An archaeological survey of Ntsweng in Molepolole

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Ntsweng was the capital of Bakwena before they moved to Molepolole. The bulldozing of a part of Ntsweng for a sports field in 1994 inspired the mapping of the site. At Ntsweng, several clusters of ruins seem to represent different wards. Analyses of the settlement layout and soil samples suggest cattle were often kept in the center of each ward. This seems to follow the "central cattle pattern", a conceptual model for the organization of settlements among southern Bantu, where the central placement of the kraal reflects the central role of cattle in the culture and ideology of the people.

Ntsweng is a historic site located a few kilometers southeast of Molepolole in Kweneng District (Fig. 1). The area was first occupied by Bakwena, led by Sechele I, in 1864. It was abandoned in 1937 when Bakwena were forced to move to Molepolole by Kgari II, assisted by the colonial administrators (Schapera, 1943).

Ntsweng is one of Botswana's most important monuments. Contrary to the 1970 National Monuments and Relics Act, 24,000 sq m of the site were bulldozed in February 1994 to make a sports field for Sedumedi Community Junior Secondary School. A rescue project was carried out by the Archaeology Unit of the University of Botswana, with assistance from students of Sedumedi Community Junior Secondary School and Legae Academy, to salvage the damaged area. A lot of artifacts like bones, pottery, ostrich eggshell beads, metal earrings and other metal objects were recovered from the area (Borgesen *et al.*, 1994).

The inadequacy of cultural resource management in Botswana can be partially blamed for the bulldozing of Ntsweng, as it failed to provide proper delimitation of the site (Borgesen *et al.*, 1994). This inadequacy in cultural resource management extends even to archaeological sites in Dimawe, Manyana, Lose, Modipe and Domboshaba which have also been damaged.

The importance of these sites is that historically written information about Botswana's distant past is very limited. Information mostly comes from archaeological sites which need to be protected. Even though Ntsweng is documented historically, there is still more to the site which needs to be exploited archaeologically in order to add to historical information. If these sites are not preserved, historical information would be lost and we would have no history to talk about.

Ntsweng today consists of a large area covered with traces of occupation. Most notable are the patterns of stones laid on their edges to form house foundations which are still visible on the surface. The only building still standing is what used to be Sebele II's office which is at present referred to as Mmakgosi's house.

The main aim of this paper is to investigate the organization of the settlement at Ntsweng. This was done by conducting an archaeological survey of the remains of structures at Ntsweng. In particular, the survey was to assess the damage done by the bulldozer and to reconstruct the damaged area. Information generated from the survey is used to observe the settlement pattern and the site's functional and symbolic layout. The plan produced is also checked to see whether it conforms to Huffman's central cattle pattern, a characteristic of southern Bantu settlements where cattle have a central place (Huffman, 1986).

The results of this survey can be used to guide subsequent archaeological research, as what lies on the site's surface is often a general reflection of what exists beneath. Excavators can use this surface information to place key excavation units so as to test the hypotheses generated from surface data (Knudson, 1978). In this paper, I aim to address three issues. I intend to find out from the archaeological record how the settlement at Ntsweng was organized. I intend to find if the settlement pattern at Ntsweng conformed to the central cattle pattern. And with the aid of phosphate analysis and oral interviews, I intend to find out how labour was organized and space was used at Ntsweng.

Methodology

Archaeological survey is taking stock of everything that remains on an archaeological site in the form of plans, notes and photographs in as much detail as possible without excavating the site (Sharer & Ashmore, 1979). The archaeological survey of Ntsweng was done first by walking around the site to familiarize myself with the features and extent of the site. This was also done to choose an area to focus my study. The criteria employed for choosing the area to work were good preservation of stone alignments, sparse bush to allow good visibility, and a size comparable to the bulldozed area. After choosing the area, I started mapping the stones using a dumpy level. The instrument provided the bearing of the stones from the temporary benchmark we had created. A measuring tape was then used to take the distance of the features from the instrument. These measurements and angles were then plotted on graph paper.

In addition, soil samples were collected and taken to the Archaeology Unit in the University of Botswana to test their phosphate content. This was done because it is known that human activities produce phosphorus-rich organic materials which after decaying are incorporated into the soil in the form of stable phosphates. These tend to preserve for thousands of years and can be detected by chemical analysis. This technique dates back to the 1920s when fieldwork in Sweden revealed the close correlation between ancient settlements and high concentrations of phosphorus (Renfrew & Bahn, 1991). Phosphate analysis is a geo-chemical technique the main scope of which is

to localize ancient monuments not visible in a surface survey, to assist in determination of site limits and to give information about the function, activity or duration of occupation. (Bakkevig, 1980:74)

Proudford was able to estimate that activities of a population of 100 people would deposit 124 kg of phosphorus annually (Clark, 1990). Recent phosphate analyses done in England have revealed that archaeological features that remain undisturbed in the subsoil are

In the past topsoil was considered to be unstratified and hence devoid of archaeological information; it was often removed mechanically and quickly without investigation. (Renfrew & Bahn, 1991:87)

Clark (1990) says that phosphate tests respond mostly to middens, cattle pits and domestic activity especially around pits and buildings. Soil samples from Ntsweng were collected to try and locate such areas and also to assess the oral historical data collected plus two control samples from off the site. The control samples were taken to detect the natural content of phosphate in the soil. The collection of soil was done by digging about 100 g.

A method known as spot testing was employed to test the phosphate content of the soil. This was done by placing 0.5 g of soil from each bag on a separate filter paper. This was

then followed by adding two drops of amonium molybdate to the soil and allowing it to spread into the filter paper. Two drops of ascorbic acid were then added to the soil solution and left for three minutes to dissolve on to filter paper. It is important to have the chemicals reacting within a given time to avoid over-reaction. The soil was then removed from the filter paper which was examined. Sixty two percent of the filter papers showed no sign of blue colouring which means that the soil was $<0.08 \ \% P_2O_5$. Twenty three percent had a trace of blue up to 2 mm from the soil, which means that the phosphate content was $0.08 - 0.15 \ \%$. Nine percent were weak (blue circle, with rays merging) marking phosphate content of $0.15 - 0.8 \ \%$. And finally, 5 % were positive (distinct blue band 10-15 mm in diameter) marking phosphate content of $0.8 - 0.9 \ \%$. The control samples showed no phosphate content which showed that naturally the soil contained no phosphorus.

After collecting the soil samples, oral interviews were conducted in Molepolole. These were used to help interpret the archaeological information at Ntsweng. A prepared questionnaire was used to guide the oral interviews (see Sekgarametso, 1995). A total of 21 informants were consulted in individual and group interviews. The group interview was conducted amongst a group of women known as *Matsosa-Ngwao*. These women are volunteers who have dedicated their spare time to the promotion of Kweneng culture. Thus they are mostly found at the Kgosi Sechele I Museum or at the *kgosi-e-kgolo's kgotla* assisting where help is required. The information gathered from these women was checked by conducting individual interviews.

Literature consulted was found at the National Museum, Phutadikobo Museum, Kgosi Sechele I Museum, National Library and University of Botswana Library. These books gave historical information about Bakwena and the stages that led to the abandonment of the site at Ntsweng. Other more general books about settlement studies conducted outside Botswana were also consulted. Problems encountered during the research were mainly that the instrument I was using demanded a lot of labour. Thus, I spent more time in the field than I had anticipated. The more efficient Electronic Distance Measurer (EDM) was not working.

Literature review

Archaeological work done in Botswana is very limited, especially on historically documented sites. More historical archaeology has been done in neighbouring South Africa and it is information from these sites that would be most useful for comparsion with the settlement patterns at Ntsweng (e.g., Pistorius, 1992). This is because the occupants of Ntsweng are said to be part of the Sotho-Tswana group which came from South Africa (Ngcongco, 1982).

More broadly, comparative studies on settlement patterns and use of space have been done worldwide and especially useful to my study is a book edited by Kent (1990a) on domestic architecture and use of space. The contributors provide very important and original insights into the relationship between the built environment and the organization of space, though from different backgrounds. In their studies the fundamental role of culture as expressed in technology, symbolism, socio-political organization and economics is explored. This is done with the aid of case studies of the past and present drawn from various countries. Especially useful information in this book was Lawrence's study on urban housing in Switzerland where he argues that when studying settlement patterns one should not look only at specific buildings but also look at the diverse actors involved with their design (Lawrence, 1990). Kent's (1990b) cross-cultural study of segmentation, architecture and the use of space saw Batswana as segmented into gender and age distinctions when observing the relationship between use of space and domestic built environments.

Information regarding survey techniques was available from a number of sources including Sharer & Ashmore (1979). Renfrew & Bahn (1991) and Knudson (1978). They provided the necessary details including case studies in which archaeological surveys were done and interpretation of the results was given. Literature consulted on phosphate analysis includes Nunez (1990), Shackley (1981), Bakkevig (1980) and Clark (1990). These provide different ways of conducting phosphate analysis and include case studies. Particularly useful was Bakkevig (1980) who points out some of the problems in phosphate analysis which have been done in the past and attempts to correct the mistakes.

Huffman (1986) has proposed a pan-southern African settlement system to explain southern Bantu settlements. This has been termed the southern Bantu cattle pattern or the central cattle pattern. This pattern, according to Huffman (1986:289) is "...found among Bantu speakers in southern Africa who are predominantly partrilineal and who exchange cattle for wives". He further says that

attitudes about economy, politics and religion result in a specific arrangement whereby an outer arc of houses, arranged according to some alternating system of status, surround a central zone that contains cattle byres, grain storage facilities, elite burials and the men's court. (Huffman, 1986:289)

The settlement, says Huffman, was arranged in such a way that the front was public and reserved for dangerous activities and the back was sacred and private. He further says that the settlement pattern is governed by attitudes towards status. Using this model, I will investigate whether Ntsweng corresponds to Huffman's central cattle pattern.

Pistorius' (1992) study of Bakwena settlement pattern near Rustenburg was especially useful. He conducted an ethnoarchaeological study in which historical, ethnographic and archaeological evidence was combined to interpret the settlement pattern at Molokwane. He further attempted to explain the way of life of the inhabitants of the village. Based on ethnographic and archaeological information obtained, Pistorius (1992) says that the settlement had once been that of Bakwena. He found numerous wards occupied by related patrilineages (masika) and also found that the settlement pattern conformed to the central cattle pattern defined by Huffman (1986).

McDonald (1940) conducted an ethnographic study of Bakwena material culture and architecture immediately after the abandonment of Ntsweng. Although his study mainly compared the Bakwena of Molepolole and those in South Africa, he provided useful information about the social, economic and political organization of Bakwena at Ntsweng. Larsson & Larsson (1984) documented traditional Tswana housing in Botswana. Their main interest was building methods and they observed the layout of dwellings together with alignments at Ntsweng.

Archaeological work done on historically documented sites in Botswana include Pahl's (1971) limited investigation of Motsenekatse Hill, ongoing research at Modipe Hill in Dimawe by the Archaeology Section of Phuthadikobo Museum, work done at hill by Segobye (1994). In addition, I looked at van Waarden's interpretation of granaries at Waarden (1989), and her excavations at Leeukop in the North East District. At these sites van At Vumba she agrees with Huffman's (1986) central cattle pattern, saying that "...oppositions of male and female, pastoralism and agriculture, ancestors and descendants,

rulers and subjects, cold and hot..." are represented in the spatial oppositions of the settlement plans (van Waarden, 1989:133). She says such cognitive and conceptual structures are present in all cultural behaviour. She also says that division of labour at Leeukop was along sex lines rather than those of age or status, thus suggesting differences in male and female activity (van Waarden, 1980).

Caister (1980) says that Iron Age settlers had occupied the Kweneng area by the middle or late first millennium. The major phase of occupation of the Molepolole area probably began early in the second millennium and is so far represented by 24 sites distributed from Dithejwane in the west to at least as far as Gaborone in the east. Caister mentions the presence of *Cenchrus ciliaris* and stone walls on hill top sites around Molepolole and Gaborone. The stone walls are said to have been built by the Nakedi and Kgwatheng who were found occupying the Molepolole area when Bakwena entered present day Botswana. His observations deny the fact that Bakwena could have been involved the building of the stone walls. He further says that sites from the 1820s onwards were chosen for political and military advantage during the Mfecane wars. This is why we find most of the sites located on hilltops. The historical background of Bakwena and the causes and consequences of forced abandonment of Ntsweng in 1937 are well documented (Schapera, 1943, 1980; Okihiro, 1973, 1976; Ngcongco, 1982). These sources also describe subsistence amongst Bakwena who inhabited Ntsweng.

Historical background

Bakwena are part of the Sotho-Tswana groups that are said to have emerged in the period AD 1000-1500 (Ngcongco, 1982). According to oral traditions, Bakwena trace their origins to Malope, the leader of the Baphotu Kingdom in the early 10th century. The Baphotu Kingdom was situated near the source of the Odi or Crocodile River to the northwest of modern Pretoria (Ngcongco, 1982). Malope is said to have had two children, Mohurutshe, a daughter and Kwena, a son. These are said to have formed the Kwena-Hurutshe group but eventually split with one group going with Kwena and assuming the name Bakwena, and the other with Mohurutshe and assuming the name Bahurutshe.

Bakwena of Molepolole today trace their origins to Bakwena ba-ga-Mogopa in the Rustenburg District where they had lived until the death of Tebele, when his son Mogopa broke away from his people and settled at Mabyanamatswana (Swartkoppies, near Brits). Among Mogopa's people there was a ward under Kgabo who was Mogopa's son from his junior house. Periods of drought and moving from one place to another resulted in Mogopa's people scattering all over. When he heard that at Mabyanamatswana rain had fallen and there was plenty of food, he decided to gather his people and go back. Kgabo is said to have promised to follow later, but instead he is said to have declared himself independent and crossed the Marico river into what is now Botswana, settling in present day Kweneng District (Schapera, 1980). A further split occurred amongst the remaining Bakwena at Mabyanamatswana due to drought. A group of Bakwena Bamogopa and Bakwena Bamodimosana moved away and it was this group who built and occupied the site of Molokwane that has been investigated by Pistorius (1992).

Bakwena ba-ga-Kgabo first settled at Dithejwane Hill where they encountered earlier inhabitants of the area, the San and Bakgalagadi. These were "...expelled, driven west into the Kgalagari and maintained under a symbiotic client relationship by the baKwena." (Okihiro, 1973:104). During this period Bakwena are said to have been very rich owning cattle and sheep. They grew pumpkins, beans and other vegetables. This state of affairs went on until the death of Motswasele II (Okihiro, 1973). After this Bakwena are said to have experienced a period of raids from Sebetwane and Mzilikazi who were at the time terrorizing Batswana by attacking them and stealing their cattle. These raids scatterd Bakwena and they were regrouped by Sechele I after Mzilikazi had been defeated at Lephephe. Sechele I had before been captured and released by Sebetwane (Sillery, 1952).

English traders and missionaries entered Bakwena territory at the time of Sechele I's reign and he was the first Bakwena chief to be baptized by Livingstone. Under Sechele I Bakwena are said to have increased, absorbing refugees of both Tswana and non-Tswana origin and placing them directly under the authority of the royal ward. By so doing Sechele is said to have been

able to strengthen his bogosi and use it to capitalize on the growth in the trans-Kgalagadi trade. After 1850 the BaKwena became the most powerful and prosperous morafe in the region. (Morton et al., 1989:64)

From Lephephe, Bakwena moved to several areas. In 1852, whilst staying at Dimawe, they were attacked by a Boer commando (Ramsay, 1991). Having defeated the Boers, Sechele I moved his capital first to Dithubaruba and then to Ntsweng in 1863. He was thus the first Bakwena ruler to settle at Ntsweng, and he was well established and prosperous.

Sechele I had three sons: Kgari, Sebele and Tumagole. When he died there was a succession dispute amongst his people. Kgari was the first born child from the first house but his mother was a Mongwato. Sebele was the first born child from the second house and his mother was a Mokwena. This divided the Bakwena, with Sebele's supporters saying that they did not want to be ruled by Kgari as he was a child born of a non-Mokwena mother. For this they referred to him as *setlogolo-sa-dichaba* (child born of a non-Mokwena mother) (Okihiro, 1976). Another faction supported Kgari as the rightful heir because he was born into the first house. Unfortunately for him, Sebele managed to take over and Kgari and his people were driven away from the capital (Okihiro, 1976). It was during Sebele I's reign that Britain wanted to declare a protectorate over the land of Batswana. Sebele is said to have been against the idea and throughout his reign he is said to have prevented British interference in Bakwena affairs. In 1896 and 1899

rinderpest, drought, and disease destroyed stock and decimated the BaKwena. For much of this period Sebele abdicated his responsibilities by retreating to his cattle post and rejecting British offers of food. (Morton *et al.*, 1989:110)

Sebele I was succeeded by Sechele II who is sometimes referred to as Kealeboga. A conflict resulted when Sechele II sanctioned the Anglican Church. As a result, LMS missionaries are said to have

supported the dikgosana in a campaign to discredit him before the British. The resulting conflict split Molepolole into the Ntsweng and Borakalalo factions and occasioned the first BaKwena Tribal Council. The council, which was controlled by Sechele's sibling rivals, Kebohula and Moiteelasilo, soon lapsed as Sechele II asserted his authority by promoting junior headmen into powerful positions and reviving bogwera. (Morton *et al.*, 1989:112)

Sechele II moved his people back to Ntsweng from Borakalalo where most of his opponents government camp (BNB 9719:3).

At the time of Sechele II's death there was a bitter division between the residents of Ntsweng and Borakalalo. This disturbed the reign of Sebele II (BNB 9719:14). When Sebele II took over he continued practicing *bogwera*, rainmaking and polygamy which

offended the Christians and angered the colonial administrator (Morton & Ramsay, 1990). Sebele II is also said to have promoted commoners. This threatened the position of the elite. These *dikgosi* accused Sebele II of being backward. The colonial administrators accepted these accusations and supported petitions brought forward by Sebele's opponents. These opponents, who were mostly from Borakalalo, were questioning Sebele's ability to judge cases and govern without their advice (Morton & Ramsay, 1990). They wanted Sebele II to move from Ntsweng. Sebele, however, managed to defeat his opponents (for details see Morton & Ramsay, 1990).

After this he built a new "Bakwena National Office" next to his *kgotla*. Although Sebele II was seen by his opponents as stubborn, during his reign he is said to have

imposed strict standards on the building of houses and fences and had streets kept clean and well maintained. Rubbish pits replaced garbage heaps. He told his people to bury their dead in the graveyard rather than in their lolwapa. New roads were built, and dam construction was attempted (though unsuccessfully). Sebele also sanctioned youth programmes in the form of Life Brigades for boys and girls. And while in power he welcomed the establishment of the Scottish-Livingstone Medical Hospital. (Morton & Ramsay, 1990)

In spite of his efforts his opponents continued to accuse him of being a neo-traditionalist. Where Sebele II's opponents failed, the colonial administration succeeded: he was detained without trial and exiled to Ghanzi. His brother Kgari was then made chief and built a house, with Bakwena money, at the site of the present Bakwena main *kgotla* in Molepolole.

Kgari met many problems during his reign. The colonial administrator reported to his seniors that Kgari

complained that the people of the hill [Ntsweng] considered themselves as a separate tribe and with the present position of having two villages in Molepolole, he had no control. (BNA S.260/13)

The people of Ntsweng did not recognize Kgari as chief. The area became a center of resistance as a movement was established to have Sebele II back as the rightful heir to the throne (Ramsay, personal communication). The colonial administration responded to Kgari's complaints by asking him to

inform the brothers and other headmen that the chief would have the support of the government and it is expected that they will carry out his orders, at the same time warning them that if they do not, other measures will have to be considered. (BNA S.260/13)

The people of Ntsweng still refused to move from the area and it is said that the only neighbours Kgari had were the tax collectors. The government then decided to use force and in 1937 houses were knocked down at Ntsweng including the house of Sechele I (Morton & Ramsay, 1990). Some of the Ntsweng residents still refused to move and having given a final warning the colonial government decided to take the matter into their own hands. In April of the same year those who refused to move out were jailed (BNA S.260/15/2). This punishment is said to have had an immediate effect and in May the building of houses near Kgari was in full swing.

Sebele IIs mother, Phetogo, is said to have refused to move and she remained in Sebele's National Office which is the only building still standing at Ntsweng. It is now referred to as *"ko ga Mmakgosi"* by Bakwena. The building is situated next to an area which used to be the royal kraal at Ntsweng but is now the royal cemetery (Morton & Ramsay, 1990).

Ntsweng households

The basic architectural unit at Ntsweng was the house. These were recognized by stone alignments that according to oral informants marked the foundation of houses and courtyards (*malapa*). In a few exceptional cases the remains of house walls could still be seen standing. According to Schapera & Comaroff (1991:33), a Kwena household "...has its own compound (*lolwapa, lapa*) consisting of one or more huts and granaries situated within a courtyard surrounded by ...a wooden palisade." These houses, as Kent (1990b) says, are separated according to their activities. Within a household there is said to be the front *lelapa* and back *lelapa* (*segotlo*) (Fig. 2). The front *lelapa* consists of *ntlo ya lelapa*, the main house where the owner sleeps. This is sometimes shared with small children and for cooking in bad weather. This house normally has a courtyard (*lelapa*) in front where visitors are received and cooking and eating may be done here. Schapera & Comaroff (1991:33) say:

adolescent children of both sexes may live together in another hut, or share one with an older female relative, and unmarried adults usually also have separate huts, one for the people of each sex.

This adolescents' house is normally found on the side of the *ntlo ya lelapa*. It is usually refered to as *ntlwana ya lelapa* because it is normally where children sleep and it sometimes has a *lelapa*. This *lelapa* may be adjacent to the *ntlo ya lelapa*. On the side may be a house which is referred to as the *loobo*. This house is mostly used as a cooking area and sometimes it is built with a small wall forming a circle and the roof is held up by supports leaving an open space of about a meter between the roof and the wall to allow smoke to go out easily.

At the back *lelapa* (segotlo) is normally the sesoa. This house is used for grain storage. According to *Matsosa-Ngwao* other household equipment such as building materials may be stored in the sesoa and sometimes small children or the very old in the household may use it as a sleeping area. There is also said to be a serobe at the back *lelapa* (segotlo) where lambs and kids are kept during the day, when the adult sheep and goats have gone out to graze. In the evenings they are taken back to their mothers at the central kraal to sleep. A small garden may also be made where *ntshe* (sweet reed), *mabele* (sorghum), *dinawa* (beans), *magapu* (watermelons) and other crops were planted to be eaten by the family when produce at the lands was not yet ready. If there were any chickens in the household they normally slept on wooden palisades that made up the fence, or in areas made for them in hut stoops.

Building, as mentioned by McDonald (1940) and Larsson & Larsson (1984), usually commences after the harvest in winter. This is done to prepare for the rainy season and building is done by both men and women. The *dagga* application and decoration is done by women and the framework built by men. According to Bakwena tradition, before a hut is built, certain ritual practices are performed. This is done to protect the household from process wooden pegs or animal horns smeared with medicine are buried in the area where the hut is to be built.

According to Larsson & Larsson (1984) early records have it that the circular hut is the oldest shape of traditional Tswana houses. At Ntsweng the most common hut shape was the circular one. According to McDonald (1940:33), one starts by marking

a circle with a string or rein, one end of which is attached to a peg knocked into the ground and the other end attached to another peg which is drawn at full length around the first, in this way describing a circle.

After marking the circle, a hoe or a spade is used to mark clearly the circumference of the circle. Stones about 40 x 30 cm were then arranged on the circle as the foundation of the house. This allows for the building of the wall. All this is done by women and the wall is made by mixing clay with cow dung. The mixing with cow dung, the people say is to harden and strengthen the wall and to guard it against the effects of rain and the ravages of termites (McDonald, 1940:34).

After the cow dung is well mixed with the clay, bricks are made. These bricks are then used to form the wall. They are not left long enough to dry so they are easily compressed together to form a circle. This is all done using hands. When the wall has reached the desired height, men go out into the bush to cut supports for the roof (maotwana) and sometimes for the center pole (pinagare) of the hut, if it is to be used. After the wooden framework (go tlhomesa) is constructed by men the house is then thatched with grass collected by women. Thatching, however, can be done by both sexes. The same technique of building a hut wall is applied to building the *lelapa*. The *lelapa* walls are not round but angular. In this case the shape is just marked on the ground using a stick and then stones are used to mark boundaries.

At Ntsweng there were sometimes double lines of stones marking foundations. According to oral information the second line of stones served as a foundation for stoops (maribela / direpodi). Maribela are made to prevent erosion of the walls and they are also made for people to sit on. Sometimes in the foundation of huts square shapes on corners of malapa (plural of lelapa) were made to provide seats. Smooth round stones known as titelo were found at Ntsweng. These stones are said to have been used to smoothen floors of houses and walls after they had been plastered. A pavement of potsherds was found at the entrance of one of the huts. These were placed to prevent the floor eroding when it rains and they also served as decoration.

Ntsweng has three types of houses. There is the circular shape which is the most commonly found. This is a typical Sotho-Tswana type of house. The diameter of these houses ranged between 4.4 - 4.8 m. There was, however, one house that had a diameter of 6.2 m. There is also the semi-circular type of house which according to one of my informants, Mr. R. Pheto, was invented by Bakwena and later spread to Bakgatla. Semicircular houses mostly had a radius of 4 m. The rectangular type of house was adopted after the coming of the European settlers (Schapera, 1943; Larsson & Larsson, 1984). It was not common at Ntsweng: according to Matsosa-Ngwao this type of house marked status. This type of house was built with a concrete foundation in front and on the sides. This building material was not commonly used on the site. According to oral information, the rectangular houses at Ntsweng were those of the kgosi-e-kgolo and a missionary by the name of Konobole (Grobler), who owned a store at Ntsweng. Circular structures about one meter across were found beside the house. These structures, according to oral information, are said to have been bases of difalana (granaries). Similar structures have been found by others across southern Africa (Maggs, 1976; van Waarden, 1989; Campbell, 1991; Pistorius, 1992; Segobve, 1994).

In the houses from cluster 1 (Fig. 3), 75% had no sign of phosphates, 18% had trace signs, while only 7% were weak. Out of 24 *malapa* there was only one *lelapa* (structure 5) that had a positive sign of phosphorus. Most *malapa* had a trace of phosphorus. There was, however, a distinct relationship between the houses and *malapa*. The higher phosphate

content within malapa probably resulted from different activities that took place in them. In the houses there was less activity. Structures 32, 33 and 34 were rich in phosphate content. These were close to each other and on these structure was a recent goat pen that could have accounted for the high phosphate content in the area.

As recognized by van Waarden (1989), labour amongst Bantu-speaking peoples is divided along sex lines rather than age or status. This is characteristic of Bakwena. There were also servants (malata) who were not given equal status in society to Bakwena. Within a Kwena household the man is the head of the household but most of the activities within the household are carried out by women. According to Matsosa-Ngwao women are responsible for feeding the family. They work in the fields and this produce was used to feed the family and maintain the children. Water was fetched by women at Ntsweng from the Molepolole river which flows through the modern settlement and is said to have been perennial in the 1920s. To supplement this water source European settlers introduced boreholes and wells which the people of Ntsweng were given access to (McDonald, 1940).

Men were responsible for looking after domestic animals and hunting. Domestic animals included cattle, donkeys, horses, pigs and goats. According to oral information pigs and goats were kept in small numbers. They were mostly looked after by small boys under the supervision of their parents. Political and legal affairs were attended to by men and final decisions for the household are said to have been made by men, sometimes in consultation

Subsistence activities

A lot of cattle bones were found at Ntsweng from the bulldozed area. This is because Bakwena attached much importance to the keeping of cattle as they were the major sign of wealth and they were used for transport, ploughing, bridewealth and for ritual practices such as sacrifices to the ancestors (badimo) (McDonald, 1940). Bakwena kept cattle at cattle posts far from the villages. These cattle posts were sometimes over 50 kilometers away from the village (Larsson & Larsson, 1984). Few were kept in the settlement at the central kraal of the kgotla they belonged to. These cattle consisted mostly of heifers which were used for transport and a few female cows which provided milk for the kgotla.

Donkeys were penned with cattle at the central kraal. These were often kept in small numbers for riding or when driving cattle. According to oral information, donkey carts were only introduced after the arrival of Europeans. Europeans introduced horses to Ntsweng and these were owned by the rich and were a sign of status. According to McDonald (1940) both goats and sheep were kept though goats were few. Chickens were also kept. Pigs were kept but for hygenic reasons were later prohibited by law at Ntsweng

Evidence for agricultural production includes grinding stones which were mostly found at a distance from the houses. According to oral information grinding took place at the segotlo, but when performed communally it took place at the kgotla. When these stones were not in use they were stored in the segotlo leaning against wooden palisades that made According to Mr R. Pheto, grinding stones found outside households can be said to mark where wooden palisades were. Part of an old plough was found at Ntsweng as well. These ploughs were pulled by oxen. According to McDonald (1940) agricultural lands were as much as 20-30 miles away from the settlement and this resulted in people having homesteads at the lands which were mostly used during the

Oral information has it that agricultural production at the fields was not undertaken for trading purposes but for feeding the family (Matsosa-Ngwao, personal communication).

These people did not have large fields but they were normally big enough to feed the family. Crops were normally all planted in the same field. These fields were used yearly and the reason why they managed to produce yearly was probably because the planting of crops together in one field resulted in minerals absorbed from the soil by crops such as sorghum being retained by others crops such as beans. In this way the fertility of the field was maintained and leaching of the soil's nutrients did not occur.

Crops planted were sorghum (mabele) which was the staple crop, beans (dinawa) water melons (magapu) and sweet reed (ntshe). Other crops like maize, pumpkins, tobacco and tomatoes were introduced by Europeans. Bakwena are said to have had problems with such crops as they were not suited to local climatic conditions (Nangati, 1980).

The dominance of cattle bone in the collection of artifacts from the bulldozed area indicates that hunting amongst the people of Ntsweng did not play a major role in their subsistence. However, evidence of other bovids has also been found in the assemblage. Hunting was carried out by men and it was done for subsistence. With the coming of European hunters and traders this changed. Hunting was then done for trading. Such items as ostrich feathers, ivory and skins were traded for such goods as tobacco, beads, guns, wagons and European clothing. As found by Nangati (1980:141) "In the absence of money, exchange took the form of barter, the rate of exchange being necessarily unequal."

Nangati (1980) also found evidence of Bakwena's trade with the Indian Ocean coast prior to the 1840s. There also existed trade with other Batswana in the Transvaal. Nangati (1980:140) says that

Although there is as yet little archaeological evidence available regarding this trade, it appears from the observations of early travelers that a 'hunting economy' for trade with neighbours already existed in Kweneng prior to world market trade, and that the later development of trade with the Cape Colony was merely an extension of existing trade patterns.

One of the existing trade patterns was that of Ba-Kgalagadi and Bakwena. Skins of animals were obtained from Ba-Kgalagadi people and distributed amongst specialized kaross makers by shopkeepers. After being converted to mats and karosses they were traded outside Bakwena territory (McDonald, 1940).

Beads, pieces of metal pots, pieces of porcelain and metal saucers have been found at Ntsweng. These, according to oral traditions, were obtained from stores which had been established at Ntsweng and Borakalalo by the Europeans. Such items as cattle were collected by the people of Ntsweng and traded for beads, salt and sweets at the stores. The existence of these stores led to competition between foreign goods and indigenious manufacturers. As more and more foreign goods came in, indigenously manufactured goods were abandoned and ended up no longer being manufactured in large numbers. Wooden and clay pots were replaced by metal pots.

After the arrival of the Europeans some form of trade with grain and cattle is said to have taken place. These white traders are said to have stored grain in large containers and when drought came they were able to sell it to the people of Ntsweng. This changed the idea from producing crops for subsistence at Ntsweng to producing for commercial purposes in order to obtain foreign goods. This type of trade was, however, monopolized by the whites and Asians.

But in the Kweneng Sebele did manage to exercise some control by regulating cattle and grain sales, investigating cases of cheating, and getting the people to boycott goods of poor quality. (Morton & Ramsay, 1990:36)

Settlement patterns

In total an area of around 56,000 sq m was mapped at Ntsweng. The mapped area revealed settlement clusters which could be distinguished by the direction in which the houses were facing. These houses were all built forming a circle. In the center of each circle there was no evidence of structures (Fig. 4). There were a total of five clusters mapped and they all conformed to the same pattern, except cluster 2 which formed a semi-circle. A similar kind of pattern is apparent in historical photographs which were taken at Ntsweng before the settlement was abandoned (Fig. 5). Unfortunately, neither the orientation nor the dates of these photographs are known. These makgotla which were photographed were not all of the same size as is also evident from the plan.

Cluster 1 (Fig. 3) has thirty-six distinguishable houses. The shapes of the houses are predominantly circular with a few exceptions which are semicircular in shape. It was difficult to determine from the ground or from the recorded pattern what structures 32 and 33 were, but behind these was a hut with a *lolwapa* (34). The hut *lolwapa* had part of the wall still preserved which was made from the traditional mixture of clay and mud. 33 and 32 in the southern part are bordered by a long line of stones which had some wall still standing on the eastern side of 34. Leaning against the line of stones was a heap of stones forming a rectangular shape.

The thick lines mark the pattern made by big boulders that were outside the cluster. We assumed that they could have marked the boundary of the cluster on this side. Right behind this boundary was what looked like a watercourse. From the southern and western edge of the cluster there were natural lines of stones that joined the hills and all the structures found within these lines of stones were considered part of cluster 1. Artefacts were quite scarce in the area. At 39 a metal rod and a few pieces of pottery were found on the surface. The soil at the central space was quite ashy. Holes which were recently dug and left uncovered stones were found on the western side of the cluster as marked on the map.

Cluster 2 (Fig. 6) forms an arc around a central space. On the western side the cluster is separated from cluster 1 by a small water course. It was on this side along the banks of the accumulated by running water. It was not particularly clear from the archaeology why this predominantly semicircular. Also the shape of cluster 2 houses were

It was not particularly clear what marked the boundary between cluster 3 and cluster 2, but we could distinguish the difference between the clusters by the different direction the huts in cluster 3 face (Fig. 7). Most of the structures built were facing the house marked 64 which was square and had a concrete floor. There was also in this settlement the central *lolapa* was in the front facing the central space and one was at the back. Behind 53 was an broken bottles, broken metal pots and the soil was also ashy. Behind 89 was a large space 84 had part of its wall still standing.

Cluster 4 (Fig. 8) also had structures built forming a circle with a central space. The walls of 95, 96, 97, 98 and 99 were unusually built joining one another. This formed a very heap that looked like a midden. The soil was ashy with broken pieces of pots, cups, bottles a line of big natural boulders.

Cluster 5 also formed a circle of huts with the central space (Fig. 9). This area was not completely mapped but was partly recorded to indicate where cluster 4 ended. It was, however, not clear why there was such a big gap between structure 127 and 128. In this gap there were no distinguishable structures, but on either side the structures were facing towards the same central space.

Settlement at Ntsweng was governed by a specific attitude towards things. Oral information has it that the central space in the clusters was an area in which cattle of the settlement unit known as a kgotla (ward) were kept. In this area there was the central kraal where cattle of all households were kept. The kind of cattle kept in these kraals were dipholo (oxen) and maradu (adult female). Dipholo came in when they had a job to do but they spent most of their time at the cattle post. Maradu were kept as a source of milk for the kgotla. Attached to the central kraal was the kgotla (forum, meeting place). According to Maggs (1976), the kgotla was where men socialized as well as where legal and administrative matters were discussed. Visitors were entertained there and their news heard and discussed. Various types of manufacturing activities were carried out at kgotla, especially the processing of skins and hides by men. The central area was mostly associated with men; they spent most of their time here and were ultimately buried there. At the periphery were households which were associated with women and where they were buried.

According to Mr S. Masimega, within the central kraal there is said to be a path that passes across the ward through the central kgotla. This path is used by cattle and people entering the kgotla. The building of the kraal is said to be associated with the kgosi's (chief, headman) house. When settling in an area, the first person to choose an area to have his house is the kgosi. It did not matter which direction the kgosi wanted to face. The next persons to choose an area to settle were the uncles. This was done by the oldest uncle settling on the right and then younger ones on the left of the kgosi. According to Mr R. Pheto, the idea was to have the kgosi in the center of his uncles. After this, on the right, the sons in the kgosi you settled on the left. When everybody was settled, the central kgotla and kraal were erected. The kraal was built facing the kgosi 's house. This was so that when entering the village, if you knew how the settlement was structured it was always easy for you to know where the kgosi is house was.

...it is appropriate to restate that buildings embody human intentions; therefore, to understand the development of residential environments it is inadequate to study only extant dwelling units. The scholar must analyze not only specific buildings but also the values and intentions of diverse actors involved with their design... (Lawrence, 1990:91)

According to Schapera (1943) members of the same ward or family group were expected to live together in the settlement and no man could build a home where he pleased nor change residence without the chief knowing. The layout of the *kgotla* enabled the *kgosi* to recognize immediately those who would not conform to the pattern and necessary action could easily be taken against such a person. Hence the pattern established a social order.

The soil samples for phosphate analysis were collected from cluster 1. The open areas which separated structures mostly showed no sign of phosphorus. An exception was for the area marked x (Fig. 3), where a positive presence of phosphorus was found. This area is located at the central space which according to oral and historical data should form part of the central kraal. In this area there was also known to have been a *kgotla* were administrative and judicial proceedings took place. A fire was normally made early in the

morning and men would sit and warm themselves. This resulted in hearths being made where ash would be formed making the soil rich in phosphorus. The higher phosphate level of the samples taken here is consistent with this interpretation.

As mentioned earlier, grinding stones were placed leaning against wooden palisades thus marking the boundary of households. The grinding stones found near structures 15 and 16 could have marked the boundary of the household. The dominance of circular huts could possibly mean that besides the preference for that shape, the cluster was old and thus the shapes of houses that came later did not influence the cluster. It was, however, difficult to determine what the pile of stones near 34 could have been. This, I think, can only be determined by other archaeological techniques like excavation.

Cluster 2 was a very small kgotla consisting of about 12 houses. As already mentioned, there was no distinct boundary between clusters 2 and 3, except that the houses faced different directions. According to oral information, if a kgosi had two wives, often the senior son of the second lelwapa could not build his house in the same kgotla as his father. In this way he was given permission to start his own kgotla. Looking at the settlement pattern, it is possible that cluster 2 was a continuation of cluster 3, as the area for the kgotla had already been filled up, or that junior sons in the household had moved out of the kgotla and established their own at cluster 2.

According to Mr T. Diago and Huffman (1986), middens are always located outside the *kgotla* near the entrance to the *kgotla*. This is said to have been so that when cattle go into the kraal they could pass through the midden and have their legs covered with ash (Huffman, 1986). This ash is said to have aided in the killing of ticks found on cattle hoofs. At cluster 3 what looked like middens were not formed at the entrance to the *kgotla*. This, I think, was not possible because of lack of space and as a result the middens were placed at the back of households as is the case in this *kgotla* as well as with clusters 4 and 1.

The joined *malapa* in cluster 4 are not easy to understand. According to my informants, wives of the same man could not stay in the same *lelapa* so we cannot say that they could have represented houses of the wives of one man (*Matsosa-Ngwao*). It was, however, said that they could have been joined to show how closely related these people were.

Huffman (1986) interprets Bantu settlements in binary opposites. He says that in such settlements the front was seen as public and thus reserved for dangerous activities whilst the back was private and sacred and used as an area where chiefs would stay. This apparently did not have his house at the back in a household. The back, as already stated, was like a storage area. As Larsson & Larsson (1984) say, the front of the households were normally was not at all sacred.

Huffman (1986) further argues that huts were arranged with the right half for male and the left half for female activities. According to my informants, arrangement of houses were such that wherever the door opened, behind it would be the sleeping area. The far end of of Ntsweng were partrilineal and paid bride wealth (*bogadi*) in marriage transactions. For a Huffman (1986) says this settlement pattern was organized such that cattle were in the cattle were kept at the central kraal and where they were well protected as they were the The zettlem.

The settlement pattern at Ntsweng can be seen to have been organized along structuralist lines. Men who were associated with cattle, were buried at the center where cattle were kept. Women were associated with the periphery which was the household and so when they died were buried there. Also in households there was the back *lelapa* which was associated with dirt and the front *lelapa* which was associated with cleanliness.

Settlement at Ntsweng was hierarchical. It was divided into *makgotla* which were all under one leader, the *kgosi-e-kgolo* (paramount chief). The type of social organization that existed at Ntsweng is what Kent (1990b:139) classes as category IV society. These, she says, had

hereditary chiefs with formal power and inherited sociopolitical stratification in the form of classes. They often also have hierarchical individual ranking. These societies are usually characterized by full-time economic and sociopolitical specialization. (Kent, 1990b:139)

According to Mr S. Masimega chieftainship amongst the Bakwena was hereditary and the heir to the throne was usually the first born son of the senior house. At Ntsweng four important *makgotla* besides the *kgosi-e-kgolo*'s are known to have existed. These were Difetlhamolelo, Senyeima, Maribana and Mollale. These *makgotla* were said to have been started by Sechele when he first settled at Ntsweng and they were named after the four men who wandered with him in the wilderness when he was homeless.

Besides these *makgotla* there were others namely, Maunatlala, Mokgalong, Segosebe and Ntloedibe. Ntloedibe, however, was said to be the most important of the four (recording of Ratlou Sebetlela). This is because Ntloedibe is said to have been older than Sechele, but because his mother was not married by traditional expectations he could not be the chief of Bakwena. Oral information has it that during the first harvest (*go loma*) Ntloedibe is said to have had first right to the tasting of the produce and from then on his *kgotla* was given this right and not the leadership right. Because of this, his *kgotla* was treated as the most important *kgotla* of the other *makgotla* by the *kgosi-e-kgolo*. The *dikgosi* of the four *makgotla* according to oral information had small *makgotla* under them. When a message was passed from the *kgosi-e-kgolo*, it was the responsibility of the leaders of the eight *makgotla* to pass the message to the small *makgotla*.

The social organization at the family level was that the family was represented by the man at the family *kgotla* where matters were discussed and then the *kgosana* (headman) of the *kgotla* would take the message to the *kgosi* (chief). From here the *kgosi* would take the message to the *kgosi-e-kgolo* where it would finally rest. This was also how court proceedings were carried out. The most difficult cases like that of murder were the ones that reached the *kgosi-e-kgolo*, but small disputes like that of the family were normally solved by the *kgosana*. If the *kgosana* had problems solving the case it was passed on to the *kgosi-e-kgolo* if need be (Schapera & Comaroff, 1991).

Kgosi-e-kgolo is the one who gave the final word as to when ploughing could begin (go bolotsa letsema) and when crops could be harvested (legwetla). In each case, before everybody could start ploughing their masimo (fields) they first had to plough and plant the kgosi's fields which were known as masotla. Before the eating of produce at the fields could begin, a ceremony had to be held whereby part of the people's produce would be taken to the kgosi. This was known as go isa dikgafela. The grain would then be stored in large grain bins and would be redistributed to the morafe during times of famine.

Amongst Bakwena there were the nobles, commoners and those who had migrated into the group. They all recognized the position of the *kgosi* who also reinforced his power by providing food for the poor and entrusting some of his cattle to them. This was known as the mafisa system so that the poor could look after these cattle and benefit from the milk and calves produced by the cattle.

When we look at the settlement pattern at Ntsweng, the household with a house having a concrete floor was located in a kgotla that had more structures than all the other makgotla. According to Mr S. Masimega, the kgosi's kgotla was usually larger than the kgosana's and it could be that cluster 3 was a kgotla of a kgosi while clusters 2 and 4 were makgotla of dikgosana. This means cluster 3 could have been one of the eight main makgotla at Ntsweng with the other clusters being under the order of the kgosi at cluster 3.

Conclusion

The main objective behind mapping Ntsweng was to reconstruct the organization of the settlement and to assess the damage done by the bulldozer. The total area surveyed at Ntsweng covered 56,000 sq m whilst the bulldozed area covered 24,000 sq m. Phosphate analysis was only useful in that it produced a high concentration of phosphate in the central space and low results where structures were. These results, with other archaeological techniques like phytolith analysis can help identify kraals. From this it may be possible to determine how many related features (e.g., makgotla) had been destroyed by bulldozer.

The mapping of Ntsweng enabled the creation of a map that recorded the organization of settlement at Ntsweng. In this it was possible to recognize houses and malapa which were organized to form settlement units. The pattern in these settlement units was such that structures were built forming a circular shape with a central space forming a kgotla. The circular house was the dominant form in the settlement. There were also semi-circular and a few square houses. The square houses were mostly found in the largest settlement unit. This shape of house was found to mark status as it was mostly associated with the elite.

The organization of the settlement at Ntsweng was hierarchical. From the archaeological data, I found that there were small settlement units that surrounded a large one. This was supported by oral and historical data that said that within the settlement at Ntsweng there was the kgosi-e-kgolo, kgosi and kgosana. The kgosana in the archaeological record was represented by the small makgotla. The large kgotla represented that of the kgosi, and the kgosi-e-kgolo's kgotla was where the national office was located.

From oral and historical data I found out that at Ntsweng division of labour was along gender lines rather those of age or status. Men were associated with the central space and it is in this area that they were buried. This indicates that the use of space within the settlement was along gender lines. However, within a household this was not the case. Structures were organized according to back and front. The use of space also differed within structures. Here the use of space was governed by the direction in which the door

It was possible from the map to test the applicability of Huffman's central cattle pattern. With the aid of information gathered about Bakwena it was evident that the settlement at Ntsweng conformed to Huffman's model although in some cases like the use of space within structures it does not appear to be applicable.

Notes

Ms. Princess Sekgarametso is currently curator at the Kgosi Sechele I Museum in Molepolole. Her thesis, supervised by Andrew Reid, was completed in 1995. The original contains eight photographs of structures at Ntsweng which were left out of this edited version. A few minor illustrations were also omitted. In addition, the text was pruned and lightly edited for grammar.

Oral Sources

Mr. T. Diago. farmer, 94 years, Botlhaganeng ward.

Mr. S. Masimega: farmer, 80 years, Goo Tshosa ward.

Ms. S. Mmopelwa: elder, 90+ years, Bokaa ward.

Mr. R. Pheto: farmer, 77 years, Bokaa ward.

Ms. M. Bodigelo: member of Matsosa-Ngwao, 93 years, Goo Kodisa ward.

Ms. L. Sebele: member of Matsosa-Ngwao, 63 years, Kgosieng ward.

Ms. S. Moitlamo: member of Matsosa-Ngwao, 61 years, Goo Kodisa ward.

Ms. N. Rantaolana: member of Matsosa-Ngwao, 63 years, Difhetlhamolelo ward.

Ms. M. Modise: member of Matsosa-Ngwao, 62 years, Mokgalong ward.

Ms. N. Bodigelo: member of Matsosa-Ngwao, 62 years, Goo Kodisa ward.

Ms. N. Moleele: member of Matsosa-Ngwao, 61 years, Gamollale ward.

Ms. B. Senuku: member of Matsosa-Ngwao, 64 years, Gamollale ward.

Ms. K. Bolele: member of Matsosa-Ngwao, 65 years, Gamosima ward.

Ms. S. Lebeko: member of Matsosa-Ngwao, 72 years, Mokgalong ward.

Ms. N. Kgosidintsi: member of Matsosa-Ngwao, 62 years, Mokgalong ward.

Ms. A. Makodumentsa: member of Matsosa-Ngwao, 82 years, Bakwena Senyana ward.

Mr. A. Pheto: farmer, 80 years, Bokaa ward.

Ms. M. Gabaitse: elder, 93 years, Sekamelo ward.

Ms. M. Gabaraane: elder, 79 years, Sekamelo ward.

Ms. M. Gaaratwe: elder, 90+ years, Sekamelo ward.

Mr. J. Ramsay: teacher, Gaborone.

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BNA S.260/13 - 260/15/2 (Removal of Borakalalo and hill villages to central site. Location of kgotla residence and water supply.)

Recordings

Ratlou Sebetlela, 26-07-93, recorded by S.J. Knudson, Museum Tape 1, Kgosi Sechele I Museum, Molepolole.

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Fig. 1. Map showing the location of Ntsweng in southeastern Botswana.



Fig. 2. The organization of a Kwena household.



Fig. 3. Part of Ntsweng showing the ruins in cluster 1.



Fig. 4. The mapped portion of Ntsweng.



Fig. 5. Historical photographs of Ntsweng: date and orientation unknown.



Fig. 6. Cluster 2 of the mapped portion of Ntsweng.



Fig. 7. Cluster 3 of ruins at Ntsweng.



Fig. 8. Cluster 4 of the mapped portion of Ntsweng.



Fig. 9. Cluster 5 of the ruins at Ntsweng.