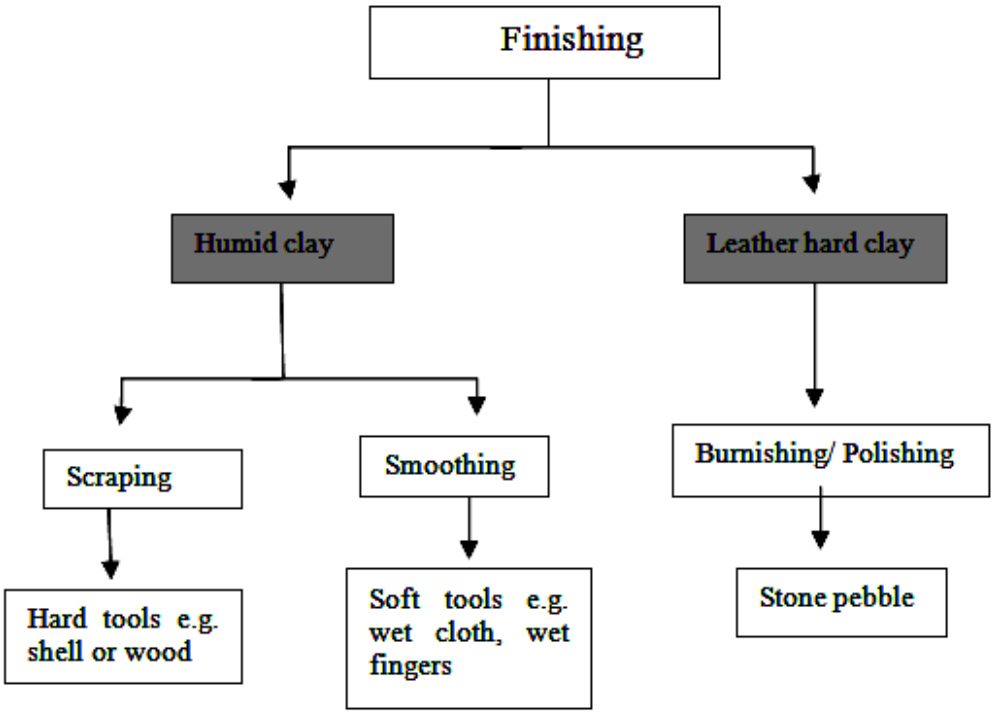


Figure 5.8: Finishing techniques

b) Scraped with a shell

Forty-four of the sherds seem to have been scraped on the interior wall surfaces using a shell. However, none was found to have shell striations on both surfaces. The striations appear to be closely packed, neat and jagged. They follow the gradient of the pot, whether on the rim, body or base (Figure 5.10).

c) Smoothed with a soft tool

Three hundred and seventy sherds are smoothed with a soft tool and the striations are mostly apparent on the exterior or interior upper surfaces of the rim (Figure 5.11). Most of the sherds are smoothed on the exterior, followed by those that are smoothed on both surfaces. Only a few are smoothed on the interior. It seems that the potter used a piece of cloth or wet hands to finish. Sherds that were smoothed with any of these tools seem to have very thin, faint and closely packed striations. They run continuously on the surface in a horizontal direction following the rim gradient.

Figure 5. 9: Wood Striations (Photographs by S. Okoko)

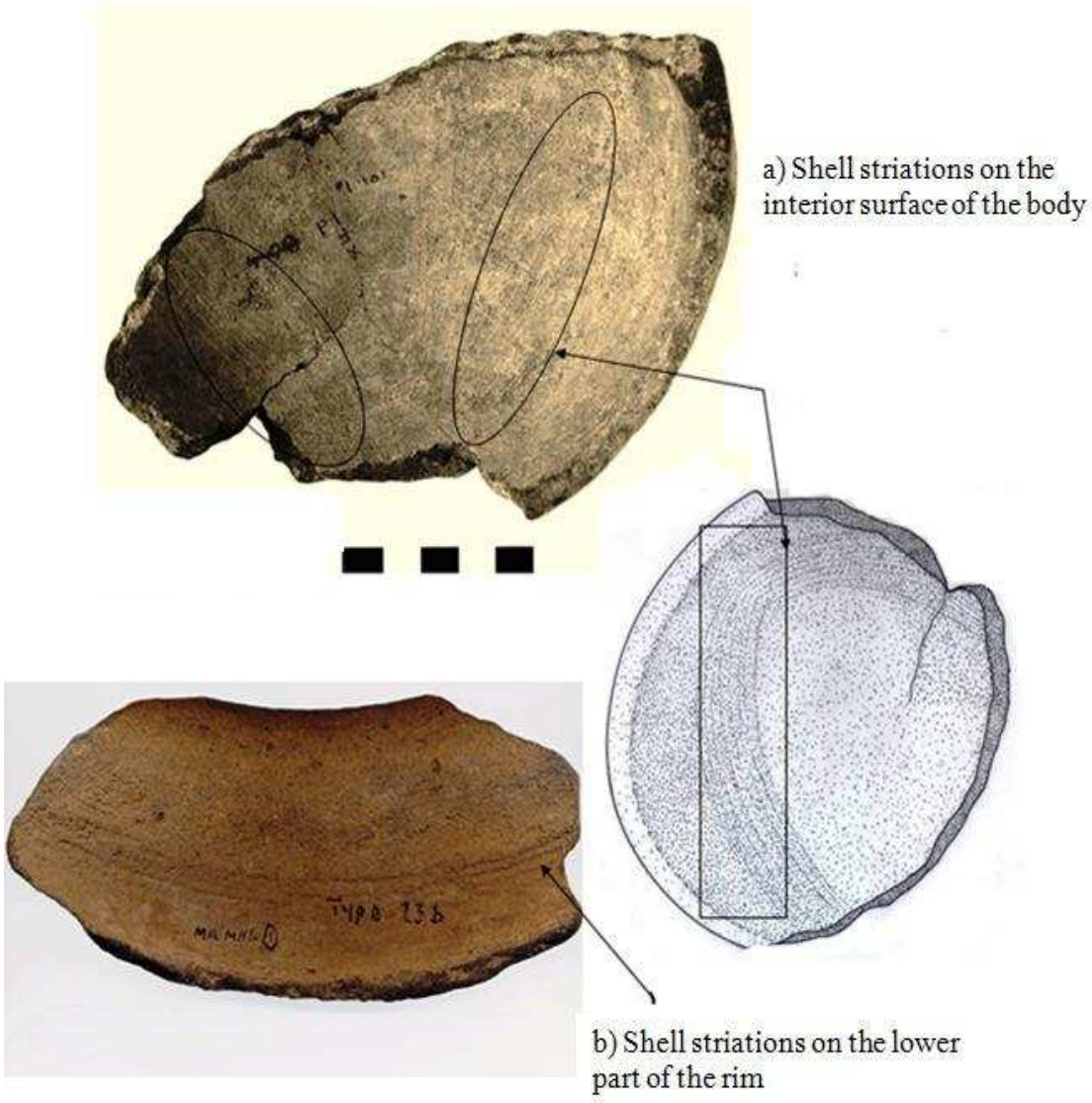


Figure 5. 10: Shell striations (Photographs by S. Okoko and C. Mohamed)

Figure 5. 11: Smoothed with a soft tool (Photographs by S.Okoko and C. Mohamed)

ii) Finishing techniques on leather hard clay: burnishing

Two hundred and fifty eight sherds are burnished on the interior, exterior or both surfaces. Almost half of the sherds in this category are burnished on both surfaces while others are burnished on one side of the wall and finished with other techniques on the other wall (Table 5.4). Burnishing seems to have been executed using a stone pebble or a similar blunt rounded object which leaves deep, even and regular facets. They run in a horizontal direction suggesting the direction of pressure on the clay by the potter. While some burnished surfaces show faint or no facets, others seem to have pronounced ones. This may indicate different degrees of clay dryness when burnishing was being executed (Figure 5.12).

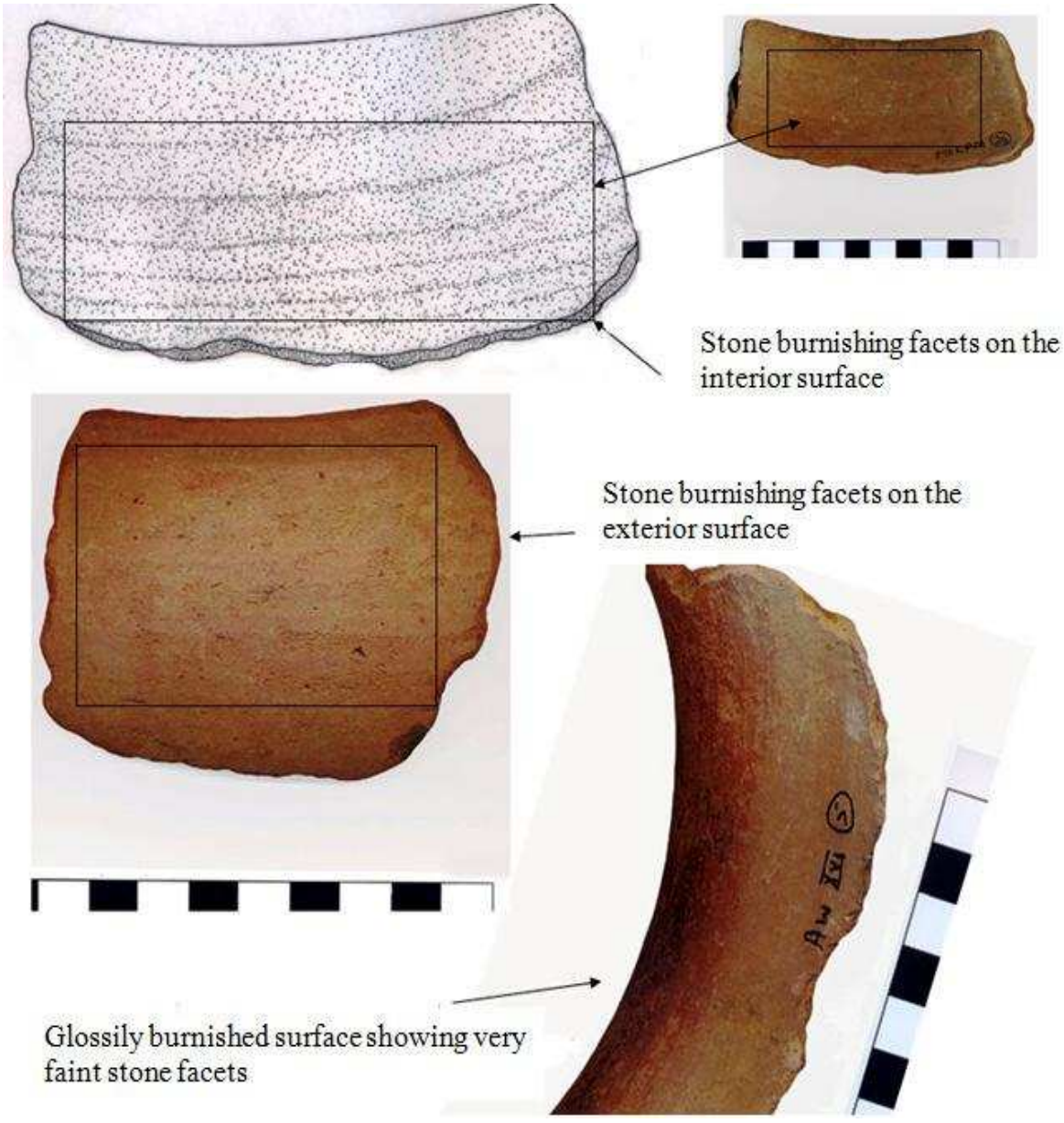


Figure 5. 12: Stone facets and glossily burnished surface (Photographs by S. Okoko and C. Mohamed)

Table 5.4: Representation of Surface finishing techniques (% rounded to the nearest whole number)

		Humid clay interior wall		Leather hard interior wall
		Smooth	Scraped	Burnished
Humid clay exterior wall	Smoothed	370 (53%)	70 (10%)	90 (13%)
	Scraped	-	2 (0.2%)	-
Leather hard clay exterior wall	Burnished	49 (7%)	14 (2%)	105 (15%)

5.3.4 Technical groups

Combining the exterior and interior surface finishing techniques, 7 technical groups are distinguishable. In the first 3 groups, sherds were finished when the clay was still humid while in the next 4 groups, sherds were burnished when the clay was in a leather hard condition. The former are in the majority (63%), and the latter in the minority (37%).

i) Humid clay technical groups

The first 3 groups include 53% of the sample which are smoothed on both exterior and interior surfaces. The second group consists of 10% which are smoothed on the exterior and scraped on the interior surfaces, and the third group includes only 0.2% of the sample, which are scraped on both exterior and interior surfaces.

ii) Leather hard clay technical groups

The next set of four groups includes sherds which are burnished on either one or both sides. The first group of sherds (3%) of the sample are smoothed on the exterior and burnished on the interior surfaces. The second group consists of 15% which are burnished on both exterior and interior surfaces. The third group forms 7% of the sample, with sherds which are burnished on the exterior and smoothed on the interior surface. The last group comprises 2% of sherds in the sample, which are burnished on the exterior and scraped with shell on the interior surfaces.

5.3.5. Firing techniques

Surfaces of vessels are not homogeneous and present oxidized and reduced areas, testifying to the irregular distribution of oxygen. This suggests that firing atmosphere was not controlled and that vessels were fired in the open.

5.3.6. Finished product: morphology and decorations

i) Vessel morphology

Five hundred and fifty rim sherds were studied. However, only 227 of them enabled reconstruction of vessel shapes. Analysis of the rim sherds indicates that a variety of vessel shapes and sizes are represented (Figure 5.13).

Open bowls with carination and closed globular bowls comprise the majority while other bowl types (open globular, constricted and closed constricted/globular) appear to be in small quantities. Table 5.5 below presents the amounts of bowl types found in each category.

In the category of jars, a majority are comprised of closed constricted jars followed by closed globular jars and closed constricted globular jars in descending order of frequency. Jars with carination occur in low quantities (Table 5.5). In total, closed jars are more numerous forming 59% of the identifiable shapes, followed by closed bowls (26%) and open bowls (15%).

Table 5.5: Vessel forms and their characteristics

	Body Characteristics				
Vessel Form	Carination	Globular	Constricted	Constricted/Globular	Total
Open bowls	25	10	-	-	35
Closed bowls	20	27	6	5	58
Closed jars	6	23	83	22	134

ii) Morpho-metric groups

Only 164 vessels could be measured since the rest were small and quite fragmentary. Although others were large enough, the rim edges were eroded or broken, making it difficult for measurements. Various sizes are represented in different morphological types as shown in Figure 5.14.

The aperture radius of the vessels ranges from 4cm to 23cm. Four vessel group sizes have been distinguished. Group 1 vessels are between 4 and 8cm, group 2 contains vessels of between 9 and 13 cm, group 3 are vessels of between 14 and 18cm while group 4 are vessels of between 19 and 23cm.

The distribution of morphological types per metric group shows that vessels from Manda site are made mostly of small to medium sizes. Further, the sizes have no correlation with the vessel morphologies since different sizes seem to occur in any vessel category.

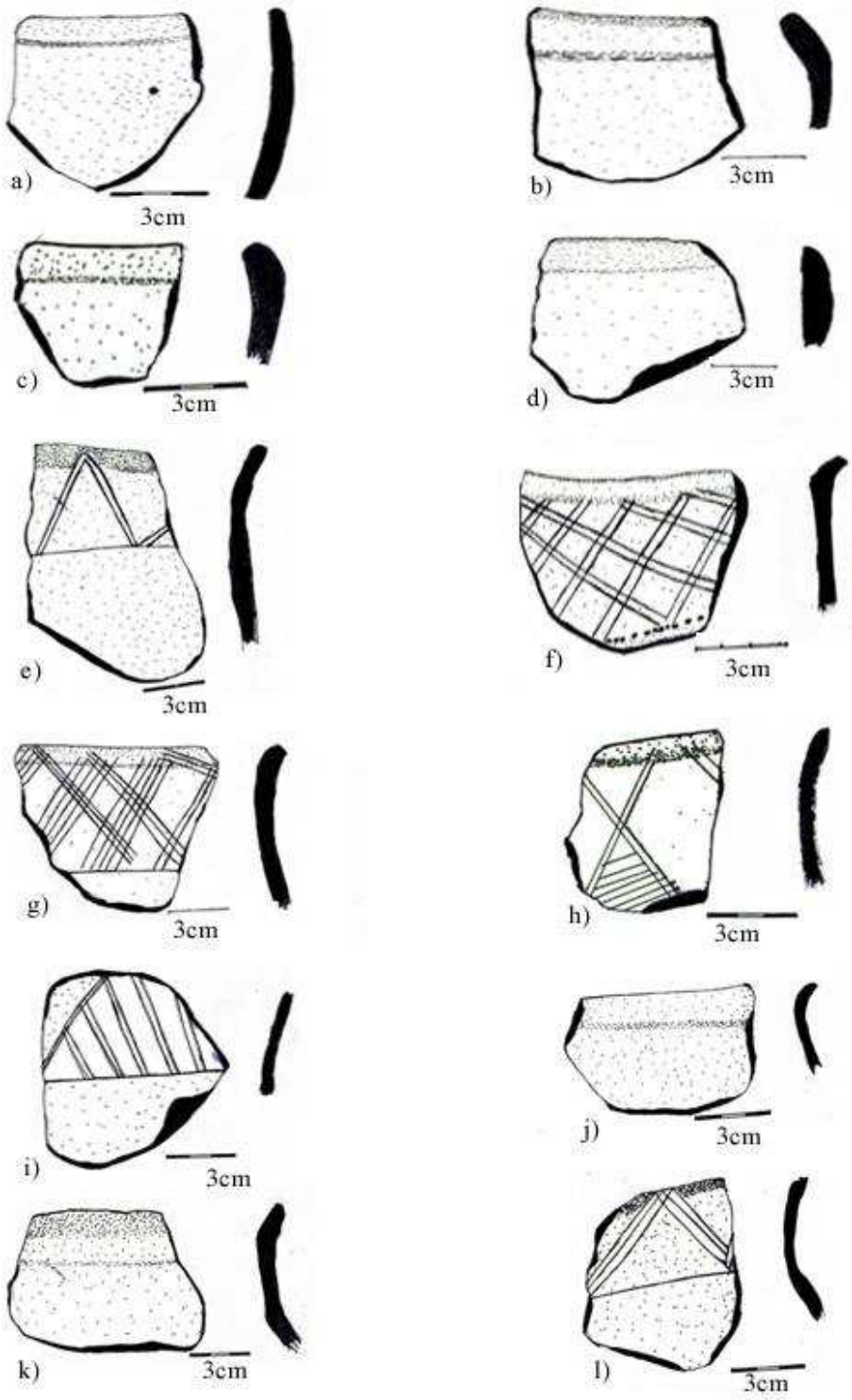


Figure 5.13a: Vessel forms: Globular (a-d), constricted (e-o) (Drawings by the Author)

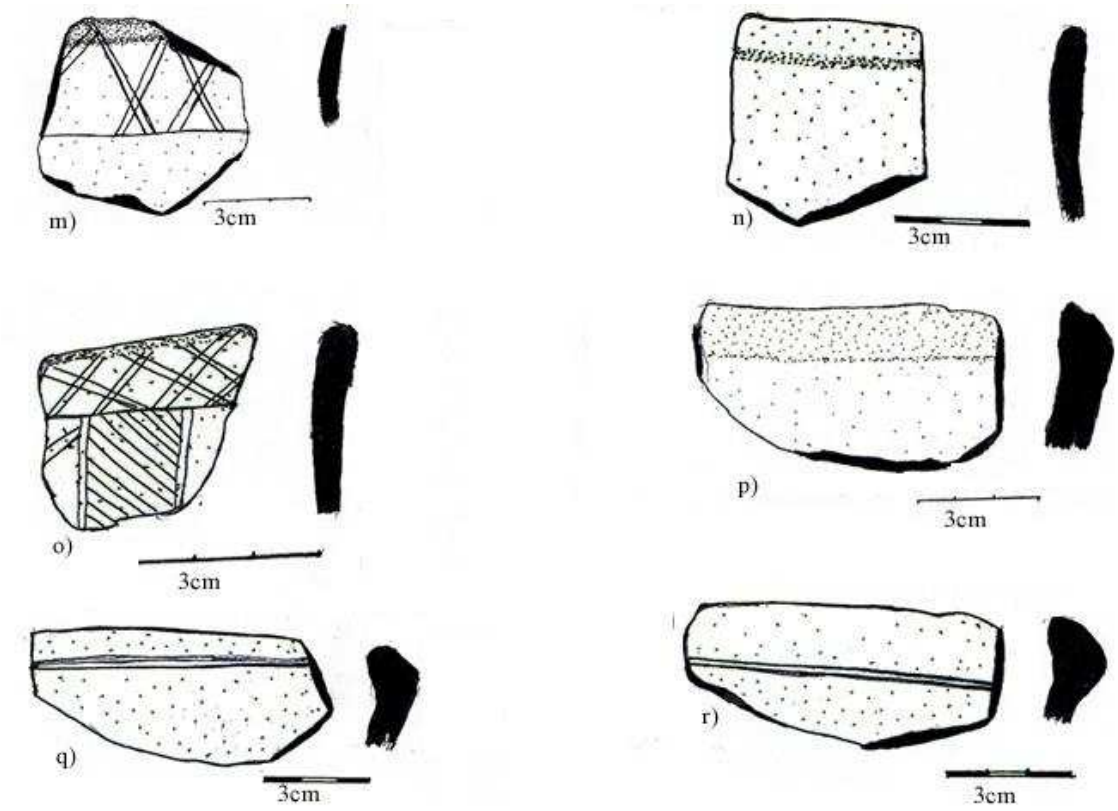


Figure 5.13b: Vessel forms: Pots with carination (p-r) (Drawings by the Author)

iii) Pottery decorations

Of the 700 sampled sherds, 166 are decorated. Decorations within the collection seem to have 3 main techniques (incisions, punctates and dentations) and a variety of themes. The motifs are made by incising or impressing (for punctates and dentations) on either plastic or leather hard clay. The state of clay when the incisions were made is recognizable by comparative data provided by ethnographic features presented in Chapter 4. The quantity of sherds decorated using each of the techniques are presented in Table 5.6.

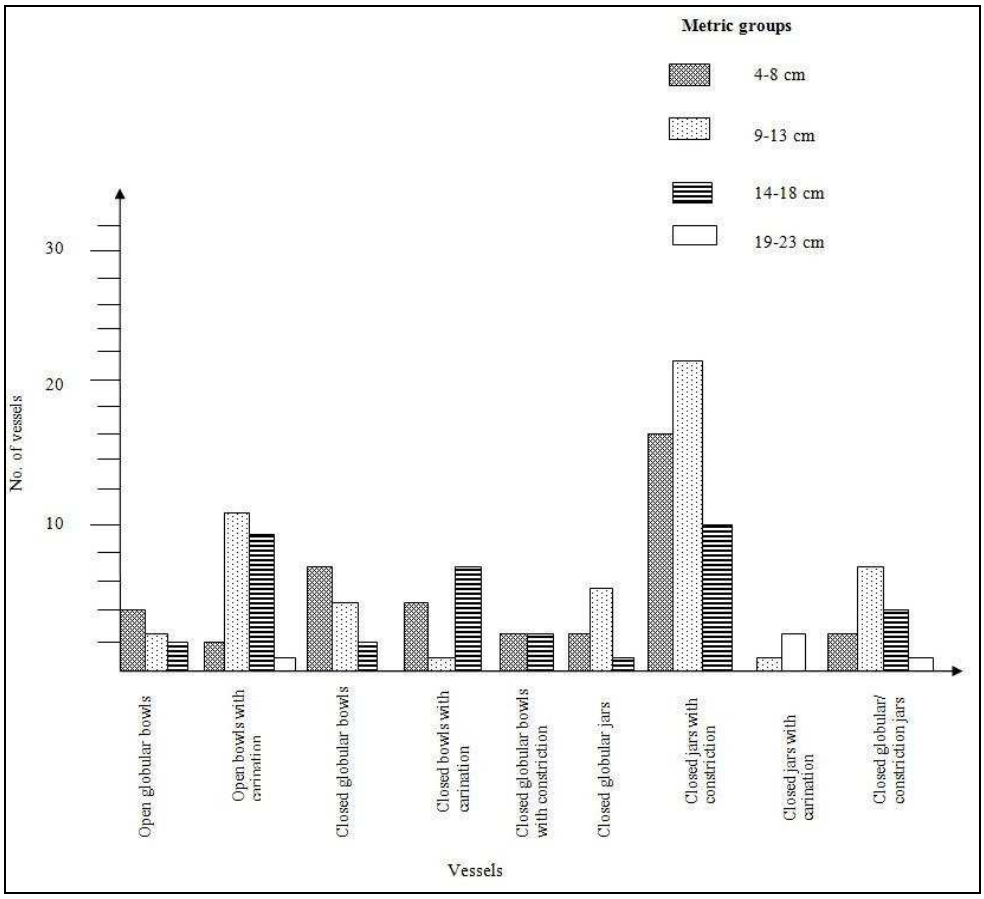


Figure 5.14: Distribution of morphological types per metric group

Table 5.6: Number of vessels per motif

	Pottery forms			Total
Technique	Jars	Bowls	Unknown	
Incised	103	31	17	151
Punctated	5	5	-	10
Dentations	1	4	-	5
Total	109	40	17	166

The following is a description of various techniques and their representation in the collection.

a) Incised motifs

The main incised motifs include lines which run vertically, diagonally and horizontally. These can be found in crisscross patterns, crossing bands of parallel lines, standing and pendant triangles and zigzag diagonal lines (Table 5.7). The decorations may appear on the rim, rim/neck, rim /shoulder neck or on the shoulder. Some are fine and neatly executed, while others are fine but carelessly executed. Also, some are thick but neatly executed while others are thick and carelessly executed.

Table 5.7: Number of vessels with incised motifs distributed per morphological type

	Vessels		
Incisions	Jars	Bowls	Total
Crisscrossing lines	14	6	20
Crossing bands of parallel lines	48	4	52
Standing and pending triangles	29	20	49
Zigzag lines	12	1	13
Total	103	31	134

Crisscross patterns

The crisscrosses are fine lines which occur in diagonal, horizontal or vertical directions of both bowls and jars. The unit of the crisscrosses is a single line, the motif may occur in several lines which run in various directions while the theme is either crisscrossing diagonal lines from left to right or right to left, or horizontal lines crossed by diagonal lines, or crisscrossing vertical and horizontal lines. They are either carelessly or neatly executed using a sharp pointed tool. On some sherds, they are continuous, covering the whole area from the shoulder to the upper part of the rim. On other sherds, they cover only the neck area while the upper part of the rim and shoulder remain blank.

Some seem to have been executed when the clay was still plastic, while others were executed when it had attained leather hard condition (Figure 5.15). The number of sherds with crisscross decorations is presented in Table 5.7

Crossing bands of parallel lines

These patterns occur on both bowls and jars. The unit of the crossing bands is a single diagonal line running from left to right or right to left. Two of these lines are combined such that they cross in the middle to form a motif of crossing diagonal lines. The diagonal lines may appear in doubles or more crossing lines to form the decoration theme which is repeated several times on the neck, rim or body. The crossing bands are thick, and carelessly or neatly executed using a sharp pointed tool on either plastic or leather hard clay (Figure 5. 16).

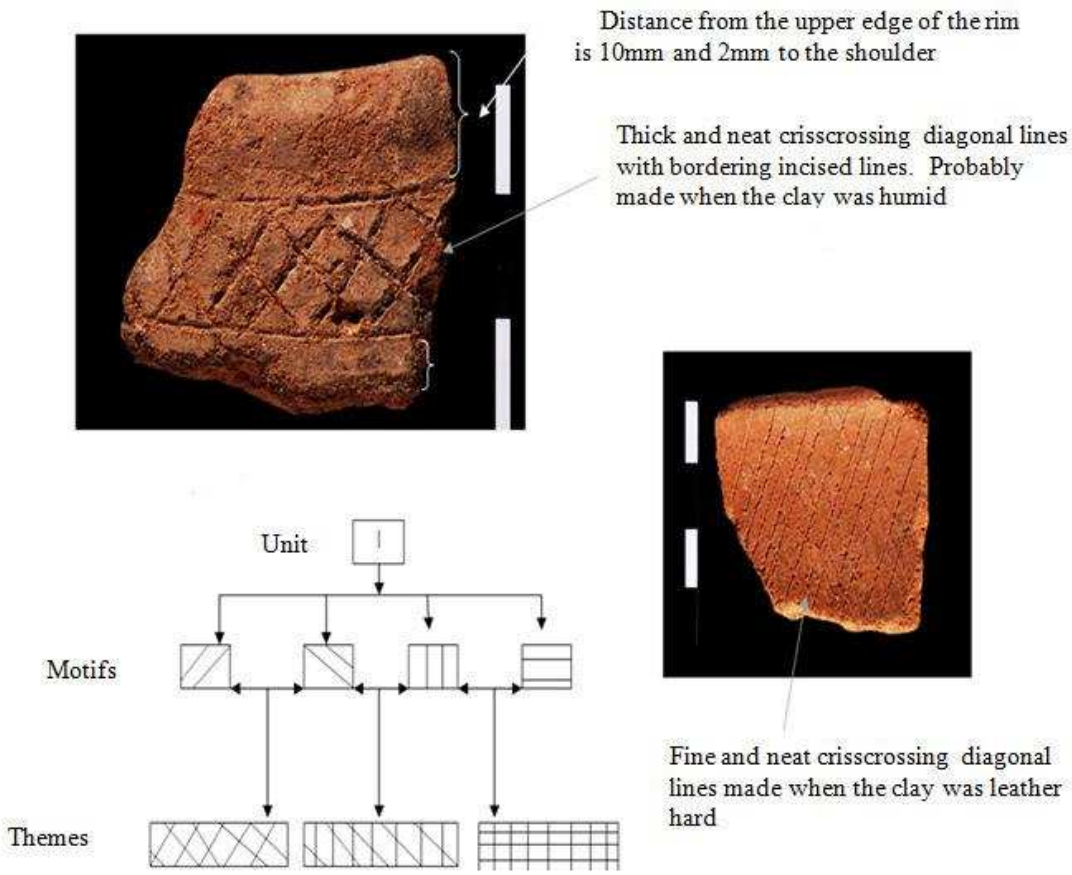


Figure 5.15: Crisscrossing lines of incisions (Photographs by S. Oboukoff)

Standing and pendant triangles

The triangles occur in the area between the shoulder and the upper part of the rim of bowls and jars. The unit of this type of decoration is a single standing triangle which may be filled with single diagonal, vertical or horizontal lines to form various motifs. Themes are a repetition of any of the filled triangles or, in some cases, themes are more complex where a combination of the motifs or singles are repeated as pendant triangles (Figure 5.17). The incisions were made with a pointed tool while the clay was either in a humid or leather hard state.

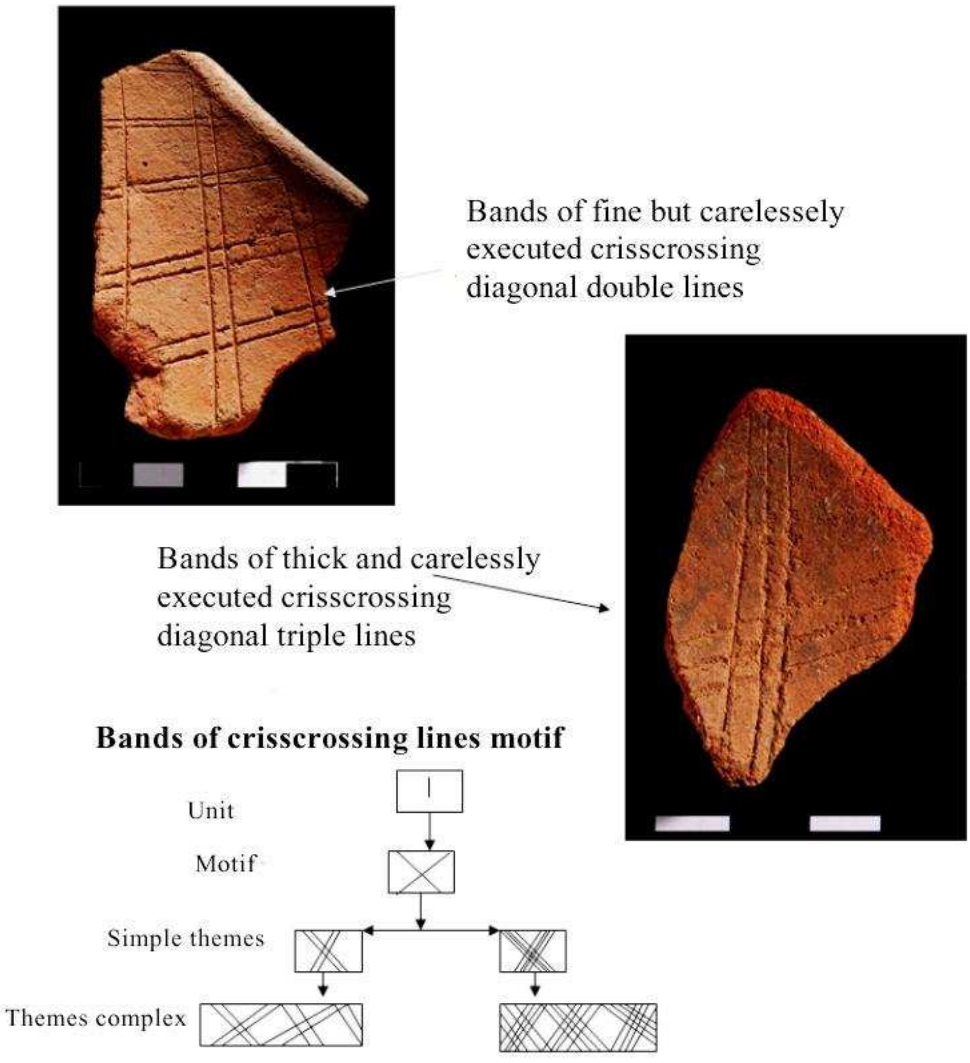


Figure 5.16: Crossing bands of diagonal lines (Photographs by S. Oboukoff)

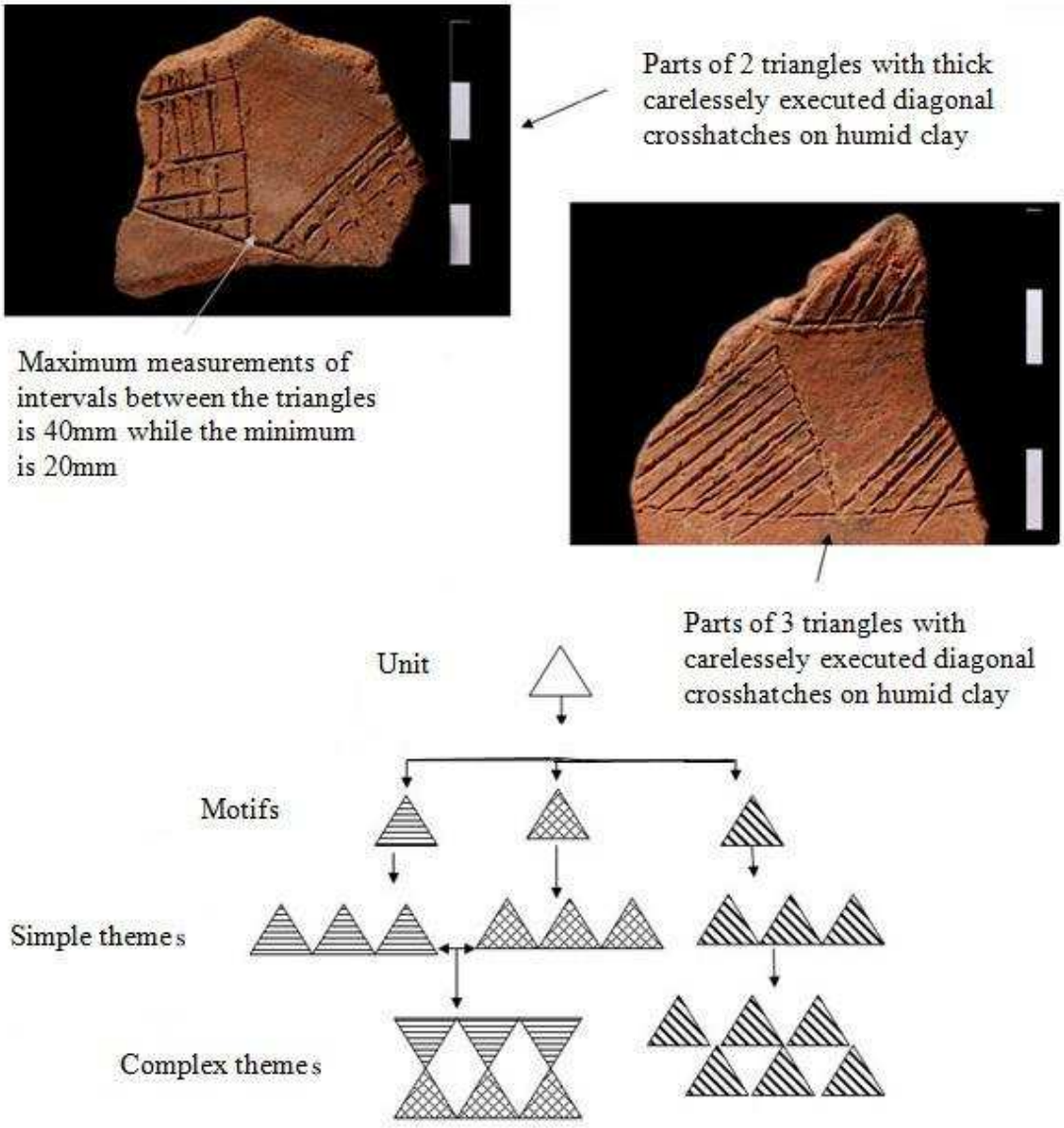


Figure 5.17: Triangles (Photographs by S. Oboukoff)

Zigzag diagonal lines

The zigzag diagonal lines occur in the region between the neck and the upper part of the rim of both bowls and jars. The unit is a single diagonal line of incision which may be executed from right to left or left to right. To form a motif, two diagonal lines of incision are joined at the lower end to form a 'V' shape. The lines may appear as either

bands or single. This motif is repeated successively to form a continuous theme. They are usually fine and neatly executed with a sharp pointed tool while the clay was in a humid or leather hard state (Figure 5.18)

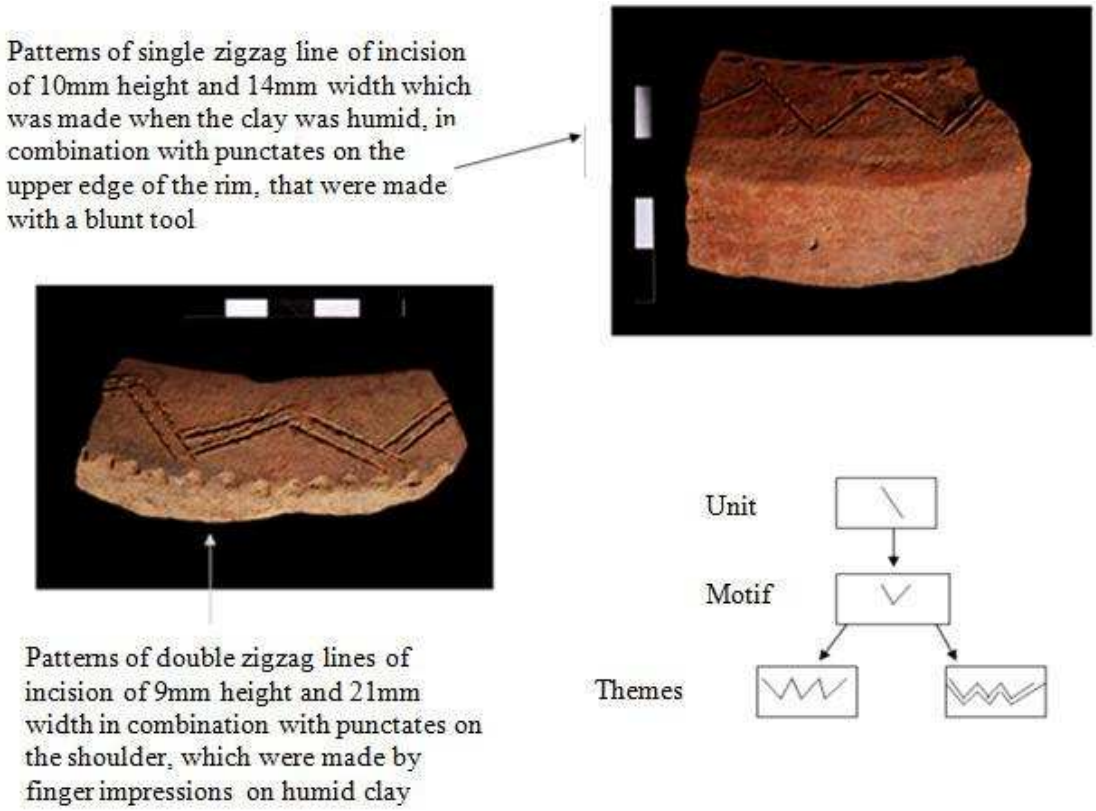


Figure 5.18: Zigzag diagonal lines (Photographs by S. Oboukoff)

b) Dentate decorations

Bowls and jars in the sample have dentate impressions, which occur between the shoulder and the rim. The impressions may occur alone or in combination with other motifs on the rim (Figure 5.19). The dentate impressions were made using a shell when the clay was still humid. The unit is a single impression with the concave side of the shell, which forms a series of dots. A set of these impressions form a motif which is repeated around the vessel to form a theme.

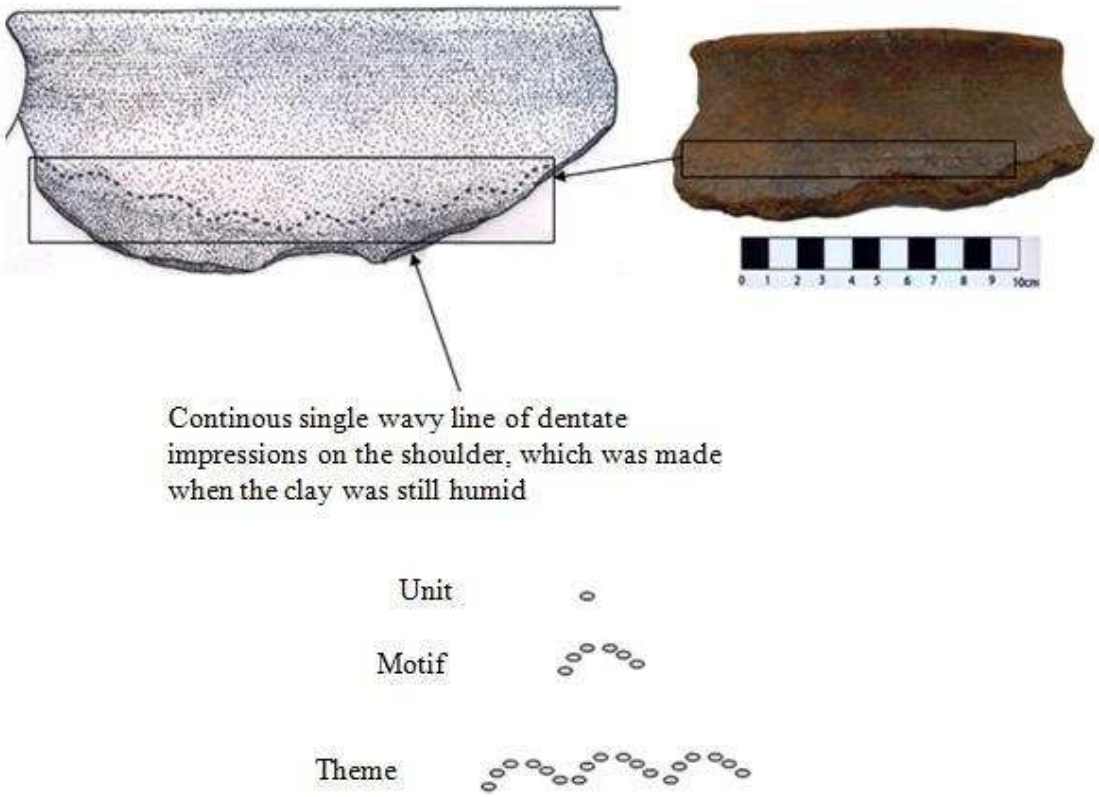


Figure 5.19: Dentate impressions (Photograph by S. Okoko)

c) Punctates

Punctates occur on the shoulder and in the area between the shoulder and the upper part of the rim. These are impressions made using the tip of a finger or a blunt stick while the clay was humid. They occur in 3 forms depending on the direction of the tool pressure (Figure 5.20), and they may occur in combination with incised lines or independently. The unit is a single impression which may be made from up-down, down-up or side to side (this might have to do with left or right handed potters). The motif is a successive execution of any of these around the vessel.

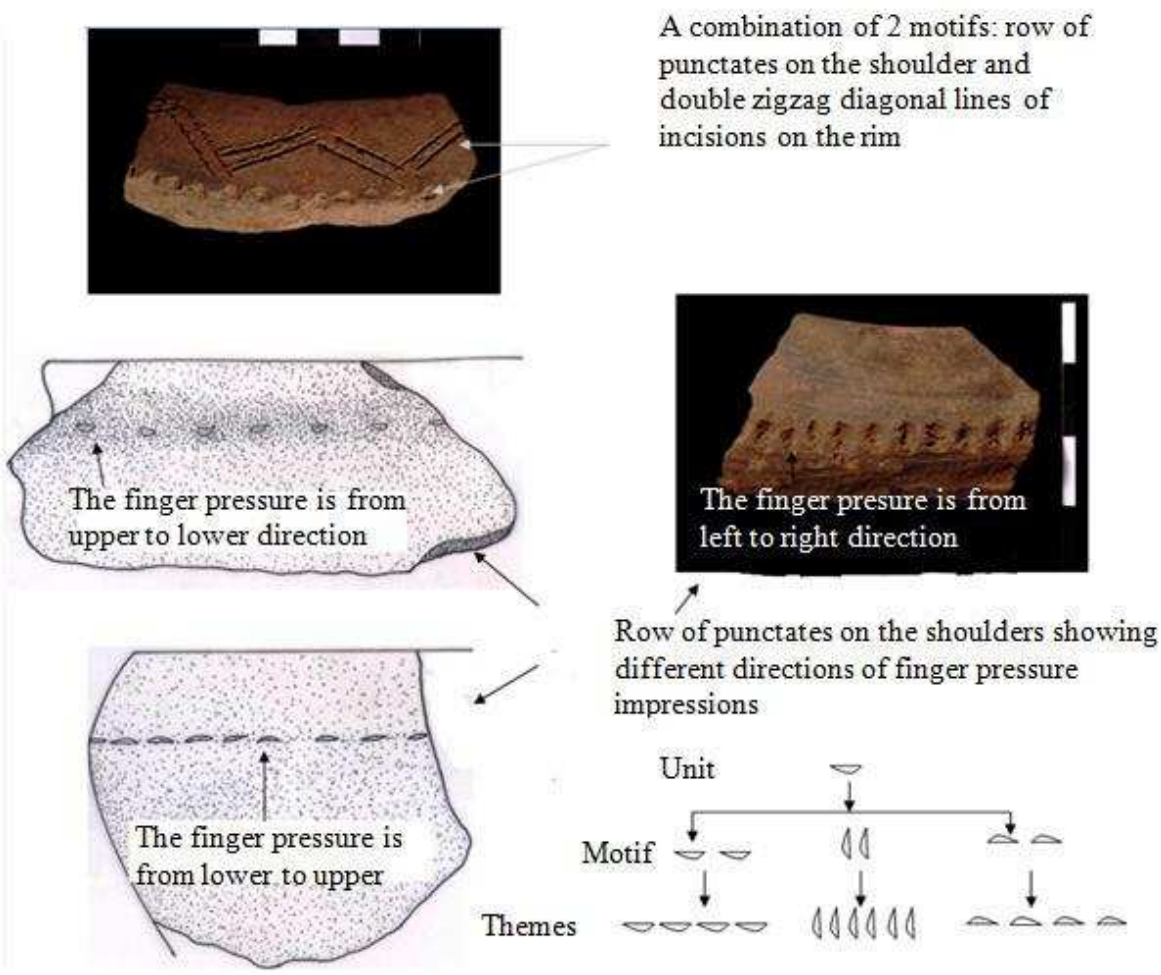


Figure 5.20: Punctate decorations (Photographs by S. Oboukoff and C. Mohamed)

5.3.7. Variability of chaînes opératoires

Manda collections contain a great variety of chaînes opératoires, which are defined in terms of techno-petrographic groups (Figure 5.21). They are distinguished on the basis of the petrographic groups and the finishing techniques, since the forming technique are the same for all the vessels. The frequencies are summarized in Table 5.8

In total, there are 25 chaînes opératoires: 7 major chaînes opératoires, 11 minor chaînes opératoires, and 7 esoteric chaînes opératoires. The 18 major and minor chaînes opératoires are presented in Figure 5.22.

i) Sherds with smoothed exterior and interior walls

Most of the sherds in the collection belong to this technical group and they contain all the 5 types of petrographic groups presented earlier in the Chapter. More than half of the sherds belong to the coarse sand petrographic group, while the other 4 petrographic groups (fine sand, mica, shell, and coral rag) occur in lesser quantities. The number of sherds in coral rag group seems negligible.

ii) Sherds with smoothed exterior and scraped interior surfaces

Here 4 groups can be distinguished with the coarse sand being the major petrographic group with over 50% of the sherds. This is followed by fine sand, shell and mica in that order. Mica and shell occur in a few sherds while coral rag is absent.

iii) Sherds with smooth exterior and burnished interior surfaces

In this technical group, more than half of the sherds comprise coarse sand followed by the fine sand petrographic group. Sherds with shell, mica and coral rag follow in negligible quantities. It is, therefore, evident that although 5 techno-petrographic groups are present, only coarse sand can be considered major, while fine sand and shell are minor. On the other hand, coral rag seems to be anomalous in this category.

iv) Sherds with burnished exterior and interior surface

The petrographic groups in this technical group are almost identical with the vessels which were finished while in humid state. Similarly, mica and shell petrographic groups occur in very low quantities while coarse and fine sand occur in higher proportions. Slightly more than half of the sherds contain coarse sand, the quantity of fine sand follows with half the amount of coarse sand, and shell and mica follow in lesser amounts. These make 4 techno-petrographic groups in this category with coarse sand group forming the major group while fine sand, mica and shell groups form minor groups.

v) Sherds with burnished exterior and smooth interior surface

Sherds in this group are few and all the petrographic groups are lowly represented. The coarse sand group forms about two thirds of the sherds in this technical group while fine sand, shell and mica follow in that order. While mica and shell occurs in diminishing quantities, coral rag remains absent. In this technical group there are,

therefore, 4 techno-petrographic groups with coarse sand forming the major group and fine sand forming minor group. Mica and shell are considered negligible in this category.

vi) Sherds with burnished exterior surfaces and scraped interior surface

This technical group represents the lowest number of sherds with coarse and fine sand groups occurring in equal proportions, whereas shell is negligible. Mica and coral rag are absent. In this case, coarse sand and fine sand petrographic groups form 2 minor techno-petrographic groups, while shell is rare.

Table 5.8: Number of sherds per techno-petrographic group

	Technical groups						
Petrographic groups	Smooth exterior and interior	Smooth exterior and burnished interior	Smooth exterior and scraped interior	Burnished exterior and interior	Burnished exterior and smooth interior	Burnished exterior and scraped interior	Total
Coarse sand	230	60	38	59	31	7	425
Fine sand	81	19	23	27	11	6	167
Grit mica	35	3	3	8	3	-	52
Shell	23	6	6	11	4	1	51
Coral rag	3	2	-	-	-	-	5
Total	372	90	70	105	49	14	700

There seem to be no correlation between technical groups and petrographic groups. As such, vessels which are finished while humid and those that are burnished fall in the same petrographic groups. Therefore, any petrographic group can be found in any technical group such that sand (and all its variants), mica, shell or coral rag can be found within burnished groups and within groups that were finished when the clay was still humid. Moreover, whatever the technical group, the coarse sand paste is always the dominant followed by fine sand, mica or shell or coral. The absence of shell in the technical group 'burnished on the exterior surface and scraped on the interior surface' is

not significant given the small number of sherds in this group. Coral rag on the other hand, occurs only in the group 'smoothed on both sides' and 'smoothed on the outer wall and burnished interior' (Table 5.8)

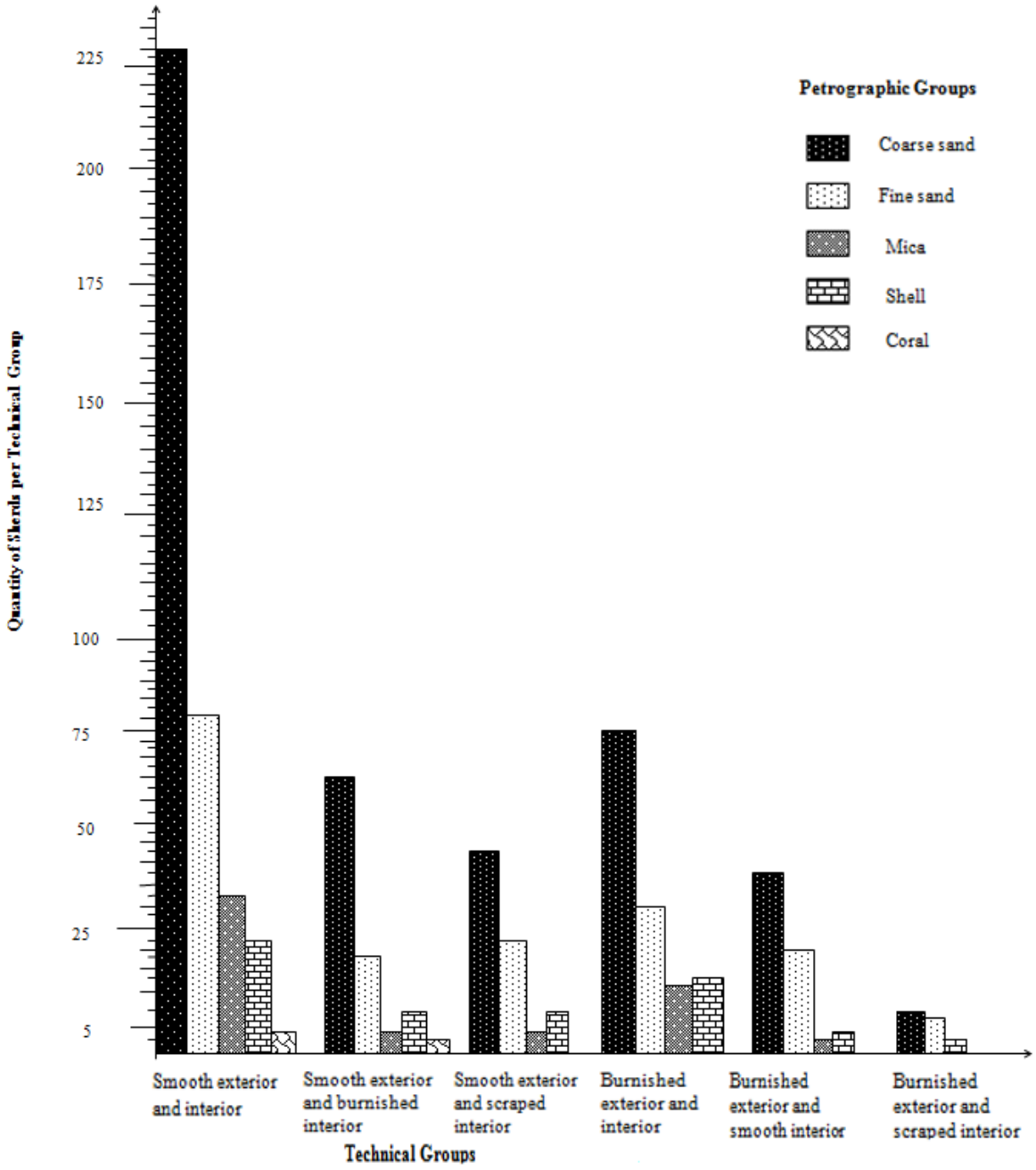


Figure 5.21: Distribution of petrographic groups per technical group

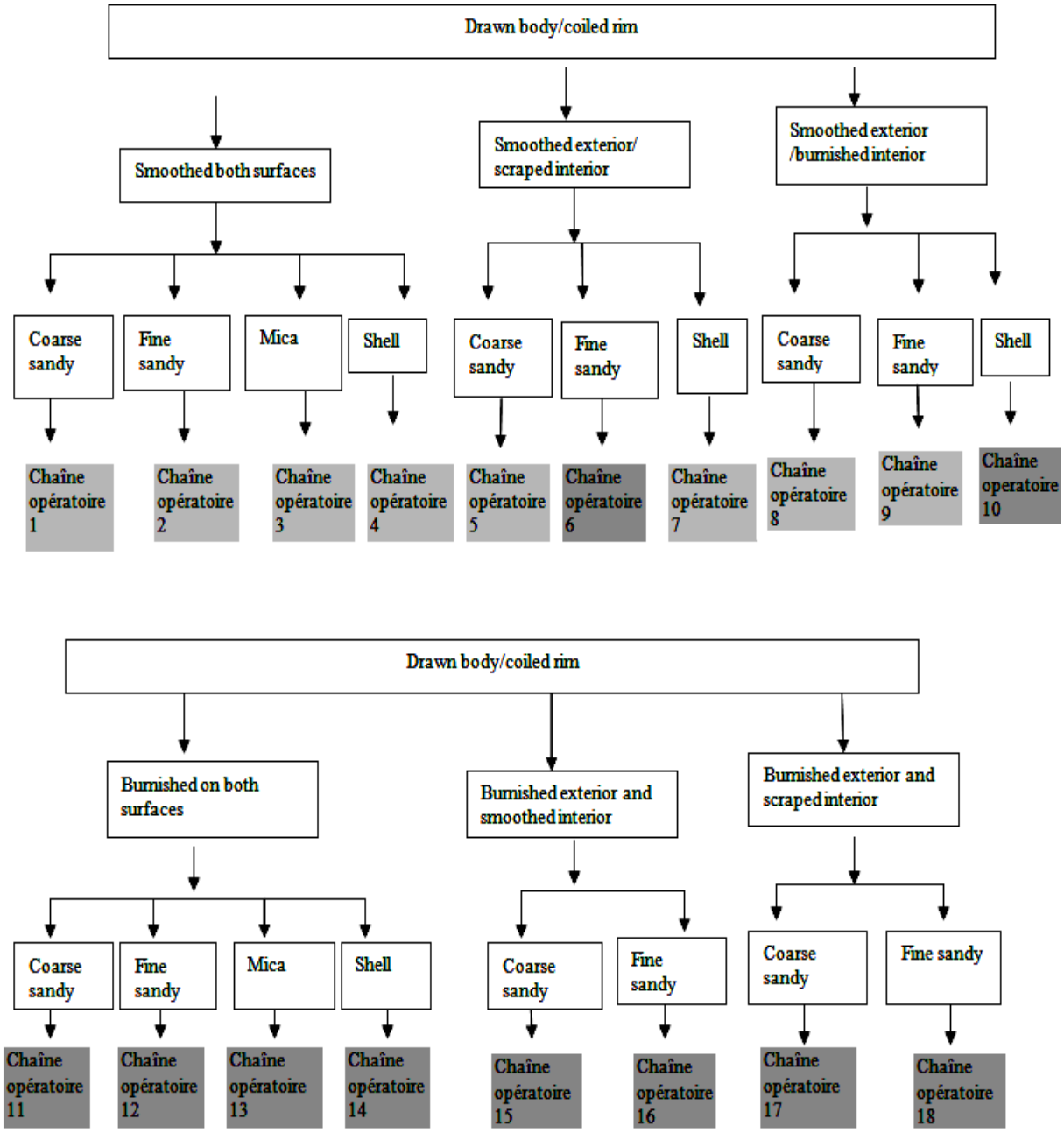


Figure 5. 22 : Manda main and minor chaînes opératoires

5.3.8. Relationship between techno-petrographic groups and morphological types

The different chaînes opératoires are used to produce similar bowls and jars as shown in Table 5.9. There is no correlation between the techno-petrographic groups and vessel morphologies. No single chaîne opératoire can be said to be dedicated to a particular production. Each vessel type is produced in a minimum of 4 and a maximum of 18 chaînes opératoires. The only exception is closed bowls with constriction which occur only in chaîne opératoire 1. This exception may be a result of sampling since only 2 vessels have this characteristic. The variability of the chaînes opératoires per morphological type suggests, on the one hand that manufacturing process did not vary due to the function of the vessel, on the other, that these types may have been multifunctional as suggested also by the large range of sizes per morphological type. It might therefore, suggest continuity of technical processes regardless of vessel types.

Such a technological behaviour is still recorded today. Indeed, ethnographic data show that potters use the same type of clay and finish their pots the same way regardless of the purpose of the pot. Thus, the coastal Bantu potters burnish all their pots and the highland Bantu and the Somali potters finish all their pots by smoothing with wet hands or a piece of wood, whatever their function.

As far as the function of vessels is concerned, ethnographic observations, show that bowls and jars may have been used for similar purposes especially as food preparation, cooking or serving vessels although, the contents may have been different, as is the case with Coastal Bantu speakers. The Coastal Bantu pottery repertoire mostly comprised bowls which are used for food preparation, cooking, serving and as individual eating vessels. The open bowls are used for preparing food and for cooking food which requires stirring and less likely to spillover like *ugali*, and as well as serving and individual eating vessels. The closed bowls are used for cooking and serving food with stew or frying meat, while the smaller ones are used for individual drinking. Among the highland Bantu speakers, jars are used for cooking, storage, transport or for serving liquids.

Table 5.9: Morphological types per chaîne opératoire

Chaînes opératoires

Vessel forms	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
a	x		x					x			x		x		x				x		x				
b	x	x	x					x	x										x						
c	x	x	x					x	x		x	x	x						x					x	x
d	x																								
e				x							x			x	x						x	x			
f	x		x					x			x		x		x									x	x
g	x		x	x				x		x															
h	x	x	x		x	x		x	x		x	x	x		x	x	x	x		x	x			x	x
i											x			x	x							x			
j	x		x	x	x		x	x		x										x					

Key
a) Open bowls with carination b) Open globular bowls **c)** closed bowls with carination **d)** closed bowls with constriction **e)** closed globular bowls with constriction **f)** closed globular bowls **g)** closed globular jars **h)** Closed jars with constriction **i)** closed jars with carination **j)** closed globular jars with constriction

5.3.9. Technical and morpho-stylistic characteristics of Tana Ware from Manda site

The variability in Manda pottery may be attributable to several factors which include potters' practises and geological set up. As far as clay sources are concerned, Chittick (1984) notes that there are no clay sources on Manda Island; the nearest source is on Pate Island also within the Lamu archipelago (Figure.5.1). Therefore, the potters must have fetched clay from outside the island or pots may have been traded into the island by different potters who had access to clay sources elsewhere, as pointed out by Wilding (1977, p. 437). In the first case, by reference to ethnographic data, potters may have used different clay sources or clay material may have been brought by consumers from different places. Petrographic analysis by Wandibba (personal communication) confirms that they were made with clay from the mainland. This is the case with the Digo (Coastal Bantu speakers) who have a choice of either fetching the clay within their farms which was of low quality as opposed to travelling for more than 20 km to collect the preferred clay. This is especially so for the pots which are to be used within the potter's household. Moreover, among the Digo, customers may bring their own clay, which again would contribute to variation in paste since it was probably sourced from different locations.

Another example is the Jomvu Bantu speakers, who acquire clay from vendors. There is no clay within Jomvu land, and so, potters must buy both clay and temper from different vendors who frequent different sources.

The Manda vessels paste variability, if considered in relation to the availability and accessibility of clay, can be attributed to either the potter's technical behaviour, or the diversity of potter's locations, or else the consumer's behaviour. Clay with sand inclusions seems to be more commonly used than any other clay probably because it was most available and easily accessible or, as Wilding (1977) suggests, coarse beach sand was added to fine sand clay.

As far as the variability of the finishing techniques is concerned, it is not clear from the assemblage if finishing techniques may have varied depending on the function of a vessel within a morphological category, or if we are dealing with different potters with different habits, or else potters were not particularly keen on how they finished their vessels.

However, despite variability in clay preparation and finishing techniques, the Manda chaînes opératoires present a homogeneous character given that the same pastes are experienced in all the technical groups (Figure 5.23), and that the forming technique remains constant regardless of where the pots were made. Similarly, there is homogeneity in vessel forms and decorations. The latter is the most striking given the fact that similar decorative motifs are exhibited on different morphological type of pots, which are made using different pastes and finished in different ways (humid or leather hard).

In brief, the Manda Tana ware tradition appears to be characterized by a large variability in clay paste and finishing techniques which are applied to a common range of morphological types, fashioned according to the same technique and decorated with the same motifs.

It follows that the Manda Tana ware chaînes opératoires, when characterized in terms of forming techniques, morphological types and decoration seem to have originated from the same 'ancestor', that is the same cultural group. Indeed such uniformity might have required some form of social networks to learn and maintain since potters seem to be accessing different clay sources as attested by varied pastes. Evidently, the forming

techniques were passed through kinship whilst maintenance of highly malleable pottery attributes like vessel forms and decorations may have been through networks such as common market places or communal open firing areas which offered opportunity for potters to discuss or even to copy from each other (Gosselain 2000). At Manda, it is not apparent that firing was done in public or privately, but public firing places can be hypothesized.

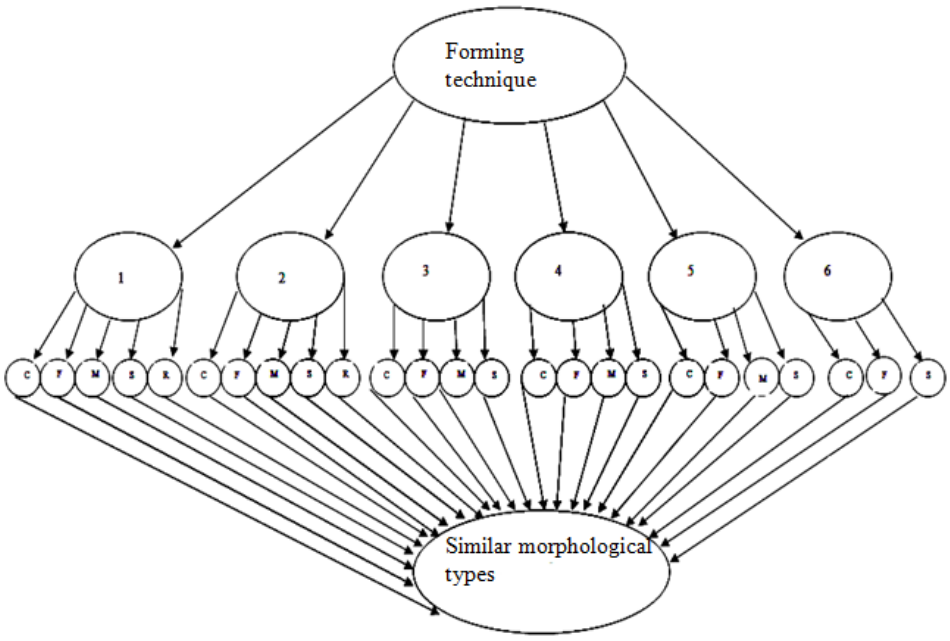


Figure 5.23: Manda technical tradition

The diversity of the Manda assemblage in terms of clay preparation and finishing techniques may reflect either a diversification in the course of time or a cultural feature (potter's behaviour).

5.4 Ungwana ceramic assemblage

5.4.1. Clay material and preparation

Clay paste in Ungwana comprises a variety of consistent petrographic groups namely coarse sand, fine sand, mica, shell and coral rag. In some instances, paste is well wedged while in other instances it is either medium or poorly prepared. Sherds which are made of a coarse sand paste are the majority followed by fine sand, shell and mica in that order. The distribution of sherds within each petrographic group is presented in Table 5. 10.

Table 5.10: Quantity of sherds in different petrographic groups

Clay pastes	Coarse sand	Fine Sand	Mica	Shell	Coral	Total
Quantity of sherds	379 (49%)	219 (28%)	77 (10%)	97 (13%)	3 (0.3%)	775

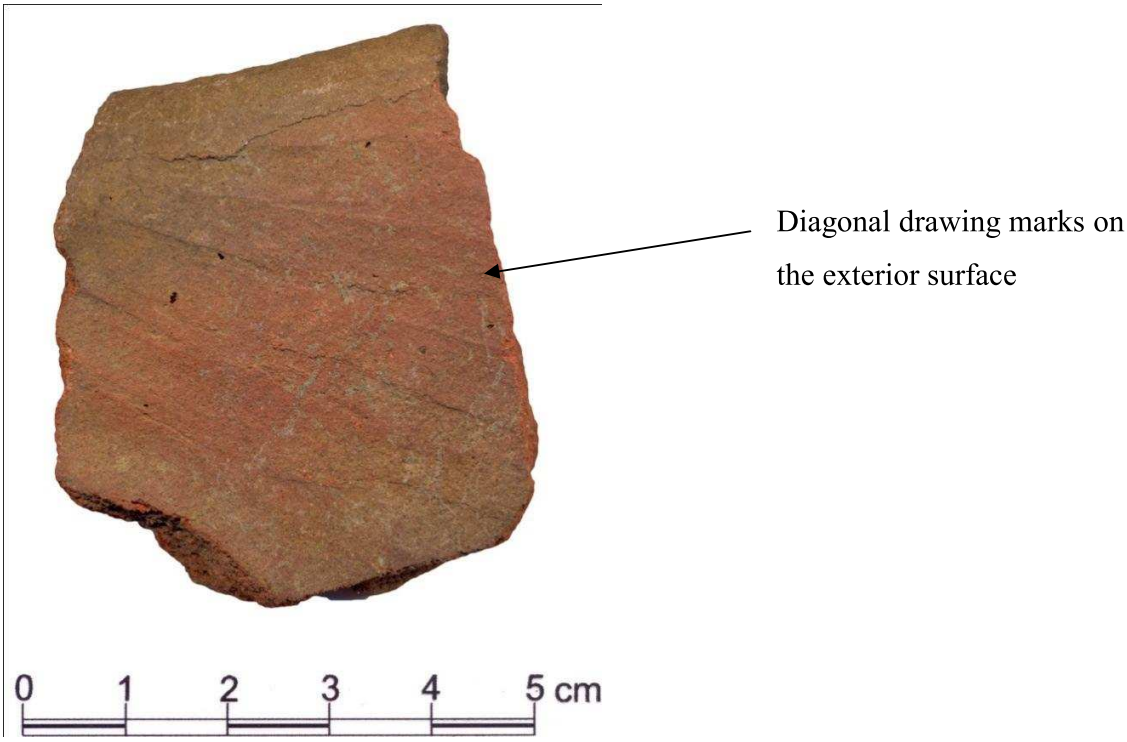
This distribution shows that 5 distinctive petrographic groups are distinguishable although the coral rag group seems anomalous. It appears that clay was fetched from different sources and the pastes with sand inclusions were either more accessible or most preferred.

5.4.2. Forming techniques

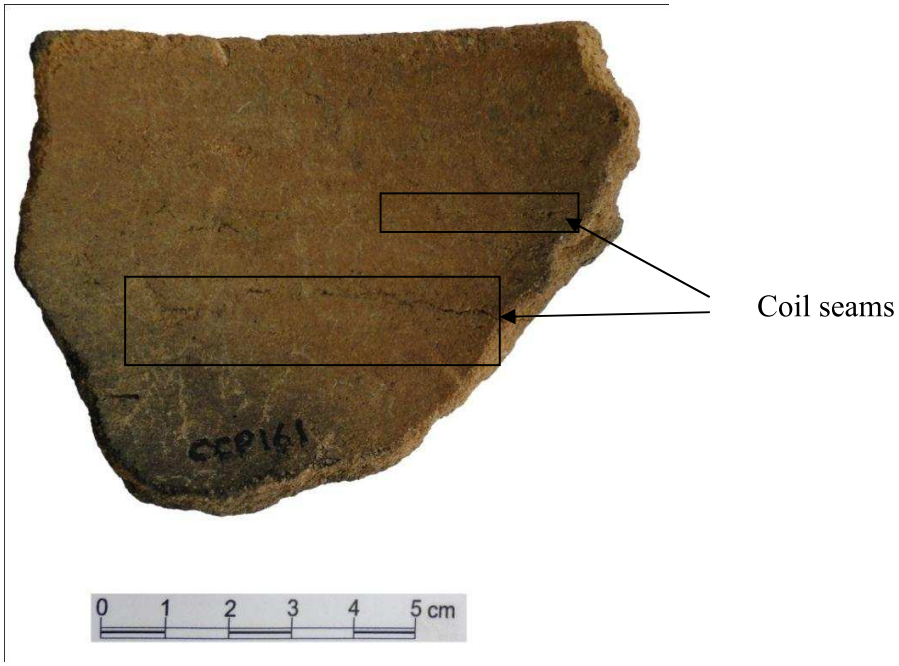
The sampled collection from Ungwana shows that the body is modelled by drawing of a lump of clay exteriorly or interiorly as shown in Figure 5.24a, while the rim is formed by a coiling technique as shown in figure 5.24b.

5.4.3. Surface finishing techniques

Out of 775 examined sherds, most (81%) were finished while the clay was in a humid state while 19% were finished by burnishing when the clay was in a leather hard state using different tools (Figure 5.25).



a)



b)

Figure 5.24: Forming surface features (Photographs by S. Okoko)

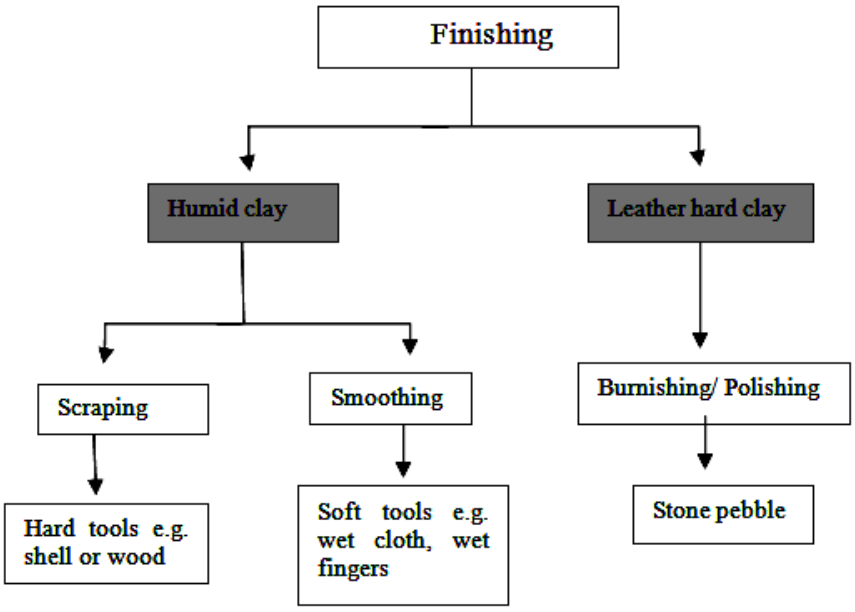


Figure 5.25. Finishing techniques and tools

i) Finishing on humid clay

Six hundred and fifty one sherds are finished while in humid state either by smoothing or scraping as shown on Table 5.11.

a) Scraped with a piece of wood

This technique is visible on either the exterior or interior surfaces of some of the examined sherds. The striations are mostly found on the rim sherds and they occur in diagonal, vertical or horizontal directions. Most of the sherds are scraped on the interior and smoothed on the exterior while a minority is scraped on the exterior and smoothed on the interior.

b) Scraped with a shell

Shell striations are evident on either exterior or interior surfaces and a negligible number of sherds are scraped with shell on both surfaces.

c) Smoothed with a soft tool

A majority of the sherds are smoothed on both exterior and interior surfaces Striations show that smoothing was done using either a wet piece of cloth or hands.

ii) Finishing on leather hard clay: burnishing

One hundred and forty four of the samples are finished by burnishing on leather hard clay. They are burnished on exterior, interior or both surfaces. A majority are burnished on the exterior while the interior is smoothed.

5.4.4. Technical groups

The finishing techniques distinguish 8 technical groups which are distributable into two main groups, humid clay and leather hard clay.

i) Humid clay technical groups

Four groups are present here. The first one includes vessels that are smoothed on both exterior and interior surfaces, representing 72% of the samples. The second group includes vessels smoothed on the exterior and scraped on the interior; it forms 7% of the sample. The third group, which forms 2% of the sample, comprises vessels which are smoothed on the exterior and scraped on the interior. The fourth group forms 0.4% of the sample and is characterized by vessels that are scraped on both exterior and interior surfaces (Table 5.11)

ii) Leather hard clay technical groups

These consist of four groups. The first group includes vessels burnished on the exterior and smoothed on the interior. It forms 9% of the sample. The second group forms 6% of the sample and is characterised by vessels which are smoothed on the exterior and burnished on the interior surfaces. The third group which forms 3% of the sample includes vessels which are burnished on both surfaces. The fourth group which includes vessels that are burnished on the exterior and scraped on the interior forms 0.6% of the sample (Table 5.11).

Table 5.11: Quantity of potsherds distributed per surface finishing technique

		Humid clay interior wall		Leather hard interior wall
		Smooth	Scraped	Burnished
Humid clay exterior wall	Smoothed	558 (72%)	54 (7%)	46 (6%)
	Scraped	16 (2%)	3 (0.4%)	-
Leather hard clay exterior wall	Burnished	70 (9%)	5 (0.6%)	23 (3%)

5.4.5. Firing techniques

Surfaces of vessels are not homogenous and present oxidized and reduced areas, which indicate that oxygen was not evenly distributed. This therefore, implies that firing atmosphere was not controlled and that vessels were fired in the open.

5.4.6. Finished product: morphology and decorations

i) Vessel Morphology

One hundred and sixty-four sherds were recognized as bowls and 68 as jars. However, not all the recognizable bowls and jars enabled us to reconstruct further body characteristics (Figure 5.26). The body characteristics include open globular bowls and open bowls with carination, closed globular bowls, jars with carination, globular jars, and jars with constriction as shown on Table 5.12.

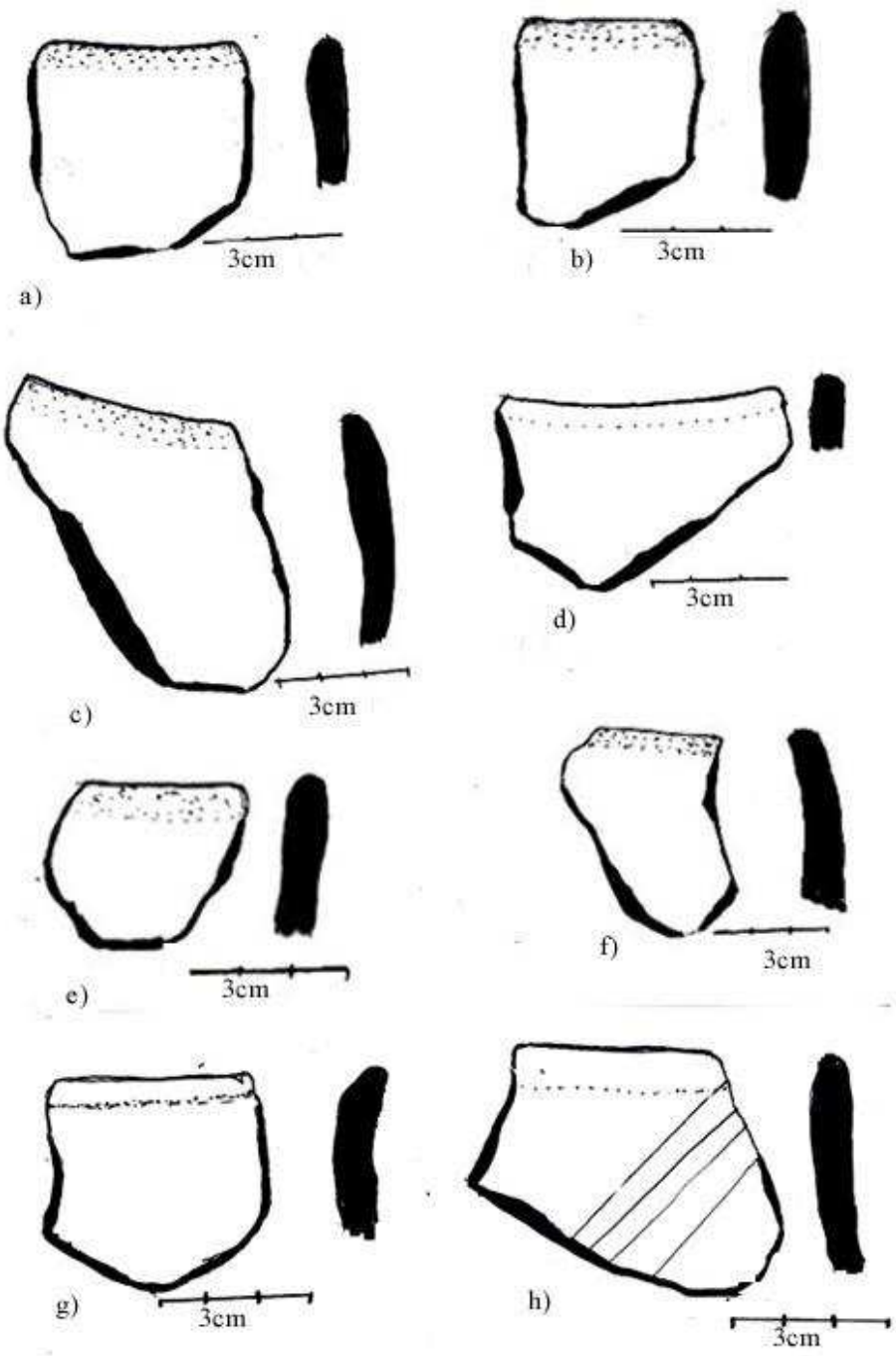


Figure 5.26a: Vessel forms: Globular (a-f), constricted (g-j) (Drawing by the Author)

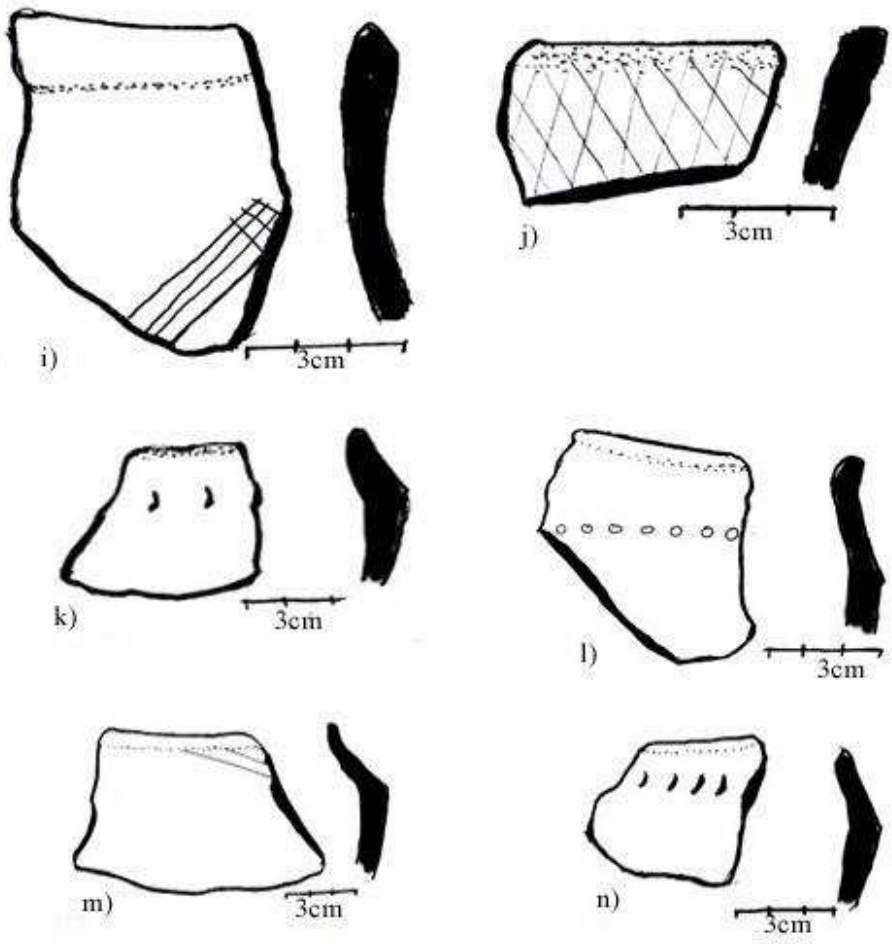


Figure 5.26b: Vessel forms:Carination (k-n) (Drawing by the Author)

Closed globular bowls form a majority (73%) of recognizable bowls while constricted jars form a majority of recognizable jars with 74% (Table 5.12)

Table 5.12: Representation of bowls and jars

	Body Characteristics			
Vessel Form	Carination	Globular	Constricted	Total
Open bowls	3	11	-	14
Closed bowls	13	77	1	91
Closed jars	3	12	42	57

ii) Morpho-Metrics

One hundred and forty sherds gave an indication of vessel sizes in the sample. The aperture radius of the vessels ranges from 3cm to 22cm. The vessels are in 4 group sizes. The aperture of group 1 is 3 to 7cm, group 2 is 8-12cm, group three is 13 to 14 cm and group 4 are vessels of 18 to 22 cm. Figure 5.27 shows their distribution.

The distribution shows that vessels from Ungwana are mostly of small and medium sizes, the small (3-7cm, 8-12cm) closed globular jars being more numerous. It also shows that there is no correlation between vessel shapes and sizes. Bowl and jar sizes seem to occur randomly.

iii) Decorations

Of the 775 sherds, only 99 are decorated as shown on Table 5.13 below. The decorations motifs include incisions and impressions (punctates). Eighty-six percent are incised while punctates are represented by 14% of the decorated sherds in the sample (Table 5.13). The state of clay and tools of execution are provided using experiments and ethnographic data presented in Chapter 4.

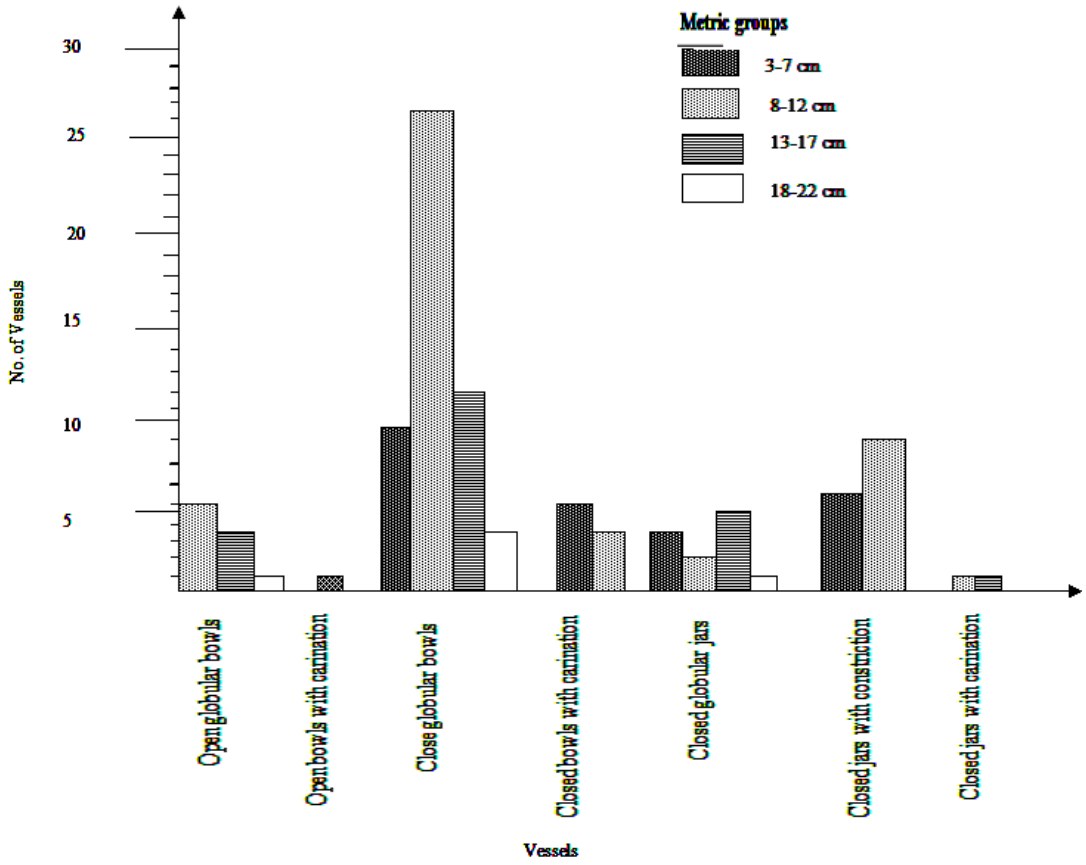


Figure 5. 27: Distribution of morphological types per metric group

a) Incised Motifs

Incisions include lines which occur in jars and bowls in diagonal, vertical or horizontal directions on the rim, neck and shoulder. These include crisscross patterns, crossing bands of parallel lines, hatched triangles and zigzag bands of diagonal lines (Table 5.14). They are thick or fine and carelessly or neatly executed. In some sherds, the application was done when the clay was still in humid state, while for others it was in a leather hard condition.

Table 5.13: Number of vessels per decoration motif

	Pottery forms			
Technique	Jars	Bowls	Unknown	Total
Incised	28	32	25	85
Impressed	4	10	-	14
Total	32	42	25	99

Crisscross patterns

Crisscross patterns are found on either the neck or the rim or sometimes the shoulder of both bowls and jars. They are both carelessly and finely executed. Most of the incisions were applied when clay was in a leather hard state with a sharp pointed tool (Figure 5.28).

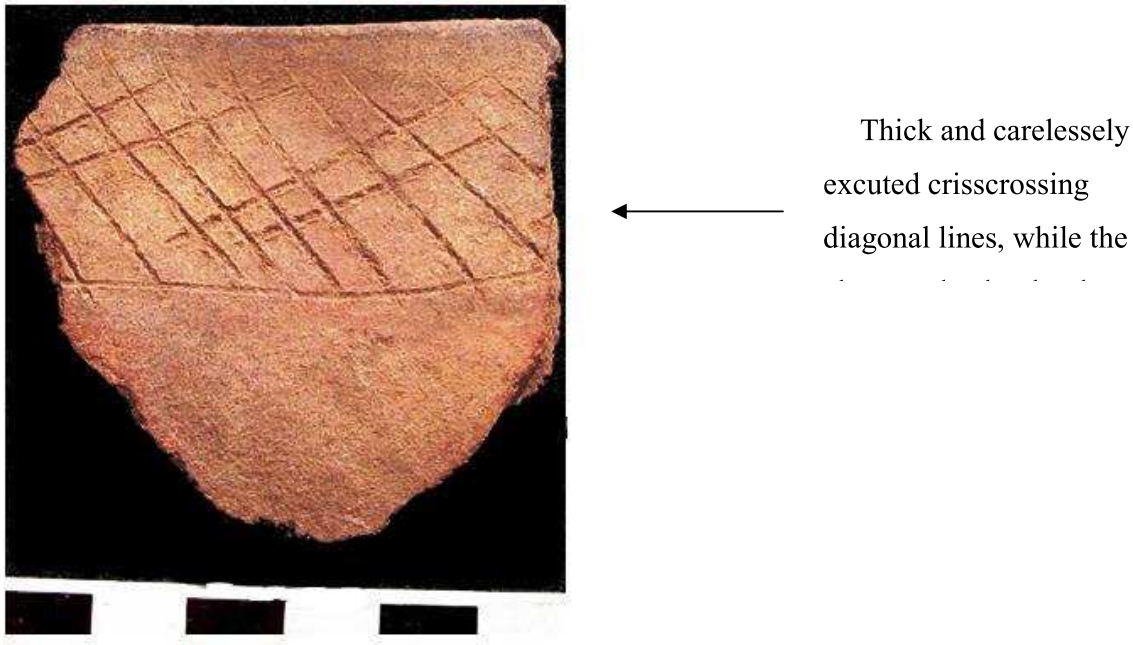


Figure 5.28: Example of crisscross pattern (Photograph by the Author)

Crossing bands of parallel lines

These patterns appear around the rim, neck and shoulder of both jars and bowls. They were executed with a sharp tool when the clay was in humid state for some vessels while for others the application was done when the clay was in a leather hard state. The incisions on the bowls seem to be neat, whether fine or thick (Figure 5.29).

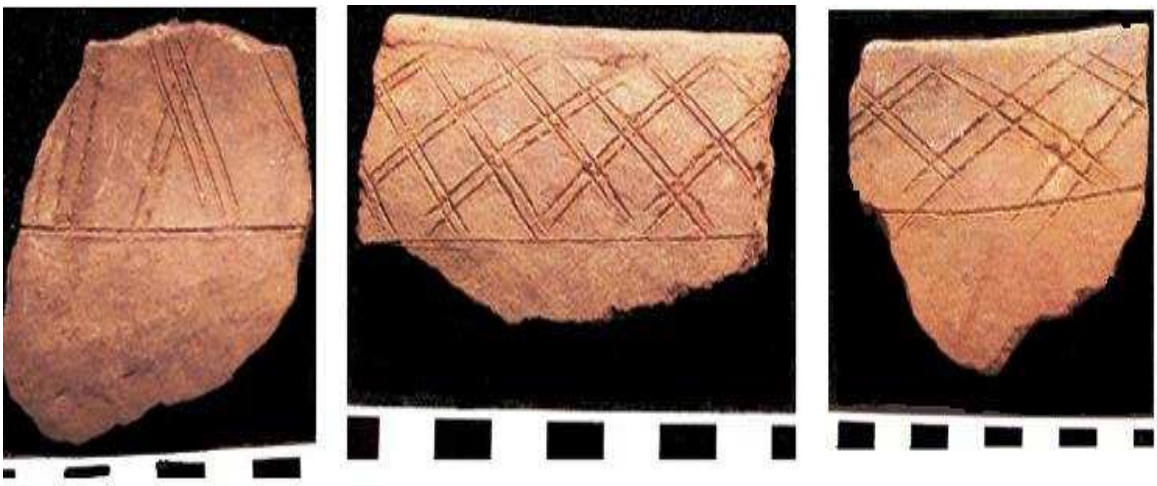


Figure 5.29: Examples of bands of crossing lines (Photographs by the Author)

Zigzag diagonal lines

Zigzag incisions seem to be quite rare in the sample and are found only on the jars (Figure 5.30). They seem to have been carelessly executed with a sharp object on leather hard clay.

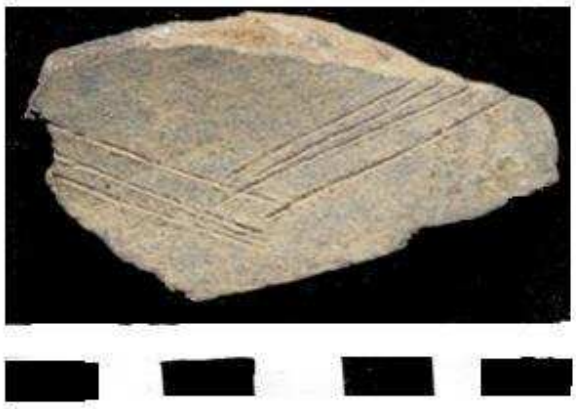


Figure 5.30: Example of zigzag lines of incisions (Photograph by the Author)

Hatched triangles

The hatches are continuous lines of alternate lines, which are neatly executed using a sharp pointed tool. The triangles appear in the area around the rim and neck of both bowls and jars (Figure 5.31).

Figure 5.31: Examples of hatched triangles (Photographs by the author)

5. 14: Number of vessels with incised motifs distributed per morphological types.

	Vessels		
Incisions	Jars	Bowls	Total
Crisscrossing lines	3	13	16
Crossing bands of parallel lines	7	11	18
Continuous bands of Parallel lines	3	2	5
Standing and pending triangles	10	6	16
Zigzag lines	5	-	5
Total	28	32	60

b) Punctates

Some punctates seem to have been impressed with a straw when the clay was still humid. They occur in both bowls and jars. They appear on the shoulder or the area between the shoulder and the neck (Figure 5.32).

Figure 5. 32: Examples of punctates made with a straw (Photographs by the Author)

Other punctate decorations appear to have been made using the tip of a finger or a blunt tool when the clay was still in a humid state (Figure 5.33).

Figure 5. 33: Examples of punctates made with a blunt object or tip of a finger (Photographs by the Author)

5.4.7. Variability of chaînes opératoire

After combining petrographic groups, forming techniques and finishing techniques, Ungwana ceramics appear to have been made according to 24 chaînes opératoires. These chaînes opératoires are defined in terms of technical groups and petrographic groups (Table 5.15) since the forming techniques are the same for all the vessels. In total there are 8 major chaînes opératoires, 7 minor and 9 esoteric ones. The major and minor chaînes opératoires are presented in Figure 5.34. The quantities of vessels belonging to each chaîne opératoire are indicated in Figure 5.35. Below, we detail the techno-petrographic groups, that is, the chaînes opératoires.

i) Sherds with smoothed exterior and interior surfaces

This technical group contains 5 petrographic groups of which 4 are major (sand paste, fine sand, mica, and shell paste) and one is anomalous (coral paste).

ii) Sherds with smoothed exterior and scraped interior surfaces

There are 4 petrographic groups in this technical group of which 2 are major and 2 are minor. The major groups include sherds with coarse pastes and fine pastes, whereas the minor groups include sherds with mica and shell.

iii) Sherds with smoothed exterior and burnished interior surfaces

Within this technical group, there are 4 petrographic groups of which 1 is major, and three are anomalous. The major group contains sherds which are made with coarse paste, whereas the anomalous groups contain sherds which are made with fine sand, mica and shell.

iv) Sherds with burnished exterior and smoothed interior surfaces

There are 4 petrographic groups within this technical group. They include 1 major, 2 minor and 1 anomalous. The major group contains sherds which are made with fine sand paste while the minor comprise coarse sand and mica. Shell paste appears to be anomalous.

v) Sherds with burnished exterior and scraped interior

Only 2 petrographic groups are present within this technical group. Both petrographic groups are minor and they include sherds which are made with coarse sand and fine sand pastes.

vi) Sherds with burnished exterior and interior surfaces

Three petrographic groups are present within this technical group. These include 2 minor and 1 anomalous. The major group contains sherds which are made with coarse paste whereas the others have sherds which are made with fine sand paste and mica.

vii) Sherds with scraped exterior and interior surfaces

This technical group includes 2 petrographic groups of which both are anomalous. They contain sherds which are made with coarse sand and shell clay pastes. There seem to be no relationship between technical groups and petrographic groups. Any petrographic group can be present with any finishing technique regardless of whether the vessel was finished while in humid or leather hard state. Of note is the fact that the coarse sand petrographic group is used by all the technical groups and vessels made from this paste comprise almost half of the studied collection. On the other hand, coral rag is the least used and only occurs with the 'smooth exterior and smooth interior' technical group. It seems that each chaîne opératoire produces a variety of vessel types as presented on Table 5.16, which shows that no particular vessel can be associated with any single chaîne opératoire. Different chaînes opératoires produced between 1 and 6 vessel types. The chaînes opératoires that used sand pastes are associated with almost all the vessel types. The chaînes opératoires that used mica are associated with 4 vessel types. The chaînes opératoires that used shell are associated with 3 vessel types. None was reconstructible for chaînes opératoires 5, 11, 12, 13, 19, and 24.

Table 5.15: Number of sherds per techno-petrographic group

	Technical groups							
Petrographic groups	Smooth exterior and interior	Smooth exterior and burnished interior	Smooth exterior and scraped interior	Burnished exterior and interior	Burnished exterior and smooth interior	Burnished exterior and scraped interior	Scraped exterior and interior	Total
Coarse and	277	31	33	12	17	4	3	377
Fine sand	132	7	35	2	39	2		217
Grit mica	54	4	6	8	11	-		83
Shell	81	1	10	-	1	-	2	95
Coral rag	3	-	-	-	-	-		3
Total	547	43	84	22	68	6	5	75

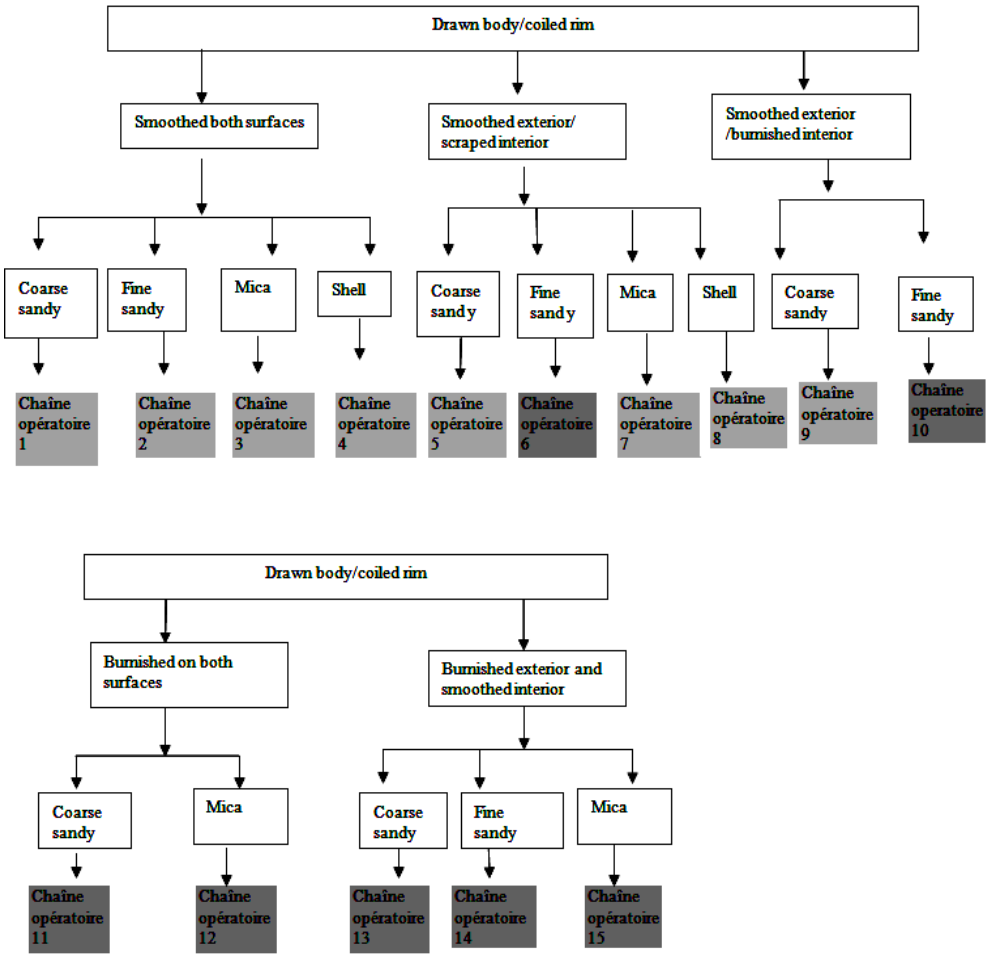


Figure 5.34: Ungwana main and minor chaîne opératoires

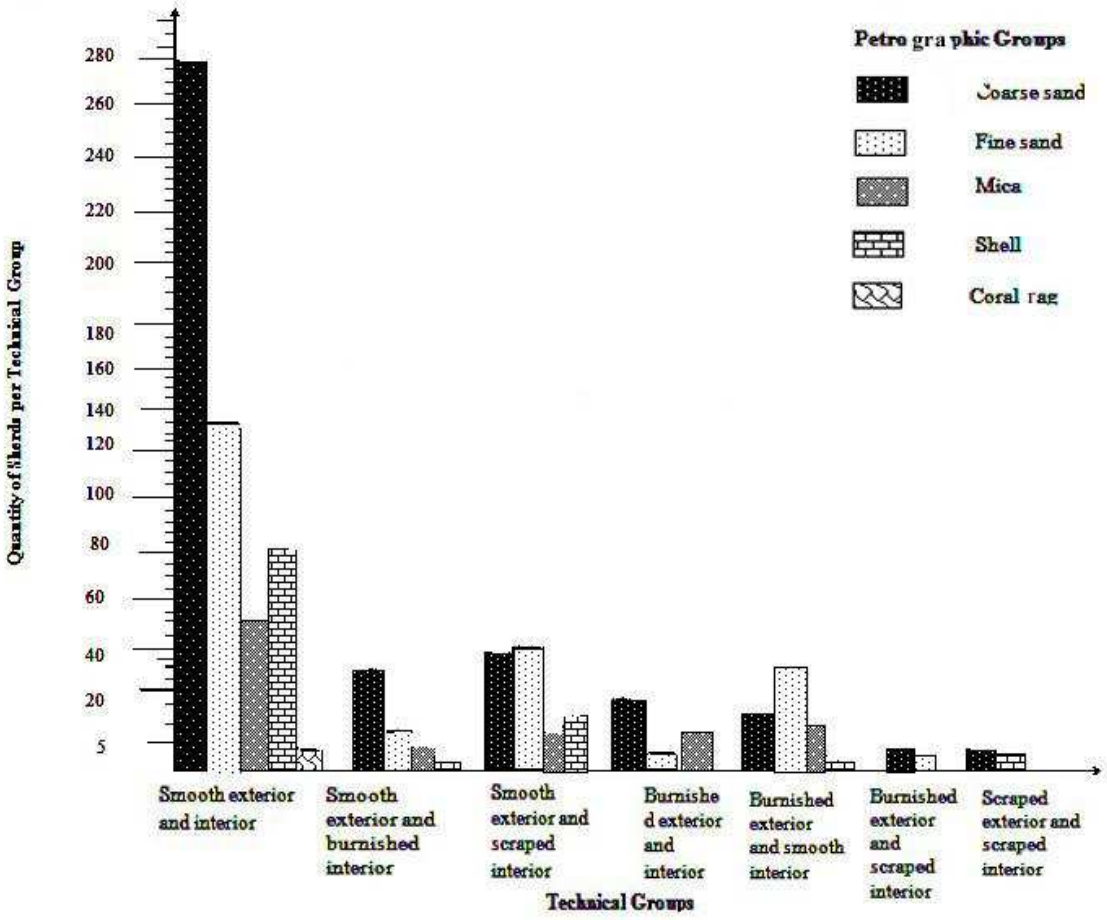


Figure 5.35: Distribution of petrographic groups per technical groups

5.4.8. Relationship between techno-petrographic groups and morphological types

Table 5. 16: Morphological types per chaîne opératoire

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
a	x					x	x			x				x		x						x		
b	x	x																						
c	x	x												x	x	x				x		x		
d	x	x	x	x		x	x	x	x	x				x	x	x		x		x		x		
e			x					x																
f	x	x		x										x							x		x	
g	x	x	x	x		x	x	x						x			x			x				

Key

a) Open globular bowls b) Open bowls with carination c) Closed bowls with carination d) Closed globular bowls e) Closed jars with carination f) Closed globular jars g) Closed jars with constriction

The variability in chaînes opératoires per morphological type cannot be explained in terms of a particular vessel function; rather, it is evident that the vessels were multifunctional as evidenced by the large range of sizes per morphological type. Bowls may have been used for cooking, serving and eating as is the case with coastal Bantu speakers, while jars may have been used for cooking, serving, storage or transportation as is the case with the Highland Bantu and Cushitic speakers.

5.4.9. Technical and morpho-stylistic characteristics of Tana Ware from Ungwana site

Kirkman (1956) suggests that Ungwana may have served as an 'entrepôt' for the goods produced in the lower Tana river area. These goods would have been carried to ports easily accessible to large ships. If this was the case, then is probable that in addition to pottery made within the site, ceramics from the lower Tana basin were brought to Ungwana from different potters either as trade items or as carriers of trade goods. This could explain the variability of the chaînes opératoires characterizing the Ungwana ceramic assemblage.

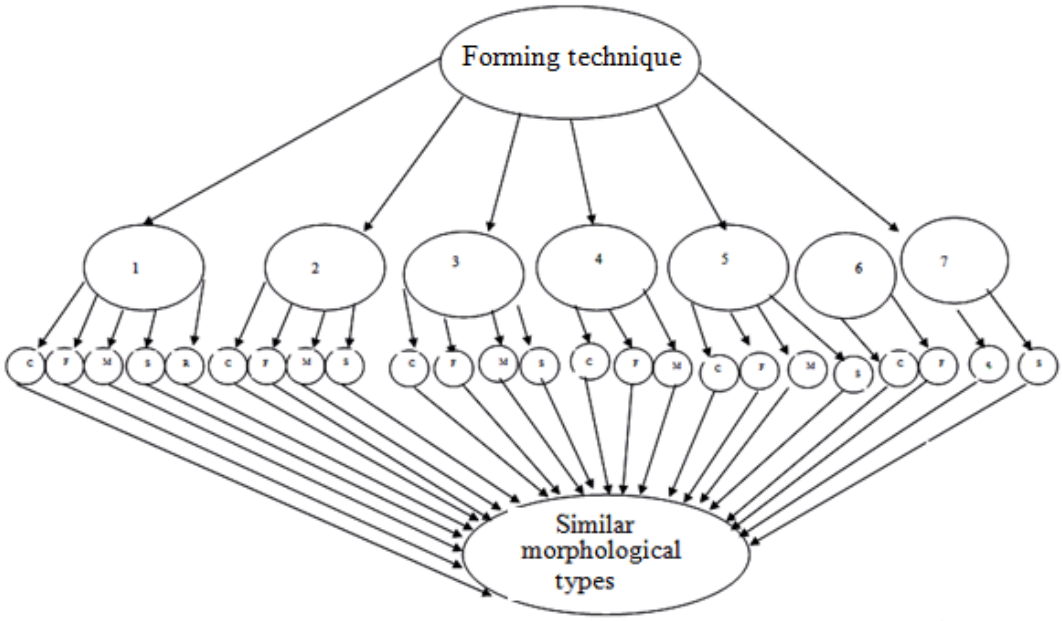
Indeed, the variability in clay paste within Ungwana vessels can be attributed to potters' practises and the coastal geological set up. Ungwana having been a centre for trade as suggested by Kirkman (1956) may have attracted potters from the surrounding areas which may have had different geology settings and thus, different clay contents. According to Wilding (1977), the closest clay sources contained sand, or beach sand was added, whilst the pots which were made with shell and coral rag pastes may have come from a greater distance.

While clay variability can be explained in terms of clay sourcing and the diversity of potters' locations, there is no consistent explanation that we can derive from the assemblage regarding variability in finishing techniques, with the latter presenting no correlation with vessel forms or petrographic groups. It seems therefore that the apparent variability may lie in the potters' habits or in the fact that the potters were not keen on how they finished their pots, just as in the Manda case.

Although the diversity in clay paste and finishing techniques in Ungwana pottery is clearly evident, the chaînes opératoires present a homogenous character in terms of forming techniques, decorations and shapes. It is, therefore, proposed that while

Ungwana ceramics may have been produced in different areas, they belong to the same tradition, therefore implying a common origin and same cultural group (Figure 5.36).

The homogeneity in vessel shapes and decorative motifs could also be explained by the fact that potters coming to Ungwana could meet regularly and therefore were able to learn and copy various decoration motifs and vessel forms from each other. In fact, such a copying process is another argument in favour of the hypothesis of the potters belonging to the same cultural group since shapes and decorations can be attributes enabling groups to distinguish between themselves (Gosselain 2000).



Key

Technical groups
1= Smooth exterior and interior
2= Smooth exterior and burnished interior
3= Smooth exterior and scraped interior
4= Burnished exterior and interior
5= Burnished exterior and smooth interior
6= Burnished exterior and scraped interior

Petrographic groups
C= Coarse sand
F= Fine sand
M= Mica
S= Shell
R= Coral rag

Figure 5.36: Technical tradition of Ungwana Tana ware

5.5 Comparison Between Manda and Ungwana Tana ware Assemblages

A comparative analysis between Tana ware from Manda and Ungwana sites shows that both assemblages are similar in all technical aspects. The differences lie only in the proportional use of the different finishing techniques and in the presence or absence of some decorations.

5.5.1. Similarities

i) Clay pastes

From both sites, pastes consist of coarse sand, fine sand, mica, shell and coral rag. It also seems that the coarse sand paste is used more extensively than any other paste while coral paste is the least used in both assemblages.

ii) Forming Techniques

Pottery from both assemblages seem to have been modelled by drawing and coiling. The bodies are made by drawing whilst the rim are made by coiling

iii) Finishing Techniques

The finishing techniques for both assemblages include smoothing, scraping, and burnishing. For both assemblages, smoothing of the vessel on both exterior and interior surfaces when the clay was in a humid state is the major technique, followed by burnishing on one or both surfaces after the pot had attained a leather hard condition.

iv) Firing

For both assemblages, firing was done in the open.

v) Vessel forms and size

Both assemblages contain bowls and jars whose body shapes are globular, with a carination or constriction; a majority of them are of medium size.

vi) Decoration

Both assemblages include incisions and impressions that are made using similar tools and located on the same parts of the vessel.

5.5.2. Differences

i) Finishing techniques

The technical attributes from both sites do not seem to be represented in the same way. The most important is the burnishing, where 37% of Manda sample is burnished, as opposed to only 19% of Ungwana. However, no finishing pattern can be established from both assemblages, making it difficult to account for the apparent variation

ii) Decorations

Some decorative motifs do not seem to occur in both assemblages. Thus impressions executed with a straw are present at Ungwana, and absent at Manda. Inversely impressions executed with a shell are present at Manda and absent at Ungwana. Likewise, the zigzag motifs from both assemblages are quite distinct. These may be attributable to individual innovations where potters decided on the motifs of decorations (Dietler and Herbich 1998; Chapter 4 of this thesis) or the sampling strategy which did not allow for all the sherds in both assemblages to be examined. Although the Manda assemblage appears to have more decorated sherds than Ungwana, the difference may be a result of the field collection strategy where only decorated and diagnostic sherds were collected. This may have skewed the results obtained from Manda, unlike Ungwana where all the sherds were collected thus giving a better representation of the whole assemblage. Nonetheless, the Ungwana assemblage is highly fragmentary and it would not be surprising that some decoration details and other attributes could easily be missed.

In sum, Tana ware from Manda and Ungwana is characterized by the same technical tradition: same range of pastes, same forming techniques, same range of finishing techniques, and same range of forms and decorations. In this regard, Tana ware identified at Manda and Ungwana can be characterized as having originated from a common cultural group. Figure 5.37 summarizes the interpretations of the homogeneity and diversity of Manda and Ungwana Tana ware.

The range of pastes is determined by the diversity of clay sources and clay recipes, while the range of finishing techniques may be a result of potters' habits or customer demands. It is thus possible that potters who provided clay material or finished pots to

Manda Island were the same as the ones who produced Ungwana pots even if conditions of distribution might have been different.

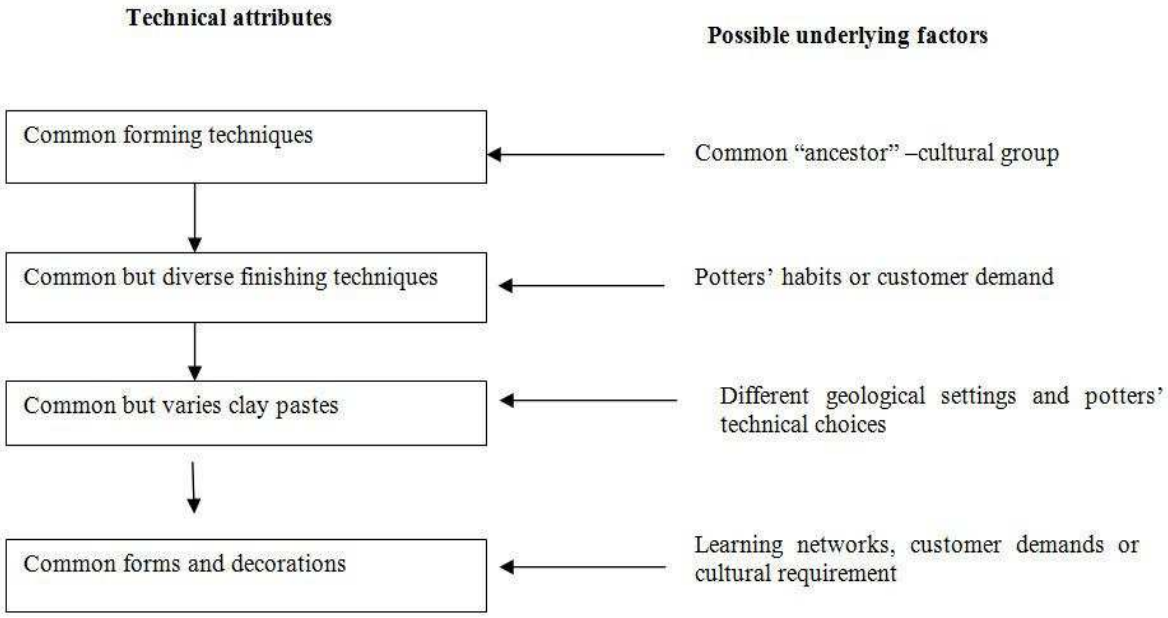


Figure 5.37: Technical character of Manda and Ungwana Tanaware

Indeed, while the pastes in Manda are particularly varied due to the fact that no clay sources exist in the island or as a result of trade, in Ungwana this variety of pastes seems to point to the fact that it was a central trading area with pottery brought from near and far. Moreover, both Manda and Ungwana lie in the coastal strip and potters' mobility within the coastline cannot be ruled out. Wilding (1977) discusses uniformity of coastal pottery based on its pastes, decorations and forms. Links between Lamu and Ungwana were suggested by Kirkman (1956) who argues that products from Ungwana were taken to ports like Lamu. Although he does not give the precise location of these ports, we can assume, given the present pottery evidence, that Manda may have been one of these ports.

As noted above, whilst all the other technical attributes vary from one chaîne opératoire to the other, the forming technique does not change. Therefore, for interpretive analysis, I consider it the most important technical aspect for identifying makers of Tana ware.

CHAPTER SIX

ORIGINS OF TANA WARE

The aim of this research was to determine the origins of Tana ware, a Late Iron Age pottery from the East African Coast. The research was prompted by the fact that researchers developed hypotheses regarding the origins of Tana ware using salient but highly visible attributes like pottery decorations and forms, which are easy to learn and copy from a finished product. One school of thought attributed Tana ware origins to Bantu speakers, while the other one attributed it to Cushitic speakers. With the development of new analytical tools like chaîne opératoire, which not only studies shapes and decorations, but also forming, finishing and firing techniques, I proposed to revisit the hypotheses about the Bantu or Cushitic origins of Tana ware. For this purpose I created a reference framework by conducting and recording pottery making techniques of the Bantu and Cushitic linguistic groups (Chapter 3). This reference ethnographic data was used for interpreting the technical results which were obtained from Manda and Ungwana Tana ware analysis as will be presented.

In this Chapter, first, the Tana ware chaîne opératoire is compared to that of ethnographic Bantu and Cushitic pottery (Figures 6.1 and 6.2). Second, a discussion follows which encompasses identification of the origin of Tana ware, the relationships between the coastal Bantu speakers and the Mt Kenya Bantu speakers, and lastly, the relationships between Bantu and Cushitic speakers.6.1. Comparison Between Tana Ware and Present-Day Bantu and Cushitic Pottery Making Chaînes Opératoires

6.1.1. Clay pastes

As seen from the preceding Chapter, Tana ware from Manda and Ungwana sites is characterized mainly by clay pastes that include sand (80% of the ceramics), which could have been added as temper or occurred naturally in the clay. In the case of ethnographic Bantu speakers from the Mt. Kenya area (Kamba and Meru) the nearest clay source is used and in addition, the Meru-Tigania fetches another type of clay to mix in the paste to produce pottery of a particular colour. No temper is added since the available clay

contains enough sand. On the other hand, the Coastal Bantu speakers (Digo, Chonyi and Jomvu) fetch clay from their farms, buy from vendors or travel a distance of over 20km to collect the preferred type. In all the cases, the clay has enough sand and so it does not require temper, except for the Jomvu, who add beach sand. As far as the Jareer and Waata Cushitic communities are concerned, they also use sandy pastes to make their pots and also they do not add any kind of temper.

6.1.2. Forming techniques

Archaeological Tana ware was modelled by drawing as shown by drawing marks visible on the interior walls of some sherds and exterior walls of others. Rims were made either by drawing or coiling. It is not, however, clear whether the roughout was in form of slabs, rings or lumps of clay since bases were unavailable, and, therefore this could not be easily demonstrated. In the case of ethnographic Bantu speakers, they model their pots by drawing the clay vertically. The coastal Bantu speakers draw the inside walls of conical lump of clay while the highland Bantu draw the outside walls of clay slabs. In the case of the Chonyi and Jomvu coastal Bantu speakers, rims are made by adding coils while in the case of the Digo and of highland Bantu speakers, they are made through drawing of clay.

As for the Jareer and Waata Cushitic speakers, they form their pots by coiling. They roll coils of clay which they use to build the walls by internally fixing them on each other. This technique is used to form the body, rim and the base.

6.1.3. Finishing technique

Within the archaeological Tana ware, finishing was done when the clay was still in a humid state as well as after it had attained a leather hard condition. Although smoothing is the most used, burnishing appears to have been quite important. Similarly, ethnographic Bantu speakers use both forms of finishing techniques. Bantu speakers from the highlands only smooth their pots using a piece of wood or wet hands whereas Bantu speakers from the coast smooth with a piece of cloth while humid and burnish them with a stone pebble after attaining a leather hard state. The interviewed Cushitic speakers finish their pots by smoothing with wet hands or a piece of wood when the clay is still in a humid state. They do not burnish their pots.

6.1.4. Firing

Archaeological Tana ware was fired in the open as is the case with all the interviewed ethnographic groups (Bantu and Cushitic speakers).

6.1.5. Pottery forms

The morphological types of archaeological Tana ware include bowls and jars which have globular, constriction and carination shapes. Ethnographic Bantu speakers from the highlands have maintained short-necked constricted/globular pots, while the coastal Bantu speakers pottery repertoire is mostly made up of bowls with constriction, globular bowls and bowls with carination. On the other hand, the Cushitic pottery repertoire is limited to water pots which are globular narrow mouthed and short necked; cooking pots which are globular and constricted; and incense burners which are small jars with windows. No bowls are currently made by the Cushitic speakers.

6.1.6 Decorations

Archaeological Tana ware contains a variety of motifs which are made through impressing or incising on humid or leather hard clay. The incisions appear as single lines, bands of parallel lines, crisscrossing bands of parallel lines, or zigzag motifs. In other cases, the decorations include triangular motifs which are hatched with diagonal, horizontal or vertical lines of incisions. The triangles and line of incisions are executed on the rim using various themes. In some cases, two motifs are combined, for example zigzag lines of incision with punctates or shell impressions. The decorative motifs of Bantu ethnographic pottery include incisions which are in form of short crosses and zigzag lines, finger or blunt tool impressions which are executed on ridges, and breasts or 'V' shapes on the shoulder or rim. Except for the breasts and 'V' shapes, these motifs are also apparent on Tana ware, but in an inconspicuous way. However, Bantu pottery lacks most of the decoration motifs in Tana ware such as, parallel lines of incisions, hatched triangles, bands of parallel lines and shell impressions. Therefore it seems that there are more differences than similarities between the two.

The ethnographic Cushitic speakers' decorative techniques include incisions and impressions. The incisions are made with the tip of a sharp object. In the case of the Jareer, there are two typical motifs and themes. One of them is incised crisscrossing

diagonal lines which are repeated on the rim and are bordered by one horizontal line on the upper and lower limit. The second main motif is made by incising lines on the body which form a 'Y' shape and are bordered to the left and to the right by vertical incised lines and one single incised horizontal line on the upper and lower limits. The crisscrosses may occur alone or in combination with 'Y' motifs and punctates. These patterns are repeated to cover the whole body of the pot.

Similarly, the Waata Cushitic speakers decorate their pots mostly with incised lines and punctates. The incised lines occur as triangles which are filled with crosshatches, or they may occur as bands of crisscrossing lines on the rim. Single horizontal incised lines on both the upper and lower limits of the motif border these. On the shoulder, punctates are applied and in other cases, punctates are applied on the lip.

Jareer and Waata pottery decorations show similarities with the main decorations of Tana ware. Similar motifs include punctates and elaborate lines of incisions (crisscrossing parallel lines) and hatched triangles which are executed on the rim. Among the differences are the 'Y' shape motifs which are applied on the body of Cushitic pottery, and the shell impressions which are present in Tana ware.

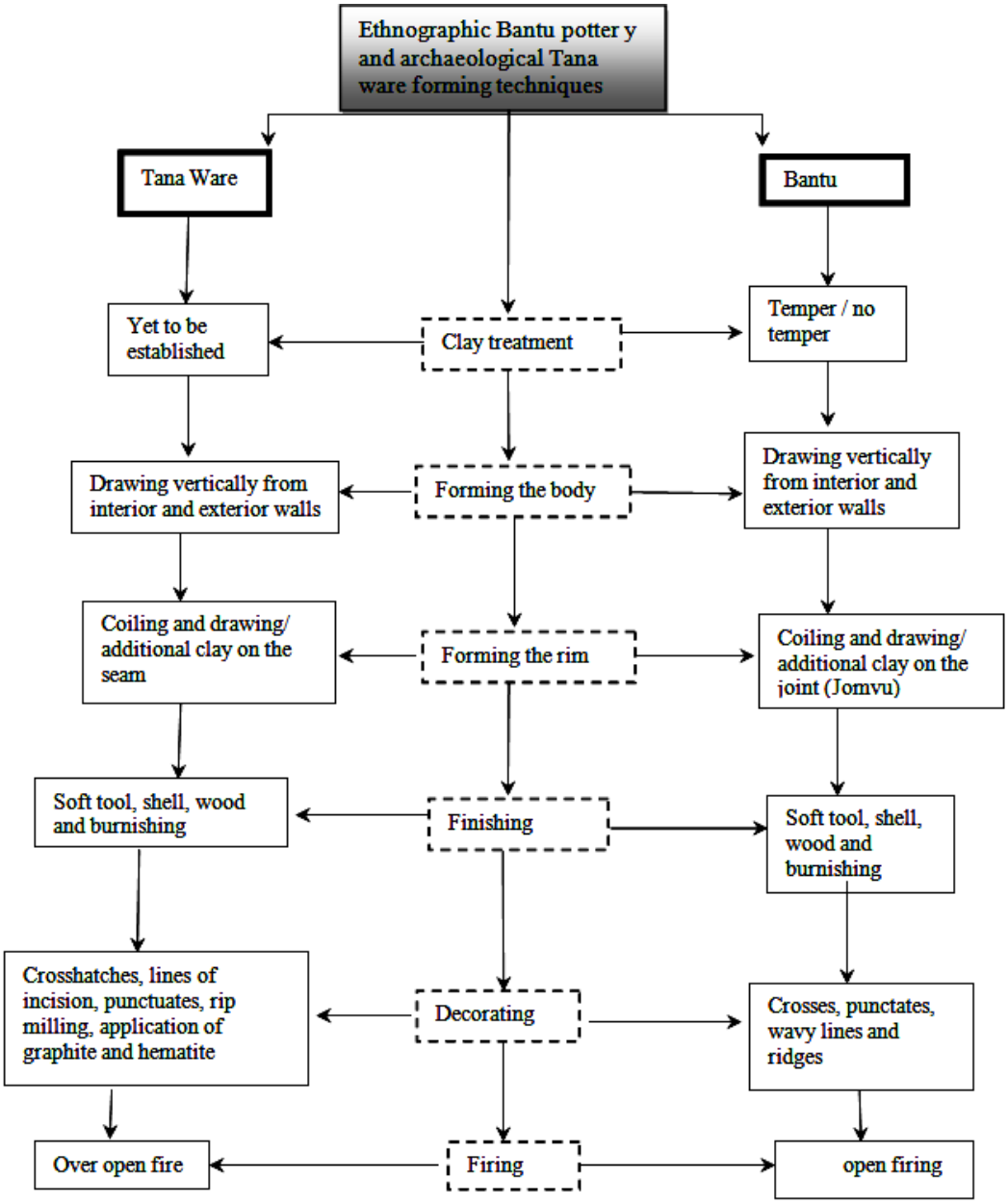


Figure 6.1: Comparison between Tana ware and Bantu Speakers chaînes opératoires

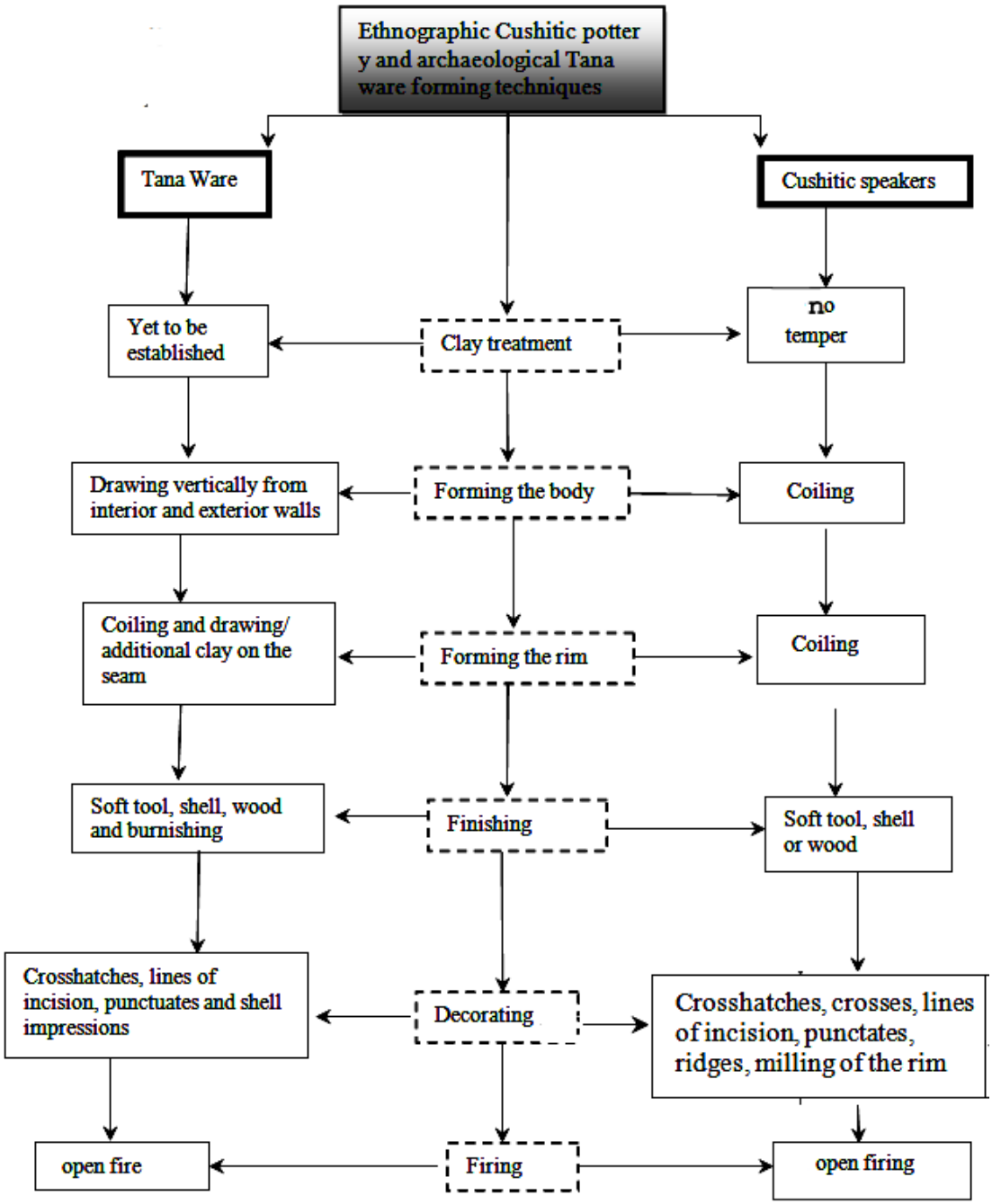


Figure 6.2: Comparison between Tana ware and Cushitic speakers chaînes opératoires

The comparison between Tana ware and the Bantu and Cushitic ceramic traditions leads us to the following conclusions.

- Although it has been shown in the preceding section that archaeological Tana ware has the same sandy paste as both Cushitic and Bantu speakers' pottery. The underlying reason may be the geological setting of the area. Ethnographic studies on clay acquisition (e.g. Gosselain 2000; Livingstone-Smith 2000; Arnold 2005; Gosselain 2010) however, have, shown that clay acquisition and treatment is a matter of technical choice which may not be influenced by the environment alone. However, it is not possible to tell based on the present research whether the sand in the paste was natural or added. Thus, as far as sandy paste are concerned, no evidence exists which would signal towards a Bantu or Cushitic speaker's cultural ancestry.

- It appears that Tana ware forming techniques have closer connections with the ones of the Bantu speakers than the ones of the Cushitic speakers. Drawing of clay, which is completely absent in Cushitic pottery-making, seems to be important in highland Bantu and coastal Bantu. Coiling which is a feature of Cushitic speakers seems to have been used by some Bantu speakers and makers of Tana ware only for forming the rim. It is probable that this happened in the remote past through intermarriages since forming techniques are not visible on the finished product but must be learned through apprenticeship (Gelbert 2003).

- On the finishing techniques, one finds that both methods that are used by Cushitic and Bantu speakers are present in Tana ware. Yet, only the Bantu speakers were found to burnish their pots. Because of this, it can be said with a great degree of confidence that the finishing techniques are more inclined towards the cultures of Bantu speakers than those of the Cushitic speakers.

- Open firing too is a feature that was practised by all archaeological pottery makers in East Africa (Chittick 1984). In this regard, this is not a relevant feature to reveal the makers of archaeological Tana pottery.

Regarding the vessel forms, it seems that attributes of archaeological Tana ware are present in pottery repertoires of both Cushitic and Bantu speakers. However, while the Cushitic speakers share only one form of 'short necked globular jar shapes' similarity with Bantu speakers include both bowls and jars which may have carination, constriction and globular shapes. It is, therefore, clear that Tana ware shapes bear closer affinity with Bantu speakers pottery shapes than with that of Cushitic speakers.

The decorative motifs of Tana ware appear in the pottery of both Cushitic and Bantu speakers. However, while the pottery of Bantu speakers is largely undecorated, and where the decorations appear, they are minimal the pottery of Cushitic speakers is mostly decorated with more elaborate and structured motifs. The lines of incisions in particular on Cushitic pottery, appear to be in the same themes and locations as the ones from archaeological Tana ware, unlike the pottery from Bantu speakers which lacks lines of incisions and crosshatches. Evidently, the decorations of archaeological Tana ware have closer connection with Cushitic pottery than with the pottery of Bantu speakers. This aspect prompted archaeologists (e.g., Horton 1984; Abungu 1989; Wilding 1989) to draw close relationships between the two, which they associated with trade and other interactions.

In sum, the attributes of archaeological Tana ware seem to have more connections with Bantu than Cushitic speakers. Indeed, the forming and finishing techniques as well as the range of morphological types suggest a strong cultural affiliation between the Tana ware and the Bantu speakers whereas decorations suggest contacts between Bantu and Cushitic speakers. The forming techniques are supposed to be stronger indicators of ethnic groups than decorations given that motor habits are transmitted within ethnic groups (Roux 2011). In a market economy, decorations might reflect mainly the customer's demand beyond ethnic affiliation (for example in Senegal, Gelbert 2003; Mapunda and Wynne-Jonnes 2008). From the ethnographic research, learning networks seem to be between people who are closely related as illustrated on Figure 6.3. Six

networks were evident from 19 potters. Except for network 'f' which is mythical the other networks suggest long term relationship. Also network 'e' and 'f' which do not have any family ties seem to have no depth or a future linage of passage.

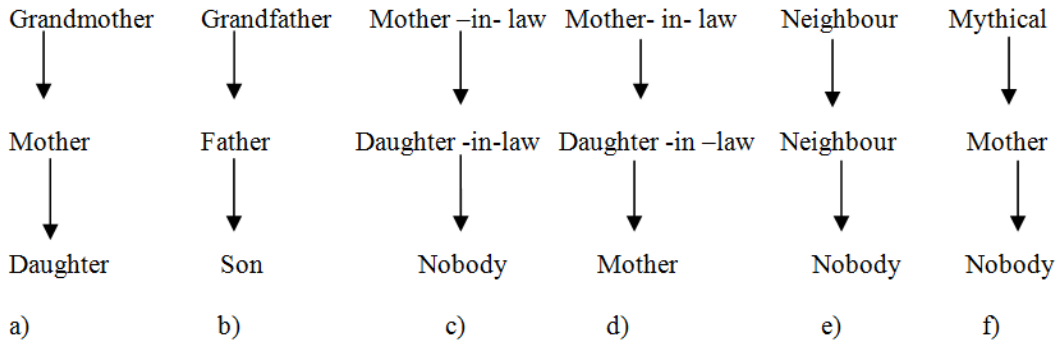


Figure 6.3: Learning networks from ethnographic research

Since Ungwana and Manda sites are located at the coast and are surrounded by Bantu speakers, it is plausible to assume that Tana ware from these sites may have been made by the ancestors of Coastal Bantu speakers. In fact, in the past, archaeologists have associated all the local materials found at these sites with Coastal Bantu speakers, the same way they associated archaeological materials in the Rift Valley region with Cushitic and Nilotic speakers who live there (Chami 2006b). However, as we have seen, the argument of ethnic proximity is not enough.

6.2. Relationships Between Coastal and Mt Kenya Bantu Speakers

Nevertheless, linking Tana ware with Bantu speakers from the Mt. Kenya region require more complex explanations since the two are far removed in space and time. Some of the archaeological links that have been put forward between the Coast and Mt. Kenya region include trade and migrations. Early trade between the Mt. Kenya region and the Coast has been postulated by historians such as Allen who claims that, evidence of long distance trade routes to the interior after 950 AD is proved by the discovery of rock crystals at the appropriate levels in Shanga and Manda archaeological sites, and as well as haematite at Shanga (Allen 1993). Likewise, Horton (1996b) points out that; connections with the interior were through the Lamu archipelago linking the Tana River

and Mount Kenya, and the Zanzibar channel linking the Usambara mountains and the Maasai plains.

Now, although similar pottery decorations and shapes may demonstrate contacts between the Kenyan coast and the interior, it is unlikely that pots were traded. This is because Mt. Kenya region lies about 500km away from the coast and other ethnolinguistic groups like Cushitic and Nilotic speakers occupy this space and their pottery making technique (coiling) was not observed among Manda and Ungwana assemblages. Therefore, it is unlikely that the occupants of Ungwana and Manda brought in pottery from such long distances and not from their immediate neighbours who made pots of similar forms and decoration as Tana ware. The most plausible hypothesis is the one of the physical presence of Mt. Kenya Bantu speakers at the coast. This has been proposed and demonstrated in the past by archaeologists, historians, linguist and oral traditions.

Archaeology has provided migration evidence in form of Iron Age Bantu pottery. As seen in Chapter 1. Kwale ware which is one of the potteries that has been used in the archaeological record to identify Early Iron Age movement of Bantu speakers is dated to around the 3rd century AD at the coast (Soper 1967a), whereas it dates to about the 11th century around Mt. Kenya region (Siiriainen 1971). This indicates that Bantu speakers may have occupied coastal areas and later moved up the Tana River to Mt. Kenya region. This assumption is further supported by 17th century pottery from other sites along the coast, which is made by drawing the exterior walls (Figure 6. 4) in the same way the Mt. Kenya Bantu speakers make their pots. An example of this pottery is from a Later Iron Age coastal town of Gede which is now in ruins.

Gede pottery was modelled by drawing of clay from exterior walls and since no present Coastal Bantu speakers model their pots by drawing the exterior walls, it is conceivable that the ancestors of the Meru-Tigania Bantu speakers made it. If so, we might speculate that the movement of Bantu speakers from the coast may have happened in a gradual way through the migration of small groups of people until the 17th century when historians and linguists point to their final movement to the highlands.

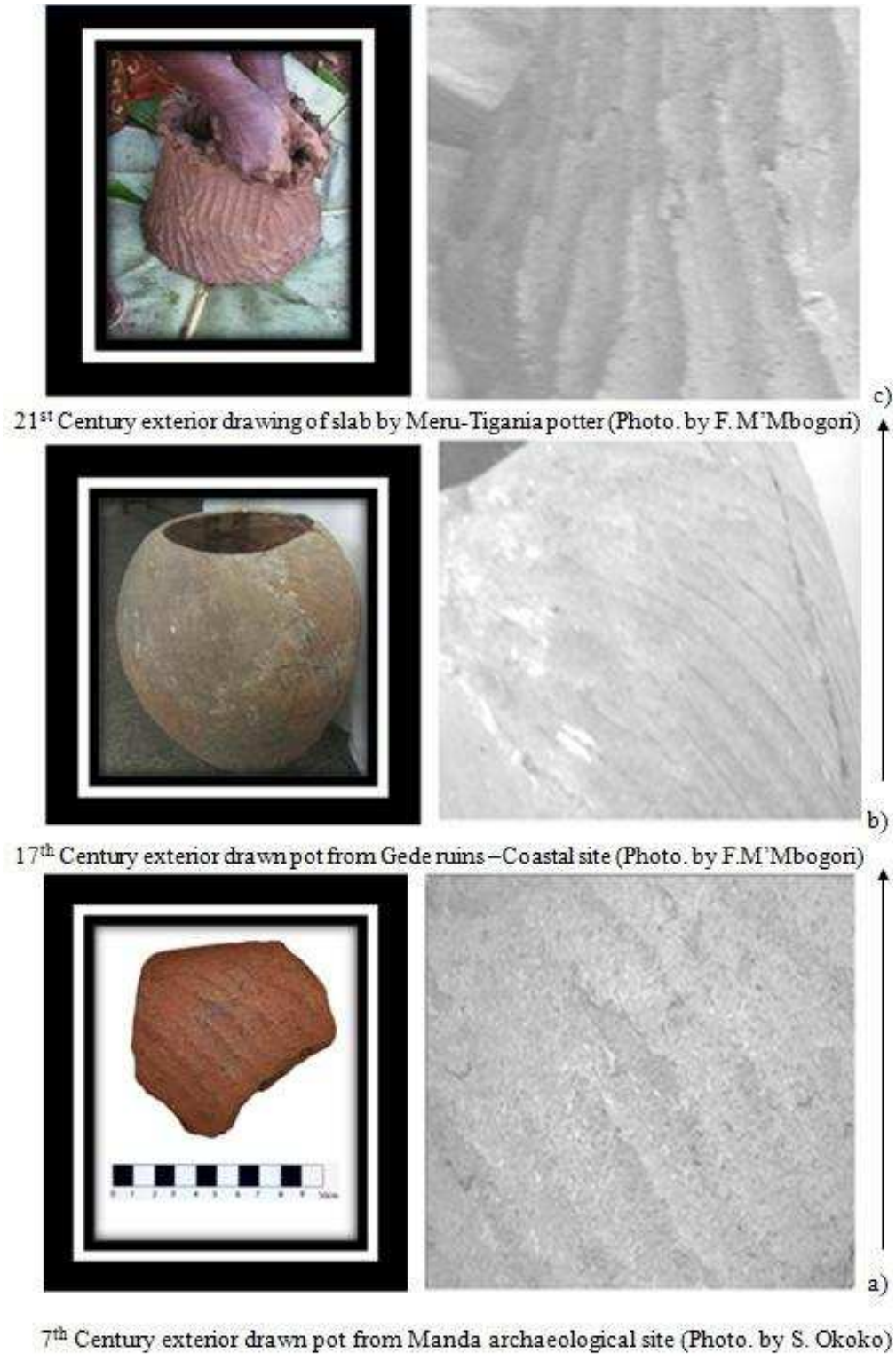


Figure 6.4: Drawn pottery from the 7th century, 17th century and from modern Bantu speakers

Similarly, as discussed in Chapter 1, historical and oral traditions suggest that the Meru people may have lived in Manda island until the 16th century when they left so as to free themselves from enslavement by "nguo ntune" (Fadiman 1993, 1973). These events coincide with the present archaeological evidence and may be attested to by the presence of chain links (used in slave trade) which were found at Manda and Shanga (Horton 1996a). Slaves have long been important in East Africa's Indian Ocean trade since AD860 as indicated by old historical records (Kusimba 2004, p. 63; Pouwels 2002).

Linguistic evidences argue also in favor of Bantu speakers from Mt. Kenya region (Meru-Tigania) having lived within the vicinity of the lower Tana Basin during the later Iron Age. Nurse (1983b) claims that among the main contributors to Pokomo language are the Meru-Tigania Bantu of Mt. Kenya region. The Pokomo are Bantu speakers who still live on the banks of lower River Tana. Further, Nurse and Hinnebusch a1993, p. 29) argue that a the Meru community lived near the mouth of Tana up to about 18th century. Nonetheless, Nurse notes that, the Bantu languages of Central Kenya are still conservative and have not undergone the sound shift which other Bantu languages underwent almost 1000 years ago (Nurse 1982). For example, the Mt. Kenya Bantu languages have retained the Proto-Bantu 7 vowels while the coastal Bantu languages contain only 5 vowels today (Nurse and Philipson 2003). This notwithstanding, evidence for the coastal origins of the Meru people from oral, historical, and linguistic studies, and now the present archaeological evidence is very suggestive and cannot be ignored. Without doubt, it confirms the connections of Mt. Kenya Bantu speakers with the Coastal Bantu speakers. The present archaeological evidence also illustrates the probable periods when the final movements of Mt. Kenya speakers took place.

6.3. Links between Bantu Speakers and Cushitic Speakers

The archaeological data indicates that there were early contacts between the Cushitic and Bantu speakers. The decorations, some pottery shapes and the roughout technique of coiling the rim by the Coastal Bantu attest to this fact. These common aspects between Tana ware and pottery of the Cushitic speakers may be attributable to networks and relationships which may have taken place in form of social interactions through trade, border contacts, intermarriages, services and brotherhoods. Indeed, if we examine

archaeological, historical and modern evidence, we find that Bantu and Cushitic speakers have always been in contact, whether voluntarily or by force.

6.3.1. Iron Age Cushitic and Bantu speakers contacts

During this period, most of the evidence for the contact lies in trade links and trade related activities. Interactions between Coastal Bantu speakers and their hinterland Cushitic neighbours, that is the Somali, Waata, Borana, Orma and Boni, did not only occur during transfer of trade items but also when the Cushitic people acted as guides to the coastal traders deep into the interior of central Kenya (Allen 1993). Iron age archaeologists suppose that these interactions may have started as early as the beginning of the first millennium AD, when the first dates of coastal trade with the interior is proposed (Chami 1994). It is also during this period that pottery believed to belong to the Bantu speakers begins to occur at the coast (Ibid). Coastal and interior trade during the Iron Age has been discussed by several archaeologists and historians have highlighted the items of trade from the interior and as well as the trade routes (e.g. Mathew 1956; Chittick 1965; Birmingham 1970; Nicholls 1971 Sutton 1973; Allen 1993; Chami 1994; Kusimba 2004).

6.3.2. Contacts between Cushitic and Bantu speakers during historical times

Contacts during the Iron Age as discussed above, were carried into historical and modern times. These historical and recent contacts have contributed to the similarities between Bantu and Cushitic speakers' pottery-making chaînes opératoires and they may also serve as reference to what may have happened during the Iron Age and earlier. These contacts are evidenced by historical documents, linguistic data and oral traditions of both Cushitic and Bantu speakers as presented in Chapter 1.

The oral traditions of both ethnolinguistic groups claim to have historically originated together in Shungwaya or having lived together along the banks of the lower Tana River basin. These claims are supported by historians who have recorded information regarding the historical symbiosis which existed between these different ethnolinguistic groups as well as circumstances leading to disagreements and consequent expulsion of Bantu speakers by Cushitic speakers - the Orma. These symbiotic relationships may have provided several avenues which were conducive environments for the groups to learn and

copy pottery forms and decorations from each other. Such avenues may have included markets or other communal and social places. Besides physical contacts in the markets and communal places, different groups needed to create favourable atmosphere for interactions. For example, in order for trade partners to establish trust between them during trade and to ensure its sustainability, they engaged in rituals which have been described as blood brotherhood performed by both groups. This entailed symbolic spiritual acceptance of one another, which essentially meant operating like blood brothers although not born of the same parents or even same ethnic group. The issue of blood brothers has been highlighted once and again in the matters pertaining to forging relationships between hunter-gatherers (for example the Waata) and their pastoral or agricultural neighbours. For example, Kusimba and Kusimba (2005) give a case where hunter-gatherer (Waata) relationships with Wataita (Bantu speakers) neighbours in the regions of Tsavo were based upon blood brotherhoods. Just like it was the case between the Giriama (Bantu speakers) and Waata along lower Tana Basin (Chapter1). Another example is Muriuki by (1974) where the hunter-gathers of Mt. Kenya region had blood brotherhood relationship with the Gikuyu agriculturalists. This obviously must have helped in forging a favorable environment for trade and exchange which may have led to the exchange of cultural exchange practises. Horton (1996a citing Duyvendak 1949) discusses ways the transactions took place during the Indian ocean trade: he points out that widely differing ethnic and economic groups all (whether young or old), drew blood on pieces of cloths and swore an oath and only then would they trade their goods. He interprets this as a blood brother ritual that took place between traders and apparently large numbers of the local population, thus ensuring security.

Another form of interaction which happened during trade included services which were mostly offered by the hunter-gatherers (Waata) to the traders from the coast. This is not evident in the prehistoric trade but based on the account given by Horton (1996a) it can be inferred. He claims that according to the tenth century Buzurg, on the Somali coast, when merchants got to the Berber they had to take escorts with them for fear that a natives will seize and geld them. In historical documents accounts of Dorobo hunter-gatherers from Mt. Kenya region having acted as guides to early geographers and anthropologists such as Hollis (1909) are given. Similarly, Allen (1993) mentions such

services as being offered by hunter-gatherers but are not preserved in archaeological evidence. Apart from the excellent knowledge that the hunter-gatherers have of their terrain, it is possible that they easily succeeded in creating demand for these services through instilling fear in the traders. This method played a great part in keeping the coastal traders from going to the interior to purchase goods directly and this helped the guides in sustaining the trade monopoly as middlemen. Necessarily, these guides brought their supplies to the coast probably in carrier containers such as pots since they are also used for transportation. It can be supposed that such activities, provided informal interactions which may have contributed to cultural borrowing especially of pottery attributes.

More invaluable evidence regarding such interactions between Bantu and Cushitic speakers has been offered by linguists. The evidence is in form of loanwords which these communities have borrowed from each other over the years. For instance, (Nurse 1983b) claims that the main contributors to Pokomo Bantu language are the Dahalo who belong to Cushitic language groups. As seen in Chapter 1 the words are mostly of technical nature as opposed to basic vocabulary. Where basic words have been borrowed, Nurse (1983b) attributes this to intermarriages.

6.3.3. Contacts between Cushitic and Bantu Speakers during recent times

A more recent historical event which may have brought the Cushitic and Bantu speakers together was the 17th century event presented in Chapter 1 where Bantu speakers were taken to Somalia for forced labour/slavery. Here they mixed with the Cushitic speakers as labourers and they later got adopted into Somali clans after emancipation. These came to be known as Jareer or Somali Bantu. Of interest is the fact that the Somali Bantu did not only abandon their languages but were also forced to adopt the cultures of their masters (the mainstream Somali clans). The adoption (sheegad) as seen in Chapter 1 especially of Bantu speakers by Rahanweyn (Somali clans) meant being one of them and meaning that one had to drop one's old ways and follow the new ways of one's benefactors. This indicates that if such relationships happened in the archaeological past, it may explain why, due to intermarriages and adoptions, the Somali Bantu, whose pottery decorations are similar to Tana ware, started to make rims of their pots by coiling (a Cushitic practise) rather than by drawing.

We can therefore rightly propose that such interactions and borrowing in both archaeological and historical times are likely to have affected the material culture of both ethnolinguistic groups in many ways, and pottery making might not have been an exception.

CHAPTER SEVEN

CONCLUSIONS

In order to answer the question as to whether the makers of Tana pottery were Bantu or Cushitic speakers, I collected pottery making technical data from both ethnolinguistic groups. This, together with experimental findings as discussed in Chapter 2 and findings from other researches which are applicable to the study of archaeological pottery making techniques, formed the reference data for Tana ware assemblage enabling me to draw the following conclusions.

First, ethnographic research showed that the studied Bantu speakers make the bodies of their pots by drawing clay either on the exterior or interior walls and the rims by coiling, whilst the Cushitic speakers form their entire pots by coiling. Bearing in mind that forming techniques are passed through kinship and they are the most enduring since they do not show on the finished product, I compared my ethnographic pottery making techniques findings with the forming techniques of Tana ware. Study of Tana ware forming techniques showed that the bodies were made by drawing either the inside or outside walls whilst the rims were made by coiling. It is, therefore, evident that Tana ware forming techniques are similar to the pottery forming techniques of Bantu speakers from the coast and around the Mt. Kenya region. And therefore, this thesis concludes that Tana ware was made by ancestors of Bantu speakers as opposed to the hypothesis that it was made by Cushitic speakers.

Second, ethnographic research of technical aspects of pottery making by Bantu speakers of Mt. Kenya region showed that they make their pots by drawing clay on the exterior walls unlike the coastal Bantu speakers and since several Tana ware pottery pieces from Manda and Ungwana were made in this way, this thesis has also provided evidence that the ancestors of Bantu speakers who made Tana ware were not only akin to the coastal Bantu speakers but also to Mt. Kenya Bantu speakers although they live more than 500km apart. On the other hand, coastal Bantu pottery making techniques within

Tana ware has shown that there has been Coastal Bantu population continuity from the 7th century to the present.

Third, by providing evidence of pottery making technology of the Meru Tigania which compares to Tana ware and 17th century pottery from Gede archaeological site, this thesis has produced tangible archaeological evidence in support of historical, linguistic and oral traditions that suggests that Mt. Kenya Bantu speakers may have lived within the vicinity of Manda Island or along the lower Tana River until the 17th century. Therefore, it concludes that, since the earliest evidence of Bantu pottery appears in the Mt. Kenya region between the 11th and 14th centuries AD, it is likely that the ancestors of Mt. Kenya Bantu speakers arrived in a series of migrations/expansion in small groups or families and the last group may have remained at the coast at least up to the 17th century AD.

Fourth, typological analysis of ethnographic pottery of Bantu and Cushitic speakers shows that whilst the Cushitic speakers decorate their pots with a greater variety and more elaborate decorative motifs which include incisions of crosshatches and triangles, the sampled Bantu speakers rarely decorate their pots and when they do, they make very simple and few motifs. Tana ware, on the other hand, was decorated mostly with incisions of crosshatches and triangles which were used as its defining attribute. A comparison with the ethnographic decorations allows us to conclude that its decorative motifs are more closely related to the ethnographic pottery of the Cushitic speakers than with that of Bantu speakers and, therefore, they may have originated from the Cushitic speakers.

Based on the above, we conclude that the hypothesis that stipulates that Tana pottery was made by Bantu speakers is now supported by testable evidence. Likewise, some of the attributes that were used to stipulate the hypothesis that Tana ware may have originated from Cushitic speakers, finds support in the fact that some of the attributes (decorations) that define it may have originated from Cushitic speakers.

Having made the above conclusions, this research went further to investigate the circumstances that led to such borrowings as seen in the similarities between Tana ware/ethnographic Bantu speakers chaîne opératoires and the Cushitic pottery making chaîne opératoires. To this end, this research demonstrates that different levels of interactions may result in different types of cultural borrowing in a society. Based on the

pottery making technique findings, two levels of interactions which may have resulted in borrowing of different aspects of pottery making techniques between the Bantu and Cushitic speakers were identified.

The first level of borrowing was seen to involve copying of pottery attributes which are highly visible on the finished product. These include forms and decorations as seen in similarities between ethnographic Cushitic and Bantu speakers pottery and with Tana ware. Based on ethnographic research by, for example, Gelbert (2003) and Gosselain (2000), we were able to conclude that Bantu and Cushitic speakers interacted in the past either as neighbours along the lower Tana basin or conducted trade between them, or frequented common areas which gave them opportunity to learn from each other. This way, they started producing potteries which were of the same forms and decorations. However, due to lack of Cushitic made pottery within the Tana ware assemblages, this research concludes that while trade may have taken place, pots were not traded but they may have been used as carrier containers.

Similarly, this thesis concludes that there was a second level of interactions between the Bantu and Cushitic speakers which was more intimate and long lasting than casual contacts. This conclusion is based on the fact that some rims in the Tana ware assemblage are coiled whilst the bodies are drawn. Coiling, which is principally a technique of Cushitic people, may have been borrowed by Bantu speakers who used it in combination with drawing. In order to borrow forming techniques, ethnographic research has shown that the borrower must spend a long time living among the lending community. Therefore, this research concludes that for such borrowing to have taken place during the archaeological record, there must have been intermarriages or forms of slave master relationships between the ancestors of both ethnolinguistic groups which led to partial acculturation of Bantu speakers. This conclusion finds support in historical, linguistic and oral evidence as seen in the preceding Chapters.

In sum, this research has significantly contributed to the body of knowledge in as far as archaeological social boundaries are concerned as well as Bantu and Cushitic speakers past relationships. It has further improved on our current knowledge of Mt. Kenya Bantu speakers movement during the Iron Age and historical times. Besides its major results, this thesis has contributed to the much needed ethnographic reference database for

studying the technology of archaeological pottery. However, a lot remains to be done if we hope to understand past societies based on pottery studies.

Future Research

Tana ware is just but one of the many East African potteries whose technical aspects had not been studied except for petrographic characteristics. As demonstrated by this research, typological attributes alone are not enough to provide archaeological social boundaries. As such, study of technical aspects of other potteries especially pottery that was used to identify movement of the Bantu speakers in the archaeological record, should be studied in order to offer more objective conclusions. In this regard, Kwale ware as seen in Chapter 1, was never verified as Bantu pottery from its typological or technical attributes, and yet it has always been used to identify Bantu migration routes and Bantu archaeological sites. It is therefore necessary to study the technical attributes of Kwale ware and other supposedly Bantu pottery of East Africa such as Urewe, Lelesu and Gatung'ang'a in order to offer additional and more objective evidence.

Similarly, although the preceding Chapter dealt with later prehistory and historical times, what we see today in Kenyan populations may also be attributed to Stone Age interactions which are not supportable with our current state of knowledge. In Chapter 1 it was shown that such interactions may have taken place as early as 5000 years ago as provided by linguistic evidence. During this period pottery evidence was unavailable and no concrete data on interactions or movement of people can be obtained. However, when pottery started to appear, archaeologists attempted to verify the linguistic evidences and it is here that we find tangible evidence relating to the peopling of Kenya. Nonetheless, there has been no clear distinction between different pottery traditions since several wares have been found to relate to each other although they have been attributed to different linguistic groups. For example, Narosura, Maringishu and Akira wares have been assigned to both Cushitic and Nilotic people since they have been found in areas which are believed to have been occupied by these linguistic groups (Chapter 1). It is the common attributes between Narosura and Tana ware pottery traditions which made it difficult for the Iron Age archaeologists to agree on the cultural affiliations of Tana ware.

Indeed, at the Tanzanian coast for example, Narosura pottery which is associated (elsewhere) with Cushitic speakers appears to have been present 3 millennia ahead of Kwale ware and Tana ware which are largely attributed to Bantu speakers (Chapter 1). However, because Tanzanian archaeologists have found Narosura ware in the same sites as Tana ware but in the underlying layers, they have attributed it to Bantu speakers and they have suggested ascent of Tana pottery from Narosura ware. We therefore find that in Kenya, Narosura ware is supposed to relate to Tana ware due to their similar decoration motifs and hence assigned to the same makers-the Cushitic speakers whilst in Tanzania it is assigned to Bantu speakers due to both decoration motifs and the apparent association with Tana ware in archaeological sites. This thesis has demonstrated that the decoration of Tana ware is of Cushitic origin; in this regard, if Narosura ware has Cushitic motifs, it just shows how ancient the relationship between Bantu and Cushitic speakers is. Therefore, it confirms that motifs are not enough to attribute a linguisitic affiliation. Therefore, it may be of ultimate importance to first establish whether the said Narosura pottery is actually the same or related to the Kenyan Narosura ware through studying their chaînes opératoires and to follow this by a comparative study of both Tana and Narosura wares so as to establish if they have any relationship, as suggested by their typological similarities.

By using pottery technological analysis, archaeological studies will in future offer more objective results in peopling of Kenya through tracing the archaeological movement of its people and their subsequent settlements.

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LIST OF FIGURES

LIST OF TABLES

APPENDIX

Questionnaire

Identification of the artisan

Name

Sex

Age

Language

Residence

Previous area of residence and (If there was change explain the reasons)

Place of birth

Original group

Language of the original group

Ethno linguistic identity of the parents and spouse/s

Identification of the apprentice

Age

Place

Identity of the instructor (in the case of parents verify if biological or not)

Group and original language of the instructor

Place of birth of the instructor

Residence of the instructor

Did this instructor transmit the knowledge to others? If so, what is his/her relationship with them?

Why did the artisan learn to make pottery?

How did he/she learn? (duration, ways of acquisition of the knowledge and how to make)

Has he transmitted this knowledge to other people? If yes, identify the persons

Status of the Activity

Who is allowed to learn and to practice this activity? (a) in the village (b) in the region (c) in the group

Are men or women allowed to do pottery? If so, does the artisan know who they are?

Are there other activities potters do? If so explain

Are some activities forbidden for potters? If so explain

Except for the pottery, what are the other main activities of the potters?

What period of the year do they make pottery? Explain the reasons; check if it is obligatory or ideal

Compared to other activities how much time does the potter spend on making pottery during that period of the year?

Has the situation changed since the artisan taught his apprentices if so how? in which way?

How does he use the revenue from this activity?

Distribution of the product

How many pots is the artisan not able to sell (a) at each session (b) in general

Does the artisan go out to sell his products or people come to buy at home?

What is the system of selling? Is there a middle persons?

Who are the buyers? What is the possible relationship between the artisan and the buyers, his ethnolinguistic and his place of residence?

Does the artisan use or has he used the pottery products from other potters before if so explain?

Is the artisan specialized in specific containers?

Prohibitions

Is the activity subject to prohibitions ? if so what are they and under what conditions?

What happens when one does not respect them?

Who taught the prohibitions to the artisan and in what context?

Are the prohibitions collective beliefs or individual beliefs?

Does the artisan know other prohibition related to other activities?

Processes of manufacture

Place of extraction (source)

Distance from place of residence/ manufacture

Topographical situation

Location from other zones of activities (communal or individual)

Who is the owner of the clay source and who is allowed to extract from there?

When and how was it discovered?

How does the artisan test the quality of clay?

Does he use other sources if so give the location and justification?

Do he think there is a time when there will be no more materials at this source if so what will the artisan do?

In general (a) how and in which circumstance do they discover new sources (b) what criteria do they use to test the quality of clay?

Extraction

(Way of extracting, tools and identity of participants in the operation)

Does the way of extraction vary according to the source characteristic?

The way of transporting, containers and identity of the transporters.

Treatment

The time between extraction and treatment (tools are they specific to pottery or are they from other areas of techniques, describe different activities and identities of people who can participate)

What is the aim of each operation?

Evaluation of the treatment and modifications that are made?

Is the treatment related to the function and use of the pottery or the shape?

Fashioning

(Method used during the first stage of pottery making,
Performing position of artisan continuous operation or steps in the process of fashioning).
If the potter makes many containers simultaneously
Does the artisan know/master other techniques? In what context does he use them?
What does he know about the techniques used by other members of the community?

Decorations
(Tools and procedures, order of execution identification prior to the decoration, regularity)
Why do they decorate the pottery?
(If the decoration is made in particular zones why don't they decorate the whole area?)
What is the significance of the motif? Do they have a name?
Are they reserved for some type of containers?
From where/who taught them to do the motif?
Does he know others?
Are there decorations that are asked by the buyer?

Finishing
(Tools and procedures, time between finishing and fashioning, nature of modifications)

Drying
(Place, duration, position of the containers precautions at the beginning and at the end of operation)
Do modalities and duration vary from season to season?
Are some methods and placements more appropriate than others?
How does the artisan test if the drying is complete?

Pre firing
What is the aim of the operation
Is the technique borrowed from other areas of operation e.g cooking?

Preparation of organic material

(Nature and provenances of materials, mode of preparation, the place and duration of operation)

Why the artisan choose the material

Are they used for other purposes

Does he know or has he used other materials if so which ones and why doesn't he use them anymore?

What does he know about other materials used by other members of the community?

Firing

(Type of structures nature and provenance of combustibles used for firing, number of containers how he places containers, lighting fire, duration, way of extraction identify of persons involved in the operation)

Why does the artisan choose that type of combustion?

Are some materials more /less appropriate than others if so specify ad explain

Does the artisan use/used other materials before? If so why does he change?

What does he know about materials that are used by other members of the community

Are continers to be placed in a certain way?

Are there minimum and maximum limitation of numbers?

How does the artisan determine the time to interrupt the operation?

Is he used to making other operations with other people if so what kind of relationship exist between them?

Does firing require any type of weather in particular?

Colouring/Painting

(Modalities, tools surfaces coloured, conditions of colouring)

What is the function of the colour? What happens if it is not done?

Do all the containers have to be treated in the same way?

Are there other treatment which can give the same results if so why didn't the artisan use them?

Classification of containers

Given that the artisan makes all the forms of containers ask him to classify by categories and to specify their names and functions.