



UNIVERSITY OF NAIROBI

**THE PAST AND THE PRESENT
IN THE PRESENT:
CERAMIC ETHNOARCHAEOLOGY
IN KENYA**

Professor Simiyu Wandibba

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ETHNOARCHAEOLOGY
IN KENYA**

INAUGURAL LECTURE:

BY

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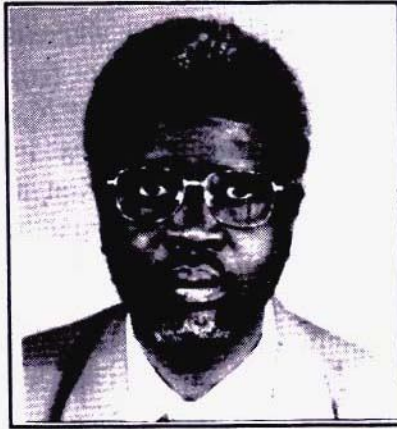
PROFESSOR OF ANTHROPOLOGY
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Professor Simiyu Wandibba

Professor Simiyu Wandibba was born in Sikusi Village of what is now Bungoma District in 1945. He joined Sikusi Primary School in 1955 where he sat for the Competitive Entrance Examination in (CEE) 1958. In 1959 he joined Nalondo Intermediate School and sat for the Kenya Preliminary Examination (KPE) in 1962. He then proceeded to Kibabii Secondary School in 1963 and sat for the Overseas Cambridge School Certificate Examination in 1966. Thereafter he joined Kenyatta College (Secondary School Division) in 1967 and sat for the London GCE 'A' Level Examination in June 1968.

After completing his education at Kenyatta College, his greatest ambition was to become a banker. This was, however, successfully thwarted by his mother who felt that banking was too risky a career for a young man of his age. He, therefore, decided to teach as an Untrained Teacher at the then Chwele Harambee Secondary School (now Namwela Secondary School) where he taught until he was forced by his eldest brother to join the University of Nairobi in 1970. At the University, Professor Wandibba specialized in History whilst

at the same time studying Education which was at the time an optional subject. He graduated in 1973 as a Certified Graduate Teacher and was posted to Khasoko Secondary School, where he taught for one year before coming back to the University of Nairobi for an M.A. in Archaeology. He completed his studies in 1976, and was the first student to obtain this degree in this University. In October of that year, he joined the National Museums of Kenya as a Research Fellow. A year later, he obtained a scholarship from the Foundation for Research into the Origin of Man (FROM) to pursue studies leading to a Ph.D. at the University of Southampton in England. After successful completion of his studies in 1980, Professor Wandibba returned to the National Museums where he rose through the ranks to become head of the Division of Archaeology in 1985. He left the Museums in 1989.

After a brief stint as a Senior Lecturer in the Department of History and Sociology at Egerton University in 1990, Professor Wandibba was appointed Associate Professor in the Institute of African Studies in July of that year. He was appointed Director of the Institute in January 1991 and served in that position until February 1999. He was promoted to the position of Professor in 1994.

Professor Wandibba is the author of three books, eleven articles in refereed journals, nine short reports, notes and comments, and fifteen book chapters. He has also edited one book, co-edited another one, and presented numerous papers at both local and international conferences and workshops.

Professionally, Professor Wandibba is a Life Member of the Historical Association of Kenya, an Associate Member of *Current Anthropology*, a Scientific Member of the Centre for Bantu Studies (CICIBA), and a Member of the British Institute in Eastern Africa. He has also served as External Examiner at the University of Dar es Salaam, Kenyatta University and Moi University.

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THE PAST AND THE PRESENT IN THE PRESENT: CERAMIC ETHOARCHAEOLOGY IN KENYA

Introduction

Study of the past can contribute to the study of present behaviour and studies of contemporary, non-industrial material culture can enhance the study of past behavior (J.J. Reid, W.L. Rathje and M.B. Schiffer 1974 Comment. American Antiquity, Vol.39, No.1, p.125).

Ethnoarchaeology is a sub-discipline of archaeology which attained its maturity in the 1970s. Its formative stage can, however, be traced to the American archaeological practice of the 1950s. American archaeologists of the time considered ethnographic analogy as an important part of archaeology. In fact, Kleindienst and Watson (1956) went ahead to advocate the carrying out of what they termed "action archaeology". Their argument was that the material remains of the dead cultures the archaeologist excavates are worse than useless if they are not subjected to meaningful interpretation and eventual inclusion in the growing body of knowledge of culture, society and human behaviour (Kleindienst and Watson, 1956:75). They went on to assert that interpretation of archaeological materials is only possible by analogy with living cultures. In their view, it was perhaps time the archaeologist carried out his own field work among living communities to gather the necessary information for such analogy.

The way for the new sub-discipline was apparently prepared by Ascher (1961). In his paper, Ascher discussed briefly the history and development of ethnographic analogy and some of the theoretical and methodological issues concerning its use. He concluded his paper thus:

Every living community is in the process of continuous change with respect to the materials with which it utilizes. At any point in its existence some portion of materials are falling into disuse and decomposing, while new materials are being added as replacement.... The community becomes archaeological data when replacement ceases.... It is the study of this very special copus of data within the living community which holds the most fruitful promise for analogy in archaeological interpretation (Ascher, 1961:324).

The term ethnoarchaeology is derived from the combination of ethnography and archaeology. Ethnography is a sub-discipline of anthropology which deals with the systematic description of a culture based on first hand observation. Ethnography provides an "ethnopicure" of a particular group, society or culture. During field work the ethnographer gathers data, which he or she organizes, describes, analyzes, and interprets to build and present the ethnopicure (e.g., a book, article, or film). Traditionally, ethnographers have lived in small communities and studied local behaviour, beliefs, customs, social life, economic activities, politics and religion (Kottak, 1994:7). On the other hand, archaeology is a sub-branch of anthropology which studies the lifeways of people from the past through excavating, analyzing and interpreting the things left behind by these people. The things left behind include artefacts (e.g., tools and pottery), features (e.g., buildings and graves), and ecofacts, that is, non artefactual materials, including food remains and sediments. Since archaeology concentrates on societies of the past, "archaeologists are limited to working with only one of the three basic components of culture - material culture - since the other two components - ideas and behavior patterns - are not preserved in the absence of people for thousands, and in some cases millions of years" (Ferraro, 1994:5).

Since archaeologists are unable to either observe human behaviour or to learn about human thoughts at first hand from their primary data, they have been forced to infer these aspects of human life from the material remains of what people have used that have managed to survive to the present. Thus, much of what archaeologists do is concerned with finding

ways of inferring behaviour and ideas reliably from archaeological material (Clarke 1968; Schiffer 1976; Binford 1983). One approach to this has been for archaeologists to establish correlations between artefacts and various aspects of human behaviour and beliefs that are valid for specific, historically related ethnographic cultures and then, by means of the direct historical approach, to use these correlations to infer specific forms of behaviour or beliefs in historically related archaeological cultures (Hall 1979; Donnan 1976; Nicholson 1976; Hodder 1986, 1987; Schrire *et al.* 1986). This is what we call ethnoarchaeology.

Ethnoarchaeology developed as part and parcel of a new movement in North America which ultimately became known as the "New" or "Processual" Archaeology of the 1960s and 1970s. This movement was spearheaded by Lewis Binford who, together with a small group of other archaeologists, argued vigorously for a new approach to the study of archaeology. Instead of the traditional archaeological emphasis on chronostratigraphy and historical developments, processual archaeologists argued that archaeology should seek to understand the nature of culture change by a study of the variables which bring about the change. They advocated for the approach to explanation which adheres to that followed in the natural sciences: after observation, questions are formulated, hypotheses are formed to answer the questions and are tested against the data (Binford 1965). The ultimate aim here is the formulation of laws. Although the sources of hypotheses are diverse, ethnographic analogy was seen by the processual archaeologists as being one important source; hence the rise of ethnoarchaeology alongside the New Archaeology.

However, although ethnoarchaeology as a systematic body of research is only about two decades old, the use of ethnographic data to interpret and explain materials recovered from the archaeological record is a very ancient practice. In fact, ethnographic information was used this way as early as the 17th century as evidence that thunderstones were actually implements made by man (Peake 1940). Then, with the development of professional approaches to ethnography by workers like Morgan, Tylor, Spencer and others in the latter part of the 19th century, ethnographic parallels became commonly used by archaeologists to explain their data (Stiles, 1977:88). Early American anthropologists like Fewkes

and Cushing could, in fact, be described as ethnoarchaeologists. This is because in their studies of Native Americans, they began with the ethnographic present and worked back to the prehistoric past. As a matter of fact, it was Fewkes (1900:579) who introduced the term ethno-archaeologist when he described himself as an ethno-archaeologist.

The use of ethnographic data is one way in which archeologists have tried to circumvent the limitations of their database. Every archaeologist is aware of the fact that whatever is recovered from an archaeological site is obviously an incomplete representation of the material discarded by the creators of that site. This incompleteness of the record is occasioned by the poor or differential preservation of the material remains. Some materials, such as pottery or stone artefacts, naturally have a much better survival rate than, for example, items made of faunal or botanical materials. Added to this problem of survival is the question of how much of the behaviour of creators of those materials is repressed by the recovered materials. As already pointed out, archaeologists have no direct access to the ideational and behavioural aspects of human culture. Finally, the archaeologist also faces other problems that include sampling error, disturbed sediments and site deposits as well as faulty or imprecise chronologies (Gould 1978).

The Nature of Ethnoarchaeology

Since the emergence of the sub-discipline, ethnoarchaeology has been defined in many different ways by different scholars. For our purposes, however, we find Schiffer's (1978) definition to be most appropriate. According to this scholar, ethnoarchaeology "is the study of material culture in systemic context for the purpose of acquiring information, both specific and general, that will be useful in archaeological investigation" (Schiffer, 1978:230). Material objects are said to be in a systemic context when they are participating in a behaviour system (Schiffer 1972, 1976). According to Schiffer (1978:231), it is this feature of ethnoarchaeology, that is, the study of ongoing behavioural systems, that gave rise to the concept that Gould (1968) christened "living archaeology".

This definition contains three components which are of crucial importance to the sub-discipline. One is that ethnoarchaeologists, like archaeologists, study artefacts in the broad sense of the term to include human-fashioned objects and features. The second one is that the study is done on material objects which are participating in a behaviour system, that is, among living peoples. Unlike Stanislawski (1974) who restricted his definition to non-industrial peoples, Schiffer declares right from the start that "ethnoarchaeologists are not limited to studying primitive, nonliterate, or nonindustrial societies" (1978:230), and cites studies to support his argument.

The study of material items in systemic context enables one to obtain both specific and general types of information and statements. Specific statements are those that describe one or just a few cultural groups. They are tied to single points in time and space. On the other hand, general statements are those relating to two or more variables without regard to time or space (Schiffer 1978). This means they are based on law-like generalisations.

Ethnoarchaeology is based on a number of basic assumptions. First, it is assumed that some behavioural elements of sociocultural systems have material correlates. This means that if those behavioural elements are incorporated in the archaeological record, such residues may be used to develop inferences about the behaviours with which they were associated (Kramer 1979). The second assumption is that observations of contemporary behaviour can facilitate the development and refinement of insights into past behaviours, particularly when strong similarities can be shown to exist between the environments and technologies of the past and contemporary sociocultural systems being compared (Kramer, 1979:1). Thus, ethnoarchaeological research investigates aspects of contemporary sociocultural behaviour from an archaeological point of view.

Archaeologists are, of course, aware that not all past behaviours have analogues available for observation today. In the same vein, we are aware that not all forms of cultural behaviour which may be observed today have analogues in the past.

Objectives of Ethnoarcheology

The overall objective of ethnoarchaeology is the employment of relevant information obtained from living peoples to interpret and explain human behaviour patterns revealed by archaeological materials. In order to achieve this objective, ethnoarchaeologists have to collect detailed information on all aspects of organized human activities which are likely to leave imprints in the archeological record. It is also necessary for the ethnoarchaeologist to understand the relationship between the patterns of the traces left by the materials being studied and the patterns of activities producing the traces. Studies of this nature are normally out of bounds for traditional ethnographers since they "focus on the relationship of human behaviour to the physical world; the influence that the physical world will have on behaviour and the imprint that this behaviour will leave on the physical world for future archaeologists to puzzle out" (Stiles, 1977:91). In contrast to this, ordinary ethnographic studies normally stress the social, economic and linguistic aspects of society, while largely ignoring the physical manifestations of activities related to these aspects. In addition to the overall objective, ethnoarchaeology also has a specific objective. This is to improve the quality of the gathered information in order to make it more useful to archaeologists in formulating models and applying analogies.

The Place of Ethnoarchaeology in Anthropology

A lot of archaeological research may be carried out without reference to ethnographic data. However, there are many cases in which ethnographic knowledge is crucial to the understanding of the archaeological information. Yet, archaeologists looking for ethnographic information with linkages to material objects have long been frustrated by the failure of many ethnographers to collect data about such linkages (Thomson 1991). As pointed out in the previous section, ordinary ethnographers focus on socio-economic and linguistic aspects of society while ethnoarchaeologists have the relationship of the human behaviour to the physical world as their focus. To rectify this situation, archaeologists have had to collect

much of their own information about the material world (Watson 1979).

Thompson (1991:232-234) has given three ways which archaeologists may use to collect information about the material world. In the first and simplest way, archaeologists informally observe ethnographic situations. Although such observations may be informal, unstructured and *ad hoc*, they are valuable in themselves, and their being made contributes to a higher level of awareness on the part of archaeologists, who are thereby able to approach the inferential enterprise in a more perceptive way (Thompson, 1991:232).

A second way is more formal, and involves the study of a craft or a technology "for an archaeological purpose" (Thompson, 1991:233). This great emphasis on one category of material culture has been highly productive because it deals directly with the objects for which archaeologists are seeking behavioural correlates. This kind of ethnoarchaeology dominates the earlier ethnoarchaeological literature, and is the one I am concerned with in this lecture.

Finally, is a somewhat newer way and which requires the study in depth of significant parts of a living culture or even of an entire culture. Such studies aim at nothing short of a full understanding of the cultural context of the material objects. This fuller understanding of the meaning of the object in the host or producing culture provides an unusually rich base for the making of inferences about archaeological objects and pieces of objects (Thompson, 1991:233). This kind of research, which is carried out mostly by archaeologists, forms an important fraction of the ethnographic research being carried out today.

Thus, the archaeologist may carry out his/her research with little or no concern for ethnographic analogy, undertake ethnographic field work or utilize information from ethnoscience (Fig.1).

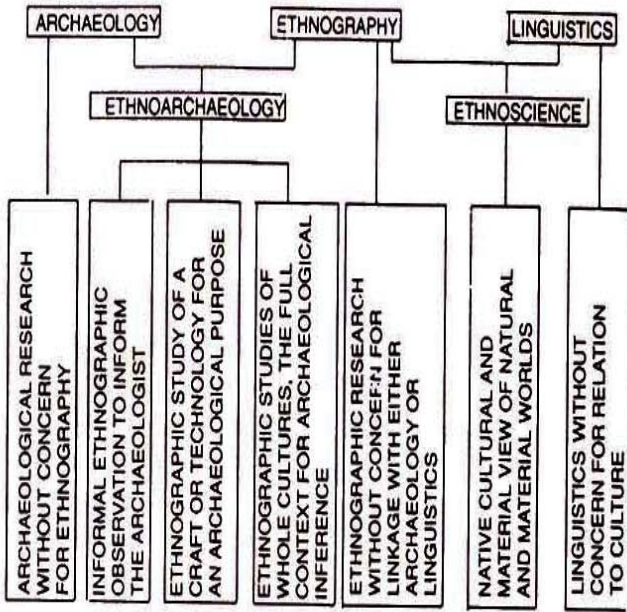


Figure 1: The place of ethnoarchaeology in anthropology (After Thomson 1991)

Ethnographic Analogy

According to Thomson (1991:243), the ultimate archaeological purpose of ethnoarchaeology is to acquire ethnographic information about the behaviour associated with material objects for comparison with archaeological data. Comparative studies of this nature involve analogy. There are two types of analogy, one of a specific kind and that of a general kind (Fig.2) The specific kind of analogy is based on the direct continuity from an archaeological to an ethnographic situation (Steward 1942). The most important requirement here is the demonstration of continuity between the archaeological and ethnographic comparison, as has been the case in the Southwestern United States and Australia. On the other hand, general analogy is based on summary information about general principles of behaviour from a comparative sample of all world cultures. Generally, this is not a good form of analogy because it mostly borders on arguments derived from nothing more documentable than human nature (Thomson 1991).

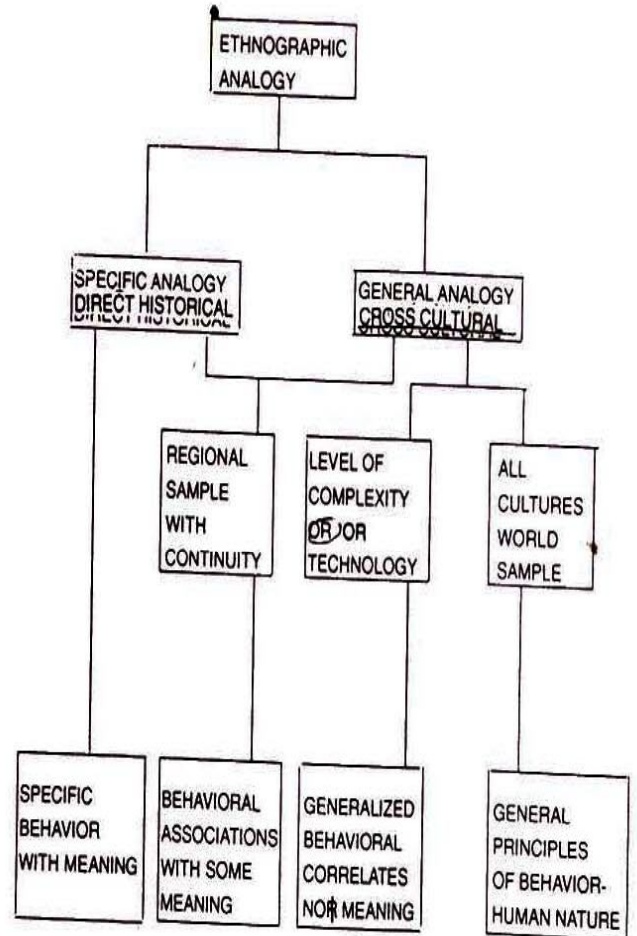


Figure 2: Interpretive expectations in ethnographic analogy (After Thomson 1991)

In between these two extremes are two other forms of analogy. The more familiar of the two is also based, like the one just described above, on large comparative samples. However, in this case emphasis is on technology (Blackwood 1950) or level of complexity, such as the hunting-and-gathering cultures discussed by Yellen (1977). The second form of analogy here is very much neglected, and is based on tightly controlled regional samples where there is some evidence of continuity from the past. This kind of analogy provides strong behavioural associations and general meaning for archaeological materials (Thompson, 1991:236). This regional approach has the advantage of being able to draw upon both the specific and the general forms of analogy.

Ethnoarchaeological Database

The ethnoarchaeological database consists of information obtained from two major sources, namely, living peoples and literary materials. The study of living peoples, termed "living archaeology" by Richard Gould (1968, 1980), is the best source of ethnoarchaeological data since it provides the archaeologist with the most detailed and most useful information. Unfortunately, however, most studies of living peoples have concentrated on the world's remaining few hunter-gatherer populations, thereby somewhat limiting the range of possible models available for archaeological inferences. This concentration was based on the earlier mistaken belief that prehistoric human populations subsisted mostly on hunting and gathering. Many of these studies have focussed on the observation of human activities at occupied sites. One approach in these studies centres on observing how cultural and natural processes interact to determine the refuse patterning. This approach has mainly been used in the observation of food debris, especially food obtained from animals. John Yellen (1974), for example, found that larger animals have a much better chance of preservation than the smaller ones.

The second approach in the study of activities at a living site involves observation of the life of artefacts from the time the raw materials are procured up to the time the artefact is discarded. Stiles (1977:93) has argued that by observing how people manufacture, use and discard artefacts and

how they perceive the artefacts from their particular socio-cultural perspective, archaeologists are provided with a wealth of information unobtainable from any other source for the interpretation of archaeological patterning. The material object most studied this way by archaeologists is pottery, the subject of this lecture. Finally, the study of activities at a living site could examine settlement patterns and subsistence behaviour. In such cases, ethnoarchaeologists are interested in developing hypotheses for testing archaeological data regarding prehistoric settlement patterns and subsistence and/or models of explaining such patterns and behaviour.

The literary source comprises published and unpublished materials from ethnographic studies as well as early travellers' accounts. Ethnographic accounts here include previously collected oral histories, published ethnographies, ethnological works, manuscripts and any other materials which hinge on social and cultural aspects of a people collected in the historical or recent past. Although most ethnographers today ignore or include very little information on material culture, earlier works contain much of that kind of information, and sometimes even carry photographs and drawings unlikely to be found anywhere else. Another shortcoming which archaeologists should bear in mind regarding these ethnographic sources is that those which contain information on material culture usually do not link the material culture to other aspects of culture in the way an ethnoarchaeologist would do. Nonetheless, they constitute an important source in the sense that they contain information on aspects of material culture which may have disappeared or may have changed in form or in function (Atherton 1983).

Early travellers' records usually carry useful information on the lives and environments of the people being reported on. However, like ethnographic accounts, these should also be used with caution. This is because many of these records are very ethnocentric and their facts may be mixed with fiction. In addition, plagiarism is common in such reports (Atherton 1983).

Use of Ethnoarchaeological Data

Archaeologists employ ethnoarchaeological data in three ways, either jointly or singly, but mostly jointly. The main use of this information

is in analogy, in which archaeologists attempt to correlate observed patterns in the ethnographic material with similar patterns (analogues) in the archaeological material. The aim is to establish the degree to which the two sets of data agree with each other (Fig.3). The higher the degree of fit, the

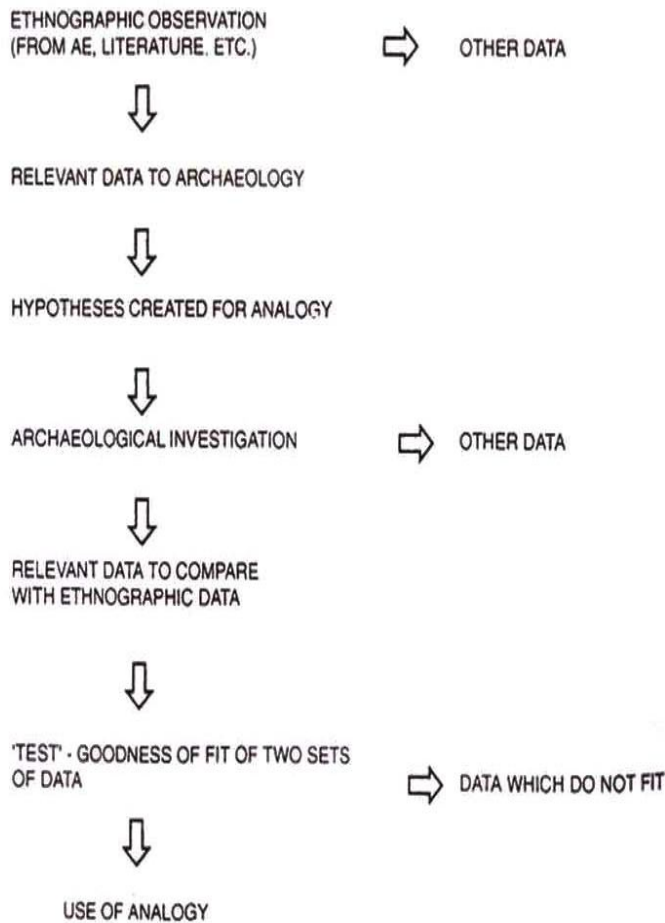


Figure 3: Method of Using the ethnographic analogy (After Stiles 1977)

greater the probability that the activity or activities which led to the archaeologically observed patterns were analogous to those observed in the ethnographic present.

The second way in which archaeologists use ethnographic information is in the generation of hypotheses or models. In this case, archaeologists use ethnographic data to formulate hypotheses which are then tested using archaeological materials. Alternatively, the observed patterns could be used to reconstruct and interpret a body of archaeological data.

Finally, the archaeologist could use the ethnographic data to test a hypothesis. In this case, the archaeologist examines the archaeological material to find out if the observed pattern falls within the range of variation exhibited by the ethnographic data. If this turns out to be the case, then it can be assumed that some analogy has been made, and thereby prove his/her hypothesis. On the other hand, if the observed pattern fails to fall within the range of variation, it can be assumed that the hypothesis has failed to be proved.

Ceramics and Archaeology

When you hold a pot in your hands, when you go over its walls with your fingers, you feel the hands of the potter, his fingermarks, his touch. You may not know who he was or what he looked like, but, handling the pot, be it hundreds or thousands of years old, you can still feel the imprint of his hands. It is this fact about a pot that makes it so endearing, so very personal. It makes the physical handling of a pot such an important part of its appreciation, as important as its visual impact, and at times even more so.

O. Natzler, *Ceramics* (cited in Rice 1987)

The term "ceramic" is derived from the Greek word *keramos*, variously translated as "burned stuff" or "earthenware". In common parlance, ceramics refers to any baked clay object, for example, pottery, bricks, tiles, figurines and drainage pipes. However, in many archaeological reports, ceramics and pottery are used interchangeably. I am, therefore, using ceramics here to mean pottery.

The oldest pottery currently comes from Japan where it is dated to 10000 B.C. On the other hand, in the Middle East, the earliest pottery comes from Anatolia, where it is dated to 8500-8000 B.C. Here in Africa, current evidence seems to suggest that the manufacture and use of pottery came into existence about 8000 years ago. Closer home, here in Kenya, potting appears to have started at least by 6000 B.C.

Pottery is a material culture item which has attracted considerable attention from archaeologists. This is due to a number of reasons. First, pottery has a long history and is found practically all over the world. Second, the physical properties of pottery are such that it is essentially imperishable. Thus, although a pot may break, the potsherds are virtually indestructible. In addition, even these pot fragments are almost as informative as complete vessels. Third, unlike some other archaeological materials which may be attractive to art collectors and looters, sherds are not particularly attractive to such destructive elements. This means that potsherds are less likely to be selectively removed from sites and thus distort the archaeological record.

The fourth reason why pottery has attracted the attention of archaeologists is that, in general, pottery is not an exotic or highly valued good like gold or jade. This means that it is not restricted to the residences and tombs of the upper stratum of society. Pottery generally served very ordinary, day-to-day functions in cooking, storage, and hygiene for all members of society. Thus, archaeologists and anthropologists have encountered a variety of goods made of fired clay, everything from ordinary bowls and jars to baby bottles in Greece, food scrapers in Pakistan, and *tangas* or female pubic coverings in Brazil (Rice, 1987:25).

Finally, and perhaps most important, is that pottery is formed and informed, that is, pottery making is an additive process in which the success steps are recorded in the final product. Thus, as vividly put by Rice:

The shape, decoration, composition, and manufacturing methods of pottery thus reveal insights - lowly and lofty, sacred and profane - into human behavior and the history of civilization. Potters' choices of raw materials, shapes to be constructed, kinds of decoration, and location of ornamentation all stand revealed, as do cooking methods, refuse disposal patterns, and occasional evidence of clumsiness and errors in judgement. The sensitivity, spatial as well as temporal, of pottery to changes in such culturally

conditioned decisions has fed archaeologists' traditional dependency on this material for defining prehistoric cultures and their interrelations (Rice, 1987:25).

Ceramic Ethnoarchaeology in Kenya

Ceramic ethnoarchaeology refers to studies of contemporary pottery-making and pottery-using societies by archaeologists. Such studies result in the collection of an aspect of the database we called living peoples. As we pointed out then, when correctly carried out, this is the best source of ethnoarchaeological data. But we also know that the ethnoarchaeological database also consists of published and unpublished materials from ethnographic studies as well as early travellers' accounts. In this lecture, therefore, although emphasis will be on information derived from living peoples, reference will also be made to ethnographic studies.

As pointed out in the previous section, pottery is very popular with archaeologists. In a sense, this is because the material object lends itself to analyses which can produce information on many aspects of the prehistoric past. Among other things, pottery has been used to produce basic chronological and distributional parameters of prehistoric sociocultural systems, in attempts to define local and long distance exchange, to reconstruct the development of craft specialization, to identify "ethnic" and social groups, and to reconstruct learning frameworks and elements of social organization (Kramer 1994). However, all these interests can be subsumed under four broad themes, namely, production, production and social organization, use and disposal, and change (Kramer 1994). Ethnoarchaeological studies of pottery aim at shedding light on these issues, although some topics have tended to attract more attention than others. The issues that have been investigated most often are production and the organization of production. In addition, some of the studies have not been systematic enough to yield the kind of information needed for cross-cultural generalizations. Let us now look at how the four broad themes have been tackled here in Kenya, both by ethnoarchaeologists and ethnographers. But, first, let us put the study in context by briefly looking at ceramic ethnoarchaeological studies in this country.

The first ceramic ethnoarchaeological study in Kenya, indeed in East Africa, was carried out by Roderic Blackburn among the Ogiek of the Mau Escarpment. Blackburn (1973) studied Ogiek pottery in order to determine the relationship between that pottery and the archaeologically known Lanet ware from the Central Rift Valley. A more comprehensive study then followed in the late 1970s among the Akamba of southeastern Kenya. Margot Gill set out to design a ceramic study that would provoke new questions in the archaeological record by presenting what she termed a "rigorous investigation of the social, cultural, and economic setting for the production, distribution, and consumption of traditional pottery among the Kamba peoples of southeastern Kenya" (Gill, 1981:v). One of the questions she set out to answer was, "What is the special significance of ceramic studies in ethnographic context for the archaeologist?" (*ibid.*).

In her study of Luo pottery, Ingrid (1981) had two basic aims. The first one was to obtain a detailed picture of the material patterns of the pottery system while the second one was to arrive at some understanding of the social and economic processes which produce, condition, or explain the observed patterns (emphasis in the original) (Herbich, 1981:3). Both issues are very important to the archaeologist interested in studying pottery. On the other hand, in his study of the pottery made by the same people, Omollo (1988) was interested in documenting the factors which directly contribute to the primary function of pots and how the resultant information could be used for archaeological explanation and interpretation. In his study, Wandibba (n.d.) set out to determine how the pottery produced by the Agikuyu of Murang'a District could be used to explain and interpret archaeological pottery from Central Kenya. Finally, Ndiiri (1992) wanted, among other things, to describe and explain the attributes of the pottery produced by some coastal peoples from an ethnoarchaeological perspective.

Now we go back to the examination of the four broad themes, namely, production and organization, use and disposal, and change.

Production

Ethnoarchaeological studies of pottery have, since the mid-1960s, shifted from simple descriptions of manufacturing processes to detailed accounts of how this production relates to the natural and the socio-

economic environment. This means that studies of this nature now focus on acquisition and preparation of the clay, manufacturing processes (including location of these processes) and distribution. A number of studies in Kenya have addressed themselves to these issues, with varying degrees of success (Barbour and Wandibba 1989; Blackburn 1973; Gill 1981; Herbich 1981; Herbich and Dietler 1989; Kamau 1992; Nangendo 1984, 1994; Omollo 1988; Ndiiri 1992; Wandibba 1994, n.d.). To simplify the understanding of production, we need to look at the individual elements which constitute this otherwise complex process, namely, acquisition of materials, forming, finishing, and drying and firing.

a) Acquisition of Materials

The most important resource in the manufacture of pottery is clay for the vessel body. Kenyan potters generally obtain their clay from river banks, stream banks, lakesides and marshy swamps. Some potters also obtain their clay from termitaria (Gosden 1982; Omollo 1988; Wandibba 1995) or from hillsides (Gill 1981). Through tradition and experience, potters know where good quality potting clay is to be found. In its natural state, clay is sometimes unsuitable for pot-making. Too great plasticity will make the clay too sticky to shape, and too little porosity will lead to cracking and warping during the drying and firing processes. Potters appear to be aware of these phenomena, and so treat the clay to make it more malleable and to prevent excessive shrinkage during drying. To treat the clay, potters mix it with additives known as tempering materials (Wandibba 1995, 1997). Temper is, therefore, one of the additional important resources in pottery manufacture. Tempering materials used in Kenya include sand, grog (crushed pot) or rock. The use of sand for tempering has been reported among some Bukusu (Nangendo 1984) and Logoli (Barbour 1989) potters. On the other hand, Luo potters at Ng'iya use grog for tempering (Herbich 1981) while Gikuyu potters use disintegrated granitic rock for the same purpose (Kamau 1992; Routledge and Routledge 1910; Wandibba n.d.).

Instead of using temper, some potters mix different kinds of clay, different either in terms of texture or colour. According to Gill (1981), "Kamba potters collect two or three different clays from nearby hillsides

and streambeds. The clays are combined in varying proportions, depending largely on the individual potter's preference" (p.135). On the other hand, Omollo (1988) found that the Luo of Nyakach usually mix two types of clay for what they term "better results". In most cases, the combination is between dark and dark-brown clays. Whereas the dark clay has a better plastic quality necessary for the manufacture of pottery, it lacks natural temper, that is, sand, which the dark-brown clay has, hence the need to mix the two (Omollo, 1988:3). On their part, the Adawida (Taita) mix three different coloured clays-grey, red and blue (Soper 1989). Jane Barbour found that Logoli potters mix red and black clay. The red clay improves the quality of the pot but as it is the scarcer, less is used (Barbour 1989). Finally, the potters of Kassup area (near Iten town) use three different clays, red, white and black which they claimed only made good vessels when mixed in equal amounts (Gosden 1982).

Clay and temper may be obtained in a variety of ways. Clay sources are sometimes open to all and widely shared, as happens among the Luo of Siaya (Herbich 1981). In other cases, for example, in some parts of Bungoma District, potters have to buy the clay from the owners of the land where the quarries are located (Nangendo 1984, 1994; Wandibba 1989). Then there are cases where the potters own or use land which has clay quarries (Kamau 1992). Such potters exploit their own sources of clay and also sell the clay to neighbouring potters with no sources. The clay may be mined by the individual potter (or relative, co-worker or friend) as and when needed. For example, among the Luo (Herbich 1981; Omollo 1988) and Akamba (Gill 1981), the potters quarry the clay by themselves while among Babukusu female potters in active reproductive life have to enlist the services of young men or girls who have yet to reach menarche (Nangendo 1984, 1994; Wandibba 1989). On the other hand, among the Endo (Welbourn 1989), potters sometimes send customers to fetch the clay for them in part payment for the finished product. Finally, there are cases where potters have to purchase their clay from itinerant merchants (Wandibba 1994, n.d.) since they do not live near any clay sources.

The act of acquiring clay is sometimes the focus of taboos or rituals. For example, among the Bukusu community, women who are still under menarche are forbidden from entering the quarry (Nangendo 1994;

Wandibba 1989). According to Nangendo (1994), this particular taboo possibly reflects the Bukusu conception of metaphysics. Among these people, the quarry (*siumbwa*) has a symbolic relationship with their creation. The primacy of this association is such that both the creator and the potter are referred to by the same term, *omubumbi*, that is, one who creates. This, therefore, means that *siumbwa* should be kept free from any ritual impurity. Since menstruation is considered a state of ritual impurity, the community has to ensure that active women do not enter into the quarry (just in case they might be in that state). But those women who are unlikely to be ritually impure, that is, young girls and those who have reached menopause, are permitted to do so. Ndiiri (1992) also found that in Malindi women were only allowed to mine the potting clay if they were in their menopause.

For most Kenyan potters, both the clay and the tempering materials are found nearby. Among the Luo (Herbich 1981; Omollo 1988) and Babukusu (Nangendo 1984; 1994) potters live close to the sources of clay. The tempering materials, in the form of sand and/or grog, are also locally available for these potters. However, for the Gikuyu potters of Kiria (Wandibba n.d.) the source of the clay is about 10km away while the temper is obtained from as far as 40km away. On the other hand, Lamu potters rely on clay which comes as far as Mombasa (Ndiiri 1992), a distance of nearly 280 km.

Clays can sometimes be used for potting in their natural state as dug from the ground, without any modification. For example, Welbourn (1989) found that the clay used by the Endo potters is very pure, with hardly any stones or chips. Kneading is, therefore, a straight forward process and no temper is added. Clay obtained from termitaria is also free of impurities and so can be used right away. In most cases, however, the clay has to be processed to make it suitable for use. The processing usually requires either or both of two procedures: removing material from the clay or adding material to it (Rice 1987). Removing material may simply entail removing foreign matter, such as rootlets, leaves and pebbles, from the clay by hand. Kenyan potters appear to know that if these impurities are not removed, they will cause the pot to crack during drying and to break in firing. On the other hand, clays which are extremely fine textured

and sticky, must have modifiers added to make them acceptable for pottery making. These added substances are what archaeologists refer to as temper, also known as inclusions, additives and filler (Rice 1987). As already pointed out, Kenyan potters use sand, rock or grog as tempering materials. Gill (1981) found that Kamba potters added sand and small quantities of highly micaceous soil to the clay. Potters at Jomvu Kuu in Mombasa also mix their clay with small quantities of sand before using it (Ndiiri 1992).

Once the potter is satisfied that all the foreign bodies have been removed, she adds water to the clay or clay-temper body to make it plastic. The body is then systematically manipulated by kneading with the hands. This is an arduous task but which is essential because it serves a number of purposes. According to Rice (1987), the activity "eliminates air pockets from the clay; it assures a uniform, homogeneous distribution of moisture and inclusions by locating and eliminating lumps (of clay or foreign matter) and by mixing wetter and drier portions of the mass; and it increases workability by ensuring that all clay particles are wet" (p.119).

Kenyan potters appear to be fully aware that aging or souring a wet clay mass improves its workability. This process improves the plasticity of the clay or clay-temper body. Thus, Kamba potters store their clays in large holes in the ground near or inside their storage buildings for a week or two before the clays are prepared for use (Gill 1981). On the other hand, some Luo potters keep a ready supply of clay wrapped in banana leaves, a sheet of plastic, or in large pots inside the house, or in a special pit behind the house and will only use portions which have been aged for about three weeks (Herbich, 1981:10). Aging of the clay is also carried out by Gikuyu potters (Kamau 1992; Wandibba n.d.).

b) Forming, finishing and decorating

Traditional methods of potting in Kenya do not involve the use of the potter's wheel. Instead, pots are manufactured manually using either the pinching and/or drawing or coiling procedure. Pinching and drawing techniques are similar since they manipulate a lump of clay into a vessel shape without adding clay. Pinching consists of "opening" the lump of clay by inserting the thumb or fingers or both, then squeezing the clay

between the thumb and fingers or between the fingers of both hands. Repeating this action around and over the entire lump thins and shapes it into the desired form (Rice, 1987:125). Kenyan potters employ this method to manufacture small, simple vessels that can be held in the hand, for example, pots used in cooking small quantities of food. This method is also used to form bases of larger vessels that are then built up using the coiling method.

Drawing is similar to pinching but is typically used on large vessels and emphasizes vertical movement. In this procedure, a large lump of clay is placed on a support and opened by thrusting the thumbs, fingers, or fist into the centre. The potter then simultaneously squeezes and pinches with an upward pulling or stretching movement to raise and thin walls of the emerging vessel; a tool may be used to scrape the clay upwards (Rice, 1987:125). This method is appropriate for the manufacture of large bowls or cauldron-like vessels.

Coiling is the commonest method of potting in Kenya. In this procedure, coils of clay are built up to establish the vessel circumference and gradually increase the height. The coils are formed initially by squeezing or rolling the clay into long ropes or fillets whose diameter is usually two to three times the intended thickness of the vessel. Successive coils are applied to the exposed edge of the vessel wall, often overlapping slightly on the interior or exterior, and pinched to make a firm join (Rice, 1987:125). The functions of the coils are usually rendered obsolete by later finishing treatments. These, however, remain as points of weakness and it is not uncommon to find pots breaking along coil joints.

How do potters ensure that the soft, wet, plastic clay of the growing vessel does not slump? This, of course, calls for some form of support, especially for the larger vessels. Such vessels are usually placed on some surface which will accommodate their weight, shape, as well as the particular requirements of the forming technique. Since the pots made in Kenya have rounded or pointed bases, the potters use pot rests or supports that cradle a previously formed base. Such supports include the round bottom fragment of a broken pot or a specially manufactured rounded base plate (Herbich 1981; Omollo 1988), a karai or bowl, and rings of grasses. In the past, Bukusu potters used the bottom or neck of a broken

pot to serve this purpose (Nangendo 1984; Wandibba 1989).

Apart from ensuring that the vessel being manufactured has got the necessary support, potters must also make sure that they pay attention to all sides of the vessel. For medium-sized vessels, the potter normally sits still and rotates the cradle as she continues with her work. In this case, a potter either sits on a low stool or chair, or on the ground. In other cases, potters stand. For medium-sized pots, a standing potter need not move around whilst for large vessels the potter has of necessity to move around the pot in order to reach all the sides. Commenting on this issue, Gill (1981) had this to say: "she stands before her vessel which is being formed on the ground, with her knees together and her legs straight, she bends only at the waist and moves around her pot in a circle" (p.145).

Once a pot has been completed, it is subjected to some finishing procedures. Some of these procedures are considered secondary forming techniques in view of the fact that they may alter the dimensions of the vessel as well as its surface characteristics. Other techniques affect the surface above. The most important of these finishing techniques for our purposes here are paddling and scraping, which essentially complete the forming process, and smoothing, which finishes the surfaces. Paddling or beating is used on a roughly performed vessel in the wet or nearly leather-hard stage to modify its shape, size and surface characteristics and compact the past (Rice 1987). On the other hand, scraping is undertaken to thin the walls and remove surface imperfections. All potters in Kenya engage in these two procedures. Finally, once the pot has attained its final shape and any irregularities have been eliminated, its surfaces are finished. This is known as surface treatment, and involves smoothing the vessel to create a finer and more regular surface than results from forming. Potters use either their own hands or some soft yielding tool, to achieve this. Alternatively, a water-worn pebble is used to burnish the pot, thereby giving it a lustrous finish. Burnishing is done when the vessel is in a leather-hard state. This form of surface treatment is very common among the Luyia and Luo potters.

As part of the building process, potters generally decorate their vessels in one way or another. There are two types of decorative treatments, namely, those that displace or penetrate the surface and those that involve

additions to the surface. Here in Kenya, potters generally engage in the former category of surface enhancement. These forms of embellishments are cut from or impressed into the surface. Impressing is usually performed on wet clay, but cutting may be done on wet, leather-hard, or dry clay or even after firing (Rice 1987).

The most elaborate forms of decoration in Kenya are executed by potters in the Lake Victoria Basin (the Abaluyia and the Luo). These potters produce designs in combinations of knotted or plaited roulette impressions and bands of red ochre or those of carved roulette impressions (Figs.4,5 and 6). In the Rift Valley, the Kalenjin potters there who decorate their wares use either a twisted or knotted roulette to produce decorative motifs that are quite different from those of the Abaluyia and the Luo (Figs. 7, 8 and 9). On the other hand, the Gikuyu potters of Central Kenya generally decorate their pots with just one or two rows of comb-stamp impressions on the shoulder of the vessel (Fig.10). However, because of the apparent popularity of rouletted impressions in this country, Jane Kamau (1992) encountered one potter who was using this technique to decorate her otherwise Gikuyu vessel forms. Kamau states that this particular informant was of the view that rouletted pots were in higher demand than those decorated in the traditional Gikuyu method. Down at the coast, potters use straws, sticks and thumb-nails to decorate their pots with either incisions or impressions (Wilding 1989). The decoration is, however, not that elaborate, and occurs either on the neck (incisions) or on the carination (impressions). Other potters decorate their vessels with punctations or wavy lines (Ndiiri 1992).

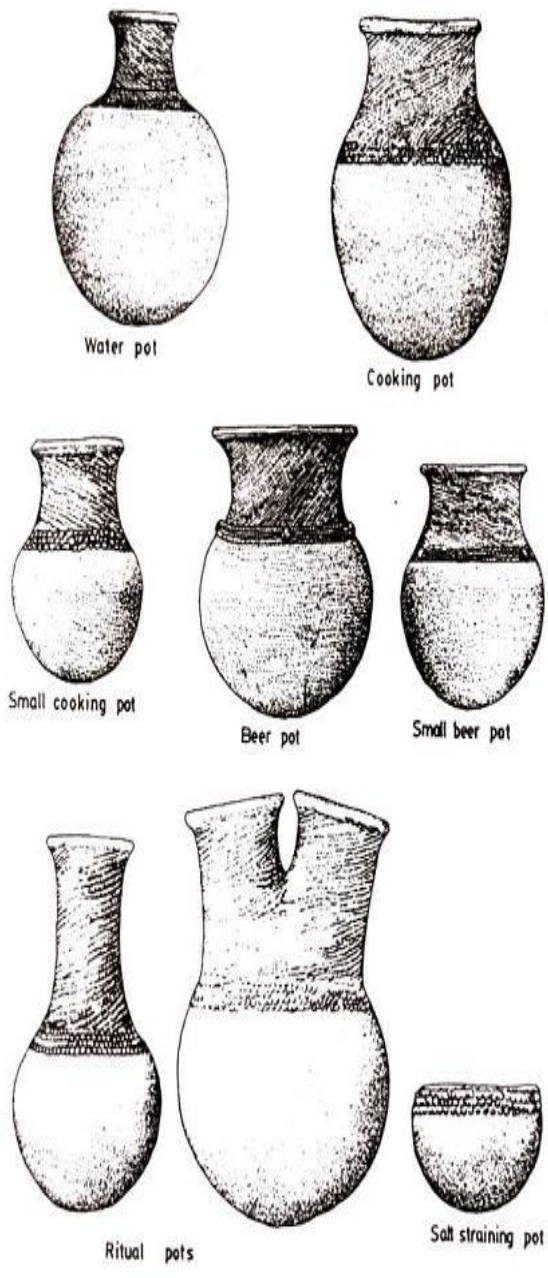


Fig. 4: Bukusu pots (Source: Wandibba 1989)

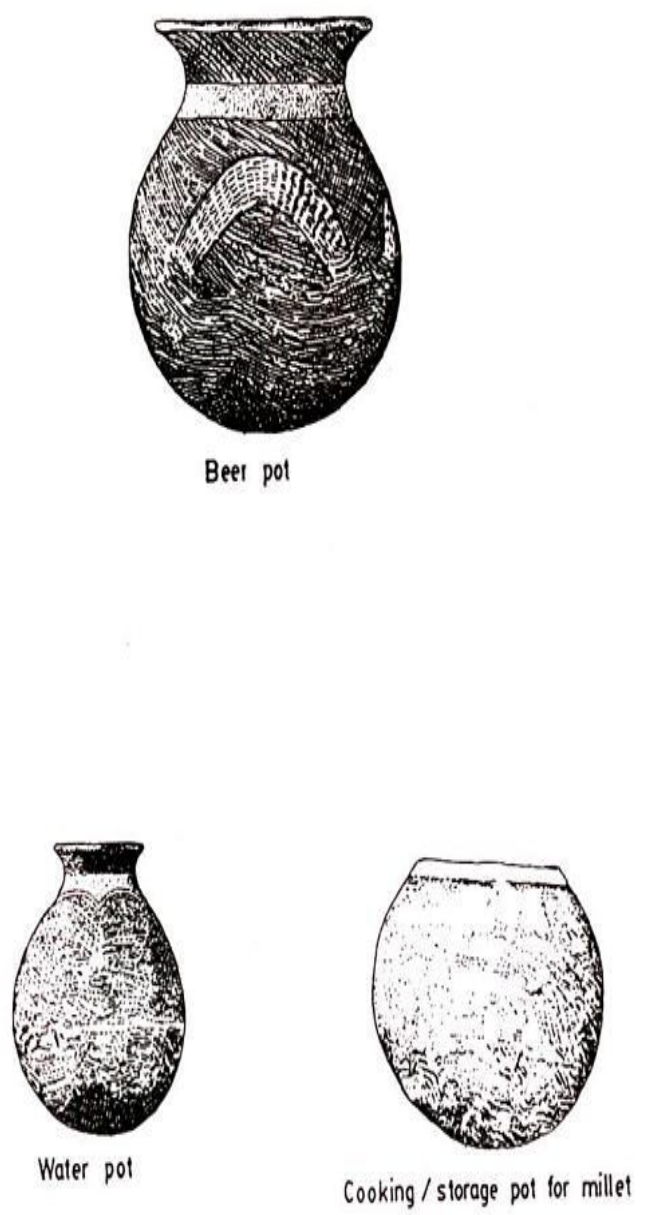


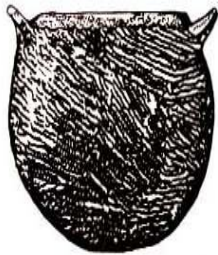
Fig. 5: Logoli pots (Source: Barbour 1989)



Bowl for serving
stew/vegetables

Bowl for serving
beer/pottage

Bowl for serving fish



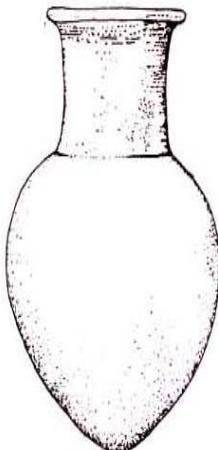
Fish cooking pots



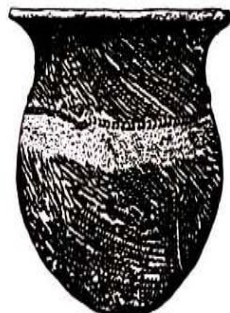
Cooking pot



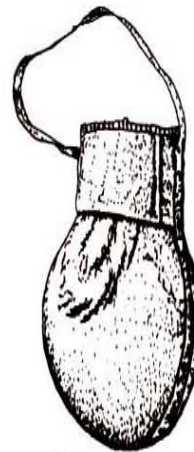
Beer / water pot



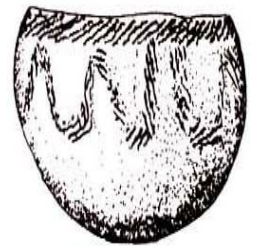
Water pot



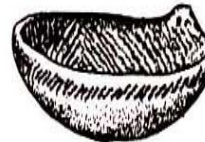
Beer/pottage pot



Honey pot



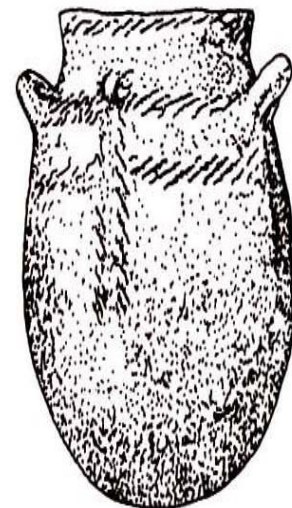
Eating bowl



Tobacco grinding
bowl



Clay pipe



Cooking pot

Fig. 6: Luo pots (Source: Herbig and Dietler 1989)

Fig. 7: Ogiek pots (Source: Kratz 1989)

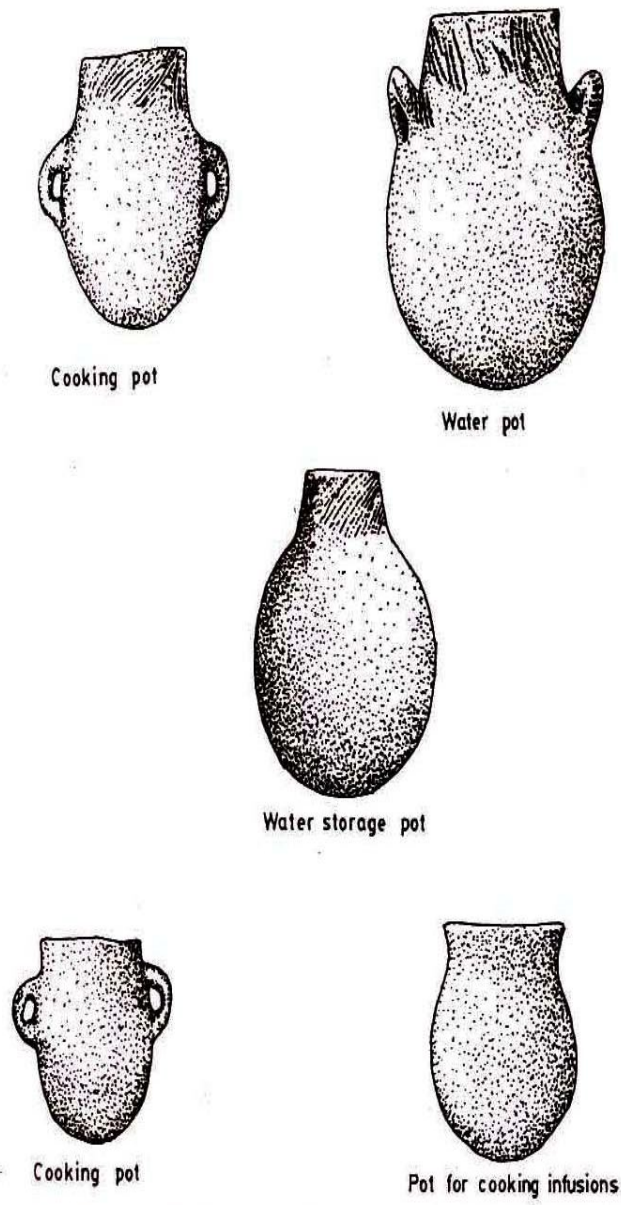


Fig. 8: Endo pots (Source: Welbourn 1989)

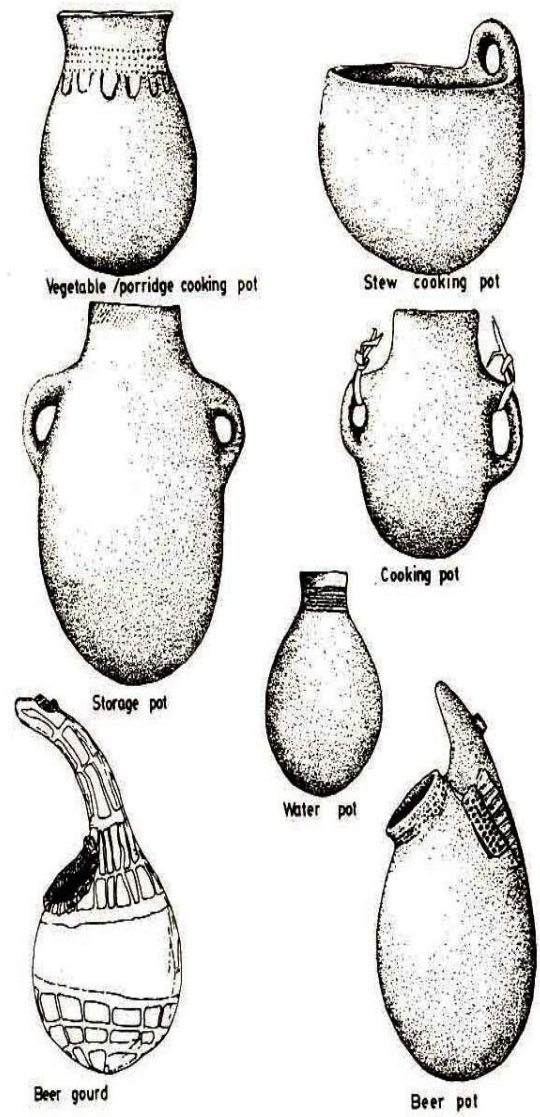


Fig. 9: Pokot pots (Source: Brown 1989a)