Bakgalagadi settlements in historical and ethnoarchaeological perspective

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Ethnoarchaeologists study modern objects in the hopes of understanding how similar objects were made and used in the distant past. This study asks whether modern Bakgalagadi settlements can help archaeologists identify ancient settlements of the Bakgalagadi? An examination of villages, cattle posts and lands provides some ideas on how these functionally different types of settlements might be distinguished in the archaeological record. But Bakgalagadi culture has changed much in the recent past: traditional objects are hardly used any more and modern Bakgalagadi architecture is similar to that of other Batswana. This highlights the main difficulty for ethnoarchaeologists: often the present bears little resemblance to the past. Nevertheless, this study sheds much light on settlement in Botswana, even if it is not specifically useful for identifying ancient Bakgalagadi sites.

This study is an attempt to examine the historic and contemporary settlements and associated material culture of the Bakgalagadi, particularly the Bangologa in the Matsheng area. Very little research has been conducted among the Bakgalagadi. Our knowledge of the history of the different sections of Bakgalagadi is especially poor. Similarly, details concerning Bakgalagadi social organization, cultural practices and material culture are extremely sketchy. It is therefore the overall aim of this study to broaden our understanding of Bakgalagadi society.

The study focuses on three main areas: first, the reconstruction of settlement history in the Matsheng area using local oral traditions and available archival material; second, the documentation of contemporary settlement types in the Matsheng area, including details on traditional architectural practices and settlement layout; and third, the study and the documentation of processes of archaeological site formation, and especially patterns of refuse discard and house collapse. As well as providing us with a better understanding of the nature and history of settlement in this area, the broader objective of this paper is to attempt to develop a model of the organization and use of space among the Bakgalagadi which can be used for the location of ancient Bakgalagadi sites, and for the interpretation of the archaeological remains which are likely to be found within them. Many aspects of Bakgaladi material culture are fast disappearing and therefore there is need for them to be recorded for posterity.

Literature review

Historical and anthropological studies among Bakgalagadi have been carried out from a variety of perspectives (Silberbauer & Kuper, 1966; Kuper, 1970a; Okihiro, 1976; Mautle, 1986). Tlou & Campbell (1984) account for the origins of Bakgalagadi and their relationships with other groups. Kuper's (1970b) anthropological study of the Bakgalagadi, especially those in the Ghanzi district, provides a basis for the discussion of Bakgalagadi culture and social organization. Hitchcock & Campbell's (1982) historical study of Bakgalagadi, while providing information on settlement patterns, does not account for the details on how space is organized. A useful ethnoarchaeological study by Kent & Vierich (1989) among the Bakgalagadi in the eastern part of the country has provided a theoretical framework for studying spatial patterning. Nicholas David's (1971) ethnographic study addresses similar issues concerning the problem of the interpretation of domestic structures of the Fulani compounds in Cameroon.

The present study tries to add to the existing body of knowledge by providing more information on Bakgalagadi portable material culture such as wooden artefacts, leather, pottery and other organic crafts, and by providing details about the processes of house collapse, refuse disposal, site abandonment and similar formation processes which can be linked directly to known Bakgalagadi sites. McDonald's (1940) study on the material culture of Bakwena, Reynold's (1968) article on the material culture of the Gwembe, Robbins' (1973) article on Turkana material culture in Kenya, and Hodder's (1982a) work on symbols in action also influenced this study of Bakgalagadi material culture. McIntosh's (1974) work on mud wall decay in a Hani village in Ghana, and Mbae's (1990) study on the ethnoarchaeology of Maasai settlements and refuse disposal patterns in the Lemek area have also provided a guideline to the methods and the general structure of this research on Bakgalagadi. Another fundamental source for the theoretical framework is provided by Hodder (1982b).

Methodology

A considerable amount of data was collected during the two months of field research. First, documentary evidence gave information on the history, contemporary settlements and associated material culture of Bakgalagadi. This method was used principally to supplement information obtained by other means. Interviews were conducted on oral traditions and histories in Hukuntsi, Lehututu, Tshane, Lokgwabe and other neighbouring settlements, such as Maake, Ngwatie, Ukhwi and Zutshwa. The interviews sought to obtain information on the origins of Bangologa, their settlement strategies, their relationships with other ethnic groups, how they came to settle in the Matsheng area, their material culture and their architecture. The interviews were unstructured because the informants related their histories in a narrative manner. My target group in the community consisted of people aged between 40 – 90 years. In all, 40 interviews were conducted. The main interviewees were household heads who in the study area are often women. In male-headed households generally both partners participated. The interviews were carried out in Sekgalagadi and answers were directly translated into English.

It is worth noting here that this study was undertaken at a time when most traditional domestic tools and crafts can no longer be observed. Fortunately the elderly residents have the knowledge on how these were manufactured and used. A catalogue was made of objects that were used in the recent past, those traditional objects that are still in use and those modern objects which have effectively replaced artefacts that were once made locally (Lepekoane, 1994). Participant observations of house construction and craft activities were also carried out. These were supplemented by interviews with artisans and builders about the technical aspects of their activities. The location of different domestic activity areas were mapped. This was done in collaboration with the interviewees by walking around the compound. An inventory of house types, tools, building materials and other general facilities was made for each compound visited. Some artefacts, house structures and collapsed houses were recorded with photographs. This study, conducted within a cultural context familiar to me, made it possible for me to draw upon personal experience and knowledge of material culture and its meaning and function. Time and transport were major limiting factors during the field research. In particular they affected the amount of cross-checking one could do, and they limited the collection of field data to only the major Bakgalagadi settlements in the area. For the same reasons, it was not possible to do comparable research in the neighbouring settlements of other ethnic groups.

The study area

The Kgalagadi District is located in the southwestern corner of Botswana and covers an area of approximately 110,110 sq km (Fig. 1). This constitutes about 10.5% of the country's total area (Kgalagadi District Development Plan 4). Administratively and geographically, the district can be divided into the northern and southern Kgalagadi. For purposes of this study we will focus on the northern Kgalagadi (Matsheng) but excluding Kang. The Matsheng area covers approximately 44,044 sq km. The land has an altitude of roughly 1100 m, gradually dipping to 790 m at the confluence of the Nossob and Molopo Rivers. The terrain is generally flat and featureless with plains and pans. Poor vegetation cover and deep sands characterize the area. Natural vegetation is composed of *Acacia* or *Terminalia* woodland and bush (Forestry Association of Botswana 1992). The area around the villages is heavily overgrazed. The climate is semi-arid and sub-tropical, and is characterized by low average rainfall and low humidity. Mean annual rainfall is 300 mm per year. Easterly winds in summer and northerly winds in winter are experienced, as well as high temperatures in summer and very low temperatures in winter (Kgalagadi District Development Plan 4).

There is no surface water in the area due to the massive sand cover with a low water holding capacity and poor drainage system. There is high salinity in the water especially in settlements such as Zutshwa. To try to alleviate this problem, there is a desalination project in Zutshwa. The salt produced from this is then sold locally in the Tshane Cooperative Market. In addition, the council supplies the Lehututu and Lokgwabe settlements with water from Hukuntsi. Almost every village and settlement in the Matsheng area is located near a pan. Around the pan area one can find a cluster of shallow wells and windmills. In Hukuntsi there is also a dam located around the same area. Cattle and other domesticated animals are often taken to drink at these water sources. Wildlife is one resource that is fairly abundant in the area. Gemsbok, springbok, lions and other ungulates and carnivores are common. During good years wild berries, grapple plant and other edible wild foods are abundant. In the past hunting was an important activity for males and gathering by women and girls was also an important element of subsistence. The Matsheng area which includes villages such as Hukuntsi, Lehututu, Lokgwabe, Tshane and the neighbouring settlements has a very low population of about 6707 people (approx. 0.15 persons per sq km, Kgalagadi District Development Plan 4).

Like other Tswana groups, the Bangologa are settled in scattered communities each under the jurisdiction of a certain chief (*kgosi*). The villages scattered over the Matsheng area mentioned above are each about 10 km apart. Each village and settlement is located near a pan (*lobu* or *shekokwana*). The area is settled in a tripartite pattern, *i.e.* there is the main village, the lands and the cattle post. People also own ranches. The built environment within each village reflects the structure of the community and the social organization of people in each village. At the core of each village there is a *kgotla*, the village central meeting place, and the chief resides nearby. The *kgotla* serves as a central seat of the tribal administration, and the chief administers justice and holds many of the tribal ceremonies (Kuper, 1970b). Each village is further sectioned into several wards, each of which is under a ward headman *kgosana*. For example, in Hukuntsi there are nine wards, namely GaMaeharu (Goo-Kgosi), Galetsepa, Goo-Khibane, Goo-Magobelelo, GaMotharo, GaMhutha, Ga-Tjhaga, Ga-Moselebe (Ga-Maleme) and Goo-Tshweu. Villagers identify themselves as belonging to a particular ward. There is no social hierarchy of the wards in the village. However, the main ward is identified as the one in which the current senior village *kgosi* resides. Some wards are named after or by their head's family name, for example, the Molatole ward, *Kgotana ya i goo Molatole* in Lokgwabe, where Mr. Molatole

is the ward headman. Other wards are named after the community composing it, especially if they come from other villages and are not relations of people in that given village. For instance, the Tjhaga ward in Hukuntsi is composed mainly of people from Tshane (Batjhaga); similarly there is the Kgotjhu ward in Lokgwabe which is composed of Bakgotjhu (Khoekhoe) and the Tamma ward in Tshane composed of Baherero sometimes called Batamma.

The ward itself is a distinctive social and administrative unit of the community and it always has its own *kgotana*, a physical place also near where the *kgosana* resides. This *kgotana* is a place where community affairs are discussed. The *kgosana* is responsible to the *kgosi* for all that goes on in his ward, and is the medium through whom all official communications must be made to the ward's other members (McDonald, 1940). Moreover, the ward headmen of all the wards constitute an advisory council to the *kgosi*. It was observed that in a particular ward, all members of the same ward regard themselves as a body of related people and this also extends to the entire village. The smallest social group within the ward is the household or homestead consisting of the nuclear family and some members of the extended family.

Before the 1970s land allocation used to be the responsibility of the chief, but now it is the duty of the District Land Board. Nowadays people no longer adhere to the traditional arrangement of homesteads in the village. People can build their homesteads anywhere in the village, even outside the boundaries of their wards and even in the outskirts of the village. There is no limitation on the number of houses people can build. They can build as many houses within one compound as they wish, depending on the size of their families within their compounds, the availability of the building materials, amount of labour employed, and their socioeconomic power.

The decision making within the domestic domain of the family group is the responsibility of adult men, in other words Bangologa society is patriarchal. The family group deals with purely domestic affairs such as bethrothal, marriage negotiations, organization of feasts such as *kitsho ya motjhwana* (child out of confinement celebration), and solving cases dealing with children born out of wedlock. Members of the family also cooperate in such activities as building and thatching houses, clearing new fields, weeding and harvesting, helping one another with gifts of food, livestock and other commodities. There is a clear division of labour according to sex. Women specialize in various domestic activities, *e.g.* in pottery making, and in much of the work at the lands, *e.g.* weeding. Men specialized in wood carving, leather work and much of the activities at the cattle post, such as de-horning.

Settlement history of Bangologa society

The Bangologa dealt with in this study are settled in a network of villages forming a crescent around pans in the Matsheng area. However, it is believed that this area is not their place of origin and that they have only been in this area for one and a half centuries. Some sources also allege that the settlement of the Kgalagadi District by pastoralists was a recent event (Kuper, 1970a). There is ample archaeological evidence to indicate that pastoral and agropastoral communities have been in this area for a long time (Wilmsen, 1989). Oral traditions by themselves do not provide a definite answer as to where the Bangologa originated and when they first settled in the Kgalagadi District. It is also said that the reason for settling in this area, at least at first, was not because they were attracted by the natural resources but rather because they were driven there by the political disturbances of the early nineteenth century (Wilmsen, 1989). As a result they had to develop some means of adapting to the area's conditions so as to survive the harshness of the local environment.

The Bangologa oral traditions suggest that they originated in the vicinity of the Vaal River at a place called Lowe. Some sources assert that the word Lowe/Matsieng meant a very early settlement of Batswana (Tlou & Campbell, 1984). The Bangologa claim a common ancestry from their first ruler or leader Mongologa. The various groups of Bangologa today are said to be named after Mongologa's sons namely, Baeharu after Moeharu, Batjhaga after Motjhaga, Bapebana after Mopebana, Baselebe after Moselebe. Some sources assert that the Bangologa were already in the Kgalagadi Desert by the sixteenth century (Okihiro, 1976), whereas some hold that the Bangologa dispersed from other Batswana groups as a result of some political upheavals and disturbances of the eighteenth and nineteenth centuries during Mzilikazi's time (Kuper, 1970a). Both assertions may be right because even oral traditions hold that the Bangologa used to graze their cattle and hunt in this area before the Matebele wars occurred at the beginning of the nineteenth century. Some oral histories claim that Bangologa first broke away from other Batswana groups because they did not want to be treated like servants even before the Matebele wars took place. Others, however, stress that the Bangologa reached the Kgalagadi area when they were running away from the Matebele wars. The Bangologa believe that they were the first people to occupy the edges of the Kgalagadi Desert (Tlou & Campbell, 1984), on the ground that when they arrived in the area it was unoccupied. However, as stated above there is plenty of archaeological evidence to the contrary. Before the Bangologa settled permanently in their present villages, they occupied numerous settlements in the Kgalagadi District which were later abandoned. The Bangologa's movements were mainly in search of water and good pastures for their livestock. This is why, as we can observe, most abandoned sites are always near pans. Examples include Tshautsau, Masetheng, Gwaagkae and Kang. Some of these abandoned Bangologa sites are now used as cattle posts by Basarwa and Balala.

Oral traditions suggest that Hukuntsi and other villages were founded by people during periods when they tracked animals in the area. They then decided to settle permanently in this area because there was enough water in the pans and large herds of wild animals. They first settled an area which is now GaMoselebe ward. There one can find a scatter of potsherds and other indications of the first permanent settlement in the area. Unfortunately this site has been disturbed by livestock, rodents and human beings, and the archaeological traces of the earliest occupation of Hukuntsi are probably buried beneath the modern houses.

The Bangologa are pastoralists as well as hunters and gatherers. Their mobile life at first was to try to cope with the harsh ecological conditions of the setting. Oral tradition has it that the Bangologa kept small livestock such as goats and dogs, and impressions visible in rocks beside pans by Hukuntsi are interpreted as prints of a person, goat and dog as evidence to this. It was mentioned that much of their cattle was taken from them before they left their place of origin. They also lost more cattle in the wars which occurred during their travels such as those between Bangologa and Bangwaketse. As a result there were very few people with cattle and they only owned a maximum of five cattle. Of these, two supplied milk, the other two were oxen used for carrying their belongings and the fifth was a bull. As they entered into trade relations with other Tswana groups they exchanged wild animal hides for livestock and other commodities. As a result they accummulated more wealth and were able to sustain their pastoralist tradition. As Christianity and modern schools were introduced among Bangologa, their traditional practices and culture such as respect for taboos, initiation ceremonies, and the manufacture of local materials gradually lost significance. However they learnt other things through their trading partners, such as sinking bucket wells which came to be preferred over *mamuno*. For the *mamuno* wells

people used to pump water from underground using long reeds, and these *mamuno* were located near an oasis. In Hukuntsi such wells were said to have been located where the dam now stands. This *lemuno* was called *Theme* since it had been founded by a man bearing the same name. This well and others in its environs have dried out but there are some in situ rocks still visible which are said to mark the site. About 500 m away from the dam are a cluster of shallow bucket-sinking wells. This area is called *Maere*, and livestock and other domesticated animals are normally taken there to drink even today. Windmills and boreholes can also be found around the wells area; these however have only been here since 1970s.

Oral traditions state that during the time when the Bangologa were not yet settled permanently, they used to build temporary round shelters resembling those of Basarwa. As time went on, especially when other groups of people and traders were beginning to settle among them, the Bangologa started to adopt new styles of building such as houses pivoted with central poles, *daga* and pole walls and new styles of thatch. The Bangologa way of building continued to transform with the introduction of rectangular houses and cement brick houses. Both types are now fast displacing the traditional round houses.

Inevitably, intermarriages and other forms of social interaction have occurred between Bangologa and other Tswana groups, foreign traders, Basarwa, Bakgotjhu, Baherero and coloureds, all of whom later settled among the Bangologa. The Bangologa as far as they remember have taken the Basarwa and Balala as their servants. However, intermarriages between the Bangologa and the Basarwa also took place. In due course, the children from such marriages came to be known as Balala, who are now found occupying the settlements on the periphery of the Matsheng area. Among other groups living with the Bangologa in the Matsheng area are the Batlharo and Baherero. These people have established their wards in Hukuntsi and Tshane respectively. Unfortunately, no research has been conducted among either of these people to show where they originated and what their links are with other Baherero and Batlharo settled in other parts of Botswana. However, there are strong indications that many people identify themselves as Bakgalagadi just because they live in the Kgalagadi Desert. In other words, they no longer identify themselves on ethnic lines. Furthermore intermarriages between different groups makes it hard to define an individual's ethnic origin. Today, the nature of the relationships between these different groups is that of harmony and tranquility and they work cooperatively towards developing their area. Even the system of serfdom which was imposed on Basarwa and Balala, is now only practiced on a very minute scale. Outright feelings or sentiments of superiority over other groups are not normally expressed openly. However, oral traditions emphasize the fact that, as a result of the interactions and intermarriages, the Bangologa's ties to their indigenous culture have become loose.

Other changes have been brought about by the reliance Bangologa have placed in recent years on foreign commodities brought by traders especially Indians and Europeans. This has handicapped the conservation and development of the indigenous Bangologa way of doing things and of manufacturing things at local level, to the extent that they even buy such things as clay pots and leather chairs from other Batswana groups. The Bangologa grow a few crops such as melons, beans, maize and sorghum especially when there is sufficient rainfall. To some extent, the food supply is supplemented by hunting and seasonal gathering of some edible wild foods such as mushrooms and wild berries. But in recent times they do not often hunt as a result of restrictions imposed by the Wildlife Department and government policies. They also no longer gather wild foods very often because there is now insufficient rainfall for these wild species to flourish. People have

become more modernized, and nowadays they rely extensively on the goods and foods they buy from the local trading stores and from towns.

Settlement patterns and types

Hitchcock & Campbell (1982) mentioned how settlement patterns of Bakgalagadi have changed over time. Kent & Vierich's (1989) study looks at ecology as the most common explanation for site structure and use of space, and also shows how Basarwa and Bakgalagadi mobility and subsistence strategies sometimes overlap within the same ecological setting, especially in the eastern part of the country. These studies provide a framework for understanding Bangologa settlement patterns and spatial organization in the western part of the country.

In Hukuntsi and its environs, there are three types of settlements namely, the village, lands and cattle posts. Examples of compounds from each type of settlement were studied, describing how they are structured and showing the activity areas and associated refuse disposal practices within them. Measured scale drawings of site plans, inventories of house types, building materials, and the social and demographic composition were recorded for each compound (Lepekoane, 1994). Observations of discard and processes of wall collapse were also made. However, it should be noted that in most cases the lands and the cattle post are combined in the same location. Additionally, the lands are not usually located far from the village, a 3 to 5 km distance being normal. Many compounds at the lands lack proper houses since people tend not to stay at lands overnight.

The vernacular architectural technique of wall construction common among the Bangologa is pole-and-*daga*, thatched roof and rectangular shaped. However, oral traditions have it that this technique was adopted from other Tswana who came and settled among the Bangologa in the past. It is held that during the time when the Bangologa were still leading a nomadic way of life their building technique resembled that of Basarwa. This type of building did not need much time and labour, since these were temporary structures. However, other types of houses in the surveyed area were recorded; these include pole-and-*daga* houses with corrugated iron roof, mud-brick houses, stone-and-*daga* houses and modern cement houses. This section will focus on the most common technique among the Bangologa, that is, the pole-and-*daga*, thatched houses.

The building and maintenance of houses are duties that are carried out by members of the household, friends and relatives. Building activities among the Bangologa are carried out any time of the year. Building of the houses is very complicated and takes a long time to complete. However, this is also determined by the availability of the building materials and labour. Both men and women participate in the building of the houses with their respective tasks. Men normally help with the cutting of posts or poles usually from *magonono* (*Terminalia sericea*) trees. They also help with the construction of the roof structure on which the grass is thatched. People from households in the neighbourhood may be asked to come and help and normally food and drinks are served in the process. Women's tasks are to erect the walls, plaster them, and also to plaster the floor, and thatch the house. The general decorations and maintenance of the house are also done by women. Details concerning variations between village, lands and cattle posts are discussed in the next section. The field work has revealed that the Bangologa way of building is such that the buildings can withstand some of the more obvious agents of decay, like erosion by water. For example, the mixture of cow dung, earth and clay makes the *daga* strong so that it does not easily disintegrate. This mixing with cow dung hardens and strengthens the walls and guards them against the effects of rain and ravages of termites. Although the cow dung itself attracts termites, the addition of clay guards it against termites and the clay also gives

the walls an extra waterproof quality. Cracking and eventual loss of material occurs first at those points close to the poles, especially at the corners and sometimes at the door frames. Termites, which are considered to be one of the major agents of decay, eat the poles from the bottom. Regular upkeep of the house entails putting additional layers of grass on top of the roof. This minimizes leaking of the roof, while re-plastering the floor and walls makes the house last longer (for several decades). In most cases when a house is abandoned, the thatch deteriorates first and starts falling off. The binding strips also deteriorate, and once these become loose the rafters fall off. The exposed wooden stakes decay, especially the parts buried underground. Once this happens, the walls start failing apart. However, this is a relatively slow process, and it only becomes noticeable after several decades. In most cases when a house collapses the central pole is left standing. Also it is rare for building materials from an abandoned compound to be allowed to deteriorate naturally. Instead, they are removed and reused. *Daga* may also be reused during the construction of new house walls. In most cases, however, it is left lying on the abandoned house site especially when the general area has also been abandoned.

The field work revealed that the average size of the village compound is 50 x 50 m. Various types of fencing were observed such as post-and-thornless branches, post-and-thorn branches, and post-and-wire fence. Most compounds enclosed with the thornless and thorn branches are roughly rectangular in shape, and the compounds mostly have two or three gates. To some extent the number and positions of the gates reflect the social relations of the inhabitants to those in their immediate surroundings and external activities. For example, one gate can face towards the compound of members of the extended family and the other may be facing towards the church, *kgotla* or a water tap where they draw water. Some thatched houses have smaller internal fences (palisades) or courtyards. These palisades, which are found in almost every compound in the village, are wooden stakes of on average 1.5 m in height, lashed together with damp leather ropes or thin, damp pliable bark strips. These palisades are made to protect the buildings from livestock. The palisade also serves as a windbreak. The internal area is large enough to cater for some social and economic activities. It is sometimes used as a place for receiving visitors, for sleeping, for private matters like marriage negotiations, and other domestic activities such as hearths and food processes.

The size of rectangular houses, made of pole-and-*daga* and thatched, average four by five m in plan and 1.7 to 2 m in height. The post-holes are about 30 to 50 cm deep in the ground. Modern houses with several rooms can also be found in most compounds, and these are increasing in number. There is a likelihood that in the near future they will displace the thatched houses. Houses made of pole-and-*daga* walls with corrugated iron roofs and cement floors are also valued more than thatched houses. Circular houses are rare. This style is said to have been abandoned because they have been found to have a small area as compared to the rectangular houses. Within the compound, there is normally a pit latrine. This is always at the back. Construction of pit latrines is a recent development because people used to go out in the bush. Fowl runs or fowl shelters are also common. In most cases these are wooden platforms enclosed with a wire fence. One other common structure within the village compound is a kitchen made of stakes and left unroofed. These are always located at the center of the compound. Refuse pits within the compound are also common. These are also a recent development. In the past refuse was thrown outside the compound, on to a midden. One common structure outside the compound, usually some meters distant, is a small livestock kraal. In some instances the kraal is adjacent to the fence of the compound. The compound is occupied all the year round by most of the family members, except perhaps when they have gone to stay at the lands or cattle post or

elsewhere. The actual number of occupants is not fixed and depends on the economic status of the owners. The compound may also be abandoned and factors which lead people to abandon their compounds are varied. For instance, there may be disagreements among the inhabitants and their neighbours, or they may have been threatened by lightning on a couple of occasions. However, relatives or any other person can reoccupy that area.

Most of the domestic activities are carried out in the compound and its immediate surroundings. The same houses which are used for sleeping can also be used for storing food stuffs and other objects. Some equipment such as tools are always found hanging or leaning on the walls of the houses, eaves or palisades. In some instances a hearth can also be found inside the house, thus some domestic activities such as food preparation, distribution, and eating are conducted inside the house. The hearth is normally made temporarily inside the house, especially when it is raining or when the weather is not favourable for outdoor cooking. Usually some soil is put on the floor, then a metal sheet is put on top of the soil to hold the pots. But as soon as the preparation of the food is completed, this soil and ash are thrown away into the refuse pit. However, there are some permanent hearths inside some houses and these are made of cement. Since these hearths are not often used, they are normally covered by other objects.

The internal area of the palisade or courtyard and the immediate area in front of it can be used for various social and economic activities and thus is always kept clean by daily sweeping. These activities include the reception of guests and food processing. On the other hand, the area within the palisade behind the house is normally used as a bathroom and bathing or washing equipment is stored in the area. Waste water can be thrown over the fence or in a small hole dug for that purpose (a soak pit). Waste water can also be stored to be re-used for building and mixed with cow dung. Outdoor shelter-bathrooms can be observed in some compounds. One of the examples recorded was made of wooden stakes. These were not plastered, and there was no roof. The size of this bathroom was 1.5 x 2 m and 1.5 m in height.

The outdoor kitchen likewise plays an important role in catering for various domestic activities. These include food preparation, distribution and eating and providing enough sitting place for the family, friends and guests. The hearth is usually at the center. Periodical cleaning of the kitchen is done to prevent ash from accumulating. Regular cleaning of the hearth also helps decrease the amount of smoke given off by fire. It is worth mentioning here that the division of labour among the Bangologa dictates that domestic activities should be associated with women. Therefore, it is the duty of the woman to prepare food and to keep the compound and the kitchen clean. Periodical removal of ash eases the process of making fire, and this is done in the mornings and evenings especially by women or young girls and sometimes young boys. Ash and other refuse around the hearth are dumped either in the internal rubbish pit or the external rubbish pit. Ash is sometimes reused. People remove the charcoal from the ash then use the ash for preserving certain harvested agricultural products such as beans for the next plowing season. Utensils are normally found hanging on the walls of the kitchen stakes. Other equipment such as cooking pots and water containers are normally found on the sides of the kitchen both inside and outside. In some instances, a platform or a forked branch is placed in the kitchen. The platform is used as a working bench during food preparation, distribution and as a drying rack for utensils. The forked branch is used for hanging such large items as mortars. The area just outside the kitchen is sometimes used for butchering, especially of small livestock and chickens, and also for the storage of firewood. Food debris such as bones are normally found around the hearth but only soon after the meals because they are removed. Domesticated animals such as dogs normally scavenge on this food debris. Food debris is

also deposited in the pit located at the back of the compound. Once a pit is filled up, another one is dug nearby, usually by men or young boys. Rubbish on the midden outside the compound is normally burnt to prevent it from scattering all over the place. Disposal patterns of refuse emanate from activities conducted inside or outside the palisade or compound. In most cases the rubbish comprises any unwanted items which may be picked up after the general cleaning of the entire compound. These unwanted items include bones from previous meals, cans, papers, and worn out materials. Moreover, manufacturing debris such as pieces of leather, cloth and wood are also dumped into the pits. However, these are not likely to survive in the archaeological record because of the organic and perishable nature of the materials used. The sandy soil in the area is also fairly acidic, which contributes to the decay of bones.

As previously mentioned, in many cases the lands are situated close to the village within easy walking distance. As a result, people can visit their lands on a daily basis, and there is no need for them to build a house there. Nevertheless there are some lands with houses. Whether with or without houses, the compound is usually located a few meters away from the field fence, although on one occasion I observed a compound built within the main fence of the field. I also observed that the lands are usually located in the areas which were once used as villages and were subsequently abandoned. That is, at first the area would be settled as the village with the *masimo* in the surroundings. With the development of infrastructure such as schools, clinics and water supply, settlements come to be concentrated in a certain area and people are advised to move closer to those facilities so that they can benefit from them. In doing this, they move their compound to a different area, as has happened with Hukuntsi and Tshane. The people in Tshane moved to their present village compounds during the 1970s and early 1980s. In most cases people left their old house standing. Others destroyed their buildings and took the building materials to reuse in their village compounds. Some people left livestock pens at the *masimo* area, while others built new ones in the village.

The fieldwork revealed two types of fencing at the *masimo*. Some fields are fenced with thorn branches while others are fenced with poles-and-wire and some thorn branches to cover the wire fence for extra protection against livestock and cattle. Adjacent to the field fence, a small thorn branch enclosure can be found (*moruku*). In this people store melons. In the past there were roofed granaries within the *moruku* for storing dried melon. Recently, open granaries are kept inside the store houses within the land compounds. Most of the houses at the lands are enclosed with thorn branches and the fences are roughly rectangular in shape. The houses are also rectangular in shape and thatched. The houses are normally smaller than those in the village; their sizes average 2.5 x 3 m and 1.5 m in height. The walls are made of pole-and-*daga* and normally the walls are not smoothly plastered and the floor is left bare. Not much time and effort is put in the building of the houses at the lands because they are only seasonally occupied, except when as observed on some occasions, the inhabitants do not have another compound in the village. In such cases, the lands compound is structured and functions in a similar way as a village compound. Store houses are usually circular in shape, thatched and with unplastered walls and bare floor. A small livestock pen about 100 m away from the compound is another common type of structure at the lands. The presence of these is one reason why some people consider their lands as cattle posts. The lands and compounds at the land, may be abandoned periodically. Any person can reuse the land, but this happens only on rare occasions because the abandoned land always looks bare, featureless and unattractive. Relatives of the former occupants are the most usual group to reoccupy the land. Factors that initiate abandonment are also varied: when there is no rain for several successive years and the lands are not ploughed;

following the death of the owner or frequent death of livestock; or maybe when there are not enough trees in its environs to be cut for the fence.

Most of the domestic activities are carried out either in the compound or in areas immediately outside the fence. One house is normally used for sleeping and the other one as a store for various objects. Equipment such as the ox-pulled plough and hand ploughs can be found hanging or leaning on the walls of the houses or the fence. Cooking utensils can be found on a platform next to a hearth, and cooking pots, mortars, pestles, water containers, and lamps are also usually found hanging on some wooden hooks from the wall of houses or trees, and others are left in the area around the fireplace but away from the sitting area. Much of the equipment used in the village is used at the lands. However some items such as wooden and leather materials including animal skin mats and blankets, and grinding stones are more commonly found at the lands. The area around the hearth is not frequently cleaned and there is normally more than one hearth inside the compound. Hearths are chosen depending on the weather and sometimes a fire may be set inside the sleeping house, for warmth and light. The ashes from hearths inside houses are periodically removed to prevent their accumulation. Refuse emanating from various activities inside the house and compound is dumped outside the compound. Typically, these include any unwanted items such as food debris and pieces from the manufacture of wooden and leather artefacts.

The research revealed that the compounds at the cattle posts are more or less similar to those at the lands. However, cattle posts are located further away from the village, about 7 km or more. The compounds are fenced with thorn branches, enclosing thatched houses with pole-and-*daga* rectangular walls which average 3 x 4 m in plan and 1.5 m in height. The walls of these houses are like those at the lands. Normally, the floors are left bare though plastered floors were observed in some cases. The main distinctive feature of cattle posts are the kraals for small livestock and cattle kraals. These are usually located about the same distance from the compound, about 100 m away. The midden is also found outside the compound. The lands are sometimes found in the cattle post area. In one particular cattle post in the study, the fields were about 1 km away from the cattle post. In some cases, there were syndicate cattle posts which were to be upgraded into ranches, and these all have boreholes. The cattle posts are seasonally occupied and thus the buildings and the general structure are not similar to those of the village. Cattle posts can be abandoned for a variety of reasons. For instance, the inhabitants might have experienced threats by lightning or frequent deaths of livestock. My informants said that an abandoned cattle post can be reoccupied by anybody.

Most activities are carried out in the thorn branch compound and in the area immediately outside. In most cases there are three thatched houses of which two are for sleeping, one used by the owner and the other by the shepherds, the third house is a store house. Normally, the walls of the store houses are unplastered. They generally contain things such as leather saddle patterns, leather ropes, a granary at the center, milk churns, clay pots and some utensils of leather, and sour milk containers. Many activities take place in the area around the fire place. This is shown by a variety of objects leaning against and hanging on the fence by the fireplace. Items include leather saddles, three-legged pots, leather ropes, car tyres, meat mortars, grain mortars, pestles, and metal meat choppers among others. Metal objects such as branding irons, castrating irons, de-horning irons, snares, lamps, and milk churns were found hanging on the walls and eaves of the houses. A platform can also be found around the central fire place in the compound. These are used for storing eating utensils and saucepans. Sledges and troughs for animal feed are generally left outside the compound. Just like with lands' compounds, the cattle post has a midden outside the

compound several meters from the entrance. Neither the area around the hearth nor the entire compound are regularly cleaned and food debris such as bones and other pieces from manufacturing activities accumulate here.

The formal and stylistic characteristics of artefacts used in everyday activities can also provide a clue to the identity of their makers. Most of the Bangologa household artefacts used in the past are no longer used. Fortunately there are a few individuals in the society who still have the knowledge of how these were made and what they were used for. According to oral tradition, Bangologa made some pottery especially once they had settled permanently in the area of Matsheng. Pottery making was women's specialty, and men could only help with the firing. Clay for making pots, bowls, and vessels was pinkish in colour. It was obtained from areas near the pans in Hukuntsi and Tshane. There were some taboos on sexual behaviour associated with the exploitation of clay deposits. Specifically girls who had just reached puberty and unmarried women were not allowed to come near the deposit. Only older women could go into the deposits. As people of different cultures came to settle among the Bangologa, people lost respect for such taboos. It is said that as a result, the clay lost its quality to the point that when pots were made, they broke easily. Again it is said that partly as a result of this, people stopped making pottery and began to depend more on foreign materials. However, the low cost of foreign goods, their durability and their prestige were probably other contributory factors. Nowadays cooking is done mainly in three-legged cast iron pots and saucepans purchased at trading stores. The normal pottery making technique was coil-building. After the pots had been moulded they were decorated on the rims, necks and shoulders. The decorative techniques mentioned during interviews included incising, stamping and impressing. Red ochre was applied on the outer surface of the pots, then they were fired. Pots, bowls and other vessel types have largely been replaced by a variety of modern equipment made of enamel and plastic.

Wooden objects such as buckets, dishes or bowls, mortars and pestles were widely used. Mortars and pestles are still used today. Other wooden objects made in the past included wooden spoons, and hand ploughs. These were made out of *magonono* (*Terminalia sericea*). Leather from hides of different wild and domesticated animals was used for making a variety of domestic materials. Different types of leather were used to make a variety of objects including water containers. These are no longer found. They have been replaced by enamel and plastic buckets and hard plastic 20 liter containers and drums. The water containers known as *mhalo*, for example were made from skin peeled from the animal. The openings around the feet were fastened using sinews leaving only the opening at the neck. Next air was pumped inside and the bag was closed tightly until the leather had dried. The result was a hollow leather container. Water was drawn from *mamuno* and wells using these containers. The manufacture of leather and wooden materials was men's specialty. Other household equipment included calabashes, bone knives, turtle shells and ostrich egg shells. These are no longer found in use. They lost significance soon after the introduction of easily obtainable modern materials from local trading stores.

Farming implements included wooden hand ploughs, digging horns (horns of gemsbok and springbok), and digging sticks. According to my informants, the Bangologa did not have many farming implements because, as they say, the Bangologa had spent much of their time in transit, and during this period of their history farming was not their principal occupation. Much of their subsistence was based on hunting and gathering. Farming implements such as the ox-pulled plough were introduced to them by later settlers. According to oral traditions, the Bangologa people did not have iron spears in the past. Instead they used sharpened sticks. Their common hunting method in the past was to dig long, wide and deep pit-traps. At the bottom of these pits they usually put sharp stakes. The

pits were then covered with branches and grass. Using dogs the hunters would then drive herds of wild animals towards the pits. Large numbers of animals would fall into these pits, and onto the pointed stakes. The animals were removed and taken home where the meat and skin were processed accordingly. For example meat was cut into thin long pieces and hung up to dry in nearby trees. Skins, on the other hand, were softened to make mats or ropes. This method of hunting was later banned by the Government Wildlife Department. Subsequently, rifles have been used for hunting. Some implements such as knobkerrie can still be found although they are fast disappearing. Snares are also still in use.

Other common implements included such things as wooden sledges, saddles, leather for carrying loads, grinding stones (especially for snuff), leather bags objects usually filled with sand or a rock used for softening ropes, and sour milk containers. Most of these have been replaced by modern equipment. The Bangologa used leather clothing in the past. It was men's specialty to design leather clothing. Women used to wear an apron-like garment, which was short at the front and longer at the back, or a blanket leather dress which was draped over their right shoulders and tied under the left shoulder. Men made themselves sandals. Women could also wear strings of beads made either from beads obtained from traders, or from porcupine spines cut into small pieces and hollowed, or from dry hollow reeds of a small shrub. Usually children below the age of four went naked. There was no mutilation of teeth, however, both men and women pierced their ears and might wear small earrings obtained from traders. Women kept long hair, but they would sometimes shave their heads on the sides leaving long hair in the center of the head. They smeared their hair with animal fat (normally kept in long Kudu horns) prepared by men. They could smear their bodies with the yellow cream left on the side of the sour milk containers (sour milk cream). Nowadays, the traditional clothing has largely been replaced by modern clothes such as shorts, trousers, shirts, and dresses of western design. However there are some men who still specialize in the manufacture of leather materials. Their products include suits such as a pair of trousers and jacket of western design made from softened leather and painted red with *moshiri* roots. They also manufacture hand bags for men and women, floor mats and blankets made out of the skins of thick fur-bearing animals, and fur hats for men. Finally, it is worth mentioning here that the Bangologa largely specialized in leather and wooden materials. These, as has been observed by archaeologists, are organic and perishable and thus do not survive well in an archaeological context.

Summary

Three main types of settlement have been distinguished among the Bakgalagadi (Bangologa). The major differences between these are in terms of their structures, material culture, and nature of occupation such as whether it is seasonal or year round. The differences might also appear in differences in food debris; the assemblage composition of discarded materials and the spatial patterning of these assemblages. The study revealed that the structures and functions of the compounds sampled in these settlement types differ but overlap in some respects. For example, the materials for house wall construction common to all three settlements are those of pole-and-*daga*. The other three types of building materials namely, stone-and-*daga*, mud bricks, and cement found in village contexts are neither found at the lands nor at the cattle posts. Rectangular thatched houses are also common to all three types, and dominant over the circular houses in all three settlement types. With regard to fencing materials, two types of fencing are commonly observed in villages. These are thornless branches and wire fences. The compounds in villages are also larger, and in some instances the compounds lack fences. On the other hand, the lands compounds and cattle posts are smaller and enclosed with thorn branches. The houses in

villages are usually enclosed with palisades so as to protect the houses and also to create an area for social and economic activities. Palisades are not commonly found at the lands nor cattle posts. This may be because not much is invested at the cattle posts and lands and also because they are seasonally occupied. Most of the social and economic activities take place within the villages. The construction of houses is also similar in these settlement types, especially the thatched houses. However, the walls of the houses at the lands and cattle posts are not normally plastered to a smooth finish. Corrugated roof and cement houses, mud brick houses, and stone-and-*daga* houses were not observed in the lands and cattle post compounds that were sampled.

The material culture found at these settlements are also similar. For instance, three legged cast iron pots and other kitchen utensils are found at all three settlement types. However, the village compounds normally have a wider variety of equipment than either the lands or cattle posts. At the lands, inventories are made up mostly of agricultural implements and tools such as ploughs. At the cattle posts the inventories are made up mostly of perishable items such as milk churns and *makuka* (leather sour milk containers). However, most of the portable material culture has been replaced by modern items which can be found in all three settlement types, particularly aluminum and plastic utensils and manufactured iron tools.

These settlement types can also be distinguished by their nature of occupation. Usually the village compound is occupied all the year round, whereas the cattle posts and lands are occupied seasonally. This distinction has a bearing on the patterning of food debris, which is normally found around the hearth. Since the lands and the cattle posts are seasonally occupied, the hearths are not cleaned very often unlike compounds in the village. Therefore accumulation of debris which forms the archaeological record varies according to the type of settlements. In other words, food debris at the cattle posts and lands would mostly be found in a primary context, that is where the cooking and eating activities took place which in most cases is around the hearth. Some pieces from manufacturing activities would be found around the same area, since it is also used during tool manufacture.

There is always an ash midden outside the compounds at the lands and cattle posts, whereas the compounds in the village have two rubbish pits, inside and another outside the fence. When these sites are surveyed archaeologically, one should not only look at composition and spatial patterning of assemblages in the interior of the compound but should also look further in the immediate surroundings of the compounds to be able to record what might have survived archaeologically.

In certain cases it is difficult to distinguish architectural practices of different groups occupying the same geographical location. However, there are explicit differences between the Bangologa house designs and those of Bangwato who live in the Central District. The Bangologa/Bakgalagadi wall technique is pole-and *daga* whilst that of the Bangwato is mud-bricks. The differences in house wall construction might also mean that there would be differences in the processes of deterioration and archaeological survival. Further architectural differences can be observed between the Bangologa and Basarwa. The Basarwa residential camp houses are normally made of poles and grass, they do not plaster the walls of their houses and their buildings do not need much labour and manpower because their houses are normally only temporary. They are also readily abandoned without even reutilizing the building materials. Whereas those of the Bangologa are normally built in such a way that they last longer and also are not often abandoned. Also importantly, on those occasions when they are abandoned, the building materials are removed and reused.

The Bangologa were and are still agropastoralists but as they broke away from other Tswana groups at the beginning of the nineteenth century, they moved from one place to another in search of better lands to sustain their economy. As a result, the Bangologa

initially constructed houses resembling those of Basarwa which were normally temporary shelters, but when they began to settle permanently they adopted the pole-and-*daga* style. This style, as earlier mentioned, is determined by the environmental conditions of the setting, this is because the soils in the area are sandy and coarse, thus, are easily eroded by water. Faced with similar environmental conditions, the other groups which are settled among the Bangologa also adopt the same building style and therefore it is sometimes difficult to distinguish them from those of Bangologa. It has been observed that the mud-brick style which is common among Tswana groups all over the country is, therefore, not common among the Bangologa in the Matsheng area. The pole-and-*daga* style is preferred because the cow dung mixture of sand and clay plastered on the poles make the walls last longer and also to withstand erosion and other agents of decay.

Notes

Miss Lepekoane is currently studying for a Masters Degree in the History Department of the University of Botswana. Her research essay was completed in 1994 under the supervision of Paul Lane. The text has been edited for brevity. The original essay includes several illustrations and photographs, as well as ten appendices of data collected in the field, which have been omitted here for space. Readers interested in examining these details can find copies of the research essay at the Library or in the Archaeology Unit of the University of Botswana.

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S. Mothibamele & wife, 84 year old farmer
D. Baumake, 90 year old male farmer
Rev. J. Moncho & wife, 75 years old
B.M. Moapare & wife, 80 year old businessman, farmer and ex- MP
K. Kgojane & wife, 67 year old farmer
B. Kalantle & wife, 63 year old farmer and VDC member
S.M. Kalantle & wife, 70 year old farmer and ex-councilor
M. Sixpence, 53 year old male farmer
B. Motlhaetse, 69 year old female farmer
Rev. K. Modirelabangwe & wife, 75 years old
M. Bapege, 72 year old female
L. Leipego, headman
M. Kalantle, 90 year old female
M. Sento & wife, 86 years old
G. Moapare, 66 year old female ex-primary school teacher
M. Molwantwa, 75 year old female farmer
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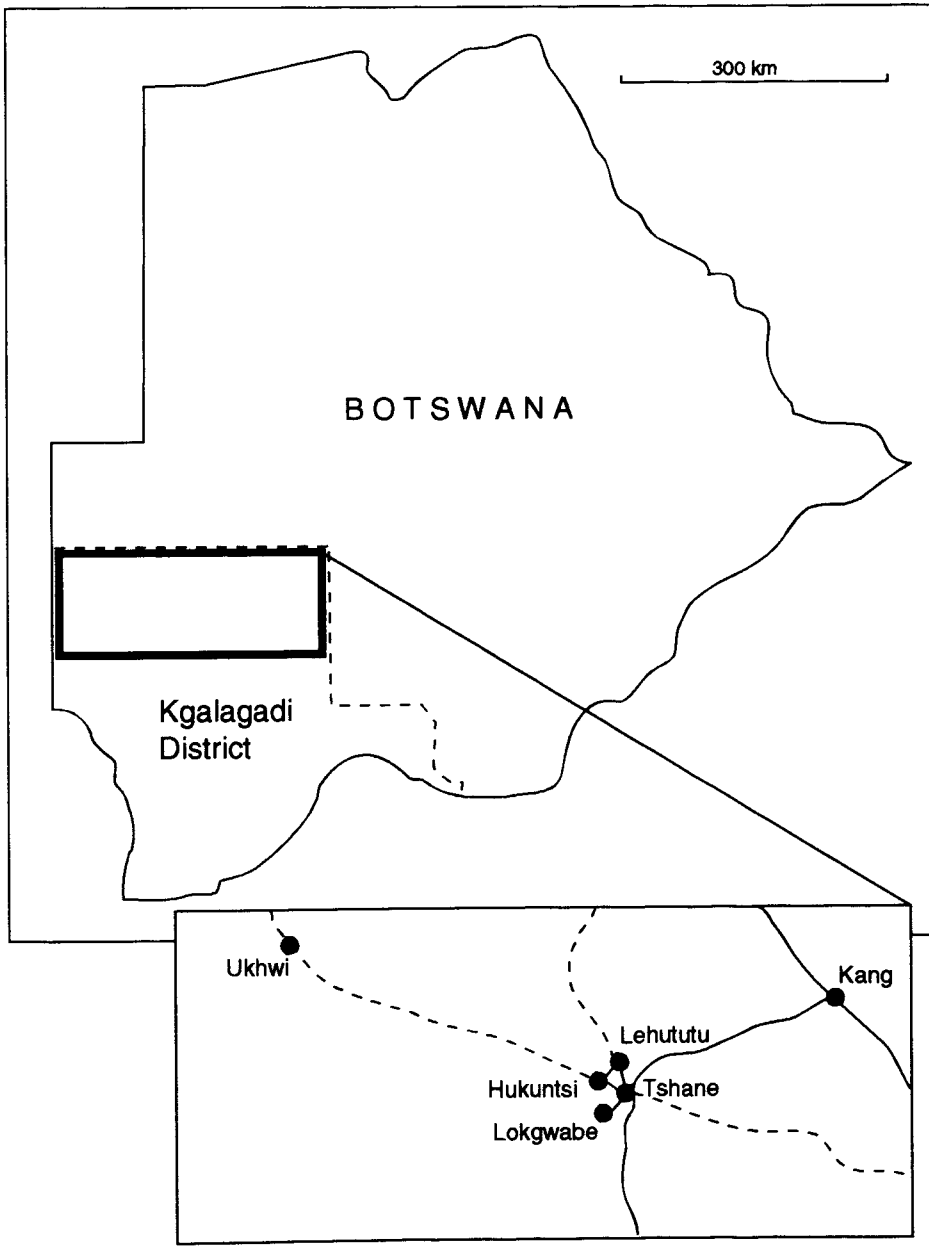

Fig. 1. The Matsheng area of the Kgalagadi District.

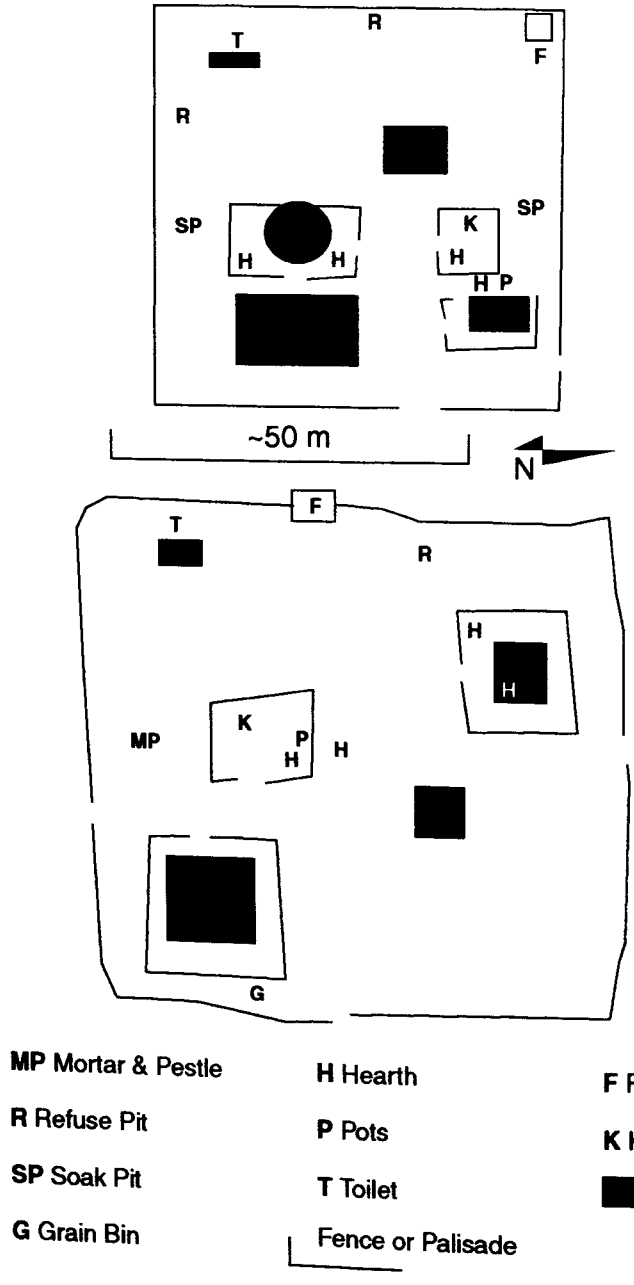

Fig. 2. Two examples of village compounds.

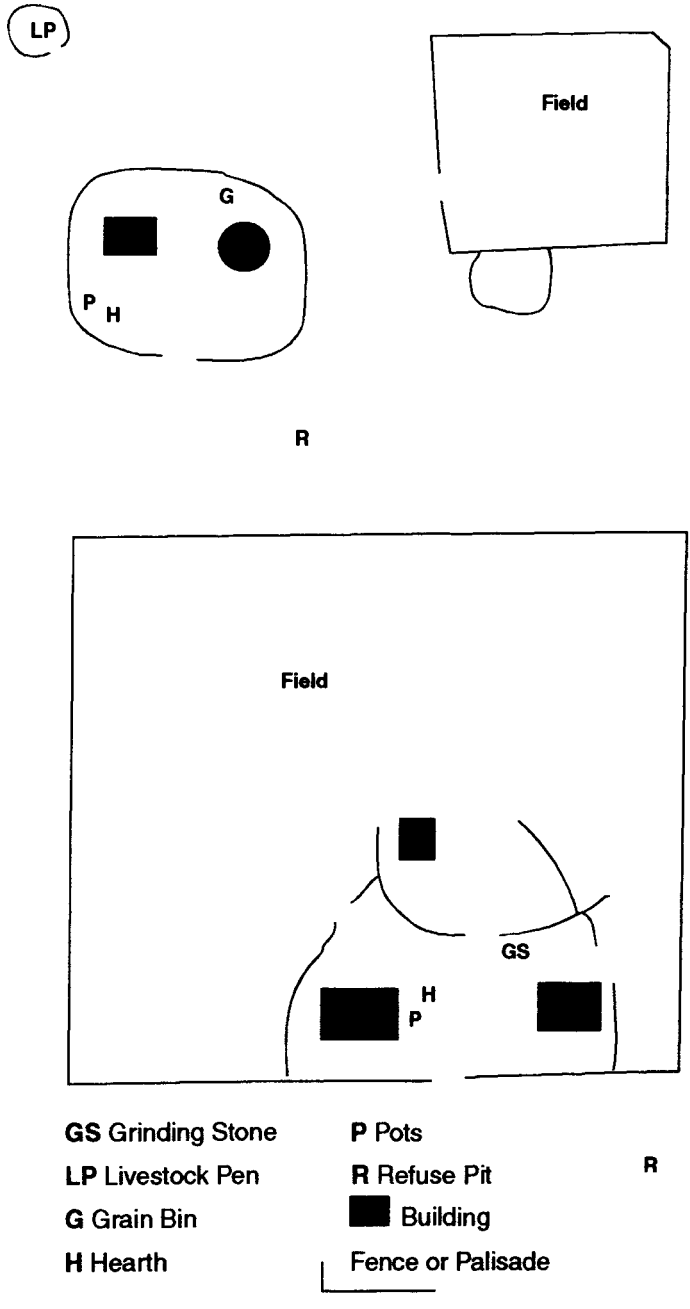

Fig. 3. Two examples of land settlements.

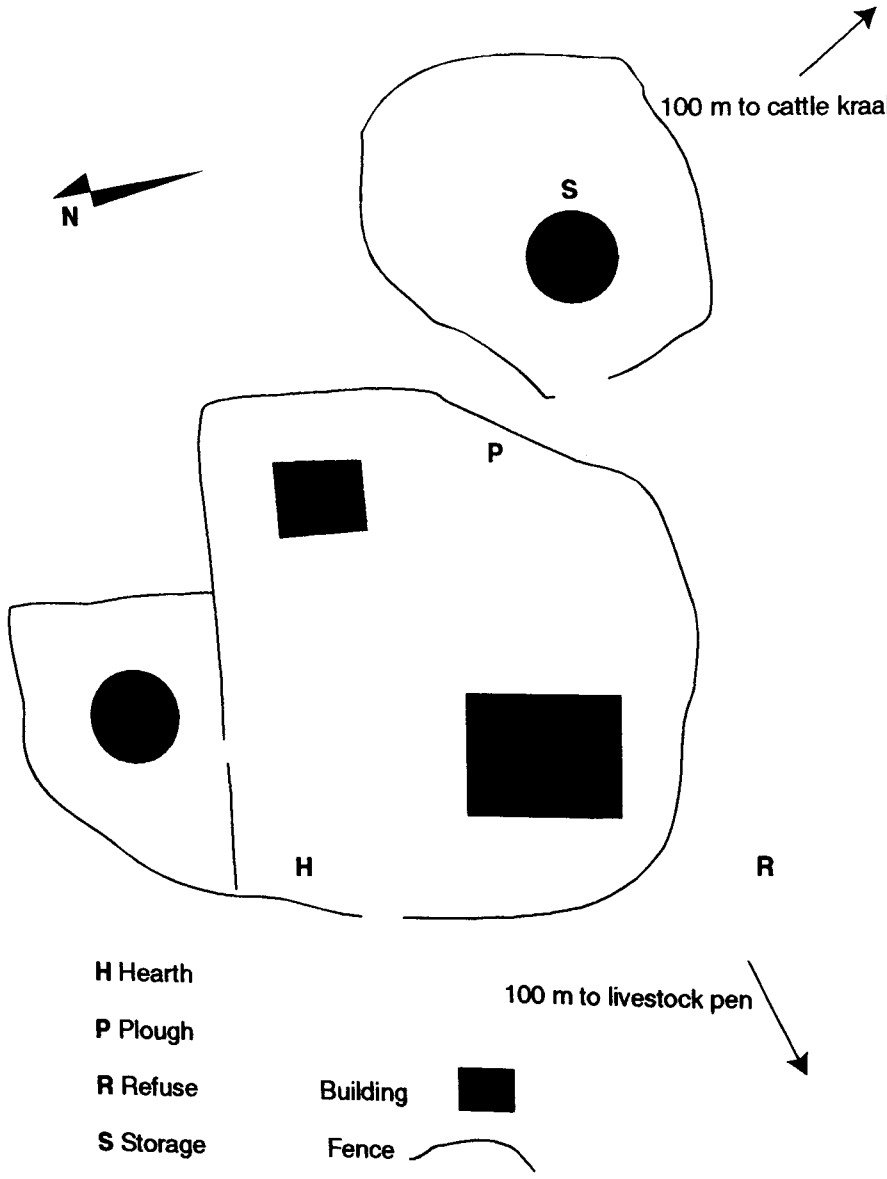

Fig. 4. Example of a cattle post settlement.