

***Sociopolitical Status of Leokwe People in the Shashe-Limpopo
Basin during the Middle Iron Age through Faunal Analysis***

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i. Declaration

I declare that the paper presented here is my own original work. It is submitted for the degree of Master of Science in the School of Geography, Archaeology and Environmental Studies at the University of the Witwatersrand, Johannesburg. This paper has not been previously submitted for another degree or examination at any other university.

Signed by: _____ on this the ____ day of _____

Student number: _____

ii. Abstract

A faunal analysis was conducted in order to clarify the social-political status of Leokwe people during the Middle Iron Age in the Shashe-Limpopo Valley. Both Calabrese and Huffman have contributed to this topic; however, they have opposing views concerning the status of Leokwe people. My main purpose is to establish whether Leokwe people held a subordinate position to K2 people before K2 rose to power, as argued by Huffman or whether their interactions were more complicated at the beginning of the K2 period, as argued by Calabrese. The study will contribute to the understanding of status relationships within the Leokwe culture and will further provide information on their social dynamics and interactions. Faunal remains form the main research component and the faunal analysis results have been achieved by studying these remains. Faunal remains were used as both Calabrese and Huffman have a faunal component to their arguments. Both patterns, if present, should be visible within the faunal remains at a settlement. Three types of faunal analysis were used in order to identify these patterns: (1) status elements of cattle, (2) small versus large stock through NISP and MNI, and (3) fragmentation, through measurement and comparison of fragment lengths at multiple archaeological sites. Statistical analysis was also conducted. The first method (status elements) refers to the presence of both high and low status parts of a carcass. In terms of the bones associated with the high/low status parts, status may be indicated by the presence or absence of specific bones. High status elements refer specifically to the limb bones (the humerus, ulna, radius, femur, fibula and tibia). Low status elements, those meant to be associated with the herdsmen are the lower leg/foot bones such as the carpals, metacarpals, tarsals, metatarsals and the phalanges. In total the faunal remains from ten sites were analysed. A large sample of K2 faunal remains formed the baseline to which the rest of the sites were compared. Two of the sites were especially important, Leokwe Hill and Castle Rock, as Huffman's interpretation differs from Calabrese's for both of these sites. Ultimately, four Bov III faunal distribution patterns were identified during analysis, an Above-Average/ High Status Pattern, a Below-Average/ Herdsmen Pattern, an Average Pattern and a Borderline Pattern. The High Status Pattern is identified by an over abundance of certain status elements, specifically the fore and hind-quarters, while the Herdsmen Pattern is characterised by an over abundance of lower leg/

foot bones. Statistical analysis proved all four faunal distribution patterns to be significant. However, as a result of the statistical analysis, the Borderline Pattern became the pattern most often identified within the samples. The Herdsmen Pattern was only identified at four sites. Due to the nature and location of the settlements that had the Herdsmen Pattern, it may be stated that this pattern is linked with low status people and not necessarily Leokwe people specifically.

iii. Acknowledgements

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CHAPTER I: INTRODUCTION

The Shashe-Limpopo Valley is an important archaeological focal point because it is here during the Middle Iron Age (AD 900 to AD 1300) that social complexity first developed in southern Africa (Figure 1.1). This social complexity resulted in the creation of the first town, the first king, the first stone-walled palace and the capital of the first state before the theorised mass exodus of people from the Valley at around AD 1300 (Huffman 1982, 1986, 2007a). As a result of numerous investigations spanning multiple decades, beginning with Fouché (1937) and Gardner (1963), much is now known about the emergence of social complexity within the Shashe-Limpopo Valley. Many topics have been researched, such as ceramics by J. Van Der Walt (in prep.), climate and herding by J. Smith (2005; Smith, Lee-Thorpe & Hall 2007), ethnicity by J. Calabrese (2000, 2005), faunal analysis by M. Kloppers (in prep.), glass beads by M. Wood (2000, 2005), herding strategies by E. Hanisch (in prep.), rainmaking by M. Murimbika (2006) and M. Schoeman (2006a, 2006b) and site distribution by J. Du Piesanie (2008). However, one important topic still needs clarification and that is the status of Leokwe people within the Shashe-Limpopo Valley, specifically in relation to their contemporaries, the Leopard's Kopje people, who came to dominate the area sometime after they entered the Valley.

There are two opposing positions held concerning Leokwe people and their status. These are held by Calabrese and Huffman respectively. Calabrese argues that (2000, 2005), differential status existed *within* Leokwe settlements and *between* Leokwe and K2 people before K2 rose to power; that is, Leokwe society encompassed both elite and commoners. Furthermore, Calabrese argues that some Leokwe had higher status than some K2 people. His argument is based on, among other things, a set of elite markers he identified within the material remains, such as figurines, metals, exotic goods and faunal remains; as well as Kopytoff's frontier perspective. Two sites, Leokwe Hill and Castle Rock, play an important role within his argument for differential status between Leokwe and K2. Leokwe Hill, Calabrese argues, had an elite K2 component on the hilltop with a low status Leokwe settlement below it on the terrace. At Castle Rock however, he argues that the

early Leokwe settlement was elite based on the material remains present as well as its location (Calabrese 2000, 2005).



Figure 1.1: The Mapungubwe region and other important sites.

Huffman (2001), in contrast, argues that Leokwe people held a subordinate position to Leopard's Kopje people from the outset of the Leopard's Kopje occupation of the Shashe-Limpopo Valley. He further argues that they filled specialised roles within society, such

as herdsmen. He bases this on settlement layout, settlement distribution, ceramic styles, faunal remains and Kopytoff's frontier perspective. Huffman argues that the Leokwe Hill hilltop was used as a rainmaking location by K2 people during Transitional K2 times rather than as an elite settlement (Huffman 2007b). As for Castle Rock, he argues that it was a seasonal cattle post based on the number of kraals present and its location in the middle of a vlei (Huffman pers. comm. 2007).

The differing arguments of Calabrese and Huffman, specifically in relation to the interpretation of Leokwe Hill and Castle Rock, have had a significant impact on how Leokwe people are seen to interact during the Middle Iron Age. Thus, in order to clarify this issue, my main objective is to establish whether Leokwe people held a subordinate position to K2 people, as argued by Huffman or whether their interactions were more complicated as argued by Calabrese. This will be achieved through faunal analysis as both Calabrese and Huffman have a faunal component to their arguments.

To achieve the objective, the faunal remains from numerous archaeological sites were analysed. The samples were divided into two categories, Primary Faunal Samples and Comparative Faunal Samples. The Primary Faunal Sample category is made up of the main sites which formed the initial sample set under analysis, the Comparative Faunal Sample category is made up of the sites which were added later to provide a larger sample set as well as provide sites from different geographical areas and time periods. The faunal data for the Comparative Faunal Sample sites comes from published works. K2, specifically, is included in both of these groups as one sample comes from a relatively new excavation and six other samples came from published work. Five sites fell within the Primary Faunal Samples category, these sites were: K2, which is located within the boundaries of the Vhemba/ Dongola National Park (previously the Greefswald farm) (Murimbika 2003; Murimbika & Huffman 2003); Leokwe Hill Areas A and B located on the Little Muck farm (Calabrese 2001, 2005); Castle Rock located on Den Staat (Calabrese 2001, 2005); Weipe 508 located on Weipe and finally, KK, which is located on Venetia. Within these five sites, the K2 faunal assemblage formed the datum to which all other sites were compared, as it had the largest sample size.

The following six sites were included within the Comparative Faunal Sample category. These were: K2 (Voigt 1983); Great Zimbabwe located in Zimbabwe (Brain 1974; Thorp 1995); Mapungubwe (Voigt 1983), which is located in the Vhembe/ Dongola National Park; Dzata, which is located in the Nzhelele Valley, Limpopo (De Wet-Bronner 1995); Tshithemi, which is located on the southern slope of the Soutpansberg (De Wet-Bronner 1995) and Manekweni, which is located in Mozambique (Barker 1978). I did not excavate these sites, but instead, utilised published material which included adequate faunal data for my analysis. The sites were included based on their high status, as well as to see if any patterns found in South Africa could be generalised across a wider geographical area and period of time.

It is essential to clarify what is being tested and what the results of this testing may mean in terms of Calabrese and Huffman's arguments concerning the status of Leokwe people. Calabrese argues that greater access to cattle as a source of bridewealth and food indicates status, thus, the more cattle remains present at a settlement, the higher the status of the settlement. Therefore, for Calabrese specifically, I am testing whether the presence of numerous cattle remains within a settlement may be associated with high status. This will be achieved through the comparison of Bov II/ Bov III quantities within the sites under analysis. Huffman argues that there were societal rules governing the division of a butchered animal, in essence, certain body parts were allocated to specific people depending on their status. Thus, if certain faunal elements are exclusively present at a settlement, they may indicate either the status of the settlement or the status of specific people within the settlement. Therefore, for Huffman specifically, I am testing to see if the distribution of specific parts of cattle may be linked with different levels of status. This will be achieved by comparing the distribution of Bov III body parts from each of the sites under analysis.

The results of my analysis are detailed in the following chapters. However, in general the results indicate that four patterns of Bov III body part distribution exist within the faunal assemblages analysed here. Of these four patterns, the 'Herdsman Pattern' is only present in four samples; these four samples came from the sites of Mapungubwe, K2, Leokwe Hill

and Castle Rock. That it is also present within the Great Zimbabwe settlement, which dates to a later period than the Leokwe occupation of the Shashe-Limpopo Valley, indicates that this pattern of body part distribution is not directly linked with Leokwe people and is more than likely a general trend.

PLAN OF PRESENTATION

This thesis is comprised of five main chapters. Chapter II summarises previous archaeological work within the research area. The purpose of this chapter is to provide background knowledge of social interactions within the valley during the Middle Iron Age as a framework for understanding Leokwe and K2 interactions. I include an outline of Kopytoff's frontier perspective, which is essential to understanding both Calabrese's and Huffman's arguments. Chapter III presents the methodology I used to answer the research question. It is divided into three sections: faunal analysis, data capturing and data analysis. Faunal analysis forms the basis of my methodology; Number of Individual Specimens (NISP) and Minimum Number of Individuals (MNI) were important tools within the data analysis. Within Chapter IV each site is described followed by their results and my interpretation of the data. The results of a statistical analysis are also included within this chapter. Chapter V builds on these results and emphasises their archaeological and cultural contexts. Chapter VI summarises these relationships.

CHAPTER II: PREVIOUS RESEARCH

This chapter is divided into two sections. The first section outlines the cultural sequence of the Middle Iron Age within the Shashe-Limpopo Valley. The second outlines previous research on faunal remains.

CULTURAL SEQUENCE

Much archaeological research has focused on reconstructing the cultural sequence within the Shashe-Limpopo Valley, centered specifically on the capital sites of Schroda, K2, and Mapungubwe (Figure 2.1) (Fouché 1937; Gardner 1963; Huffman 1974, 1982, 1996, 2000; Hanisch 1980, 1981; Meyer 1980; Plug 2000; Smith 2005). Thus, the sequence for these sites is now well known.

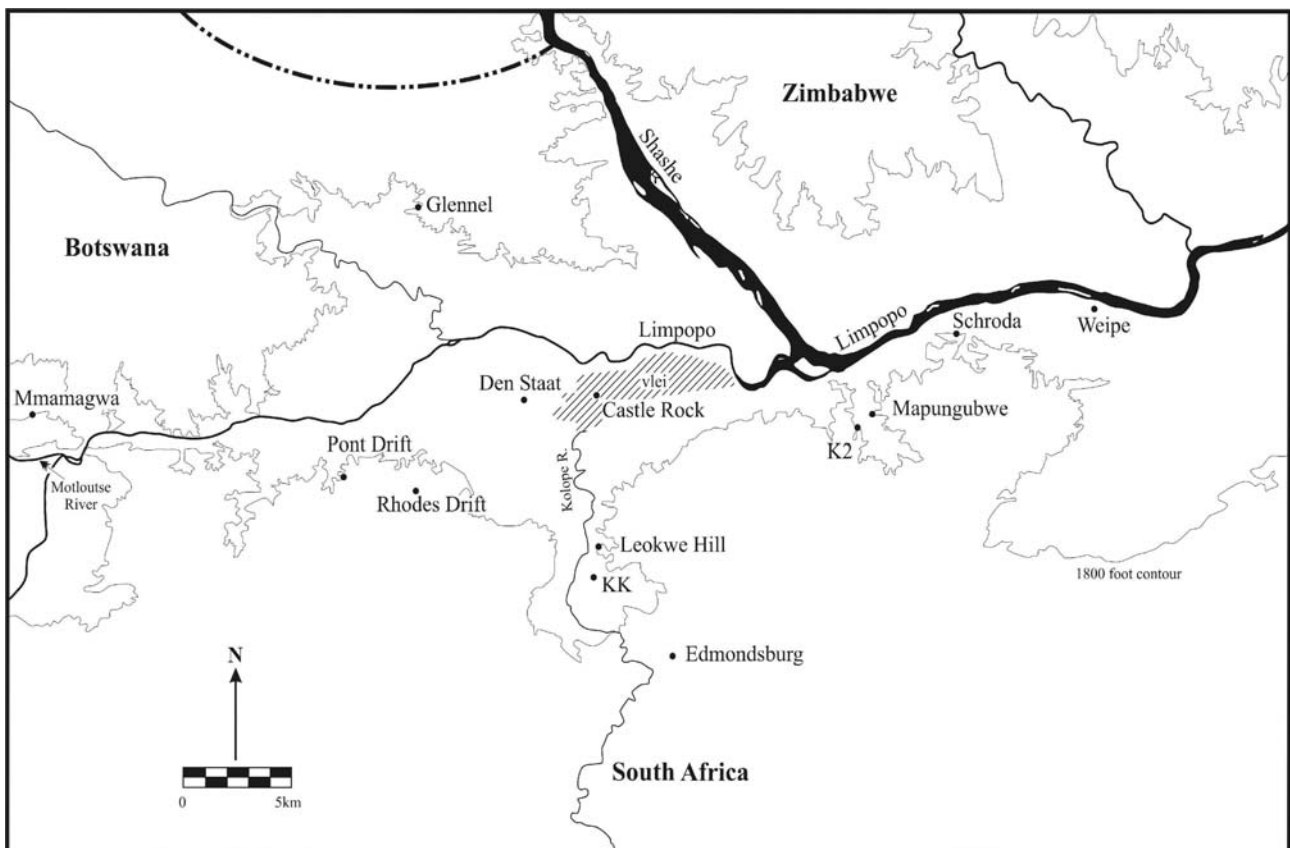


Figure 2.1: Location of important sites in the Shashe-Limpopo Valley. Note vlei.

However, there is much still left to be researched, especially with regard to Leokwe people as they are a relatively new discovery in the archaeological field. Below, I place my analysis in context by outlining the chronological order for the Middle Iron Age sequence in the Shashe-Limpopo Valley. This sequence provides us with a means of considering the debate regarding Leokwe and K2 interactions. This is followed by a discussion of the Leokwe debate and how it fits into the archaeological sequence of the Shashe-Limpopo Valley. Thereafter there is a summary of Kopytoff's frontier perspective and a discussion of how Calabrese's and Huffman's hypotheses may be understood in terms of Kopytoff's perspective.

MIDDLE IRON AGE SEQUENCE

ZHIZO

Zhizo people moved into the Shashe-Limpopo Valley at about AD 900; this was previously believed to be due to an improvement in climatic conditions at that time (Huffman 2000). However, according to Smith's (2005; Smith *et al.* 2007) isotopic study the climate was no better during the Zhizo period than it is today, as a result, Zhizo farmers would have found it difficult to carry out farming practices. Consequently, Zhizo people may have been motivated by broader cultural factors, such as trade networks, specifically focusing on the trade in ivory. Based on site distribution, associated debris, and climatic data, it appears that Zhizo people moved into the valley to hunt elephant for the ivory trade (Wood 2000; Huffman *et al.* 2003; Smith 2005). Among other things, Schroda (Hanisch 1980), which was the capital for the Zhizo people, yielded glass beads (Wood 2000) and ivory chippings (Voigt 1983) relating to this trade. These trade items would have been linked to the Indian Ocean trade routes and the coastal trading town of Sofala. Zhizo people dominated both the trade network and the Shashe-Limpopo Valley for approximately one hundred years (Hanisch 1980, 1981; Vogel 2000) until the sudden abandonment of Zhizo settlements at about AD 1000. This whole-scale abandonment of settlements and the subsequent move out of the area by Zhizo people coincides with the arrival of Leopard's Kopje people in the Shashe-Limpopo Valley. Previously, evidence suggested that at this time, Zhizo people moved west to Botswana, where their pottery changed into Toutswe (Denbow 1982; Huffman 1989, 2000; Reid & Segobye 2000).

Current evidence, however, indicates that this is not entirely accurate; this will be discussed in greater detail within the Leokwe section found further on in this chapter (see page 14).

LEOPARD'S KOPJE: K2

Leopard's Kopje people ruled first from K2, between AD 1000 and 1220, and then from Mapungubwe, between AD 1220 and 1300 (Fouch  1937; Gardner 1963; Meyer 1980, 1998, 2000; Eloff & Meyer 1981; Voigt 1983).

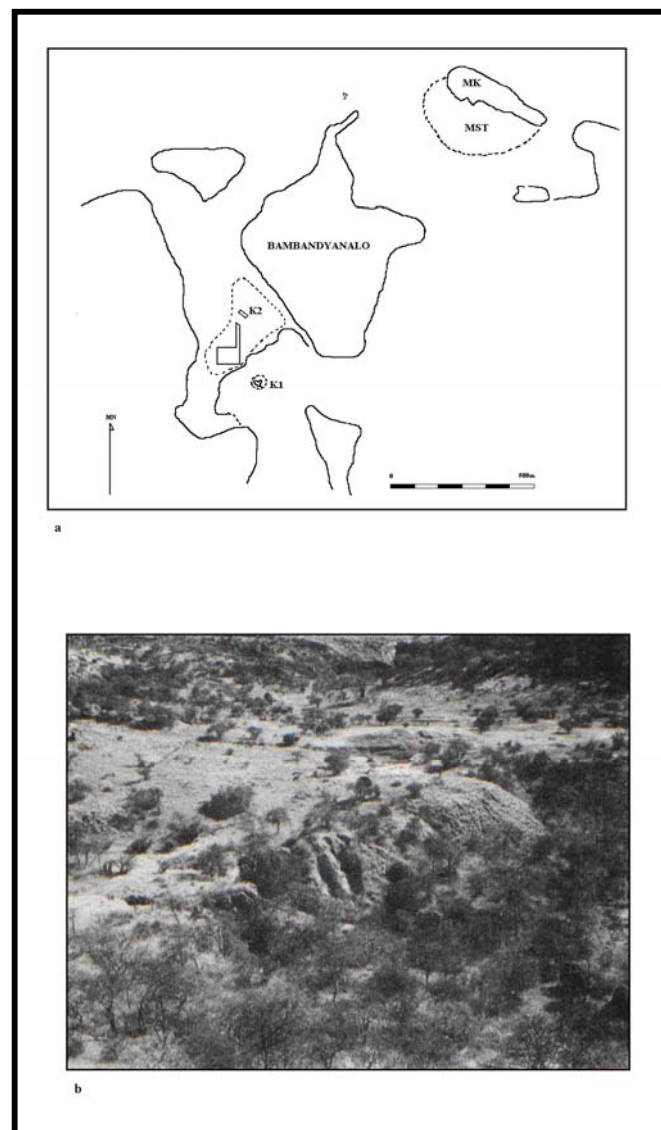


Figure 2.2: (a) Drawing showing the location of K2 in relation to Mapungubwe; (b) Aerial photograph of K2 (from Voigt 1983).

Figures 2.1 (see page 6) and 2.2 (above) show the locations of K2 and Mapungubwe, which are both located south of the Limpopo River near its confluence with the Shashe. K2 specifically, is situated in a high valley next to Bambandyanalo Hill, while Mapungubwe stands about 1km north-east of it.

Leopard's Kopje people at K2 took over local control of the coastal trade after Zhizo people left which resulted in a change in the distribution of trade goods. Specifically, during Zhizo times, trade items were widely distributed, while during Leopard's Kopje rule, K2's leaders' greatly restricted access to trade goods. During this time, K2 produced more ivory objects and glass beads than any other contemporary settlement (Huffman 1996, 2000; Maggs 2000). K2 people also produced their own distinctive type of bead, the Garden Roller; this was used as a trade item and became a status symbol. It was made by reworking small imported glass snapped canes (a type of bead) which were either blue or green in colour (Gardner 1963; Wood 2005). The Garden Roller bead, rather than any other, was the main trade item to the Toutswe area in Zimbabwe (Wood 2000).

At K2 most of the trade objects were found in a large midden next to the central kraal and court, this is explained by the spatial organisation pattern used by the Leopard's Kopje at K2. This pattern is known as the Central Cattle Pattern (CCP) (Figure 2.3). Ethnographic records link the CCP solely to Eastern Bantu speakers with a rank-based society who share: (1) a patrilineal ideology about procreation; (2) a preference for bridewealth in cattle; (3) male hereditary leadership; and (4) positive beliefs concerning the role ancestors play in daily life. This settlement pattern also distinguishes between male and female domains (Kuper 1980, 1982; Huffman 2007a). The male domain encompasses the central cattle kraal, where both men and people of high status are buried. Sunken grain pits and raised grain bins for long term storage were also located within the central cattle kraal. Furthermore, this male area encompasses a public smithy and an assembly area where men resolve disputes and make political decisions. In contrast, the domain of married women encompasses the outer residential zone. This area incorporates the households of individual wives with their private sleeping houses, kitchen, grain-bins, storage pits and graves. A system of seniority governs this outer ring of households starting with a 'great

hut' built upslope of the court and kraal. The division of right-senior, left-junior, front-secular and back-sacred is ubiquitous within individual houses, households and the larger settlement. Thus, from the above descriptions, it may be stated that the trade objects were located in areas associated with the male domain.

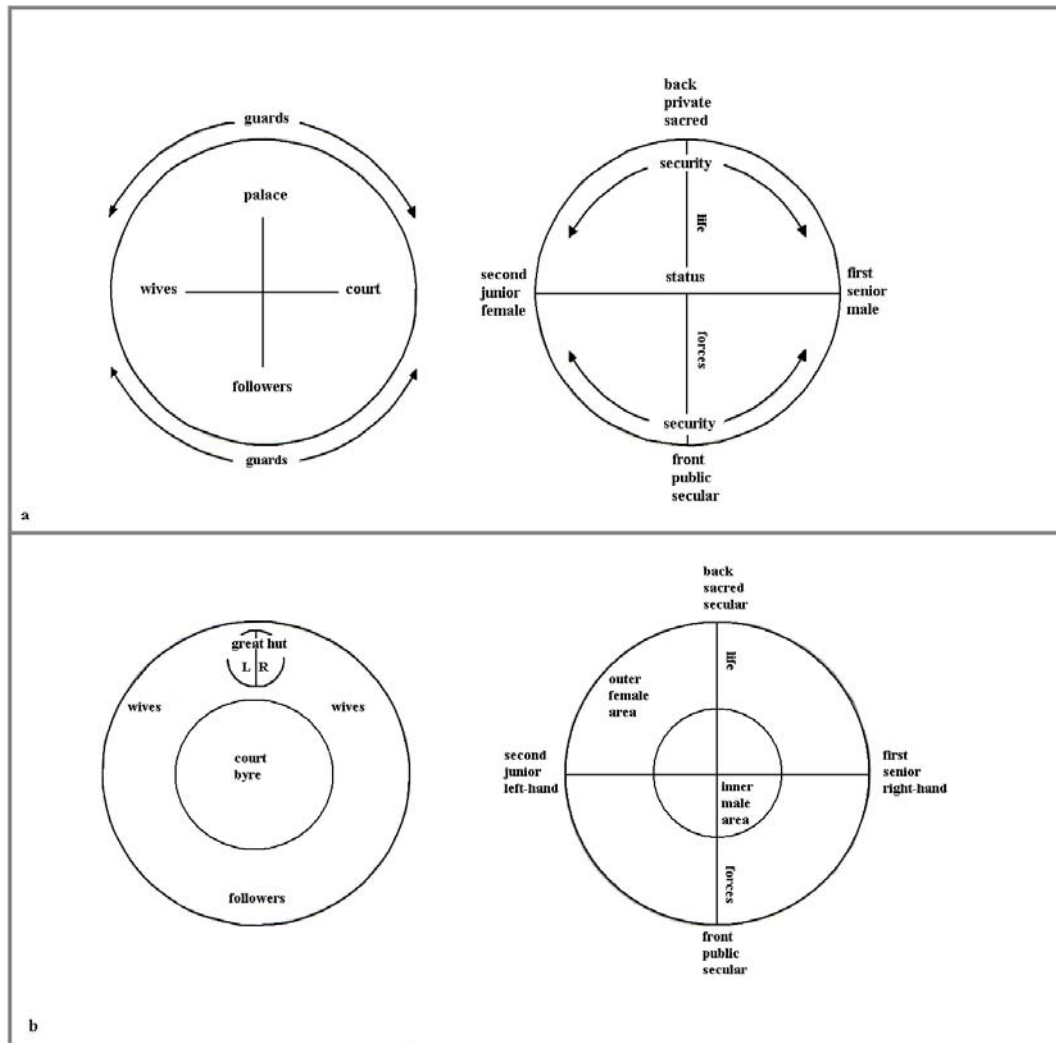


Figure 2.3: Idealised model of the Zimbabwe Pattern (a) and the Central Cattle Pattern (b) (adapted from Huffman 1996).

In contrast, within the Zimbabwe Pattern, every capital, irrespective of size comprised five components: (1) a palace; (2) court; (3) compound for the leader's wives; (4) place for followers and (5) places for guards. The palace was usually placed above, behind and east of the public and secular areas associated with followers as the sacred leader was meant to be aloof (Huffman 1996). The Zimbabwe Pattern followed a dual settlement system in that

capitals followed the Zimbabwe Pattern while commoners organised their homesteads according to the CCP. In the past settlements were organised hierarchically in a five level system according to the power of the court, level one being the least powerful and five being the most powerful (Huffman 1986). The higher the level, the more powerful the court, the more inhabitants, and therefore the larger the settlement. K2, a level-4 settlement, would have housed between 1000 – 2000 people (Huffman 1986, 2000).

In the Valley, surplus wealth from long distance trade and expanding populations from intensive agriculture led to the development of class distinction at K2 and sacred leadership at Mapungubwe. According to Huffman, the transformation of the CCP to the elite Zimbabwe Pattern is evident, archaeologically, in three spatial shifts. Firstly, the relocation of the K2 cattle kraal; secondly, the relocation of the K2 people to Mapungubwe with the chief's location on top of Mapungubwe Hill away from his people and thirdly, the construction of the first stone-walled palace on top of Mapungubwe.

(1) At K2, between about AD 1100 and 1150, cattle were moved out of the settlement centre and the court midden was allowed to engulf the old kraal area (Huffman 1982, 1996, 2000, 2007a). (2) When Leopards Kopje people moved from K2 to Mapungubwe around AD 1220, the chief moved on to the top of Mapungubwe Hill where he was physically separated from the commoners who resided below him on Mapungubwe's terrace. (3) The location of the stone-walled palace on top of Mapungubwe was for the ritual seclusion of the chief after sacred leadership had been achieved.

LEOPARD'S KOPJE: MAPUNGUBWE

Occupation of K2 lasted for two hundred years, until around AD 1220, when the people moved to Mapungubwe, a flat-topped sandstone hill, one kilometer away (Huffman 1982, 1996). The end of K2 and beginning of Mapungubwe forms the Transitional Period. This category includes a new ceramic facies, Transitional K2 (Huffman 2007b) and a transitional glass bead series (Wood 2005). Transitional ceramics and glass beads typify both K2's last occupation levels and the first occupation on top of Mapungubwe Hill. The hilltop occupation at Mapungubwe represents the second spatial shift from the CCP to the

Zimbabwe Pattern: elite leaders resided on the summit, while commoners lived below on the Southern Terrace (Figure 2.4).



Figure 2.4: Mapungubwe Hill (from the west). Commoners inhabited the cleared area in front while the King resided on top.

Both class and labour divisions developed during the Transitional Period. As a result of labour divisions, commoner sites were either cattle or agriculturally orientated (Du Piesanie 2008). This Transitional Period (AD 1200 -1250) coincides with a widespread series of droughts (Smith 2005; Smith *et al.* 2007; Huffman 2008) which would have increased the necessity for rainmaking activities on hilltops, thereby increasing their archaeological visibility. Significantly, at the start of this period, K2 people moved to Mapungubwe which was previously used as a rainmaking hill. The building of a stone-walled palace on top of the rainmaking area marks the third step in the evolution of the Zimbabwe Pattern. This first palace marks the final materialisation of sacred leadership. Presumably, the end of the drought would have been attributed to the king's rainmaking ability, reinforcing his power as a sacred leader (Huffman 2008).

At its peak Mapungubwe would have housed around 5000 people (Huffman 1996, 2000). This makes Mapungubwe the first level five settlement (see page 11 for a description of the five level settlement hierarchy) and capital of the first state in southern Africa.

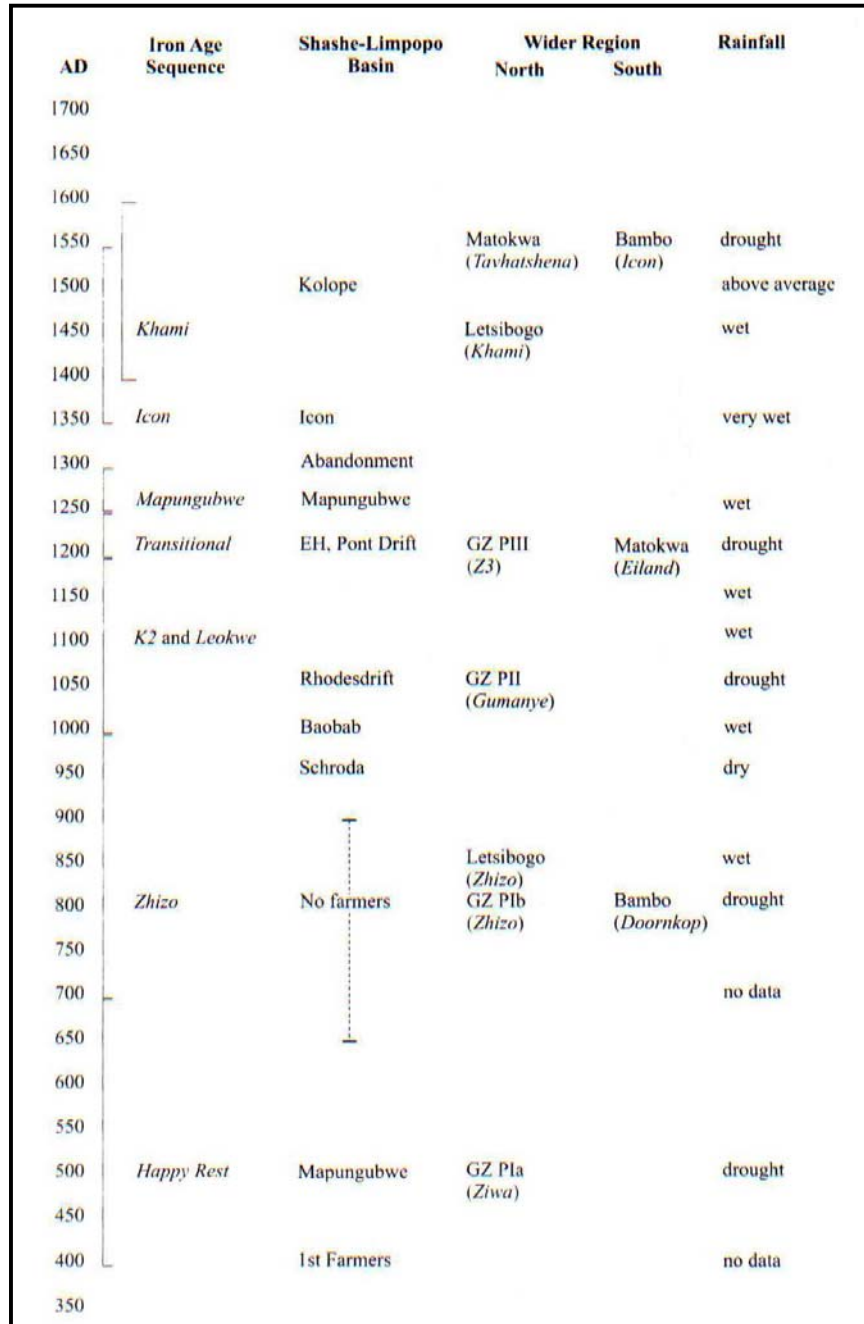


Figure 2.5: Climatic sequence of southern Africa (Huffman 2008).

Occupation of Mapungubwe continued for about 75 years until its abandonment at about AD 1300 (Huffman 1996, 2000). This abandonment is usually attributed to the beginning of the Little Ice Age. Isotopic data, however, has since suggested that only cooler, rather than cold and dry, conditions prevailed (Figure 2.5 above) (Smith 2005; Huffman 2008). Smith's (2005; Smith *et al* 2007) environmental reconstruction suggests that climate may not have been the most important factor in Mapungubwe's abandonment. Nevertheless, cooler conditions would have adversely impacted agriculture as the vleis would not be able to drain. Whatever the cause, by AD 1300 Mapungubwe was no longer the centre of regional power; it had shifted to Great Zimbabwe.

This Middle Iron Age sequence provides us with a means of considering the debate concerning Leokwe and K2 interactions. From the above sequence, it is inferred that Leopard's Kopje people dominated the Valley immediately after they arrived and that as a result Zhizo people left the Valley. Recent excavations by Calabrese have proven this not to be the case, hence the current Leokwe Debate.

THE LEOKWE DEBATE

The issue of status, when discussed in terms of Leokwe and K2, is contentious. Calabrese's (2000, 2005) excavations at Leokwe Hill, Baobab and Castle Rock led him to conclude that some Leokwe people had greater access to status materials than some Leopard's Kopje people. Furthermore, Calabrese argues that Zhizo/ Leokwe people had a hierarchical structure before K2 rose to power. He uses seven criteria to identify elite status in the archaeological record: (1) religious/initiation/fertility paraphernalia; (2) figurines; (3) metallurgy and metals; (4) exotic goods; (5) craft production; (6) monumental architecture, monuments and settlement layout; and (7) faunal remains (Calabrese 2000, 2005).

Figurines (1-2), are the material remains of various rituals normally controlled by chiefs. Thus, Calabrese argues that elite settlements will yield relatively more ceramic figurines. (3) Ethnographically, there is a connection between metallurgy, fertility and political leadership in Central Africa (De Maret cited in Calabrese 2005: 62). And so, elites would

have controlled metal production and the distribution of metal products. Differences in diversity, density, and abundance of these items may therefore indicate differential status. (4) The presence of exotic goods represents the ability of elites to accumulate surplus products in order to differentiate themselves from commoners. Glass trade beads were most frequently used for this purpose. K2 people, for example, utilised the Garden Roller, a large blue/green bead produced locally by reworking smaller imported beads. (5) Because metal production is associated with fertility and prosperity, it is likely to be correlated with elite status. Elite would have underwritten the manufacture of elite items and possibly even produced them. Other evidence of craft production, however, does not indicate elite status. Instead, other items would have been produced for regional exchange and tribute. (6) Following Huffman (1982, 1996), the CCP changed into the Zimbabwe Pattern which has monumental architecture; commoners continued to use the CCP. Finally, (7) greater access to cattle as a source of bridewealth and food indicates status.

Huffman's argument (2000, 2007a, 2007b) differs from Calabrese. He uses ceramic styles, settlement location, artefacts and faunal remains to argue that Leokwe were subordinate to K2 from the beginning. In terms of style he notes that Leokwe people incorporated several elements of K2 design, but K2 ceramics did not incorporate Leokwe elements. According to Huffman, this one-directional flow shows that Leokwe people were subordinate. Furthermore, Leokwe settlements were sited on the plateau close to grazing areas, or the base of the escarpment, rather than prime agricultural lands suggesting that their location was for reasons other than agriculture (Du Piesanie 2008). In addition, Leokwe settlements followed the CCP but included extra kraals indicating that more cattle or sheep/goats were being herded at these settlements (Huffman *et al* 2003, Huffman 2006). In this regard Kloppers' (Pers. comm. 2005) analysis of Leokwe Main Camp shows that there were more foot bones than expected compared to K2. According to Venda and Shona ethnography, herdsmen, in contrast to the owner, received portions of the skull, tail, lower legs and feet (Stayt 1931). It then follows, according to Huffman, that Leokwe people were probably herding cattle for K2 elite. In addition, Leokwe Main Camp yielded large ivory pieces and an ivory bracelet as well as a crucible and a Garden Roller bead mould (Huffman *et al* 2003). These remains suggest that Leokwe people were also

tradesmen. Below, I include a description of the divisions of a butchered carcass as defined by ethnography.

ETHNOGRAPHICALLY DEFINED DIVISIONS OF CATTLE PARTS

Butchery has been defined in multiple ways, generally though it is the reduction of a carcass into parts consumable by humans. This process of reduction is affected by both the size of a carcass and where it is butchered, these in turn affect what parts are abandoned, transported or allocated for different uses (Mooketsi 1991; Lyman 1994). The allocation of the parts of a slaughtered beast after it is brought back to the settlement express the social relations within that settlement (Kuper 1982). Furthermore, Mooketsi (1991) found that aspects such as ethnicity, gender and status control the butchery of a carcass in different societies in Botswana. In some cases, consumption even occurred in gender specific locations.

In a Venda capital, formal rules applied to the distribution of a carcass (Stayt 1931). The front half of the beast went to public figures and the back half to those associated with the palace (Figure 2.6). The neck went to the negota (mother's brother), while the khotsimunene (father's brother) received the front leg and another family member received the soft part underneath the front leg. From the back half, the upper part of the hip and thigh belonged to the makhadzi (father's sister), while the chief received the hind leg and another family member received the part just above the hind leg. The butchery of a commoner's beast followed the same basic pattern. The mother's brother received the neck, the father's brother (equal to the khotsimunene) received one front leg, and one hind leg went to the chief and the other leg, along with the head, to the owner's father. His father's sister (equal to the makhadzi) once again received the dainty part of the hip and thigh on one side, while the other side went to the first wife. Because some parts personify the protective relationship between mother and son, the mother received the chest along with the stomach, intestines and udder. The tails, lower legs, hoofs and portion of the skull belonged to the herdsman - the herd's protector, and then the owner gets the rest. However, of note, is that sheep/ goat, although of a much lower status, may be used as a substitute to cattle. This description of how the parts of a carcass are distributed is

essential to understanding which parts of a butchered carcass may be linked with specific people. From the above description, it is to be understood that the hind legs are associated with higher status than the fore legs. This will prove to be an important observation in later chapters.

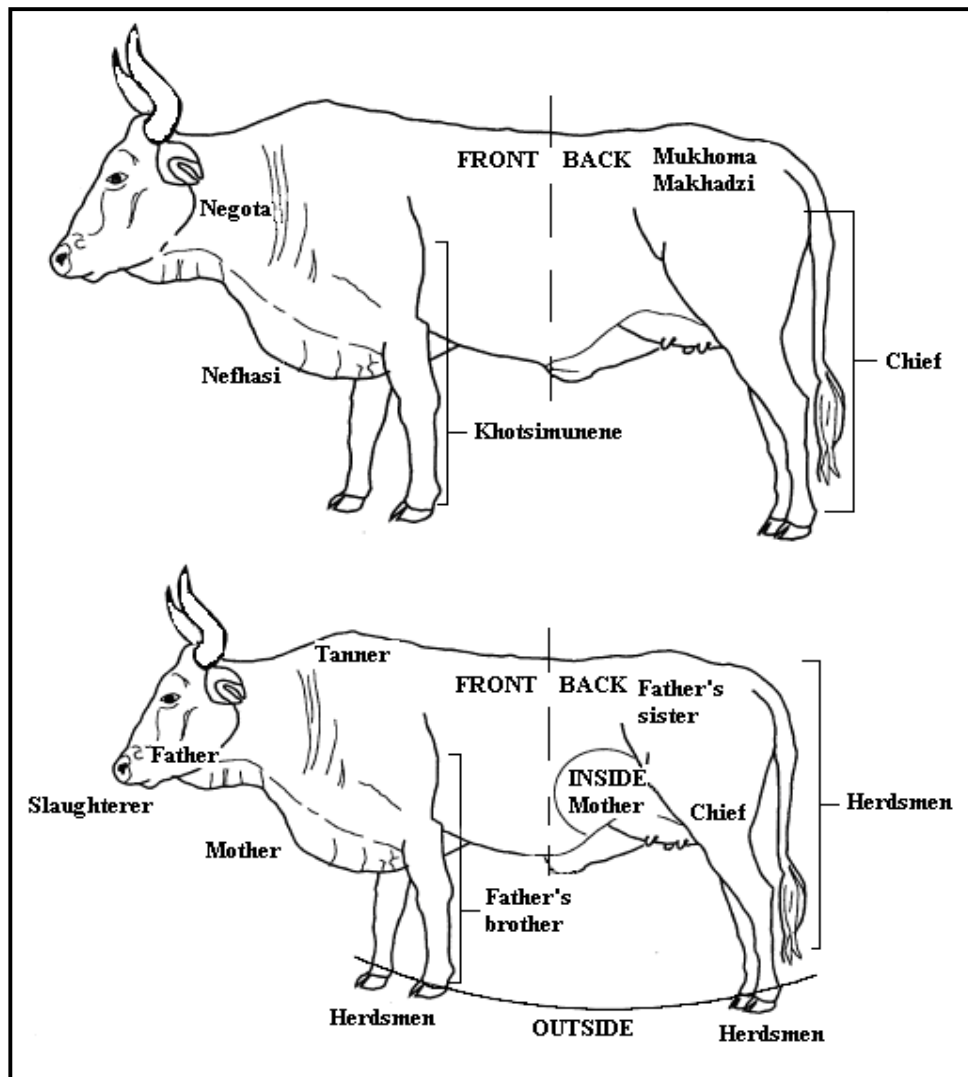


Figure 2.6: Division of a carcass based on status; top image shows the divisions for elites, bottom image shows divisions for commoners (from Huffman 1996 and Stayt 1931).

KOPYTOFF'S FRONTIER PERSPECTIVE

Both Calabrese and Huffman interpret data in terms of Kopytoff's frontier perspective. To better understand each side of the debate, I now summarise this model.

Kopytoff's (1987) model is in opposition to the 'tribal model' of African societies. The 'tribal model', according to Kopytoff (1987), presents tribes as collectives within which a uniform breed or race is found, embodying a uniformity of traits, such as physique, custom, polity, language, character, mind and group identity. Furthermore, a nation originated from a tribe. According to Kopytoff, however, Africa was originally occupied through a process of 'tidal frontierism' that left large expanses open to occupation. Individuals wishing to leave the established societies could move into this internal frontier and set up their own social order, with a new political leader, free from their metropolitan ties. Thus, the frontier enables frontiersmen to feel free from institutional constraints.

People left their villages for many reasons, such as witchcraft accusations, succession struggles, or in search of new game (hunters) or profit (traders). Expulsion meant both the individual and his family; wives, children and grown sons must leave. They can now either join together, forming a new hamlet or mini chieftaincy, or they can join another village already established by others like them.

Once settled, the process of social construction starts again, which if successful, marks the beginning of a new society. The original metropole provides the frontiersmen with the main outline of a basic civic organisation, containing the criteria for a normal, effective and legitimate political system. Once established on the frontier, groups do not necessarily have to grow into new polities. For this to happen, the new group must first dominate the frontier. Although a frontier usually implies a 'no-man's-land', they are often inhabited by 'aboriginal' societies. Defining the frontier as empty is a political statement made from the intruders' point of view. When entering a new land, frontiersmen either find it empty, occupied by few people whom they expel outright, or occupied by people too strong to be subdued or dislodged. In this last case a period of submission is followed by an eventual clash resulting in aboriginals being conquered or co-opted. Otherwise, Latecomers are incorporated. Alternatively, Latecomers assume power and form a new polity. When expanding, polities usually incorporate the conquered people as adherents; the defeated, in fact, expected to be incorporated.

There are two important principles in this process: the drive to acquire relatives, adherents and dependents and keep them attached, and the search for patrons and a readiness to attach oneself to a superior power. One of these drives must dominate. If attachment was chosen, the safest course was to subordinate oneself to the strongest polity (Kopytoff 1987: 40).

Firstcomers often had authority over a locality and its politics because of their ritual relationship to the land and its spirits. Hierarchically, the Firstcomers had greater claims than the Latecomers, but Firstcomers could have originally been frontiersmen themselves. This means that supposed Firstcomers may have conquered or co-opted aboriginals and then taken on the title. By recognising the authority of Firstcomers, Latecomers constrained their own claims to authority. In dealing with ones predecessors, there were two broad approaches: either claim to have displaced them, or recognise their early presence but redefine its significance. In this case, Firstcomers would be kept under control structurally, either by placing them at the periphery, restricting ones relationship with them or by putting them into a special niche as providers of specialised services. Once Firstcomers are recognised, Latecomers attempt to co-opt their mystical powers relating to the land (Kopytoff 1987: 55).

A few additional elements are worth noting: (1) the frontier does not create a certain type of society but provides an institutional vacuum giving frontiersmen the freedom to develop a new polity following the old structure; (2) the structure of relations between metropole and frontier is affected by whether the frontier is an area into which the metropole is expanding or one occupied by independent settlers; (3) the nature of the initial model of society affects the outcome of the frontier process; (4) the institutional vacuum provides the frontiersmen with the freedom to express the original social model in a more direct and forceful manner; (5) “if communications continue between the metropole and the frontier, the repetitive use of the model maintains the frontier society in the regional cultural awareness, validates it and constantly revitalises it” (Kopytoff 1987: 14).

With the above summary of Kopytoff's frontier perspective in mind, I will now place both Calabrese's and Huffman's arguments concerning Leokwe/ Leopard's Kopje interactions in context with regard to Kopytoff's perspective. Kopytoff's perspective allows for the possibility that both sides of the argument have valid points.

Calabrese argues that differential status existed within Leokwe society and between Leokwe and Leopard's Kopje interactions thus suggesting that some Leopard's Kopje people were subordinate to Leokwe people. In terms of Kopytoff's perspective, Calabrese's argument is that when Leopard's Kopje (the Newcomers) people moved into the Shashe-Limpopo Valley, they encountered an aboriginal group (the Firstcomers), Zhizo. Outright expulsion of Zhizo would mean that Leopard's Kopje people dominated the area. They would not have had to incorporate Zhizo within their society. However, we now know that Zhizo, in the form of Leokwe, had a contemporaneous occupation with Leopard's Kopje in the Shashe-Limpopo Valley even though Leopard's Kopje people came to dominate. Thus, Leopard's Kopje people may not have been able to expel the Zhizo people outright; instead they may have followed a period of submission to the Firstcomers.

Huffman, on the other hand, argues that Leokwe people were subordinate to Leopard's Kopje people/ K2 and that they filled niche roles within Leopard's Kopje/ K2 society. In terms of Kopytoff's perspective, Huffman's argument is that Zhizo people (the Firstcomers) were either conquered or co-opted by the Leopard's Kopje people (the Newcomers) upon their arrival in the Shashe-Limpopo Valley. The Leopard's Kopje people then proceeded to include the Zhizo people within their society in order to stop future in-fighting. This was accomplished by providing them with niche roles in society, such as herdsmen, craft specialists or ritual specialists. Zhizo's apparent disappearance when Leopard's Kopje people move in indicates that Zhizo was conquered/ dispelled outright at the beginning of Leopard's Kopje/ Zhizo interactions. Based on Huffman's argument, the subsequent presence of Leokwe people and their pottery came out of the interaction with Leopard's Kopje people.

Kopytoff's model enables us to better understand both Calabrese's and Huffman's arguments as well as the nature of the ethnic interaction identified by Calabrese. These matters will be discussed further in Chapter IV.

A BRIEF BACKGROUND TO FAUNAL ANALYSIS

Until 1939, there was limited interest in faunal remains in South Africa (Chaplin 1971; Voigt 1983). Over the past 60 years, however, faunal identification has advanced considerably in response to archaeological questions concerning diet, hunting and the origins of farming (Hesse & Wapnish 1985; Plug 2000; Hillson 2005). With the use of Archaeozoology archaeologists are able to reconstruct past environments and the behaviours of ancient peoples, focusing on (1) economy, diet and environment; (2) aspects of animal husbandry; (3) evidence for trade contacts; (4) raw materials for trade; (5) and both human and natural taphonomic agents (Schmid 1972; Voigt 1983; Klein & Cruz-Uribe 1984; Hesse & Wapnish 1985; Plug 2000).

Previous studies in southern Africa that are of specific relevance to this paper have dealt with issues such as slaughter patterns, bone use and biasing agents effecting faunal remains. Of relevance are the cut marks found on faunal remains, this type of bone damage may imply activities such as skinning, dismemberment, meat removal and tool manufacture. Each of these activities are associated with specific types of bone damage and particular parts of the carcass. For example, skinning marks are more likely to be located on mandibles, around the bases of horns/ antlers and on feet; dismemberment marks are usually located at major joints; scraping and cutting meat off a bone usually leaves marks on shafts, flat surfaces of vertebrae, ribs, innominates and scapulae; while with tool manufacture elements such as the scapula may be shaped and sharpened into cutting implements (Hesse & Wapnish 1985).

Furthermore, biasing agents affect faunal assemblages, both during the excavation and collection stages. More specifically they influence both the distribution of bones and the degree of bone fragmentation (Lyman 1994). Along these lines, in 1983, Behrensmeyer (Behrensmeyer in Lyman 1994: 162) noted that the dispersal of bones by predators and

scavengers (biasing agents) resulted in limbs and even heads being dragged away from the vertebral column thus influencing the placement of faunal elements as well as their presence within the faunal assemblage. White (White in Lyman 1994: 224) further showed that people may have left lower limbs with little meat at the kill site therefore negatively impacting on the completeness of the faunal assemblage at the settlement. Other biasing agents are taphonomic processes such as fluvial actions, gravity and trampling, as well as scavengers, carnivores and humans play a significant role in bone survival rates. The density of a bone also influences its survival rate; the denser the bone, the more likely it is to survive in the archaeological assemblage.

Within the next chapter, Chapter III, I outline the methodology for my data analysis which includes faunal analysis, data capturing and data analysis.

CHAPTER III: METHODOLOGY

My methodology may be divided into three main categories: faunal analysis, data capturing and data analysis. Laid out below is a discussion of each category detailing the main actions undertaken for each. I discuss them in order, starting with faunal analysis.

FAUNAL ANALYSIS

As part of my faunal analysis numerous samples from multiple sites were analysed. The primary sites were: K2 (on Greefswald), Leokwe Hill (Little Muck), Castle Rock (Den Staat), Weipe 508 (Weipe) and KK (Venetia). The comparative sites came from published data from Great Zimbabwe (Brain 1974; Thorp 1995), Mapungubwe (Voigt 1983), K2 (Voigt 1983), Dzata (De Wet-Bronner 1995), Tshithemi (De Wet-Bronner 1995) and Manekweni (Barker 1978). Each sample from each site was analysed independently using the comparative collection housed at the Bernard Price Institute at WITS. Although each sample was analysed in its entirety, the focus was primarily on domestic fauna, specifically Bov II and Bov III sized remains.

The faunal remains were divided into identifiable and unidentifiable fragments. The identifiable material was identified to skeletal element and then placed into either the bovid or 'other' category. If the faunal element was identified as bovid it was then placed within one of the bovid size classes (I, II or III), however there were a few specimens that fell within the bigger bovid size classes. For each identifiable element the side was determined (left or right), as well as the end (top or bottom of a given bone), the degree of epiphyseal fusion and damage. For teeth I identified side (left or right), location (maxilla/mandible; incisor, canine, molar or premolar), eruption and wear, and whether it was isolated or in a bone matrix. The unidentifiable material was placed into size ranges in order to determine the degree of fragmentation within each sample and per site. I used size increments of two centimeters, starting with 0-2 and ending with 14-16 cm for the unidentifiable material. The size ranges were further grouped into 4 categories: high fragmentation, medium fragmentation, low fragmentation and long bones. Thus, bone

fragments that fell within the 0-4 cm range were considered to be highly fragmented, bone fragments within the 4-8 cm range were considered to have a medium degree of fragmentation, bone fragments within the 8-12 cm range were considered to have a low degree of fragmentation, while those that fell within the 12-16 cm range were considered to be unidentifiable long bones.

In direct relation to the faunal analysis, there are some specific biases that must be acknowledged. Firstly, I am not a faunal expert. I only use faunal analyses as a means to address the question of status. Therefore, more elements may be identifiable and the analysis could be more detailed. Directly related to this, as all Bov III teeth were identified as *Bos*, I interpreted the Bov III post-cranial elements as also being *Bos*. Thus, Bov III remains were taken to be cattle remains. My analysis was limited to element identification, placement of elements into Bovoid size classes (when the element was from a bovid) and categorising fragments according to length measurements. Secondly, my sample from K2 is a result of a rehabilitation program, rather than a controlled excavation. As a result, there is some horizontal but little vertical control. Thirdly, some sample packages, specifically from Leokwe Hill, have disintegrated, increasing the number of unidentifiable fragments. And finally, I could not analyse the first sample from Weipe 508 as the faunal assemblage could not be located. They were, however, analysed in the field by M. Kloppers and the 2005 University of the Witwatersrand (WITS) Archaeology Honours class, but this was not comparable with my method. I therefore only used material from a later excavation at Weipe 508.

DATA CAPTURING

During the faunal analysis, the details of each identifiable element and the number and size of unidentifiable remains were taken note of in a table. This raw data was then captured on computer into a Microsoft Excel program. For each identifiable element, the data concerning it (side, damage, degree of epiphyseal fusion) was tabulated independently; unidentifiable fragments however, were grouped according to size range and tabulated in those size ranges. Each sample/ site had multiple bags/ boxes of faunal

remains that were analysed, although each bag/box was analysed independently, if multiple bags/ boxes came from the same provenance for a specific sample/ site then all the data from that provenance was captured together under the one provenance. The data for each sample/ site was captured in separate tables.

DATA ANALYSIS

My analysis concerns the distribution of skeletal elements in Middle Iron Age settlements. More specifically however whether certain parts of a carcass could be attributed to specific people/ settlements thereby indicating status. Multiple methods of analysis were undertaken in order to fully examine this. These methods include an analysis of Bov III body part divisions, Bov II/ III comparisons, an analysis of bone fragmentation, histograms and finally a statistical analysis of patterns identified during the Bov III body part division analysis.

After the initial faunal analysis, two methods of quantification were used on the identifiable faunal remains. These were: NISP (Number of Individual Specimens) and MNI (Minimum Number of Individuals). An explanation of both as well as a summary of their shortcomings will be laid out below, beginning with NISP. In order to quantify abundances within an assemblage the individual identified specimen (NISP) forms the basic counting unit. Thus a single tooth is counted individually. It is this individual identified specimen that is the foundation of many analytical measures (Grayson 1984). In fact, NISP was used as the standard measure of abundance for many years. However, NISP is problematic for numerous reasons. (1) NISP is affected by butchering patterns. For instance, some animals may be taken to the settlement in one piece (complete carcass), while others may be butchered at the kill site leaving some portions behind (this is referred to as the Schlepp Effect). These differing butchery patterns may affect the overall specimen count (Grayson 1984). (2) NISP varies from species to species. In other words, a cow and a frog may have a completely different number of bones in their bodies. (3) NISP assumes that all specimens were equally affected by chance or deliberate breakage. However, differential preservation affects the NISP. Besides the number of specimens, preservation also differentially affects the bones of different taxa. (4) NISP

may be affected by collection technique, such as sieving (large versus small specimens). (5) NISP does not allow valid comparisons between different taxa. (6) NISP does not allow for as many analytic techniques as the MNI (Grayson 1984). For these reasons, NISP should only be used to compare parts within the same species.

MNI, on the other hand, refers to the minimum number of individual animals present within a specific species or assemblage. For example, four left *Bos taurus* humerii indicate a minimum number of four cows. On the other hand, one left and one right humerii, depending on the degree of epiphyseal fusion, size of the bone and degree of weathering, may indicate the presence of only one cow. MNI is a derived unit, as it may or may not take into account inter-specimen variations such as age, sex and size (Lyman 1994). For these reasons, MNI is best used to compare different species. It must, however, be acknowledged that numerous methodological problems are associated with MNI counts (Plug & Plug 1990). These problems relate either to the underlying fundamental assumptions of the method or to the practical aspects of zooarchaeology. In particular, (1) MNI's exaggerate the abundance of species represented by a small NISP, (2) the sum of two MNI counts does not equal the combined sample and (3) computer simulations show that MNI counts are less accurate and more variable. (4) In addition, fragmentation as well as poor preservation of faunal remains affects MNI counts. However, through multiple methods of analysis, progress has been made in understanding these problems (Plug & Plug 1990).

The tooth is the most commonly utilised element to determine MNI however, in order to quantify the MNI's for this specific analysis; the tooth was not the most appropriate option. As the Bov III remains were divided into herdsman and high status parts, MNI's had to be calculated for these two parts separately. As a result different post-cranial elements were used to quantify the MNI's. As all Bov III teeth belonged in the *Bos* samples, I assume that Bov III post-cranial elements were also *Bos*. Therefore, I use post-cranial elements for the MNI. In order to determine the MNI for the herdsman elements and the non-herdsman elements (high status elements), I used, where appropriate, the element with the highest count after taking into account the side of the elements. Thereby

enabling the comparison of MNI's for both herdsman and non-herdsman elements (high status elements).

The MNI's form the basis for the comparison of the prevalence of Bov II/ Bov III remains within each sample/ site under analysis. The comparison of Bov II/ Bov III quantities within a sample/ site is important as sheep/goat and cattle have differing status, with sheep/goat being of lower status than cattle. In some instances sheep/ goat may be used as a substitute for cattle. This comparison will form another line of evidence concerning the status of each sample/ site as it may be inferred from high quantities of sheep/ goat remains that the sample is indicative of low status, either for the people associated with the settlement or for the settlement itself. The results of these comparisons will be laid out in table form as well as being represented in the form of histograms. The use of the histogram is purely for easy visual representation of the patterns present.

In order to identify any patterning specifically related to Bov III remains and the division of body parts, I initially divided the faunal remains into herdsman and non-herdsman elements (high status elements) (Figure 3.1). Herdsman parts included the skull and the jaw, feet (phalanges and metapodials) and caudal vertebrae; while non-herdsman (high status elements) parts include vertebrae (thoracic, lumbar etc), scapula, limb bones (humerus, ulna, radius, femur, tibia and fibula), the pelvic girdle and ribs. However, as the analyses progressed, it became clear that a three-way division of the skeleton based on ethnographic evidence was more significant than the entire skeleton thus it was divided into the fore-quarter, hind-quarter and lower leg/foot bones (Figure 3.2). The fore and hind quarters are indicative of high-status while the lower leg/foot bones represent low status e.g. herdsman parts. To be more specific, based on ethnographic evidence, although the fore and hind-quarters are both considered to be of high status, it is the hind-quarter that is of the highest status as it is linked with the chief. Thus the presence of these elements within a sample/ site may be indicative that the chief was present within the area or the settlement at large.

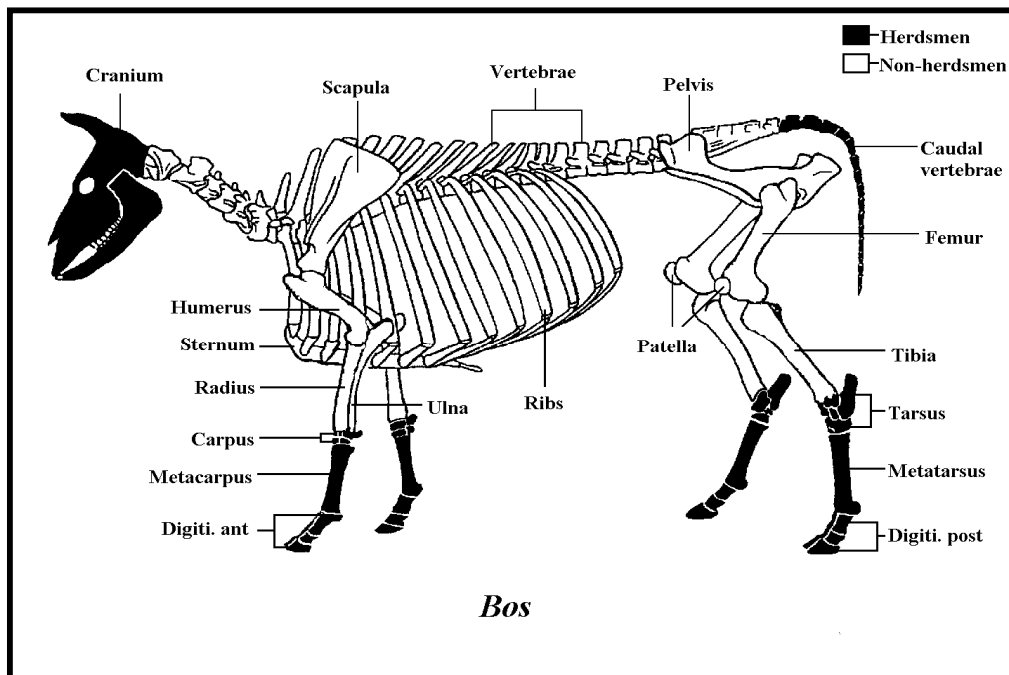


Figure 3.1: Representation of Bos showing both herdsmen and non-herdsmen elements (adapted from Schmid 1972).

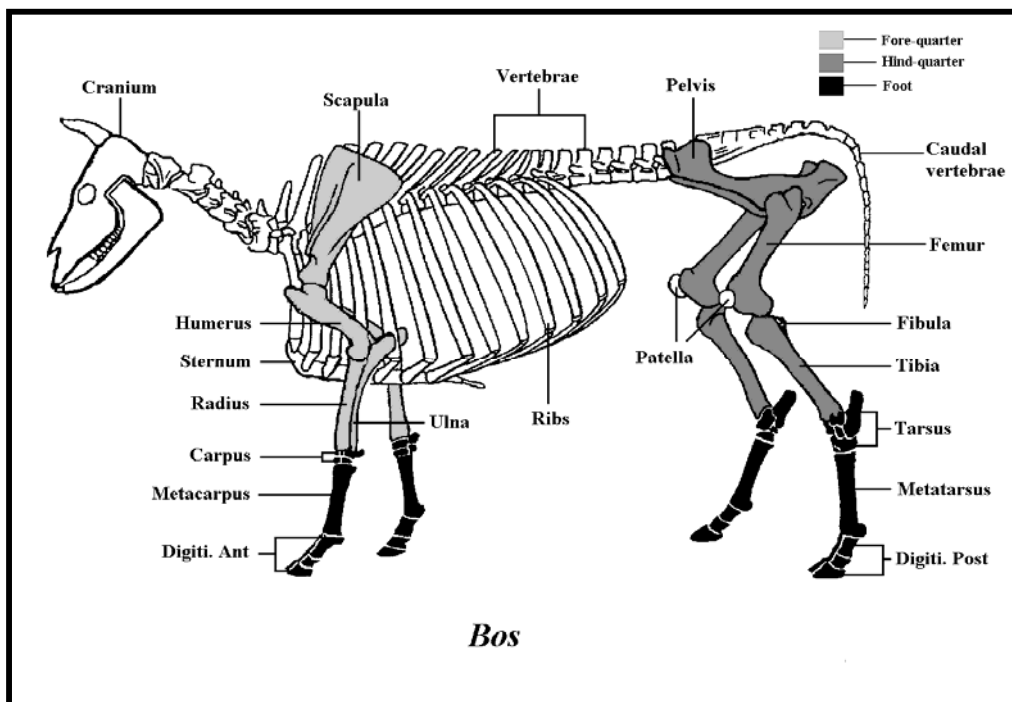


Figure 3.2: Representation of Bos showing the three divisions of a carcass: fore-quarter, hind-quarter and lower leg/foot bones.

Figure 3.2 shows my divisions of a Bov III carcass. The fore-quarter has eight bones in total, two each of the scapula, humerus, ulna and radius when taking into account the left and right fore limbs. The hind-quarter also has eight in total, two each of the pelvis (acetabulum), femur, tibia and fibula when taking into account the left and right hind limbs. The lower leg/foot body part division has substantially more bones, totaling forty-four when combining the lower leg/ foot bones from all four limbs of a single cow. These bones are the carpals, metacarpals, tarsals, metatarsals and phalanges (proximal, medial and distal). The total number and percentage of elements per division (fore-quarter, hind-quarter and lower leg/foot bones) of a single carcass provide an initial baseline to compare the archaeological samples.

Table 3.1: Normal distribution of Bov III faunal elements for the fore-quarter, hind-quarter and lower leg/foot bones specifically.

	Fore-quarter	Hind-quarter	Lower leg/foot bones	
Number of bones	8	8	44	60
Percentage	13%	13%	74%	100%

Table 3.1 shows the divisions of a cow used here, the number of faunal elements within that division and the consequent percentages related to those numbers. The percentages shown indicate what I have arbitrarily termed the Average Pattern. It is termed the Average Pattern as this should represent the average number of bones that may be present within a settlement if a single complete cattle carcass is present. If a site produces these percentages for the respective areas, it indicates the presence of a normal bone element distribution. However, two other patterns may potentially exist within the faunal remains (Table 3.2), that of an Above-Average Pattern (High-Status pattern) and that of a Below-Average Pattern ('Herdsman Pattern'). The Above-Average Pattern is characterised by high percentages (higher than the Average Pattern) for both fore and hind-quarters, with a consequent low percentage for the lower leg/ foot bones. This pattern represents an abnormal distribution of parts and an over-abundance of certain elements. This pattern has also been termed the High-Status Pattern, as according to ethnographic evidence, the fore and hind-quarters are given to people of high status. The Below-Average Pattern

(‘Herdsman Pattern’) is characterised by a high percentage for the lower leg/ foot bones with a consequent low percentage for both the fore and hind-quarters. This pattern also indicates an abnormal distribution of parts and an over abundance of certain elements. It is termed the ‘Herdsman Pattern’ as according to ethnographic evidence, the herdsman should be receiving these parts and an over abundance of them should indicate their presence at a settlement. It should be noted, however, that for each of the three divisions, the percentages used as diagnostic included one percent of either side, for example, for the fore-quarter thirteen percent is the Average Pattern percentage, however twelve and fourteen were also included within the range.

Table 3.2: Characteristics of three patterns identified within the faunal remains.

Pattern	Fore-quarter	Hind - quarter	Lower leg/foot	Termed
Average	same as normal animal percentages			Average
Above average	high %	high %	low %	Elite/ high status
Below average	low %	low %	high %	Herdsman

The patterns outlined above (see from page 29) and as is shown in Table 3.2 will be subject to further examination in the form of a statistical analysis to determine if the patterns identified within the faunal remains are of any significance and not just irrelevant arbitrary groupings. A single tailed Students T-test will be undertaken for this purpose.

Also included within the data analysis is a consideration of the degree of fragmentation for the faunal remains within each sample/ site. This was discussed previously under the faunal analysis section (see page 23). In brief, the faunal remains were divided into size ranges, starting with 0-2 cm and ending with 14-16 cm’s in length. They were further grouped into categories indicating whether there was a low, medium or high degree of fragmentation based on the sizes. It is through these size ranges that a comparison of the degree of bone fragmentation for the samples/ sites may be undertaken.

Within the following chapter, Chapter IV, I analyse my data in terms of the methods outlined above.

CHAPTER IV: DATA ANALYSIS AND INTERPRETATION

This chapter is divided into three main sections, (1) Samples (2) Combined Analysis of Primary/ Comparative Faunal Samples and (3) Statistical Analysis. The Sample section is further sub-divided into two sub-sections, (1) Primary Faunal Samples and (2) Comparative Faunal Samples. The Primary Faunal Samples came from five archaeological sites and the Comparative Faunal Samples came from six sites. Within the Sample section, under Primary Faunal Samples, I begin my analysis with K2, my largest sample and 'learning collection'. This is followed by the presentation of the Comparative Faunal Samples, whose raw data came from published works. Both sections are comprised of a site description, data analysis and an interpretation for each site. Within the Combined Primary/ Comparative Faunal Sample Analysis section, the quantified data for all of the samples will be combined and represented in graphs. The final section, the Statistical Analysis section, presents the results of the statistical analysis of the patterns identified in the Bov III body part distribution presented below.

SAMPLES

PRIMARY FAUNAL SAMPLES

K2 (2229 AB 6)

The K2 settlement was the Leopard's Kopje capital from about AD 1000 to 1200. It was originally organised according to the CCP, but later, cattle were moved out of the central kraal and the court midden gradually extended over the kraal area. The midden was never re-established in the centre of the settlement. This midden, at its greatest depth, was nearly 7m thick, consisting mainly of ash, charcoal, broken animal bones and pot-sherds. Fouchè (1937) and Gardner (1963) were the first two to excavate the kraal/court midden as well as a few residential deposits (see Figure 4.1 on page 33).

Regrettably, as well as leaving many of their sections unsatisfactorily recorded, Fouchè and Gardner did not backfill the excavated areas on completion of their research, leaving large areas open to the elements. To rectify this problem, SANParks initiated a

rehabilitation project which was carried out under the supervision of M. Murimbika. His work was conducted under the auspices of Archaeological Resources Management, between mid-November 2002 and the end of March 2003 (Huffman & Murimbika 2001, 2003; Murimbika 2003; Murimbika & Huffman 2003). The rehabilitation team removed the slumped deposits from the large midden, Trench Ts 1 (henceforth referred to as MM Ts 1 to avoid confusion with the K2/ Ts 1 presented in the Comparative Faunal Samples later on in this chapter), sifted the soil for artefacts and then used the leftover fine silt to fill sandbags which were used to stabilise the edges of the excavation trench. As the deposit had slumped from the old trench walls, the vertical distributions could not be recorded, horizontal locations, however, could be. Gardner's old dump was treated in the same way. Many artefacts were recovered from Gardner's dump, including ceramics, figurine fragments – both human and animal, Garden Roller beads and bead moulds, glass and shell beads, grinding stones, copper artifacts, domestic animal remains as well as a few human mandibles (Huffman & Murimbika 2001; Murimbika 2003). Human mandibles were also present in the MM Ts 1 faunal assemblage; this may be explained by the location of the rehabilitation excavations – in an old kraal, which is an ethnographically established place of burial for people of status, but usually men since it associated with them. Within the midden (previously the cattle kraal), two thick cattle dung layers, separated by an ash layer, lay directly on top of the sand. This indicates that this area was used as a cattle kraal from the outset. A series of thin white crusts within the cattle dung layers indicates the cyclical use of the kraal, with cattle only being brought into the settlement periodically. The thin crust indicates the laying down of a new dung layer each time the cattle were brought back to the settlement. Sloping lenses of ash and bone formed the midden above, with the richest lens of bone at the base (Figure 4.2). Excavations at the south end of the midden uncovered Zhizo pottery below the initial K2 horizon which means that Zhizo people may have been using this area prior to K2 occupation.

The midden Trench was 74m long and divided into 18 blocks of 4m. Each 4m block was cleaned to expose the original section, recorded and stabilised. Faunal remains that were recovered during this process were presorted, with small fragments being removed and

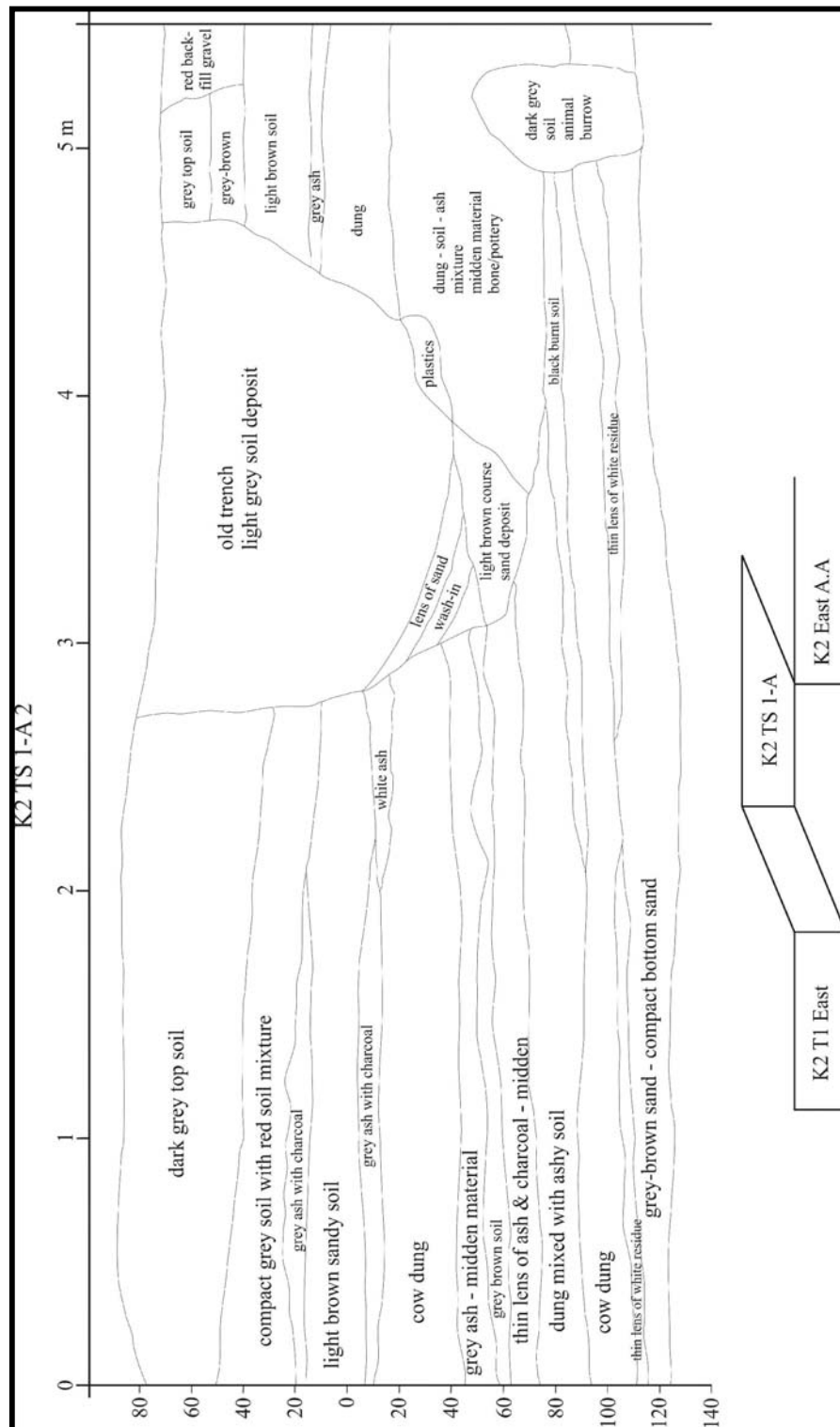


Figure 4.2: Example of Stratigraphic levels in K2/ MM Ts 1.

The faunal assemblage that was analysed for K2 came from the area mentioned above, the kraal/ court midden area. The analysis of the faunal data is set out below.

I analysed the faunal remains from four areas: MM Ts 1/ A, F, F-I and G-I, together they yielded a total of 15 896 bone pieces. Of that total, 7 785 (49%) were identifiable and 8 111 (51%) were not. Of the identifiable elements 2 909 were Bov II size, 2 996 were Bov III size and 1 880 were non-Bovid. As Table 4.1 shows, the majority of the unidentifiable fragments fell into size range 4-6 cm, contributing a total of 35% of the total unidentifiable fragments for this site, this is closely followed by the 2-4 cm size range, which contributes 34%. What this indicates is that there is a medium to high degree of fragmentation at this site with unidentifiable fragments being more numerous than identifiable elements.

Table 4.1: Total identifiable and unidentifiable NISP for K2, including size ranges for all unidentifiable fragments (in cm).

				HIGH		MEDIUM		LOW		LONG BONES	
Site	ID	UN-ID	Total remains	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
K2 MM Ts 1	7785	8111	15896	783 9.7%	2761 34%	2844 35%	1377 17%	286 3.5%	49 0.6%	11 0.14%	0

I based the MNI for herdsmen elements (low status elements) for both MM Ts 1/ A and F on hyoid and right metatarsal numbers, respectively as these elements were the most numerous. MM Ts 1/ A has an MNI of between three and eight individuals, while MM Ts 1/ F has between 11 and 23 individuals. The herdsmen elements (low status elements) for MM Ts 1/ F-I were based on right metatarsals which indicate the presence of at least nine individuals. Within MM Ts 1/ G-I, the herdsmen elements (low status elements) MNI was based on right Mandibular PM-3. They indicate that at least three individuals are present. In quantifying the MNI, a double count may occur specifically as we are tallying different bone elements within what may be a single animal, with this point in mind, the total number of herdsmen parts for Trench MM Ts 1 is 40. This is based on right metatarsal numbers. The hyoid and pre-molar numbers were not included to avoid a skewed total.

The MNI for high status elements (non-herdsmen elements) for MM Ts 1/ A and F was based on left femur numbers. MM Ts 1/ A has three individuals while MM Ts 1/ F has seven. For, MM Ts 1/ F-I, the MNI was based on scapula and radius (both left). They both indicate the presence of nine individuals. Based on humerus and ulna (both right) MM Ts 1/ G-I has an MNI of four, while femur numbers indicate an MNI of 10 for non-herdsmen parts for MM Ts 1.

Table 4.2: Comparison of NISP and MNI between Bov II and III for K2.

Site	Bov II	MNI	Bov III	MNI	Total
K2 MM Ts 1 (A, F, F-I, G-I)	2909	71	2996	50	5905

Using NISP, Bov III remains are marginally more numerous than Bov II for the entire assemblage; however, using MNI small stock significantly outnumber cattle (Table 4.2). Figure 4.3 shows the total Bov III NISP per element for the MM Ts 1 assemblage. I used NISP to calculate the percentages in Table 4.3 which indicate that the K2 assemblage had above average percentages for both fore and hind quarters.

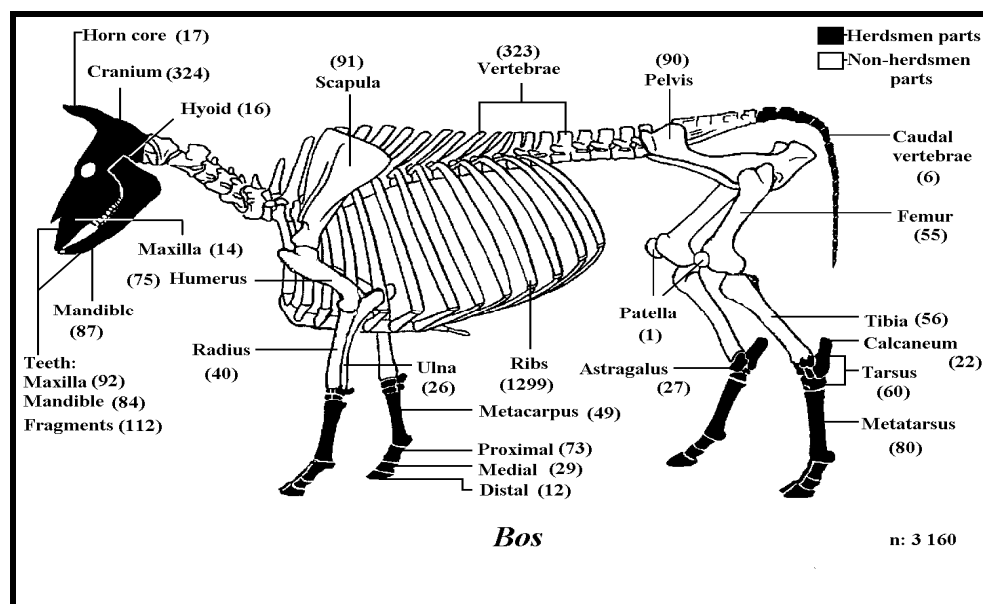


Figure 4.3: Total Bov III NISP at K2. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Table 4.3: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for K2.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
K2 MM Ts 1/A/F/F-I/G-I	785	232	29.6	201	25.6	352	44.8

Table 4.3 shows that the fore and hind-quarter have high percentages and the lower leg/foot bones have a low percentage. This indicates the presence of the Above-Average Pattern. This pattern shows that the sample is representative of relatively high status as the fore and hind-quarter elements are only given to people of higher status. The significance of the above pattern will be discussed in the Statistical Analysis section at the end of this chapter (see from page 89).

Of note are three faunal elements with cut marks: a calcaneum and an astragalus (both right and Bov III) and one left humerus (Bov III). The presence of cut marks, rather than gnaw or bite marks indicates human interaction rather than animal interaction. They are most likely to be butchery marks; cutting up the carcass to access the meat for consumption. The cut marks on the calcaneum and astragalus (lower leg in a bovid) indicates that the butcher was either cutting the meat off (as there is very little meat here, this is unlikely) or he was cutting off the lower leg/ foot, which is ethnographically documented.

Interpretation

The sample presented above is quite large, however, it has no vertical control, and thus, the patterns present are indicative of the long term use of the settlement which spans numerous years after the cattle kraal was moved out of the settlement. This means that the patterns present during this period may be indicative of an average mix of several patterns. Overall, there is an Above-Average Pattern present (high status pattern) when considering the distribution of cattle body parts within the settlement (see Table 3.2 in Chapter III on page 30 for details on this pattern).

The sample was taken from the midden (previously the cattle kraal); since there was no vertical control there may have been some mixing of the archaeological remains from these two different periods of use, thus adding a degree of ambiguity to the results. The cattle kraal is known to be of high status and linked with men; however a midden, depending on who it is linked with may not be. Either way, the results of the cattle body part distribution indicate that the high status cattle elements were present in much greater quantities than they should have been within the cattle kraal/ midden area. In direct contrast to this, the low status parts were present in much smaller quantities than they should have been. This indicates that there is some factor influencing the distribution of specific bones within the settlement. It is interesting that although there are less lower leg/ foot bones present within this assemblage, they are not altogether absent.

If Huffman's theory is correct and the herdsmen receive these specific parts of a carcass, then these parts should be, on the whole, absent from the assemblage, since the cattle and therefore the herdsmen by association are not located within the settlement. What Table 4.3 (see page 37 above) indicates is that more than half the lower leg/ foot bones that should have been present were in actual fact completely absent from this assemblage. This indicates that the majority of the lower leg/ foot bones were not being utilised/ discarded of in this specific area. They could be elsewhere within the settlement or they could be in the herdsmen's place of residence if Huffman is correct. There is another possibility that these parts were actually left at the kill site since they have very minimal quantity of meat on them. Along these lines, it is likely that any cattle slaughtered for consumption by K2 inhabitants would have been slaughtered within the settlement as they were the property of the chief, thus it is less likely that the lower leg/ foot bones were left at the kill site.

It is also interesting to note that at such a high status settlement that the sheep/ goat remains outnumbered those of cattle. This may be explained by the status of cattle themselves. They were considered a sign of wealth and the more one had the wealthier they were, thus slaughtering cattle would have been very costly. As such it is more likely that the inhabitants of K2 ate a diet which consisted predominantly of sheep/ goat. The

ramifications of this are that sheep/ goat are not necessarily associated with low status settlements or people.

As for the overall interpretation of the samples analysed, the data presented above indicates that K2 followed a high status pattern in terms of the distribution of cattle body parts when looking specifically at the faunal remains from a large section of the central midden. It also indicates that sheep/ goat were not necessarily only associated with low status settlements or people, they may have been used as a main part of the K2 inhabitants diet. Finally, a large number of lower leg/ foot bones are missing from the faunal assemblage; while a more than average quantity of fore and hind-quarter elements were present.

LEOKWE HILL (2229 AD 1)

In 1996 /1997, Calabrese excavated here to investigate the relationship of this community with the nearby regional capital of K2 (Vogel & Calabrese 2000). The site was of interest as the top of the hill was believed to be a high status settlement. Based on this assumption, its presence so close to K2 required investigation. His excavations here yielded evidence proving that Zhizo people were not completely expelled from the Shashe-Limpopo Valley when the Leopard's Kopje people arrived. Thus, Leokwe Hill is an important site for two reasons. Firstly it is here that the first evidence of Leokwe people was discovered by Calabrese. Secondly, it is after this Hill that the people and their pottery are named (Vogel & Calabrese 2000). When conducting his excavations, Calabrese (2000) divided the area into four activity areas, Areas A through D (see Figure 4.4 below). However, only Areas A and B shall be discussed here. During his excavations he found that Leopard's Kopje elements characterised the hilltop (Western Summit/ Area A); while Leokwe elements dominated the terrace below (Northern Terrace/ Area B). The hilltop deposit dates to between AD 1160 and 1215, while available dates for the midden on the terrace below collectively span between AD 1050 and 1150 (Vogel & Calabrese 2000). Calabrese argues that Area A is an elite K2 residence that dominated Leokwe commoners who were located below in Area B (Calabrese 2000, 2005). However, new research by Huffman shows that the hilltop may alternatively be interpreted as a rainmaking location used during the

Transitional K2 Period (Huffman 2008). It should be noted here that up until AD 1150 the region had sufficient rainfall, however around AD 1200 there was a drought until AD 1250 when the region returned to a wetter climate. From the climatic data there are grounds for considering Huffman's rainmaking hypothesis. That there is no overlap in occupation periods between the terrace and the hilltop indicates that the occupations were not contemporary for the vast majority of their inhabitation.

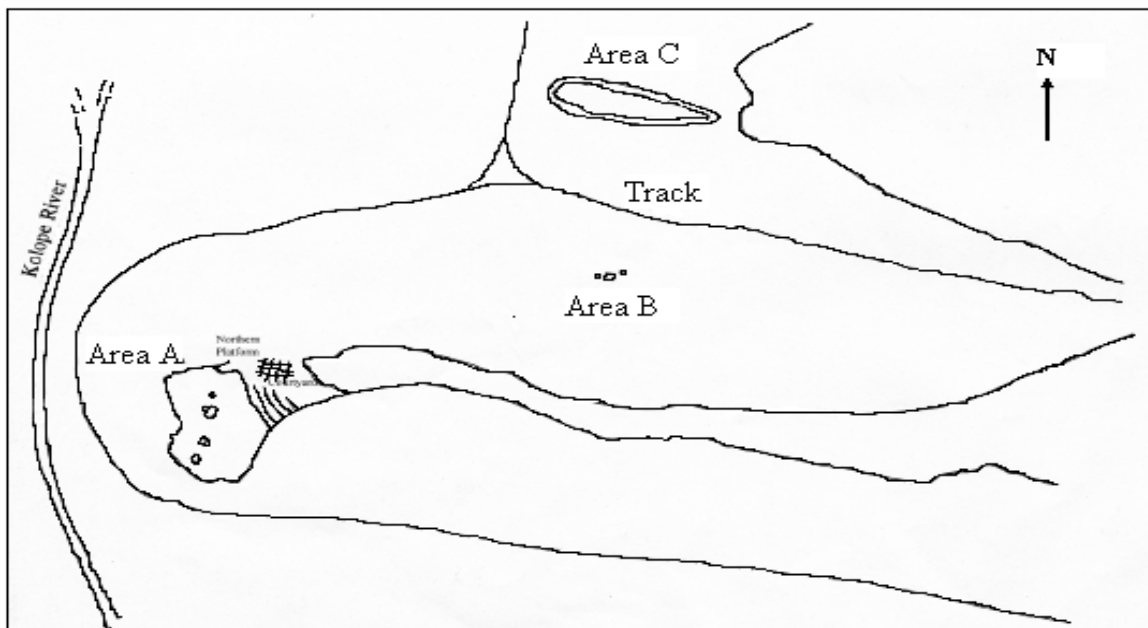


Figure 4.4: Plan of Leokwe Hill showing the locations of Areas A through C (from Calabrese 2005). The lines in the drawing indicate the contour of the hill.

The analysis of the faunal data for both Area A and Area B will be laid out below after a brief summary of Calabrese's excavation methods. Calabrese subdivided his excavations into Areas, then Blocks and finally Test Units. Each test unit comprised multiple strata. Of note, is the thin veneer of Venda material which overlaid both the Leopard's Kopje and the Leokwe material (Vogel & Calabrese 2000); because of this, Stratum 1 (the Venda strata) from all Areas was excluded from analysis. In total 13 235 faunal elements came from Areas A and B, however the entire sample could not be used as some fauna could not be placed within the excavation due to missing or incomplete bag labels which were as a result of their general decay over time. As a result only 10 463 faunal elements could be

utilised for my analysis. For AA, AB, AC (Area A) and BA (Area B) combined, a total of 1 554 (14.85%) were identifiable and 8 909 (85.14%) unidentifiable.

AREA A

Area A is thought to represent a pre-colonial settlement which has two occupation periods, first occupied between AD 1160 and 1215 and later occupied by the Venda (see Figures 4.5 and 4.6 on page 43) (Vogel & Calabrese 2000: 48). The Western Summit or Area A had limited access; ascent was via the northern slope below the saddle. One feature specifically associated with this ascent is a large fallen down stone wall located below the northern edge of the saddle, in antiquity this wall would have restricted access to the summit (Calabrese 2000). Other features associated with the Western Summit are surface features such as a large, circular stone feature (which Calabrese thought to possibly be a grain storage bin foundation) and partially exposed hut platforms. No animal byres or dung deposits were located either on the surface or during excavations. The material remains found included numerous ceramics and faunal remains which were considered to be domestic debris as the section profiles indicate at least two episodes of hut construction and related midden deposition. Other material remains recovered during excavations included beads, ground stone and metal artefacts. Ground and worked stone in the form of grain processing implements and for the purposes of pottery manufacture and craft manufacture are characteristic of a domestic occupation (Calabrese 2000). The Western Summit yielded a total of 399 beads, including 173 glass beads. The metal artefacts were non-utilitarian items and were interpreted as indicating the presence of smithing activities rather than smelting within Area A. The Area A ceramic assemblage was interpreted by Calabrese as closely resembling Leopard's Kopje.

Calabrese argues that the data from Leokwe Hill suggests that the Leopards Kopje elite were occupying the high status area at the summit of the Leokwe Hill, while the Leokwe peoples (commoners or low status people) occupied the lower terrace. Based on the close chronological association of Area A and Area B Calabrese infers that Zhizo and Leopard's Kopje users were living together at Leokwe Hill during the late twelfth century (Calabrese

2000; Vogel & Calabrese 2000). However, he further argues that this close chronological association does not necessarily mean that there was a simultaneous occupation, it is possible that the Leopards Kopje people expelled the Zhizo community at Leokwe Hill and in turn established themselves there on top (Vogel & Calabrese 2000).

Huffman argues that there is no evidence to support a major settlement on the hilltop during K2 times; rather it was used as a rainmaking site at some point in Transitional K2 times. His hypothesis is based on new studies on (1) the ethnoarchaeology and archaeological signature of rainmaking, (2) the presence of a Transitional K2 ceramic and bead assemblage, as well as (3) the ideals of traditional house construction (Huffman 2007a). (1) The practice of rainmaking is characterised as being directly linked with the agricultural cycle and carried out only by men. If normal rainmaking practices fail and a drought continues, the rainmakers must go to special hills to carry out rainmaking rituals. These rainmaking hills are usually steep-sided with difficult access, too small for normal settlements yet covered with pottery of different time periods and exposed rock usually bearing artificial cupules in association with natural cisterns. (2) The presence of broken pottery is said to be important as objects used during a ritual may not be returned to a domestic context. (3) In terms of housing construction, throughout southern Africa most farmers in the recent past made use of pole and daga rondavels covered with thatch and thick foundations that stood 10cm above ground level for the rondavel itself. Huffman argues that the hilltop does not have *in situ* floors or thick concentrations of daga present such as at the bottom of the hill. Huffman states that Calabrese only recovered a few daga lumps and thin gravel lenses from the top of Leokwe Hill which is not evidence for a residential settlement. The gravel or lapa flooring recovered on Leokwe Hill is characteristic of the residential portion of a settlement, but, Huffman argues against it as evidence for actual residence. The grain bin remains found on Leokwe Hill hilltop are argued by Huffman to be temporary as they were not raised off the ground. Huffman (2007a) further argues that the presence of animal dung indicates that small stock (sheep/goat) were placed in temporary kraals before sacrifice. He further expands his argument to include Leokwe people as the presence of Leokwe pottery at most hills suggest that Leokwe people participated.



Figure 4.5: The Western Summit of Leokwe Hill as seen from the higher, eastern side (Calabrese 2005).

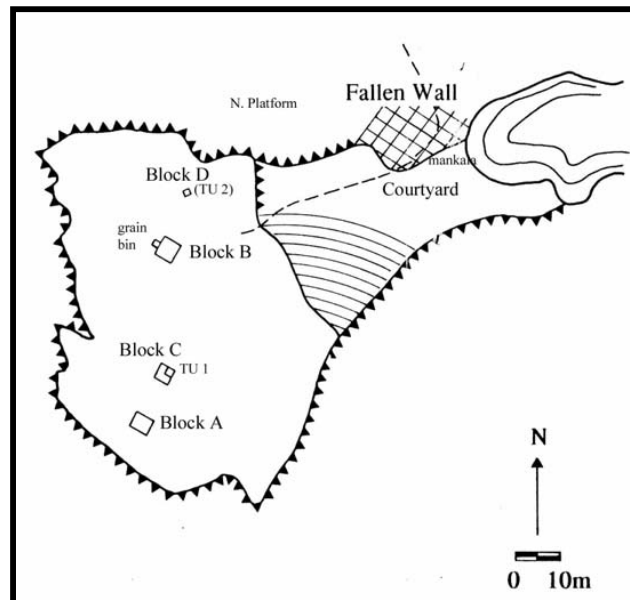


Figure 4.6: Location of excavations and features, Leokwe Hill, Area A (Calabrese 2005).

Thus, Huffman hypothesises that Leokwe Hill was not an elite residence but rather a rainmaking hill specifically because of its steep sides, small summit, the lapa surfaces and grain bins, the ceramics and beads. He further states that the elite residence on Leokwe Hill would have been a challenge to the K2/ Mapungubwe leadership, especially as it is in close proximity to K2, within 15km from Mapungubwe (Huffman 2007a).

Now that Calabrese and Huffman's hypotheses have been outlined, I will move on to the results of the faunal analysis. Four Blocks, A through D covering a total of 69 m² were excavated (Figure 4.6), however, I only used the faunal remains from Blocks A, B and C.

In total, Area A had a NISP of 5 389 with identifiable elements contributing 1 010 (16%), and unidentifiable fragments 4 389 (84%). Of the identifiable elements, 283 were Bov II and 199 were Bov III. For blocks A, B and C together, size range 0-2 cm had the majority of the unidentifiable fragments, yielding 47%, followed closely by size range 2-4 cm which contributes 41% (see Tables 4.4 and 4.5). This indicates that there was a high degree of fragmentation.

Table 4.4: Total unidentifiable fragments for Leokwe Hill, Areas AA, AB and AC.

Area	0-2	2-4	4-6	6-8
AA	709	660	143	18
AB	963	1191	407	48
AC	847	335	57	11

Table 4.5: Total identifiable and unidentifiable NISP for Leokwe Hill, Area A, including size range for unidentifiable fragments (in cm).

				HIGH		MEDIUM		LOW		LONG BONES	
Site	ID	UN-ID	Total remains	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
Leokwe Hill Area A	1010	5389	6399	2519 47%	2186 41%	607 11%	77 1.4%	0	0	0	0

As Table 4.6 shows, Area A has a higher MNI for Bov II remains than Bov III meaning that sheep/ goat outnumbered cattle within this sample. Below, Figure 4.7 shows the NISP's for specific Bov III elements.

Table 4.6: Comparison of NISP and MNI between Bov II and III for Leokwe Hill, Area A.

Site	Bov II	MNI	Bov III	MNI	Total
Leokwe Hill Area A	283 59%	9	199 41%	2	482

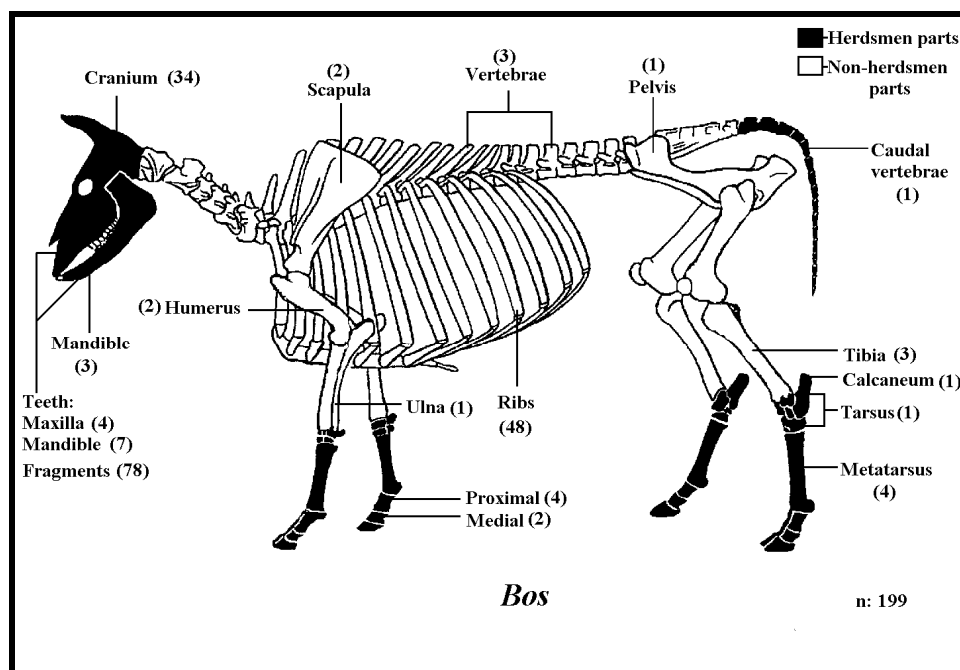


Figure 4.7: Total Bov III NISP for Leokwe Hill, Area A. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Table 4.7 presents the distribution of parts in relation to the normal body part distribution pattern. It shows a pattern where fore and hind-quarters are above average and the foot elements are below average, thus the sample follows an Above-Average Pattern. This would indicate that there is an over abundance of the ethnographically defined high status elements within Area A. It is noteworthy that although they are still present within the faunal assemblage, the hind-quarter elements, the parts which are given to the chief of a settlement, are less abundant than the fore-quarter elements. However, the sample size is

very small and this will have a negative impact on the results of the analysis. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter (see page 89).

Table 4.7: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for Leokwe Hill, Area A.

Normal Body Part Distribution		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Leokwe Hill Area A	21	5	24	4	19	12	57

Interpretation

Although the dates for Area A and Area B are close, it cannot be said with certainty that they were occupied contemporaneously. In fact it is more likely that they were not, given the dates. Thus, Calabrese's theory that Area A and Area B were contemporary is less likely. It is more likely that Area A was only occupied/ utilised after Area B was no longer in use. However, it must be acknowledged that due to the nature of dating it is possible there was an overlap in the occupation periods. Towards the end of the Area A occupation, climate changes take effect within the Shashe- Limpopo Valley, resulting in less rain. More specifically, from Smith's climatic data, it is now known that around AD 1200, there was a drought which would have more than likely, affected general activities within the Shashe-Limpopo Valley, but particularly agricultural and herding practices. Thus it is likely that rainmaking practices would have increased at this time. However, Area A was occupied before the onset of these climate changes (see Figure 2.5 on page 13 in Chapter II), thus the first few decades of its use were not necessarily linked to rainmaking. It is, however, possible based on available climatic data, that the final two decades of its occupation were linked with rainmaking since it was during this time that drought conditions occurred.

For Area A specifically, the results of the faunal analysis may be interpreted as follows. The presence of more sheep/ goat remains within the faunal assemblage than cattle may indicate that this site was of low status as sheep/ goat are of lower status than cattle and thus more likely to be eaten by low status people. It may also indicate that rainmaking

activities were being conducted there as sheep/ goat are slaughtered for rainmaking sacrifices. However, as mentioned above in the K2 interpretation section, it is possible that due to the high value attached to cattle, sheep/ goat were used as a main part of the occupant's diet. This, along with the results of the Bov III body part distribution analysis which indicated that more high status elements were present on average within the sample, indicates that the site may have been of high status. This is corroborated by the presence of status related material remains such as the non-utilitarian metal artefacts.

As for whether Area A is a residential or rainmaking site, the material remains seem to indicate the presence of a residential area specifically because of the periods of hut construction with related periods of midden deposition. The presence of ground and worked stone in the form of grain processing implements, which are linked with residential activities also indicate the presence of a residential settlement. One line of evidence for a rainmaking interpretation, the stone walling located near the northern edge of the saddle, had to be excluded from consideration as there was no associated evidence to link it either with the Leopard's Kopje use/ occupation or the Venda use/ occupation of the site. Had it been used during the Leopard's Kopje period, then it may have been in line with Huffman's argument of difficulty of access linked with rainmaking since there is no evidence of a cattle kraal on the summit, which would have been present if the wall was of a defensive nature. Along the line of livestock kraals, it is interesting that Calabrese makes specific note that no traces of a livestock kraal or dung were found on the summit of Leokwe Hill during excavations (Calabrese 2000: 191), but Huffman includes the presence of untrammelled small stock dung on the summit within his argument for the presence of temporary sheep/ goat kraals used to house the animals before ritual sacrifice for the rainmaking process (Huffman 2007a).

Taking into account that structural remains are present it is more likely to be a settlement, thus supporting Calabrese. The material remains identified by Calabrese during his excavations, such as large circular stone features thought to be grain bin foundations, hut platforms, numerous ceramic and faunal remains, beads, ground stone artefacts and non-

utilitarian metal artefacts as well as multiple vessel types all indicate that the site was used as a residential location.

AREA B

The date for the Northern Terrace/ Area B indicates that this location was occupied between AD 1050 and 1150 (Calabrese 2000). The sample from Area B came from part of an ash midden and an animal kraal. Included within Area B were the remains of a hut, a low uncoursed stone wall, traces of a large midden deposit, two animal byres and the foundations of two grain bins. From this area glass, metal and shell beads as well as metal objects, grindstones, numerous ceramic fragments and spindle whorls were all identified.

In terms of the faunal analysis, three Blocks were excavated; A through C, however, only the faunal assemblage from Block A could be used because of the previously mentioned problems with bag labels disintegrating. Block A was placed in the central midden and consisted of a 3x5m Trench which was divided into 15 1x1m Test Units (TU 1-15) (Figure 4.8). Block A yielded a total NISP of 3 943; 423 (11%) were identifiable and 3 520 (89%) unidentifiable. The majority of unidentifiable fragments (54%) were 2-4 cm long, followed closely by the 0-2 cm size range (31%) (Table 4.8) indicating that there was a high degree of fragmentation within this area.

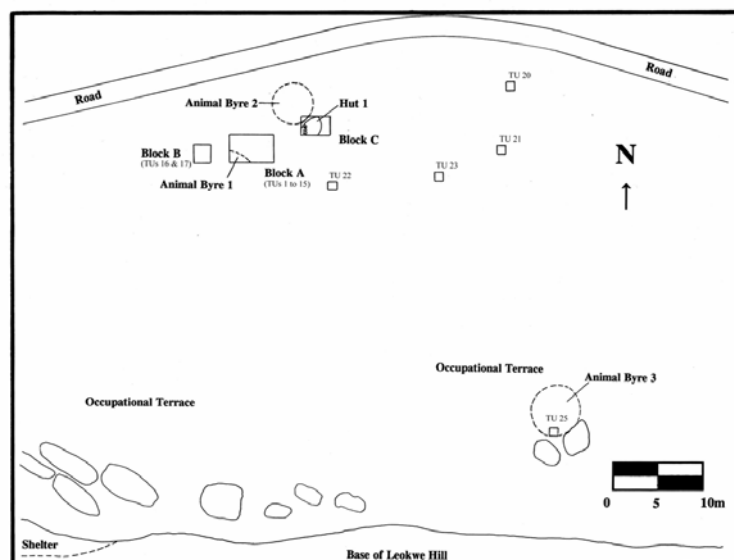


Figure 4.8: Location of excavations and features, Leokwe Hill, Area B (Calabrese 2005). Occupational Terraces are Venda.

Table 4.8: Total identifiable and unidentifiable NISP for Leokwe Hill, Area B, including size ranges for unidentifiable fragments (in cm).

Site	ID	UN-ID	Total remains	HIGH		MEDIUM		LOW		LONG BONES	
				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
Leokwe Hill Area B	423	3520	3943	1087 31%	1896 54%	453 13%	84 2%	0	0	0	0

Table 4.9 shows that although the NISP's indicate that Bov II remains are less numerous than Bov III, the MNI's, the more important measure when considering two species, indicate that Bov II are much more numerous. Of the identifiable elements, only 306 were identified as bovid remains, Bov II had a NISP of 139, while Bov III had 167.

Table 4.9: Comparison of NISP and MNI between Bov II and III for Leokwe Hill, Area B.

Site	Bov II	MNI	Bov III	MNI	Total
Leokwe Hill Area B	139	13	167	1	306

The pattern present in Area B (Table 4.10) for Bov III body part distributions is interesting in that it does not fit well into any of the three previously determined faunal patterns (Above-average, Average and Below average). As this pattern does not fit clearly into any of the previously defined patterns, a new category had to be made and this has been termed the Borderline Pattern. It is characterised by the presence of one of the three previously defined patterns (Above-average, Average or Below average) where one of the percentages does not fall within the expected range for that pattern. In this case, it is the hind-quarter percentage that differs. The statistical significance of the above mentioned pattern will be discussed in the Statistical Analysis section at the end of this chapter (see from page 89).

Table 4.10: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for Leokwe Hill, Area B.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Leokwe Hill Area B	59	10	17	7	12	42	71

Figure 4.9 below shows the NISP for each individual Bov III element present within the faunal assemblage. All elements highlighted in black are the elements considered herdsmen parts.

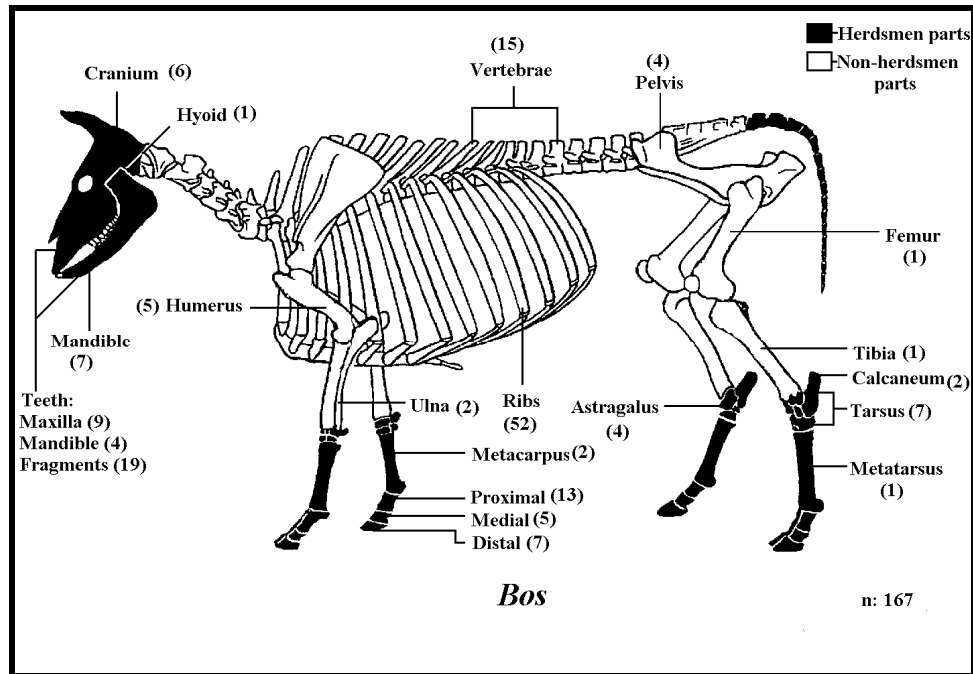


Figure 4.9: Total Bov III NISP for Leokwe Hill, Area B. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Interpretation

In terms of ceramics, Calabrese (2005: 239) has shown that there was stylistic stability throughout the entire deposit meaning that the same people inhabited the settlement for the duration of its occupation. Based on the ceramic style and its continued presence over time, there is no doubt that Area B represents a Leokwe residential settlement. As the herdsmen pattern has been hypothesised to be linked with Leokwe people, the faunal remains from this site were analysed in order to see if the ethnographically defined herdsmen pattern could be identified within the faunal assemblage. As the sample size is relatively small and that only one block could be analysed, the pattern present may not be an accurate representation of the activities at Leokwe Hill Area B. It may also mean that the results may not be representative of the whole settlement and my findings may only be applicable to the specific location they came from, the central midden.

The results of the faunal analysis indicate that sheep/ goat are significantly more prevalent than cattle within this sample in terms of their MNI's. Meaning that sheep/ goat played a greater role within the settlement; more than likely as a major source of food. However, the results of the Bov III body part distribution analysis are not quite as clear. Based on my arbitrarily defined limits for the three faunal patterns associated with Bov III body part distributions, this pattern technically falls into the Above-Average Pattern, with the exception of the hind-quarter percentage which falls into the Average Pattern range. As a result, this sample has been placed into a new category termed the Borderline Pattern since it falls only marginally outside of the expected range. What this pattern is likely indicating is that the body parts are not being as strictly distributed amongst people of differing status at this site as at other sites. Perhaps indicating that the entire animal was consumed and discarded at this location.

The Area B material remains must be taken into account as Huffman argues that as part of the niche roles Leokwe people may have had under Leopard's Kopje rule, they were also craft production specialists making trade items. Calabrese noted that only a few Venda glass beads and two Mapungubwe sherds were identified from Area B thus the material remains from this area are directly linked with the Leokwe people (Calabrese 2005: 227). The majority of the beads present within this site were made from *Achatina* sp., ostrich eggshell and bone, while glass and ivory beads were rare. The very small number of glass beads identified from the site and the fact that they were of Venda origin as well as the presence of shell bead production indicates that trade bead production was not being undertaken at this settlement during the Leokwe occupation. The presence of non-utilitarian metal items and spindle-whorls within the material remains assemblage is interesting. They may have been linked with trade item production.

CASTLE ROCK (2229 AB 184)

Castle Rock is a small hill in the middle of the vlei (Figure 4.10). Its name stems from the incomplete modern building which was erected on it by the land owner, G. Hodgson (Figure 4.11). As part of the construction activities relating to this building; material was taken from the prehistoric animal kraal on the hill and used for fill, road construction and

for grading, thus, having a negative impact on much of the archaeological deposit present (Calabrese 2000, 2005). Although Castle Rock was originally identified by Hanisch and Huffman, Calabrese was the first to conduct excavations at this site (Calabrese 2000).

Castle Rock forms one of the areas of contention between Calabrese and Huffman as, Calabrese (2000, 2005) interprets it as an elite settlement and Huffman argues that it is a seasonally used cattle post (Huffman pers. comm. 2008). To clarify this issue, further excavations were conducted at the site by WITS Honours students. Below, is the analysis of the faunal assemblages from both Calabrese's excavations and the WITS excavations.



Figure 4.10: The floodplain as seen from Castle Rock.



Figure 4.11: The incomplete modern structure (top, right of picture) that gives the site its name.

As Calabrese was the first to excavate the site, his material will be discussed first. Calabrese was forced to place his excavations in the midden area as it was the only area on the hill that remained relatively undisturbed by construction activities (Calabrese 2005). He also excavated the midden area to gather stratigraphic data, samples for radiocarbon dating and a representative sample of cultural material. As organic preservation was poor, only two samples were adequate for dating, one carbon sample was recovered from Stratum I and the other came from Stratum II. The sample from Stratum II (Pta-7969), calibrated from AD 1040 to 1160, making Castle Rock contemporary with K2. However, although contemporary, the primary ceramic component is Leokwe (Calabrese 2005: 334). The second sample produced a 13th century date (Pta-7966) which Calabrese dismissed from further analysis as it did not match any of the available evidence.

The hill itself has two steeply inclined sides, with one easily ascended side; from this Calabrese argued that the settlement was not placed there for defensive purposes. Rather, the site was placed in the middle of the vlei to enable easy access to the fertile agricultural

land surrounding the hill. He also argued that the positioning of the settlement may have been influenced by status aspirations as, at the time the site was occupied, only elite settlements were placed on hills with difficult access, for example, Mapungubwe.

Calabrese based his interpretation of the site and its status on the presence of specific material goods which he identifies as elite markers. These are, specifically, the presence of figurines, the bead assemblage and the type of metal artefacts present. Calabrese (2005) argues that the figurine assemblage provides evidence of fertility/initiation rituals conducted at the supra-household level. This is based on the presence of at least three figurines associated with fertility, one which indicates high status and two animal representations which are associated with initiation. With regard to the bead assemblage, Calabrese also argues that Castle Rock inhabitants had greater access to prestige items than some K2 people because of the relatively large number of glass beads and Garden Roller bead moulds. Calabrese (2000) recovered 361 glass and shell beads. For the metal artefacts, Calabrese argues that Leokwe people used the finished metal items for personal adornment rather than utilitarian implements as the only identifiable metal remains were of personal adornment items and not work implements. Only a small amount of slag associated with metal working was recovered indicating that smithing activities were the most likely activities at Castle Rock rather than the smelting associated with metal production.

After Calabrese's excavations, as a result of substantial rainfall in 2000, multiple previously unidentified kraals were uncovered at Castle Rock. In total, seven kraals were recorded: three Leokwe, one Transitional K2, two Khami and one unknown. It was because of these kraals that the site was re-excavated. The 2007 excavations opened up three trenches, one of which (Trench II), was placed directly next to Calabrese's old excavation block in Kraal 4 (Figure 4.12). Calabrese's faunal material from his Test Units was combined here with the Trench II faunal assemblage that was recovered during the 2007 excavation. In their combined form they are referred to as Kraal 4 as the material was recovered from within this kraal. The faunal material recovered from Trench's I and III was also combined because of their close proximity. In their combined form they are

referred to as Kraal 1. Transitional K2 pottery overlaid Leokwe in Kraal 4, indicating that a Transitional K2 occupation formed Calabrese's Stratum I, thus the most recent of all the occupations.

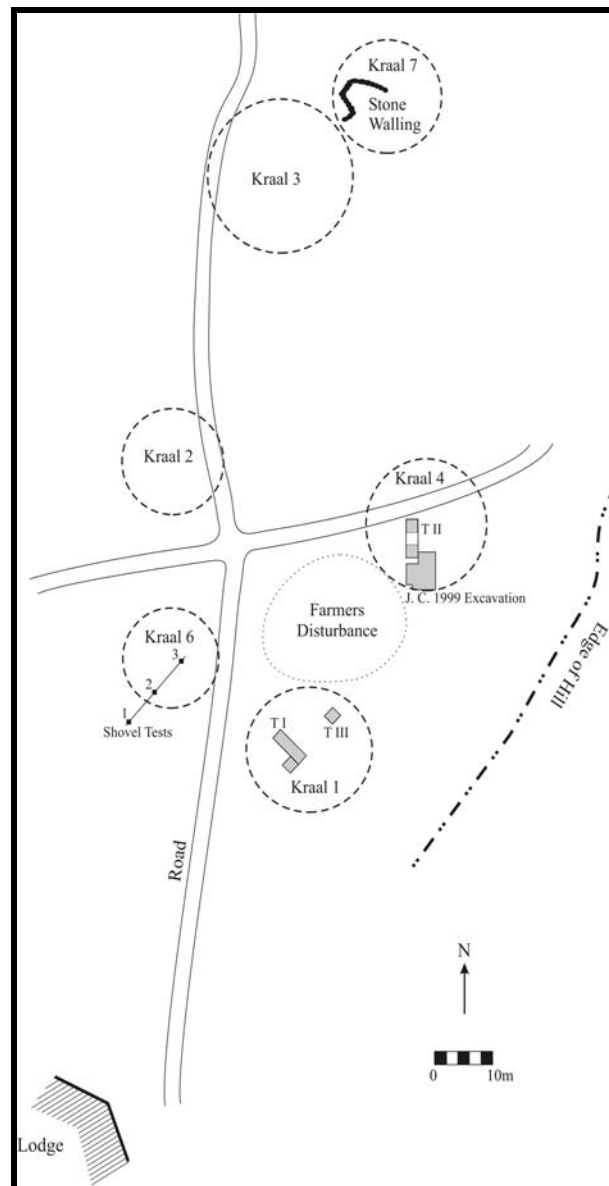


Figure 4.12: Plan of Castle Rock showing 1999 and 2007 excavation areas.

The combined faunal assemblage from Kraal 4 will be analysed first. From Calabrese's excavation material, the faunal remains from Test Units 3 and 8 through 25 were analysed.

These yielded a total NISP of 859 of which 572 (66.58%) were identifiable and 287 (33.41) were unidentifiable (Table 4.11). Trench II had a total of 1 256 unidentifiable fragments, with the majority falling into size range 0-2 cm (46%), followed closely by size range 2-4 cm (45%). This indicates a high degree of fragmentation within this specific kraal. Figure 4.13 below shows the NISP's for cattle parts within Kraal 4.

Table 4.11: Total identifiable and unidentifiable NISP for Castle Rock, Kraal 4, including size ranges for unidentifiable fragments (in cm).

Site	ID	UN-ID	Total remains	HIGH		MEDIUM		LOW		LONG BONES	
				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
Castle Rock (Kraal 4)	636	1543	2179	716 46%	692 45%	116 7.5%	17 1.1%	1 0.06%	0	0	1 0.06%

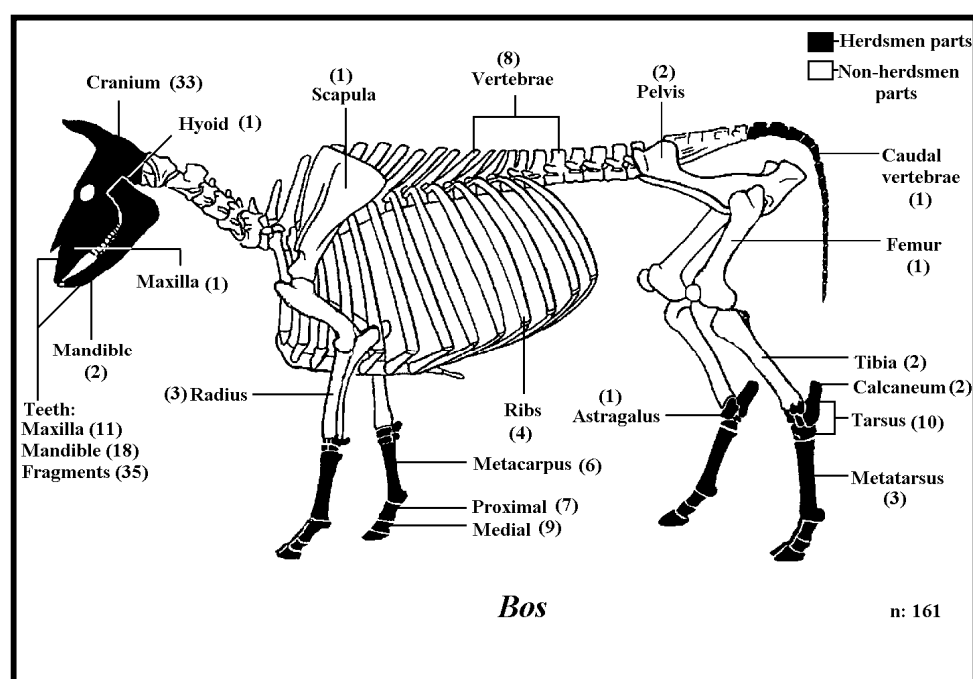


Figure 4.13: Total Bov III NISP for Castle Rock, Kraal 4. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Trench's I and III were placed within Kraal 1 (see Figure 4.12 on page 55), southwest of Calabrese's excavation which was located in Kraal 4. Trench I was 14 m in length and

divided into five squares, A through D and D₂. Only two arbitrary levels in squares B, C, D and D₂ were excavated before reaching bedrock. Square A was not excavated due to its proximity to the road and the scraped area. Trench III was parallel to Trench I and consisted of only one square, A. Three levels were excavated before reaching bedrock. Level 1 for both Trench's contained very little material and was combined with level 2. The NISP for Kraal 1 (for both Trench's I (levels 1 and 2) and III (levels 1-3)) totalled 3 056; of that, 514 (17%) were identifiable and 2 542 (83%) were not. Trench I had a total of 2 102 unidentifiable fragments, the majority of which fell into the size range 0-2 cm (41%) (Table 4.12), also indicating a high degree of fragmentation.

Table 4.12: Total identifiable and unidentifiable NISP for Castle Rock, Kraal 1, including size ranges for unidentifiable fragments (in cm).

Site	ID	UN-ID	Total remains	HIGH		MEDIUM		LOW		LONG BONES	
				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
Castle Rock (Kraal 1)	514	2542	3056	1048 41%	1024 40%	412 16%	49 2%	5 0.2%	4 0.2%	0	0

Trench III had a total of 440 unidentifiable fragments, with most (38%) ranging from 0-2 cm. The ratio of herdsmen to non-herdsmen parts is practically equal with 2 herdsmen elements to 3 non-herdsmen elements.

Table 4.13: Comparison of NISP and MNI between Bov II and III for Castle Rock, Kraals 1 and 4.

Site	Bov II	MNI	Bov III	MNI	Total
Castle Rock (Kraal 4) levels 1 and 2	227	8	145	3	372
Castle Rock (Kraal 1) levels 1 and 2	152	5	101	2	253

As Table 4.13 shows, the MNI's for cattle and sheep/ goat for both Kraal 1 and 4 indicate that small stock outnumbers large stock at Castle Rock. For the Bov III faunal remains specifically, the body part distribution pattern for both Kraal 1 and Kraal 4 indicates the presence of the Herdsmen Pattern: above average percentages for the lower leg/ foot bones and below average percentages for the fore and hind-quarters. However, the sample sizes for both are quite small. Kraal 1 specifically has an extremely small sample size; due to

this the results of the Bov III body part distribution analysis for Kraal 1 could not be used and were therefore excluded from further consideration. This may be seen in Table 4.14. It is not possible to combine the faunal remains from Kraals 1 and 4 to improve the sample size as the two areas are not closely related to one another. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter. Figure 4.14 shows the NISP's for all Bov III elements present in Kraal 1.

Table 4.14: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for Castle Rock, Kraals 1 and 4.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Castle Rock (Kraal 4)	47	4	8	5	11	38	81
Castle Rock (Kraal 1)	14	0	0	1	7	13	93

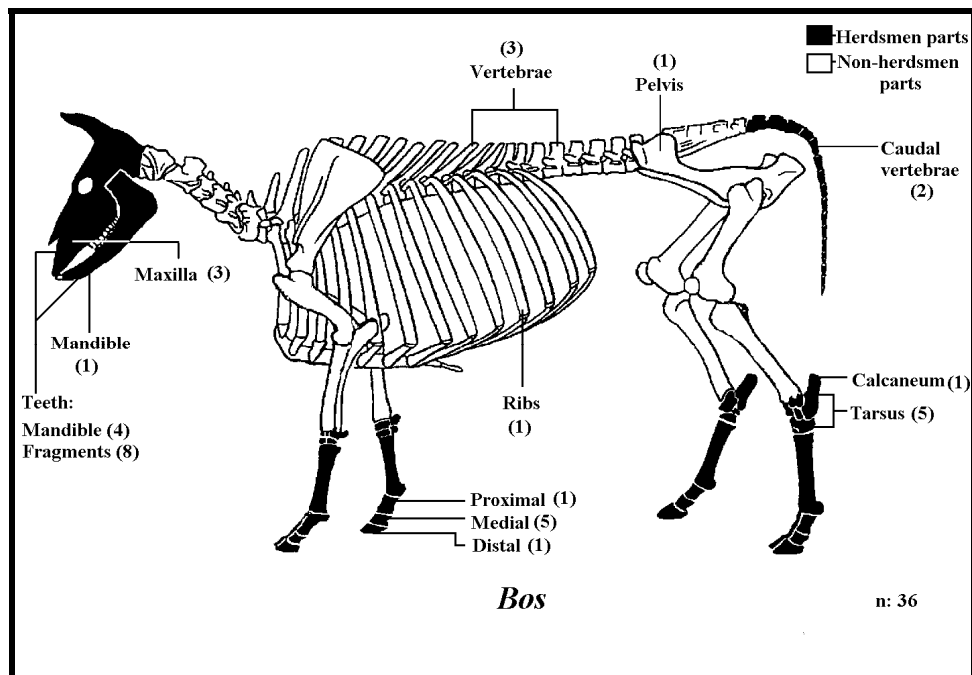


Figure 4.14: Total Bov III NISP for Castle Rock, Kraal 1. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Interpretation

No dating was undertaken during the 2007 excavations however, the dates from Calabrese's excavations show that Stratum II within Kraal 4 dated to between AD 1040 and 1160 making it contemporary with both the Leopard's Kopje occupation of K2 and the Leokwe occupation of Area B at Leokwe Hill. During excavations Calabrese found that in terms of the ceramic assemblage and vessel form, there was no distinct break between Stratum I and Stratum II. Based on Stratum II's date and as there is no break between the two strata in terms of vessel form, it may be argued that Leokwe people were using this site for the duration of its occupation. However, Calabrese's conclusions were made before the presence of the multiple other kraals was noted. The presence of the other kraals identified during the 2007 excavations may be explained by the use of the site at different times by different people, for instance, the Khami kraals would indicate the use of the site at a much later period than the Leokwe occupation. The presence of the multiple Leokwe period kraals, interpreted as 'extra kraals' by Huffman may actually represent the settlement layout trends, as the people may not have placed their kraals in the same place year after year.

From the analysis of the Castle Rock faunal material it is clear that cattle remains are less prevalent than sheep/ goat within Kraal 1 and Kraal 4. This follows the same pattern as is present at both K2 and Leokwe Hill. Thus perhaps, the high sheep/ goat numbers at this site also indicate the presence of a sheep/ goat dominated diet. As cattle remains are minimally present within the faunal assemblage, the inhabitants of the site had to be consuming at least small quantities of cattle meat. Thus they had to have access to it. As the vast majority of the parts present are not the high status, meaty parts as is indicated by the presence of the Herdsmen Pattern within Kraal 4, this indicates that the occupants of this settlement were more than likely of low status. This interpretation is, so far, in line with Huffman's interpretation of the site.

As for the material remains, it is questionable whether all the material excavated was contemporaneous as material remains associated with Khami, Transitional K2 and Leokwe were identified during excavations. The presence of multiple kraals within the site

indicates the site had multiple periods of use. Thus, the material goods present may be as a result of this rather than a single elite period as Calabrese argues. Due to the shallow depth of the deposit and as a result of the modern construction activities, it is very possible that material remains from different time periods intermingled. The presence of the Garden Roller bead moulds indicates that glass trade beads were being produced at this settlement. Their production means that the small blue/ green trade beads used to make them were present within the settlement. Thus the occupants of Castle Rock had access to them. As access to trade items was more restricted during K2 times, it is unlikely people of low status would have had access to these items, therefore the residents were either of a higher status than the faunal remains suggest or they were given the trade items by the K2 elite for the purpose of further manufacturing Garden Roller beads. The presence of figurines, usually associated with fertility/ initiation rites, within the material remains adds confusion as they are normally associated with the chief. If they are linked with the Leokwe occupation, then it implies that the settlement was of high status.

As the site is in the middle of the vlei, it would have been affected by seasonal changes. Thus, it may only have been possible to use seasonally. This could account for the numerous kraals present. Calabrese's argument that the Castle Rock site was an elite settlement seems less likely if the site could only be used periodically. This does not, however, disqualify his argument that this site had a higher status than other sites, specifically some K2.

KK (2229 AD 110)

Site KK (Kolohe Khami) is located near an outcrop of sandstone hills near a cultivatable portion of the middle Kolohe River. It was test excavated in both 2006 and 2007. During these two digs it was ascertained that, stratigraphically, two cattle kraals dating to the Khami Period overlaid an earlier Leokwe Horizon (Huffman 2006). As too few faunal remains were unearthed during the 2006 excavation and were subsequently misplaced (not by the author), the 2007 excavation aimed to retrieve a large enough sample from the Leokwe Horizon for analysis. Regrettably, the faunal assemblage retrieved was not substantial enough and had to be excluded. The data below is included within this thesis as

The 2007 Fieldschool analysed the assemblage under the supervision of C. Thorp and myself. As a result the analysis did not follow my normal method. Some elements were not sided and most of the unidentifiable fragments were not divided into size ranges. KK yielded a NISP of 2 439; 937 (39%) were identifiable and 1 492 (61%) were not. Table 4.15 indicates that there was a high degree of fragmentation at this site. Figures 4.16 and 4.17 show the total NISP for each element present.

Table 4.15: Total identifiable and unidentifiable NISP for KK, including size ranges for unidentifiable fragments (in cm).

				HIGH		MEDIUM		LOW		LONG BONES	
Site	ID	UN-ID	Total remains	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
KK	937	1492	2429	1409 94%	9 0.6%	29 1.9%	31 2.1%	12 1%	2 0.1%	0	0

Table 4.16: Comparison of NISP and MNI between Bov II and III for KK.

Site	Bov II	MNI	Bov III	MNI	Total
KK	93	3	88	2	181

Table 4.17: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for KK.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
KK Leokwe	22	9	41	6	27	7	32
KK Khami	4	1	20	3	60	1	20

Based on the results of the analysis, both levels appear to have high status patterns (Tables 4.16 and 4.17). However, the sample sizes for KK Leokwe and KK Khami are extremely small. Even combining the two levels will not make the samples much bigger. It is interesting to note that the Bov II MNI is only marginally greater than the Bov III MNI. This is likely due to the relatively equal NISP's for Bov II and III remains. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter.

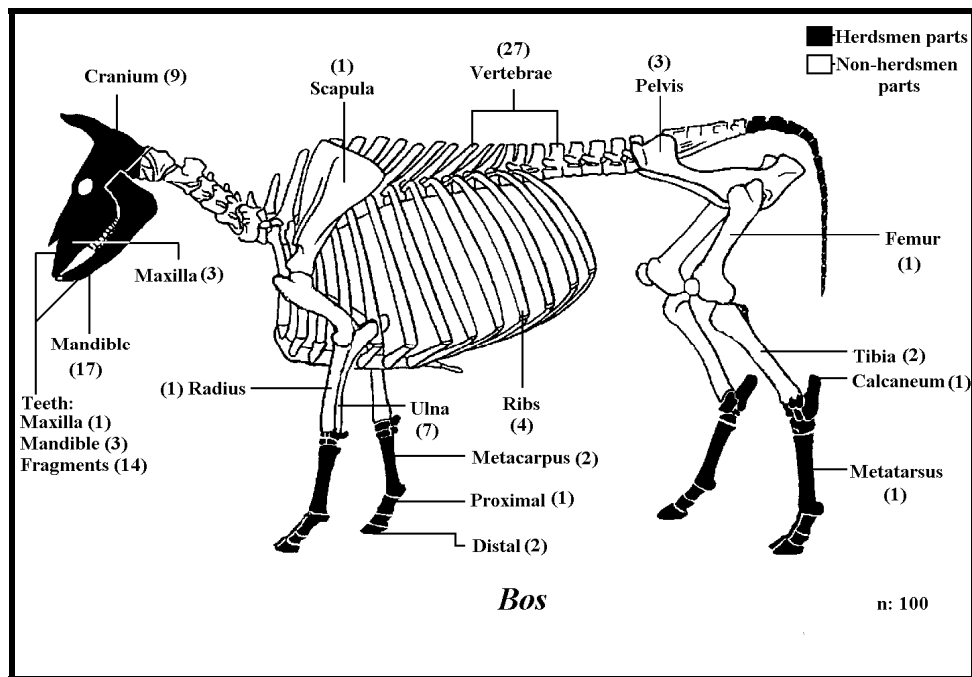


Figure 4.16: Total Bov III NISP for KK, Leokwe Kraal. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

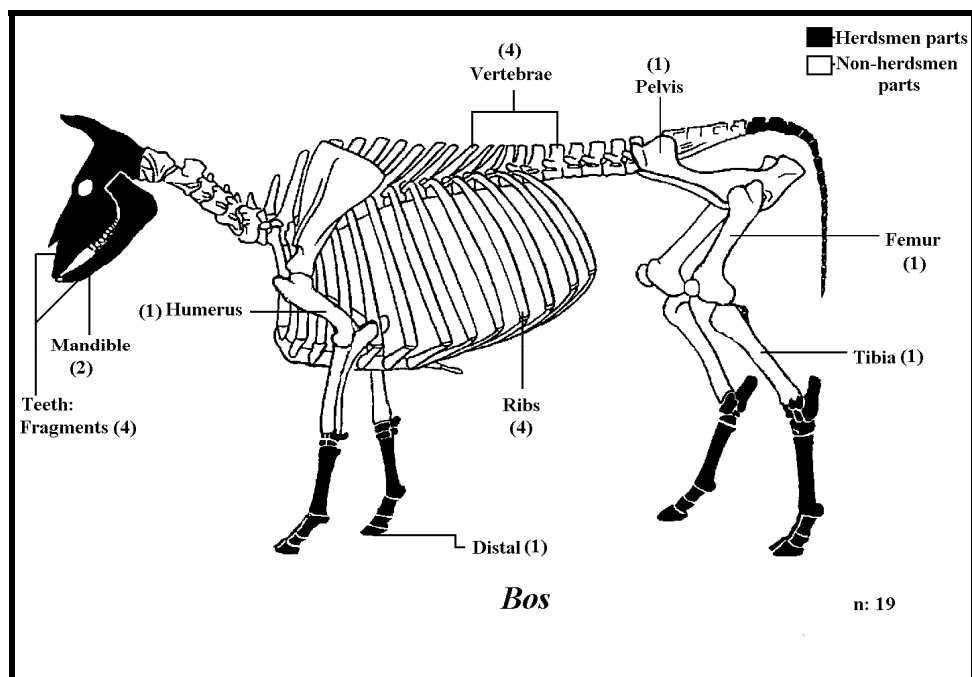


Figure 4.17: Total Bov III NISP for KK, Khami Kraal. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Interpretation

The pattern in the Bov III faunal remains indicates that the high status parts are more prevalent than the low status parts. However, the Bov III sample is very small for both KK Khami and KK Leokwe. Thus, these two samples had to be excluded from further analysis in terms of body part distribution. The results of the sheep/ goat and cattle comparison yields an indistinct pattern, with sheep/ goat numbers being only slightly more than cattle. This may mean they were equally as prevalent. Further excavations to obtain a larger faunal sample are necessary if the results from this site are to be included within future studies.

WEIPE 508 (2229 AB 508)

Weipe 508 is situated at the base of a kopje next to the Limpopo flood plain on the Roos Trust portion of the farm Weipe 47 MS. This site was initially identified by the 2004 WITS Honours Fieldschool while they were conducting an archaeological survey. Weipe 508 was of interest because of its close proximity to a floodplain. This floodplain is presently used for agricultural purposes. Two periods of excavation were undertaken; in 2005 it was test excavated to document a commoner homestead and in 2007 it was re-excavated in order to obtain another faunal sample. Regrettably, the faunal sample yielded during the 2005 excavation was misplaced (not by the author) and could not be analysed. It is however noteworthy that the 2005 excavations located over 70 grain bin foundations surrounding the settlements central kraal (see Figures 4.18 and 4.19 below), this indicates that the settlement was specifically located for agricultural purposes (Huffman 2006). The excavations revealed two occupation horizons: a Transitional K2 and a Mapungubwe horizon. The Transitional K2 horizon lay underneath the Mapungubwe horizon. The Mapungubwe horizon dated to between AD 1290 and 1405 (Huffman 2006).

The 2007 Fieldschool excavated one trench (TrenchVII) with five squares. This trench was placed directly above Trench III (from the 2005 excavations) (see Figure 4.18 on page 65). It was placed here to further excavate the kraal and the grain bin on the edge of Trench III. As the five squares excavated in 2007 formed a single unit within the cattle kraal the faunal remains from this entire trench were analysed together. Trench VII had a

total NISP of 5 397; 1 730 (32.05%) identifiable and 3 667 (67.94/%) unidentifiable. Most unidentifiable fragments fell into size range 2-4 cm. This indicates that there was a high degree of fragmentation at this site (Table 4.18). However, when compared to all the other sites analysed here, this appears to represent a normal pattern of fragmentation for settlements.

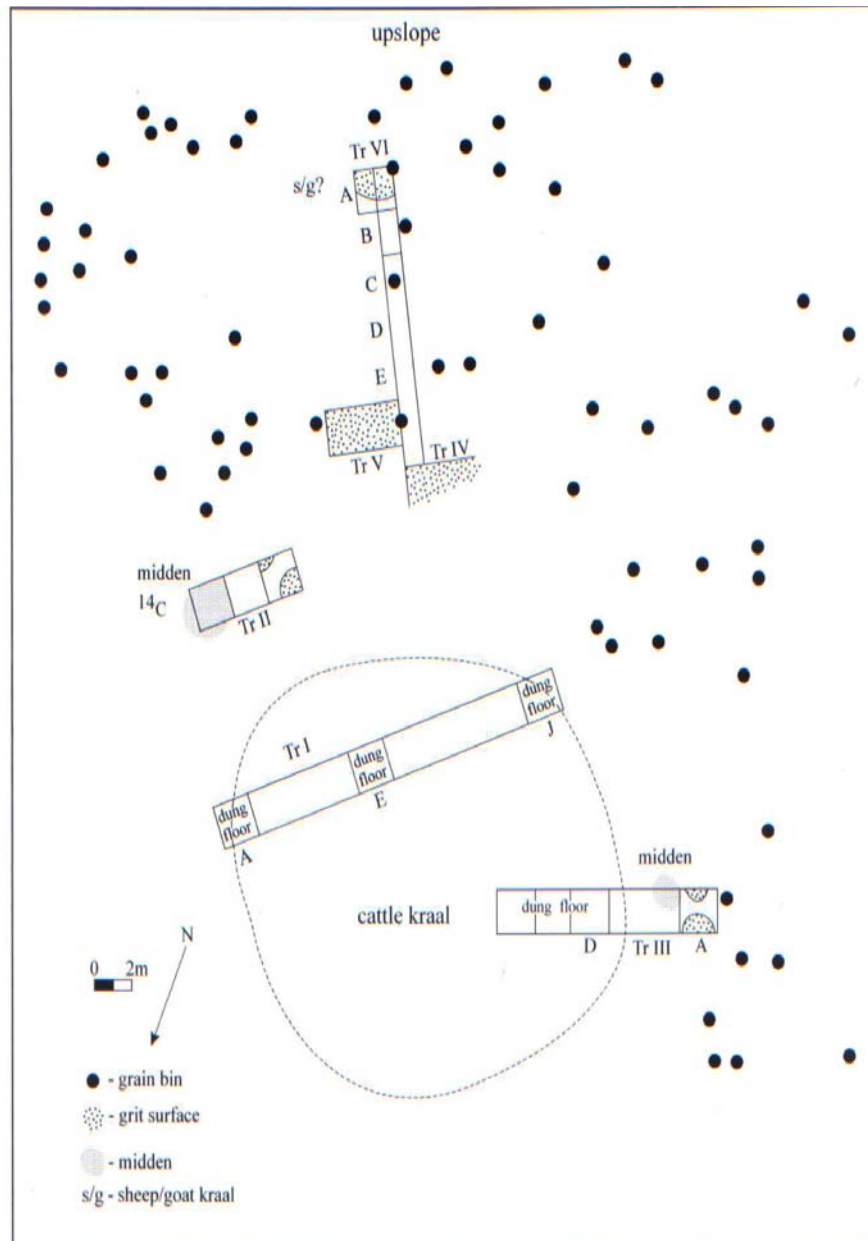


Figure 4.18: 2005 Site excavation map for Weipe 508. Note number of grain bins.



Figure 4.19: Proximity of agricultural land to Weipe 508. Site located bottom left of photograph.

Table 4.18: Total identifiable and unidentifiable NISP for Weipe, including size ranges for unidentifiable fragments (in cm).

Site	ID	UN-ID	Total remains	HIGH		MEDIUM		LOW		LONG BONES	
				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16
Weipe	1373	3667	5040	1506 41%	1796 49%	320 9%	44 1%	1 0.03%	0	0	0

Table 4.19 shows an interesting pattern; although the MNI's are the same for both Bov II and Bov III, the NISP's are quite different with Bov II having a substantially higher number of elements than Bov III.

Table 4.19: Comparison of NISP and MNI between Bov II and III for Weipe.

Site	Bov II	MNI	Bov III	MNI	Total
Weipe	553 57%	9	414 43%	9	967

Table 4.20 shows a marked difference between the three body part divisions. Both the fore and hind-quarters are above-average, with the fore-quarter specifically being substantially more so than the hind-quarter. The foot bones, however, are well below average. This indicates the presence of the Above-Average Pattern within the faunal remains. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter (see page 89).

Table 4.20: Bov III fore-quarter, hind-quarter and lower leg/foot bone distribution for Weipe.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
Weipe	129	no.	%	no.	%	no.	%
		44	34	25	19	60	47

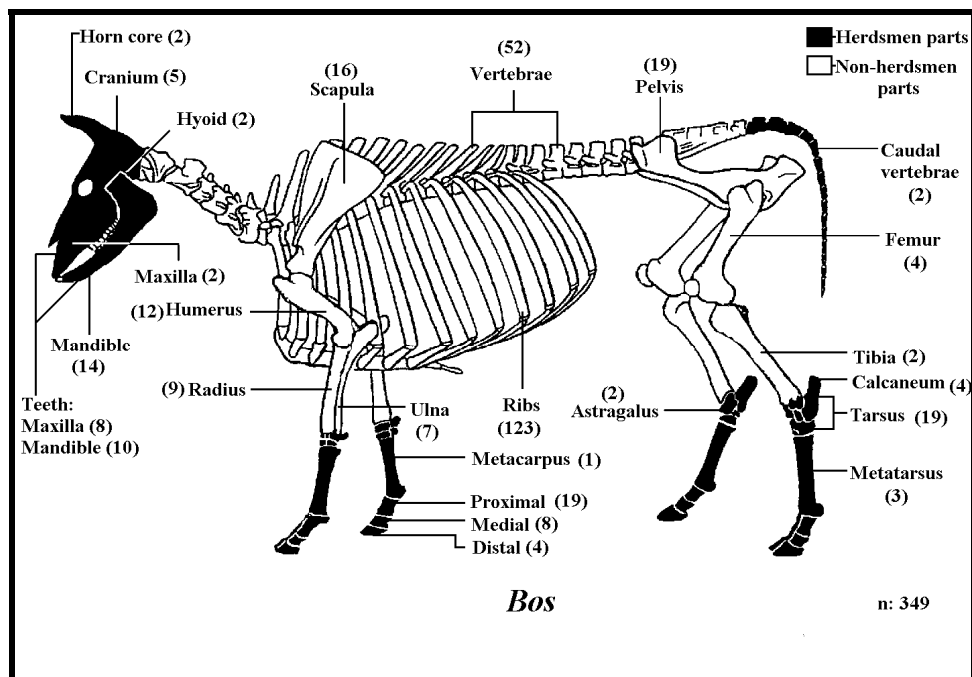


Figure 4.20: Total Bov III NISP for Weipe 508, Trench VII. NOTE: Counts include left, right and indeterminate sides. Tarsus shows the NISP for both carpals and tarsals.

Interpretation

This site is a Transitional K2 settlement meaning that it was occupied during the period where Leopard's Kopje people moved from K2 to Mapungubwe. It was originally thought

to be a low status settlement; however, the results of the faunal analysis may cause a revision of that interpretation. It is clear from both the high number of grain bins present at Weipe as well as its close proximity to the floodplains that the settlement was agriculturally oriented. This makes the pattern of Bov III body part distribution within the site especially interesting as it shows that there is an Above-Average Pattern present. However, this pattern is only applicable to the area the faunal material came from, the central kraal. The presence of this pattern means that the ethnographically defined high status parts of a carcass were over-represented while the low status parts were underrepresented in the faunal assemblage. It is possible that these missing parts may have been disposed of in a different area of the settlement that was unexcavated.

Looking specifically at the fore and hind-quarter percentages, the fore-quarter has a much higher number than the hind-quarter. In terms of the ethnography, the hind-quarter is linked with the chief and activities relating to him, thus what this pattern indicates is that, although there are high status parts present within the faunal assemblage they are less related to the chief than to normal high status individuals.

As for the prevalence of Bov II and Bov III elements, it appears that they are equal in number in terms of their MNI's. This is interesting, especially as the NISP's are relatively different, with sheep/ goat outnumbering cattle. This means that although there are the same number of sheep/ goat and cattle present, some of the cattle parts are absent from the faunal assemblage. This may correlate with the low number of lower leg/ foot bones within the faunal remains.

It should be noted, however, that this site dates to a later period than the Leokwe debate, meaning that the results achieved for this site are not directly linked to the Leokwe debate. It was specifically included to see what the faunal patterns may be at what was thought to be a commoner settlement.

As I excluded the entire KK site, as well as both the Leokwe Hill Area A sample and Castle Rock Kraal I sample from further analysis as a result of their extremely small

sample sizes, specifically the Bov III samples, it was necessary to include more sites for analysis in order to have a larger overall comparative sample. The following six sites cover both a wide geographical area and a longer period of time than the previous sites. This was essential to see if any patterns could be generalised over space and time. As well as to see the scope of influence the people of the Shashe-Limpopo Valley had during the Middle Iron Age on the surrounding areas which may have been continuously used over time and to see the extent of interactions between different areas and peoples.

COMPARATIVE FAUNAL SAMPLES

All the data for the following samples came from published works. I used ten samples from the following six sites: K2 (Voigt 1983), Mapungubwe (Voigt 1983), Great Zimbabwe (Brain 1974; Thorp 1995), Manekweni (Barker 1978), Dzata (De-Wet Bronner 1995) and Tshitheme (De-Wet Bronner 1995). K2 will be the first site to be analysed in this section as it is the oldest of all the samples as well as it was the first site to be analysed in the previous section.

K2

Briefly, K2 was occupied by Leopard's Kopje people from around AD 1000 to 1200. It was a high status settlement that was organised according to what has been termed the CCP settlement pattern. About 1000 people, of both high and low status, occupied the settlement and the immediately surrounding areas. For more information on the background of this site, refer to the K2 section within the Primary Faunal Sample section at the beginning of this chapter (on page 31). The three samples for K2 came from the main midden. These were K2/Ts 1, 2 and 3 (Voigt 1983) (Figure 4.21). Two levels were analysed for all three areas. For K2/ Ts 1 and K2/ Ts 2 specifically, the two levels analysed for each were in direct contact with one another, as such it was possible to combine them and analyse them as one. They were also analysed separately (Table 4.21). For K2/ Ts 3 on the other hand, the two levels were separated spatially and thus both levels were analysed individually.

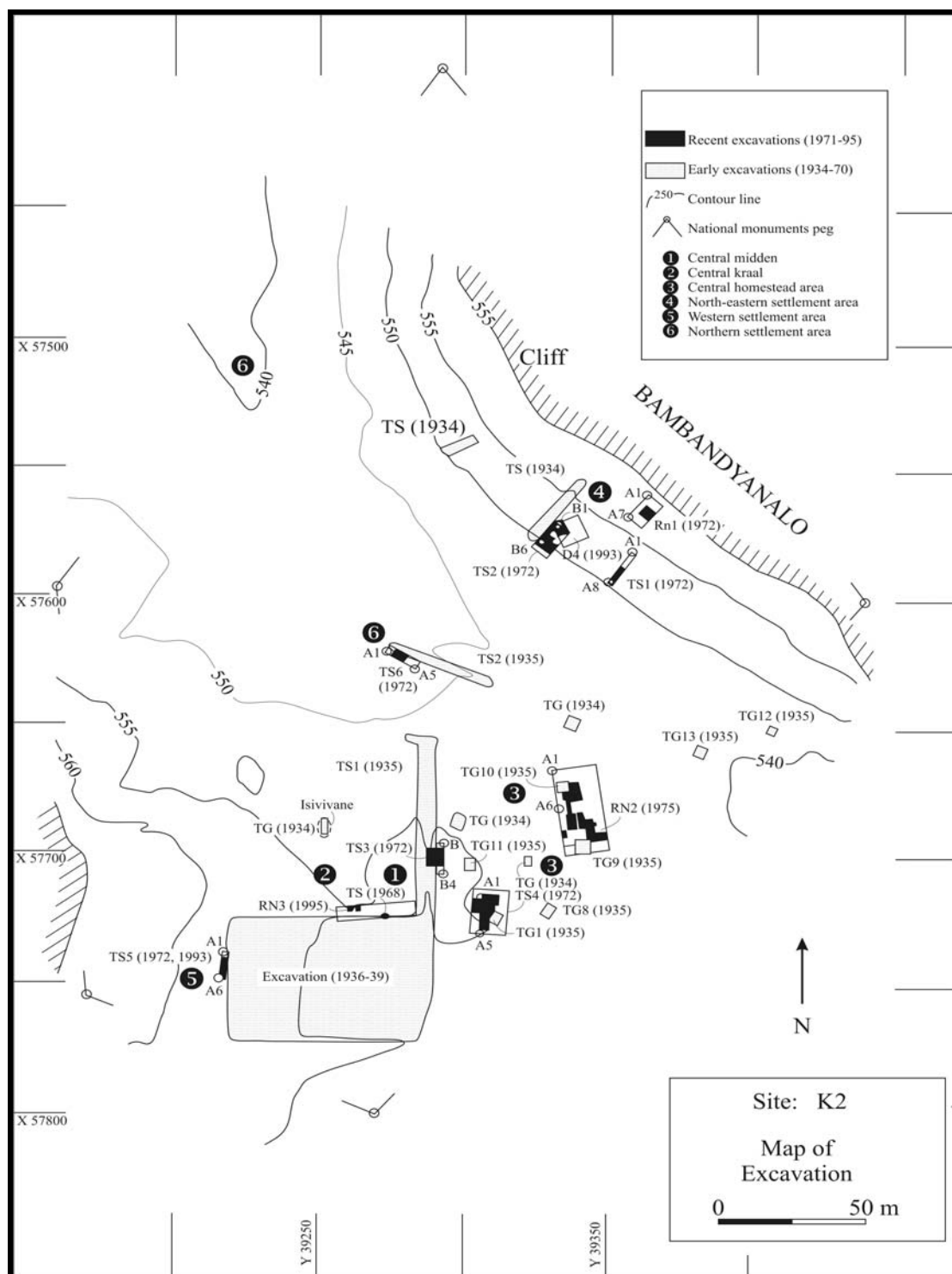


Figure 4.21: Plan of excavations at K2 showing Ts 1-3.

Table 4.21: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for K2/Ts 1-3.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
K2/Ts 1/ level 1	98	9	9	18	18	71	73
K2/Ts 1/ level 2	153	30	20	23	15	100	65
K2/Ts 1/ Level 1 & 2 combined	251	39	16	41	16	171	68
K2/Ts 2/ level 1	234	36	16	22	9	176	75
K2/Ts 2/ level 2	395	80	20	48	12	267	68
K2/Ts 2/ Level 1 & 2 combined	629	116	18	70	11	443	71
K2/Ts 3/ level 6	157	44	28	29	18	84	54
K2/Ts 3/ level 13	64	20	31	12	19	32	50

Starting with K2/ Ts 3 as it has the most obvious patterns; Table 4.21 indicates that both levels 6 and 13 within this area followed the Above-Average Pattern, with the fore-quarter parts being the most numerous. As the hind-quarter parts are linked with the chief and these parts are less numerous within this specific sample, this indicates that this sample is not directly linked with the chief but rather it is linked with people or activities that are of high status. This interpretation is based on ethnographic evidence. K2/ Ts 1 and 2 have slightly less obvious patterns present within their Bov III remains. For K2 / Ts 1, level 1 follows a Borderline Pattern while level 2 follows an Above-Average Pattern with the fore-quarter elements being the most numerous. For K2/ Ts 2, both levels follow the Borderline Pattern. The presence of the Borderline Pattern within these samples indicates that the patterns are not highly distinctive. Both K2/ Ts 1/ level 1 and Ts 2/ level 1 mostly indicate the presence of the Herdsmen pattern. For K2/ Ts 1 and 2/ level 2 the patterns are different, Ts 1/ level 2 has an Above-Average Pattern, while Ts 2/ level 2 has a Borderline Pattern. Ts 2/ level 2 looks like it would be close to an Above-Average Pattern if not for the low hind-quarter percentage. As the patterns in K2/ Ts 3 are quite significantly different from the K2/ Ts 1 and 2 patterns, this indicates that this area had a different use or different people occupying this area. It more than likely was linked with people or activities of high status. The significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter (see from page 89).

Table 4.22: Comparison of NISP and MNI between Bov II and Bov III for K2/ Ts 1-3.

Site	Bov II	%	MNI	Bov III	%	MNI	Total
K2/Ts 1/ level 1	190	67	7	93	33	10	283
K2/Ts 1/ level 2	352	69	7	157	31	3	509
K2/Ts 2/ level 1	147	38	6	242	62	7	389
K2/Ts 2/ level 2	309	42	16	427	58	9	736
K2/Ts 3/ level 6	139	45	9	168	55	7	307
K2/Ts 3/ level 13	75	48	5	81	52	3	156

At K2, the comparison of Bov II and Bov III remains yielded an interesting pattern. It must be noted that the Bov III numbers may be different from those detailed in the Bov III body part distribution analysis; this is because only certain elements were used for that specific method of analysis. For K2/ Ts 3, although the Bov III remains have a higher NISP, it is actually the Bov II remains that indicate the presence of more animals. The same is true for K2/ Ts 2/ level 2. K2/ Ts 1/ level 2 has both a higher NISP and MNI for Bov II than for Bov III. It is only K2/ Ts 1 and 2/ level 1 that have a higher MNI for Bov III remains. Thus even though high MNI's don't necessarily correlate with high NISP's, it is sheep/ goat (Bov II) that are more prevalent within the settlement on average.

Interpretation

These specific samples from K2 exhibit a large degree of variance in that there does not seem to be a specific pattern for K2/ Ts 1 and K2/ Ts 2, while K2/ Ts 3 quite obviously follows an Above-Average Pattern over a long period of time. This indicates that K2/ Ts 3 was an area of higher status than K2/ Ts 1 or Ts 2. For K2/ Ts 2 both levels follow the Borderline Pattern, however, it is interesting that it is the hind-quarter elements that are mostly missing for both levels. Perhaps what the patterns for K2/ Ts 2 and 3 are showing is the different between multiple areas of different status, with Ts 3 being of higher status than Ts 2, but with Ts 2 still being of high status. K2/ Ts 1 is slightly more problematic in that it has an Above-Average Pattern in level 2 and a Borderline Pattern in level 1. This indicates that level 2 was of high status. Level 1 shows that the hind-quarter elements were much more prevalent than the other two body part divisions, perhaps indicating that

this area at the time of level 1 was linked with the chief. The Bov II/ Bov III comparison indicates that on the whole, sheep/ goat were present in higher numbers within the settlement. This was also the case for the Bov II/ Bov III remains for the K2 sample analysed in the Primary Faunal Sample section (see from page 37). This indicates that throughout the settlement, sheep/ goat formed a primary source of food. It is however, noteworthy that K2/ Ts 3/ level 13 has the smallest sample size from this site and this may be influencing the results.

MAPUNGUBWE

In brief, Mapungubwe was occupied by Leopard's Kopje people from about AD 1220 after they abandoned their settlement at K2. When they moved to Mapungubwe, the King moved to the top of Mapungubwe hill, physically separating himself from his followers, while the commoners occupied the terrace below (For more information on this settlement please refer back to Chapter II, from page 11).

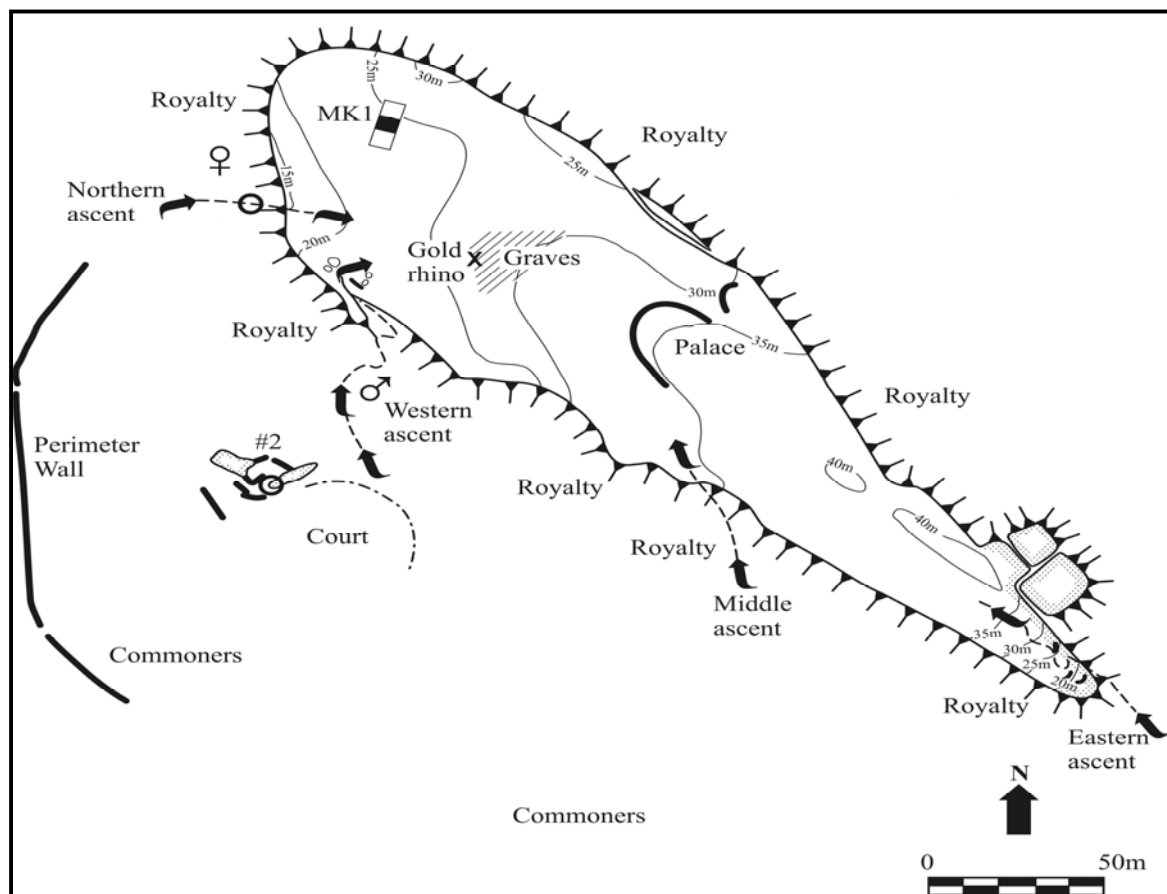


Figure 4.22: The Zimbabwe Pattern at Mapungubwe. Note location of MK 1.

The samples from Mapungubwe came from one area on the elite hilltop, MK 1 (Figure 4.22). Multiple levels were excavated in this area, of these I analysed four: levels 2, 8, 10(i) and 11.

Table 4.23: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for Mapungubwe, MK 1.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Mapungubwe: MK 1/ level 2	124	31	25	21	17	72	58
Mapungubwe: MK 1/ level 8	125	29	23	14	11	82	66
Mapungubwe: MK 1/ level 10(i)	233	55	24	68	29	110	47
Mapungubwe: MK 1/ level 11	211	49	23	35	17	127	60

Three out of the four levels analysed yielded the Above-Average Pattern, while one level, level 8, yielded the Borderline Pattern (Table 4.23). The hind-quarter percentage for level 8 is quite low, yielding a below average number thus influencing the interpretation of the pattern. The other three levels all show relatively similar patterns of Bov III body part distribution, however level 10(i) had a slightly higher percentage of parts for the hind-quarter. As previously mentioned, the hind-quarter elements are linked specifically with the chief and his activities. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter (see from page 89).

Table 4.24: Comparison of NISP and MNI between Bov II and Bov III for Mapungubwe, MK 1.

Site	Bov II	%	MNI	Bov III	%	MNI	Total
Mapungubwe MK 1/ level 2	127	50	7	125	50	8	252
Mapungubwe MK 1/ level 8	85	39	5	130	61	5	215
Mapungubwe MK 1/ level 10(i)	168	40	11	253	60	8	421
Mapungubwe MK 1/ level 11	471	68	14	220	32	9	691

The comparison of sheep/ goat (Bov II) and cattle (Bov III) numbers within the MK area indicates that the two oldest levels had much higher numbers (in terms of MNI) of sheep/ goat present or being utilised (Table 4.24). Within level 8, sheep/ goat and cattle were equally prevalent even though the NISP's show that Bov III remains were more numerous.

This may indicate that some of the Bov II remains are missing from the faunal assemblage. It is interesting that this level was the one with the high number of elements relating to the chief within the Bov III body part distribution analysis. Level 2 also shows a relatively equal distribution, both in terms of NISP and MNI.

Interpretation

Mapungubwe Hill was not always used as an elite residence for the Leopard's Kopje King; it was previously used as a rainmaking hill. Thus it is possible that the oldest levels for MK 1 may be associated with these activities. However, based on the presence of high status cattle faunal elements for level 11 and 10(i) this is not likely as sheep/ goat are usually associated with rainmaking. Overall, the majority of the samples indicate that for the Bov III remains specifically the high status elements were more numerous than the low status elements. Only one level indicates the presence of the King or activities relating to him and this was level 10(i), this is due to the over abundance of hind-quarter elements within this level. Thereafter, level 8 shows an under abundance of King related elements, thus indicating that he was no longer utilizing this area. It may be related to the King moving to his stone walled palace away from the MK 1 area.

As for the comparison of Bov II (sheep/ goat) and Bov III (cattle) quantities, sheep/ goat were the more prevalent in the oldest levels (11 and 10(i)), after that the pattern changed slightly to a more equal number for both. This happened after level 10(i), the level thought to be related to the King, thus perhaps the overall decrease in numbers is related to his move away from this location.

GREAT ZIMBABWE

Great Zimbabwe, located in Zimbabwe, was the capital after Mapungubwe was abandoned. The faunal data comes from Brain's analysis of the Zimbabwe Hill Midden as well as Z1 (midden for housing complex) and Z3 (midden deposit inside an abandoned house) which were originally analysed by Thorp (1995) (Figure 4.23).

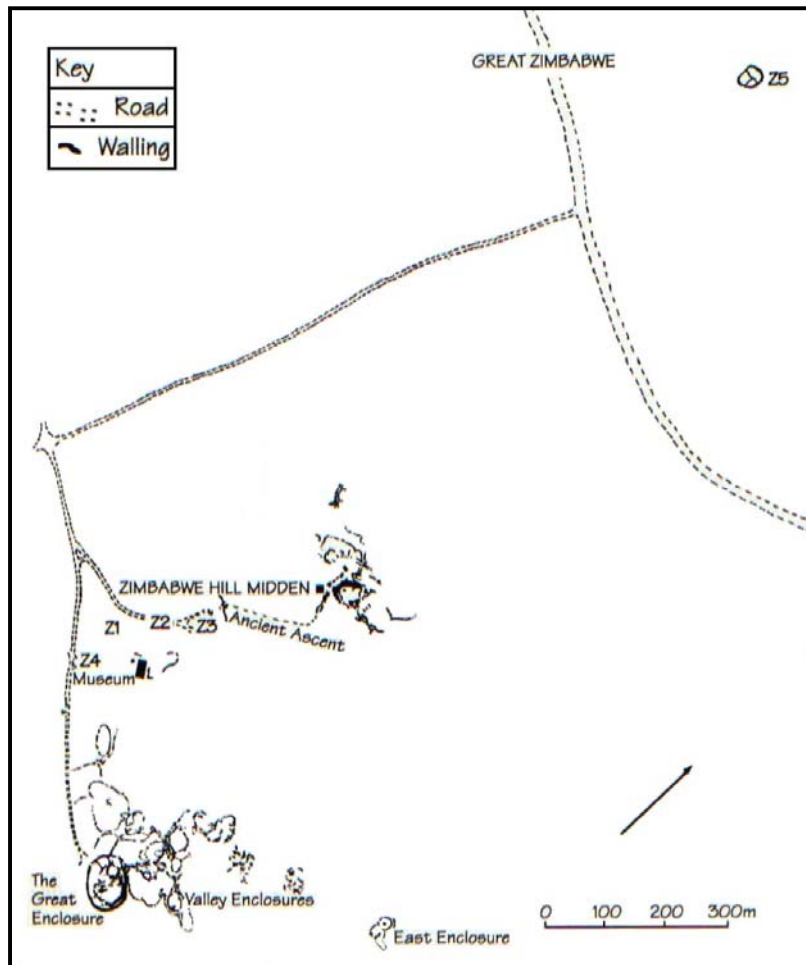


Figure 4.23: Map of excavations at Great Zimbabwe showing Z1 and Z3 (Thorp 1995).

Beginning with Brain's data, the Hill Midden (Central Area/ K Midden) had an extremely high number of Bov III elements, over 15 000 pieces, especially when compared to the number of Bov II elements which only totals 113. Both Z1 and Z3 also exhibit an overabundance of Bov III elements, but not to the extent of the Hill Midden. The high number of Bov III elements for all three areas indicates the high degree of reliance on cattle and their meat.

With regard to the comparison of Bov II and Bov III MNI's (see Table 4.25 below), Great Zimbabwe: Hill Midden could not be quantified due to a lack of data available. However the NISP's indicate that Bov III greatly outnumbered Bov II numbers in that area. For Z1 and Z3, the Bov III MNI's also outnumbered the Bov II MNI's; however this is likely due to the substantial over abundance of Bov III NISP's.

Table 4.25: Comparison of NISP and MNI between Bov II and Bov III for Great Zimbabwe, Hill Midden, Areas Z1 and Z3.

Site	Bov II	%	MNI	Bov III	%	MNI	Total
Great Zimbabwe: Hill midden	113	1	-	15070	99	-	15183
Great Zimbabwe: Z1	33	1	2	3879	99	178	3912
Great Zimbabwe: Z3	1	1	1	111	99	5	112

- Cannot be determined from available data

The percentages for the Bov III body part distribution analysis (Table 4.26) for the three Great Zimbabwe samples indicates the presence of the Above-Average Pattern for both the Central Area/ K Midden and Z1, while Z3 appears to follow the Average Pattern. The Central Area specifically has marginally more fore-quarter elements than hind-quarter, while Z1 has marginally more hind-quarter than fore-quarter. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter (see from page 89).

Table 4.26: Bov III fore-quarter, hind-quarter and lower leg/foot bone distribution for Great Zimbabwe, Hill Midden, Areas Z1 and Z3.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Great Zimbabwe: Central Area/K Midden	901	241	27	212	23	448	50
Great Zimbabwe: Z1	2427	534	22	638	26	1255	52
Great Zimbabwe: Z3	97	14	14	12	12	71	74

Interpretation

Three samples, one each from three different areas of the site were analysed. From these, it is clear that the occupants of Great Zimbabwe relied greatly on domesticated animals, specifically on cattle, most likely as a source of food. This statement is based on the sheer quantity of cattle remains present within the faunal remains at this site. Although all three samples indicate an over abundance of cattle when compared to sheep/ goat the quantity of cattle per sample differs, with the Central Midden having the most cattle remains, Z1 having less than the Central Midden and Z3 having the least of the three. This may be as a result of differing status within these areas. As the Bov III body part distribution analysis

shows, Z3 has a different pattern from the Central Area and Z1, thus indicating that at least two patterns of body part distribution were present within this settlement, one indicating high status and the other indicating the presence of an average distribution. However, the Z3 sample was quite small. It further indicates that there were areas of differing status within the settlement. The slight difference between the fore and hind-quarters within the Central Area and Z1 samples may be indicative of the presence of people with slightly higher status within the Z1 area as this area had a slightly higher number of body elements related to the chief.

MANEKWENI

Manekweni, which is located on the coastal lowlands of Mozambique is a Late Iron Age Khami phase centre which was occupied from the 12th until the 16th/17th century AD (Barker 1978). This site is contemporary with Great Zimbabwe and thus will help with the geographical extent of faunal patterns. Manekweni was excavated by Barker between 1975 and 1976. Based on an analysis of the Manekweni faunal remains, Barker noted that there was a variation in the diet at the site, with a cattle dominated meat diet for the people immediately adjacent to the central enclosure, while a diet of sheep, goat and game meat characterised the people living on the periphery of the site.

Manekweni yielded a total faunal sample of 11 626 fragments, with only 3 279 being identifiable (Barker 1978). However, only specific body parts are included within the Bov III body part distribution analysis, thus yielding a much smaller sample size. Table 4.27 shows that the sample from Manekweni followed an Above-Average Pattern for the distribution of Bov III body parts (see Table 3.2 in Chapter III on page 30 for details on this pattern). This indicates that the sample was of high status. The statistical significance of the above mentioned patterns will be discussed in the Statistical Analysis section at the end of this chapter (see from page 89). Table 4.28 shows the difference between the Bov II and Bov III NISP's is only a slight one; with Bov III numbers being slightly higher than Bov II. MNI could not be calculated based on the data available.

Table 4.27: Bov III fore-quarter, hind-quarter and lower leg/foot bone distribution for Manekweni.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Manekweni	74	15	20	21	29	38	51

Table 4.28: Comparison of NISP and MNI between Bov II and Bov III for Manekweni.

Site	Bov II	%	MNI	Bov III	%	MNI	Total
Manekweni	64	48	-	70	52	-	134

- Cannot be determined from available data

Interpretation

The Manekweni sample came from the centre of the settlement; it yielded an Above-Average Pattern, meaning that the ethnographically defined high status body elements were more numerous than the low status elements within the sample. Thus the sample indicates the presence of high status people within this area. As for the comparison of Bov II/ Bov III remains, MNI's could not be calculated as the data was taken from a published article and only certain data was available. Without MNI's it is difficult to compare the prevalence of Bov II/ Bov III remains, however, it may be noted that cattle elements were slightly more numerous than sheep/ goat in terms of their NISP's. This indicates that sheep/ goat elements were almost equal in number to cattle, thus they were also an important part of the lives of the settlements occupants.

During his excavations, Barker noted a distinct difference in the diet between the centre of the settlement and the periphery. This is interesting as it may have implications for the general understanding of the divisions within a settlement and the accompanying activities and diets. The results of this analysis partially correspond with Barker's statement concerning the diets in the Manekweni settlement as the results of the faunal analysis indicate that cattle were being consumed in the centre of the settlement, but more specifically it was the high status cattle elements that were being consumed.

DZATA

Dzata is located on the northern side of the Nzhelele valley next to the Gadabi stream, Limpopo, South Africa (Figure 4.24). It dates to between the 16th and 17th centuries, a period when the Singo ruled over the Limpopo. Dzata was the capital of the Singo. It was initially a level 4 settlement, but it became a level 5 after the Singo established their state (Loubser 1991; De Wet-Bronner 1995). As far as the settlement layout goes, it follows the Dzata Pattern which is similar to the early Zimbabwe Pattern, the difference being the style of the walls (De Wet-Bronner 1995).

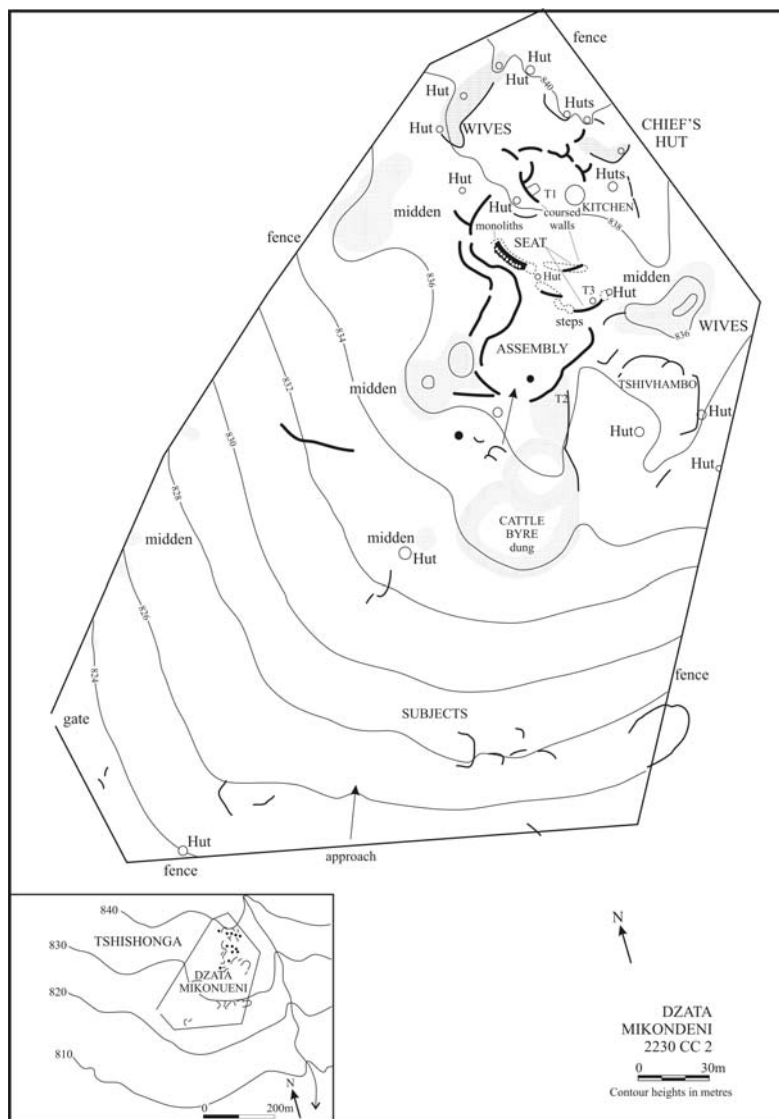


Figure 4.24: Map of Dzata.

Loubser excavated a small portion of the royal area in order to determine the relationship between the different wall styles and the sterile subsoil. He excavated three trenches. From these a bone sample of 4 956 pieces was recovered with Trench 3 having a negligible amount of bones. The faunal remains analysed here came from Trench 2. This was the ash heap against the south eastern wall of the main assembly area.

This sample has an Above-Average Pattern indicating the presence of high status people or activities (Table 4.29) (see Table 3.2 on page 30 in Chapter III for details on this pattern). Table 4.30 shows that Bov III (cattle) remains were much more numerous than the Bov II (sheep/ goat) remains in terms of NISP.

Table 4.29: Bov III fore-quarter, hind-quarter and lower leg/foot bone distribution for Dzata, T2/ 1-6.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Dzata T2/1-6	53	14	26	11	21	28	53

Table 4.30: Comparison of NISP and MNI between Bov II and Bov III for Dzata, T2/ 1-6.

Site	Bov II	%	MNI	Bov III	%	MNI	Total
Dzata T2/ 1-6	24	6	-	351	94	-	375

- Cannot be determined from available data

Interpretation

It is expected that, as this settlement was a capital and therefore had a chief, there would be evidence of this high status; that is precisely what the faunal analysis yielded as the Bov III body part distribution analysis yielded an Above-Average Pattern for this sample. However, only one small area of the settlement was sampled thus the results presented here are only applicable to that area. As the MNI's could not be calculated the NISP's were used as a measure of Bov II/ Bov III prevalence. From the NISP's it is obvious that cattle elements outnumbered sheep/ goat elements. Even though NISP's are less accurate than MNI's in the case of interspecies comparisons, the sheer difference in the quantities

indicates that at least in this area of the site more cattle were present. This pattern of Bov II/ Bov III prevalence is quite different from that yielded by K2, also a capital settlement.

TSHITHEME

The site Tshitheme (2329 BB 12), which dates to between the 16th and 17th centuries AD, lies at the base of the southern slopes of the Soutpansberg range. Occupied during the Singo rule of the Limpopo, It was a level 2 settlement (within a 5 level system), meaning that it was controlled by a headman. The layout of the settlement also followed the Dzata pattern, which is only slightly different from early Zimbabwe Pattern settlements, the difference being their wall styles (Figure 4.25).

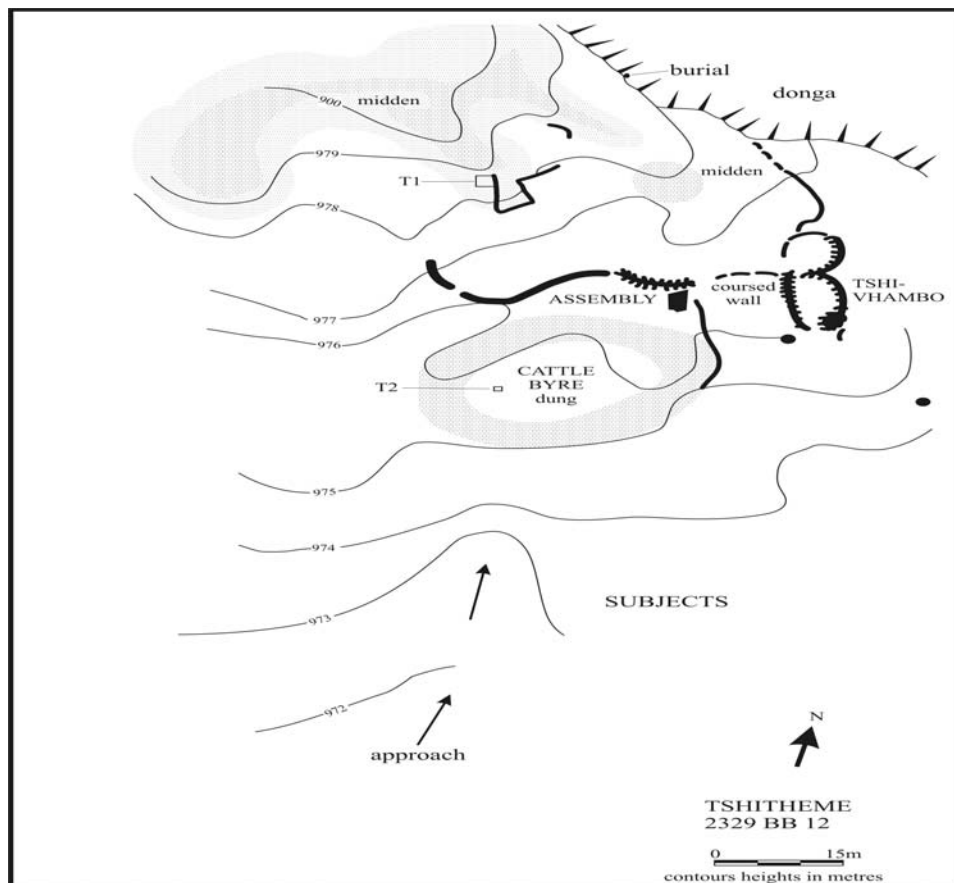


Figure 4.25: Map of Tshitheme.

Only the remains from Trench 1(TI/ 1-4) were used as the faunal remains from TI/ 5-6 totalled 40 for both Bov II and Bov III remains, thus making the sample too small. In total,

3 183 bone pieces were recovered during the excavations (De Wet-Bronner 1995). Excavations were conducted in and near the walled areas which are linked to royal residents. From the original analysis it was noted that both *Bos taurus* and sheep/goats dominated the bovid counts, even though less than 10% of the faunal material was identifiable, indicating that both Bov II and Bov III sized animals were essential components within the settlement.

Table 4.31 shows that Tshithemi followed an Above-Average Pattern. However, within this pattern the hind-quarter elements are much more numerous than the fore-quarter elements indicating that this area was linked with the chief or at least with activities relating to him.

Table 4.31: Bov III fore-quarter, hind-quarter and lower leg/foot bone distributions for Tshitheme, T1/ 1-4.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Tshitheme T1/1-4	67	11	16	18	27	38	57

When considering the prevalence of Bov II and Bov III remains, yet again the MNI could not be calculated due to a lack of relevant data. However, it is clear that Bov III remains are more numerous than Bov II from their NISP's (Table 4.32).

Table 4.32: Comparison of NISP and MNI between Bov II and Bov III for Tshitheme, T1/ 1-4.

Site	Bov II	%	MNI	Bov III	%	MNI	Total
Tshitheme T1/1-4	39	22	-	134	78	-	173

- Cannot be determined from available data

Interpretation

Tshitheme, another high status settlement, yielded the Above-Average Pattern within the sampled area. This indicates that the sample was linked with high status and perhaps even the chief as the hind-quarter elements, the ethnographically defined chief parts, were more

numerous than the fore-quarter elements. As only one area was analysed within this site, it is only possible to say that at the very least there was a high status component to this settlement when it was occupied. As the Bov III remains outnumbered the Bov II remains at this settlement in terms of their NISP's it may be stated that cattle were more prevalent and consequently more important within the daily lives of the settlements occupants. This pattern, like the Dzata pattern is quite unlike the K2 sheep/ goat and cattle prevalence pattern.

PRIMARY AND COMPARATIVE FAUNAL SAMPLE ANALYSIS

Now that all of the sites/ samples have been analysed and their results laid out above, the following section looks at the comparison of Bov II/ Bov III prevalence and the Bov III body part distribution for all the samples in graph form. The quantified data from all the samples is presented together in this way to enable a clearer comparison of the patterns of distribution present in general. The following four histograms use NISP and MNI as tools for this purpose. The histograms are read from right to left, oldest to youngest settlement.

The following four histograms, Figures 4.26 – 4.29, show, in order, the comparison of Bov II and Bov III MNI's for all of the samples that had MNI's, the NISP's for selected samples are shown within the next two histograms and the last one shows the distribution of Bov III body parts for all the samples. The three samples presented in Figure 4.28 were separated from the samples shown in Figure 4.27 due to their large sample sizes. These three samples were, K2 MM Ts 1 and Great Zimbabwe: Hill Midden and Z1. When compared to each other, the four histograms present interesting patterns within the faunal remains for each of the samples.

When comparing the histograms presented below, different patterns emerge, the MNI pattern presented in Figure 4.26 is substantially different from the NISP patterns presented in Figures 4.27 and 4.28.

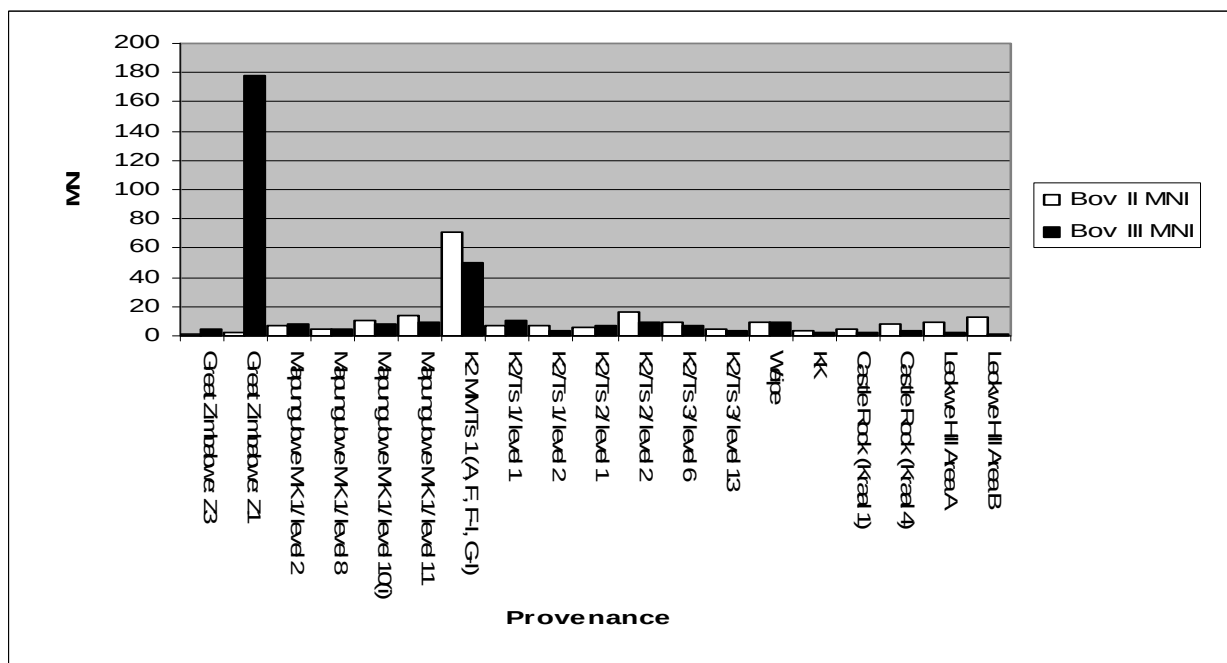


Figure 4.26: Comparison of Bov II and Bov III MNI's per site (except for Dzata, Tshitheme, Manekweni and Great Zimbabwe: Hill Midden).

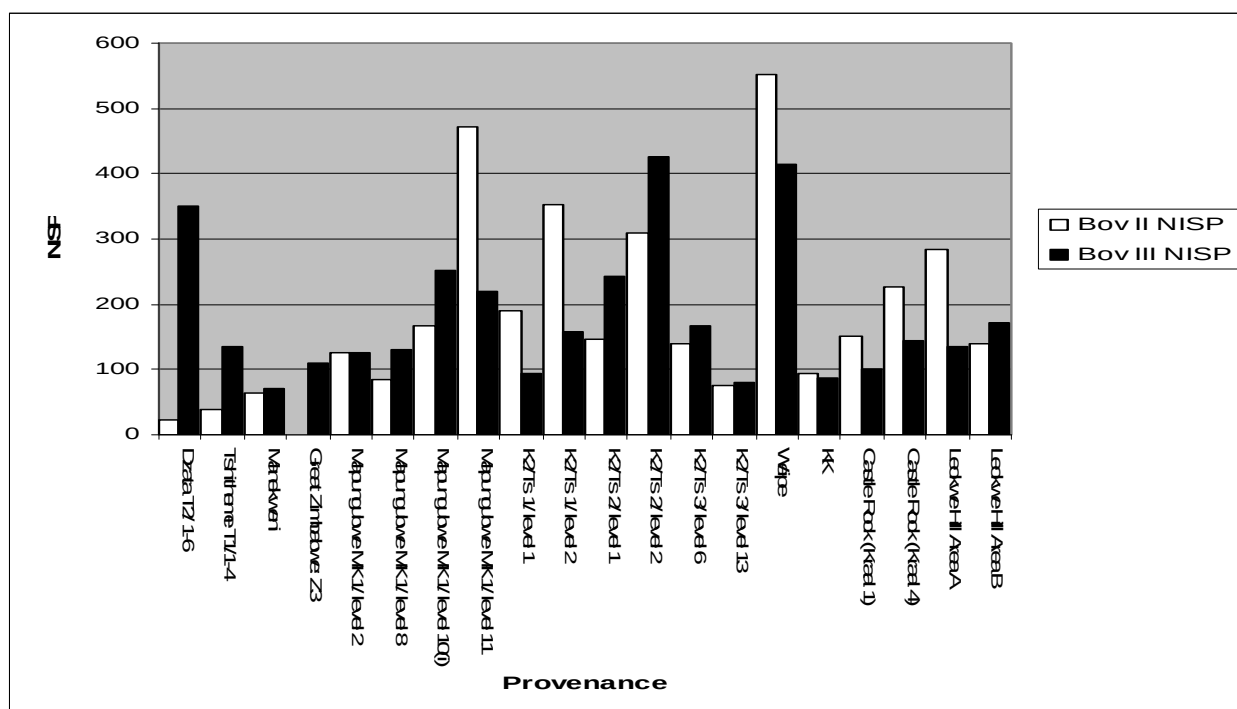


Figure 4.27: Comparison of Bov II and Bov III NISP's per site (excluding K2 MM Ts 1 and Great Zimbabwe: Hill Midden and Z1).

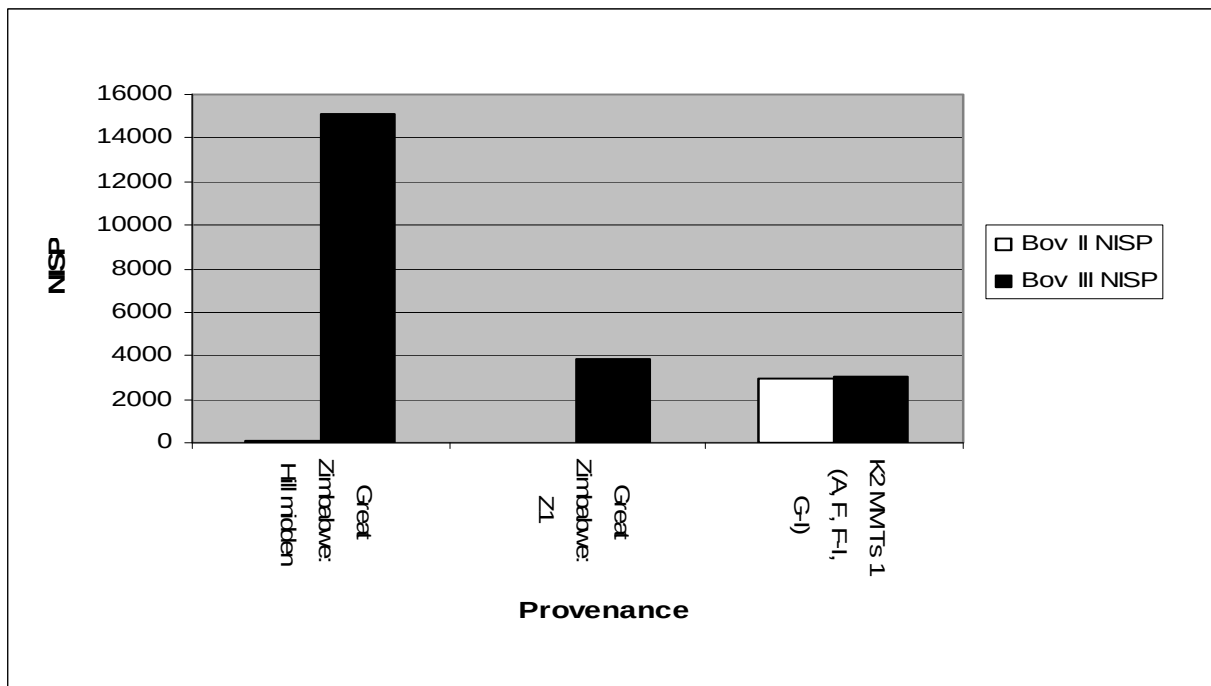


Figure 4.28: NISP for Bov II and Bov III faunal remains for K2 MM Ts 1 and Great Zimbabwe: Hill Midden and Z1.

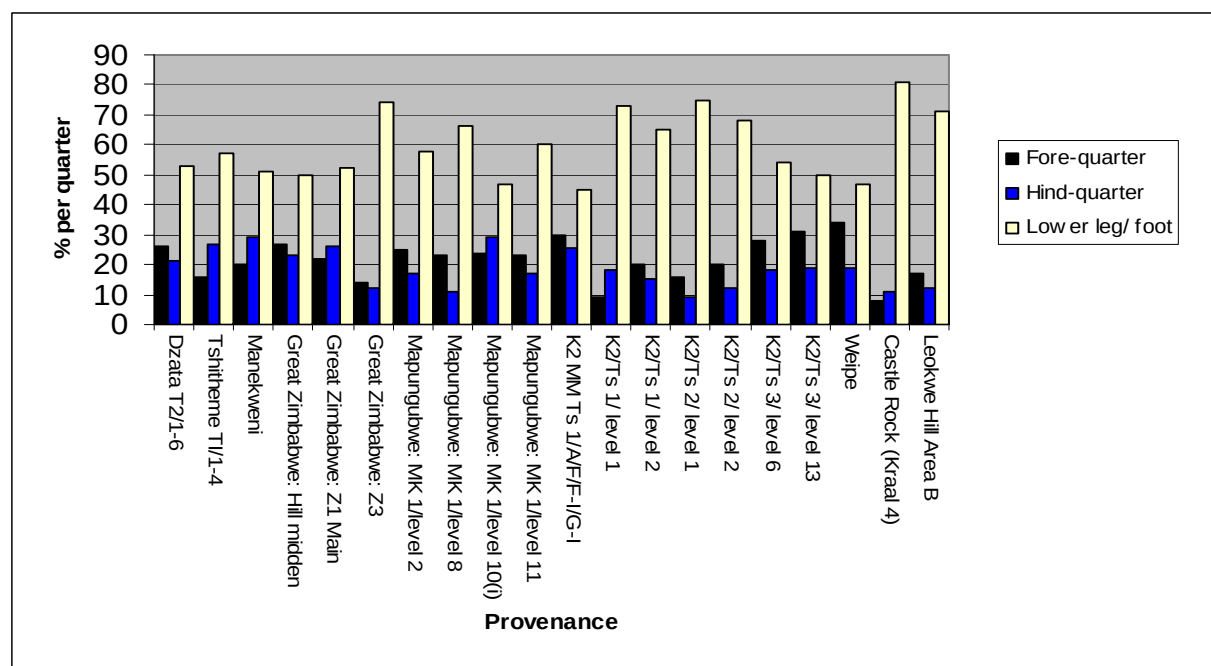


Figure 4.29: Comparison of Bov III body part divisions for all samples.

The point of having both the NISP and MNI histograms is to show the difference between the results of the two. The NISP's present a pattern that is much easier to analyse and interpret when compared to the MNI's which are not as obvious. Figure 4.26 indicates that sheep/ goat are more prevalent than cattle in general in terms of MNI's. There is a small degree of correlation between the NISP's and the subsequent MNI's, mainly in the case of the samples from Leokwe Hill and Castle Rock. However, this is not the case for the majority of the samples. Low NISP's does not mean that there will be a low MNI in this case. What this may indicate is that some of the faunal elements are missing from the sampled area.

Within Figure 4.28, the Bov III body part distributions are compared. Looking specifically at the Manekweni, Tshithemi and Dzata samples, it is clear that there is a trend towards less lower leg foot bones within the sites, this is likely due to the high status nature of the samples analysed and the high status of these settlements in general. This pattern also appears to be present within the Great Zimbabwe samples, with the exception of Z3 which seems to follow a different pattern to the Z1 and Hill Midden. Thus, firstly there appears to be two patterns present within Great Zimbabwe and secondly, in general there appears to be a distinct change in the Bov III distribution when comparing Manekweni, Tshithemi, Dzata and to a lesser degree Great Zimbabwe with the remainder of the samples. It must be noted that these sites all date to a later period than the Leokwe/ K2 settlements; they are also in different geographical locations. It is also interesting to note that Manekweni, Tshithemi and Great Zimbabwe: Z1 all have high results for the hind-quarter elements, as these are the parts ethnographically attributed to the chief.

Mapungubwe Hill has an interesting pattern as it shows a mostly stable fore-quarter pattern of distribution, while the hind-quarter and lower leg/ foot bone patterns change with every level analysed. The pattern for the hind-quarter elements shows that, these parts increase in number to where they are their highest (out of the four samples analysed) within level 10(i), the numbers then decrease again in level 8 and by level 2 they are increasing again. However, the lower leg/ foot bones seem to be affected by this pattern, the higher the lower leg/ foot bone percentage, the lower the hind-quarter percentage.

Figure 4.28 also shows that K2/ Ts 1 and Ts 3 have a higher status than K2/ Ts 2, as Ts 1 and Ts 3 have much higher numbers for the hind-quarter elements than Ts 2. However, K2/ Ts 1/ level 1 is the only K2 sample to indicate the presence of the chief through a high hind-quarter percentage, but this is suspect since it is the ground level and will have been subject to many influencing factors such as animal interaction and the weather.

Weipe is an interesting site in that it was excavated as a commoner settlement and its faunal pattern indicates the presence of a high status settlement with a low lower leg foot bone number and a high fore-quarter element number. It is however, not linked with the chief, if in fact hind-quarter elements may be linked with the chief, as it has a lower hind-quarter percentage.

In terms of just the hind-quarter percentages, Castle Rock has a higher percentage for hind-quarter elements than for fore-quarter elements even though the overall pattern indicates the presence of low status people. The Leokwe Hill Area B pattern, identified as a Borderline Pattern, shows that there are less hind-quarter (chief) elements present than fore-quarter elements, thus the site is less related to the chief than Castle Rock, however it is of higher status than Castle Rock.

The next section, the Statistical Analysis section, analyses the patterns identified during the Bov III body part distribution analysis in order to test their statistical significance. This section was deliberately separated from the Sample section. It was necessary to see what the results of the Bov III body part distribution analysis would be without the statistical analysis. This was necessary as you will see as the interpretations differ depending on the results.

STATISTICAL ANALYSIS

The percentages yielded by the three divisions of a cow as outlined within the methodology chapter (fore-quarter, hind quarter and the lower leg/ foot bones) formed the basis for assessing the statistical significance of the four faunal patterns previously identified (the Average, Elite/ High status, Herdsmen and Borderline patterns). As outlined in the previous chapter, as a result of the analysis of twenty archaeological sites, four different faunal patterns were identified. The results are based on the bones ratios represented in Table 4.33 below:

Table 4.33: Divisions of a cow and their related bone percentages.

Divisions of Cow	Total Percentage of Bones in Each Division
Fore Quarter	13%
Hind Quarter	13%
Lower Leg / Foot	74%

The following table, Table 4.34, details the bone ratios per body part division that were actually found at each site:

Table 4.34: Comparison of fore-quarter, hind-quarter and lower leg/foot bone NISP/ percentages for all sites.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Dzata T2/1-6	53	14	26	11	21	28	53
Tshitheme TI/1-4	67	11	16	18	27	38	57
Manekweni	74	15	20	21	29	38	51
Great Zimbabwe: Hill midden	901	241	27	212	23	448	50
Great Zimbabwe: Z1 Main Midden	2427	534	22	638	26	1255	52
Great Zimbabwe: Z3	97	14	14	12	12	71	74
Mapungubwe: MK 1/level 2	124	31	25	21	17	72	58
Mapungubwe: MK 1/level 8	125	29	23	14	11	82	66
Mapungubwe: MK 1/level 10(i)	233	55	24	68	29	110	47

Mapungubwe: MK 1/level 11	211	49	23	35	17	127	60
K2 MM Ts 1/A/F/F-I/G-I	785	232	29.6	201	25.6	352	44.8
K2/Ts 1/ level 1	98	9	9	18	18	71	73
K2/Ts 1/ level 2	153	30	20	23	15	100	65
K2/Ts 2/ level 1	234	36	16	22	9	176	75
K2/Ts 2/ level 2	395	80	20	48	12	267	68
K2/Ts 3/ level 6	157	44	28	29	18	84	54
K2/Ts 3/ level 13	64	20	31	12	19	32	50
Weipe	129	44	34	25	19	60	47
Leokwe Hill Area B	59	10	17	7	12	42	71
Castle Rock (Kraal 4)	47	4	8	5	11	38	81

The overall average bone ratios per body part division (when combining all samples) are as follows in Table 4.35 below:

Table 4.35: Average percentages per Bov III body part division for all sites combined

Divisions of Cow	Average Percentage per division at Sites
Fore Quarter	21.63%
Hind Quarter	18.53%
Lower Leg / Foot	59.84%

They are clearly different from the expected ranges. This may be a product of the small number of samples analysed (only twenty) as well as the small sample sizes for some of the excavated sites. It is not scientifically viable to compare the individual site percentages with the single cow ratio utilised in previous chapters as numerous factors not controlled for may affect the results. The other reason mathematically is that there was only one sample at each dig and so the “n” required for significance testing was one, thus not a viable test.

If we were to compare the average numbers detailed above with the single cow ratios then we would still run into problems with uncontrolled variables. It would also be logically fallible as we can assume a perfect cow exists (a cow with the correct number of bones) –

if we excavate more sites we could reasonably expect our average observed bones percentages to approximate more closely those found in a complete cow (holding true that things such as decomposition of bones, etc were constant).

Therefore for the purposes of this study (as per hypothesis and research question) the most meaningful comparison could be found in considering individual sites in comparison to each other (by means of the overall observed mean). In order to do this a single tailed t-test was used and the following statistics, as represented in Tables 4.36 and 4.37, were determined:

Table 4.36: Results of statistical analysis of Bov III body part divisions.

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Fore Quarter	20	21.6300	6.92069	1.54751
Hind Quarter	20	18.5300	6.37900	1.42639
Lower Leg / Foot	20	59.8400	10.97492	2.45407

Table 4.37: Further results of statistical analysis of Bov III body part analysis.

One-Sample Test						
Test Value = 0						
Body Part Division	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Fore Quarter	13.977	19	.000	21.63000	18.3910	24.8690
Hind Quarter	12.991	19	.000	18.53000	15.5445	21.5155
Lower Leg / Foot	24.384	19	.000	59.84000	54.7036	64.9764

From this data it was possible to determine whether or not individual sites differ statistically significantly from the overall observations (at a 95% level of significance).

These determinations are detailed below in Table 4.38:

Table 4.38: Results of statistical analysis per sample for fore-quarter, hind quarter and lower leg/ foot bones for Bov III faunal remains.

Site	Forequarter Percentage per Site	Outside 95% Confidence Interval (therefore significant at 95% level)	Hind Quarter Percentage per site	Outside 95% Confidence Interval (therefore significant at 95% level)	Lower Leg Foot Percentage per site	Outside 95% Confidence Interval (therefore significant at 95% level)
Dzata T2/1-6	26	Yes (Significant)	21	Within range	53	Yes (Significant)
Tshitheme TI/1-4	16	Yes (Significant)	27	Yes (Significant)	57	Within range
Manekweni	20	Within range	29	Yes (Significant)	51	Yes (Significant)
Great Zimbabwe: Hill midden	27	Yes (Significant)	23	Yes (Significant)	50	Yes (Significant)
Great Zimbabwe: Z1 Main Midden	22	Within range	26	Yes (Significant)	52	Yes (Significant)
Great Zimbabwe: Z3	14	Yes (Significant)	12	Yes (Significant)	74	Yes (Significant)
Mapungubwe: MK 1/level 2	25	Yes (Significant)	17	Within range	58	Within range
Mapungubwe: MK 1/level 8	23	Within range	11	Yes (Significant)	66	Yes (Significant)
Mapungubwe: MK 1/level 10(i)	24	Within range	29	Yes (Significant)	47	Yes (Significant)
Mapungubwe: MK 1/level 11	23	Within range	17	Within range	60	Within range
K2 MM Ts 1/A/F/F-I/G-I	29.6	Yes (Significant)	25.6	Yes (Significant)	44.8	Yes (Significant)

K2/Ts 1/ level 1	9	Yes (Significant)	18	Within range	73	Yes (Significant)
K2/Ts 1/ level 2	20	Within range	15	Yes (Significant)	65	Yes (Significant)
K2/Ts 2/ level 1	16	Yes (Significant)	9	Yes (Significant)	75	Yes (Significant)
K2/Ts 2/ level 2	20	Within range	12	Yes (Significant)	68	Yes (Significant)
K2/Ts 3/ level 6	28	Yes (Significant)	18	Within range	54	Yes (Significant)
K2/Ts 3/ level 13	31	Yes (Significant)	19	Within range	50	Yes (Significant)
Weipe	34	Yes (Significant)	19	Within range	47	Yes (Significant)
Leokwe Hill Area B	17	Yes (Significant)	12	Yes (Significant)	71	Yes (Significant)
Castle Rock (Kraal 4)	8	Yes (Significant)	11	Yes (Significant)	81	Yes (Significant)

 Significantly above  Significantly below

 Within range

Of all the samples listed in the above table, the vast majority of the sites (thirteen out of twenty) do not follow a definitive pattern. All but one of the remaining sites fall into either the high status pattern (two out of twenty) or the Herdsmen Pattern (four out of twenty), indicating that these patterns are statistically significant but not highly prevalent.

Interestingly, the single site I had defined as the Average Pattern has been subsumed within the Herdsmen Pattern, thus indicating that this pattern is an arbitrary group that is actually part of the Herdsmen Pattern. However, on second glance there is one site that may follow an Average Pattern, but not the Average Pattern as previously defined by myself. This site is Mapungubwe MK1/ level 11. Thus an Average Pattern exists but not as previously defined by myself. The one site (Castle Rock Kraal 4) previously identified as being a herdsman site very clearly conformed to this pattern, however three other sites (Great Zimbabwe: Z3, K2/ Ts 2/ level 1 and Leokwe Hill Area B) are now shown to

follow the Herdsmen Pattern. As for the high status pattern, only two sites clearly conform to it, these are Great Zimbabwe: Hill Midden and K2/ MM Ts 1A/F/F-I/G-I. Perhaps what this table indicates is that the fore quarter was more utilised thus there is a much higher incidence of them.

Thus, as a result of the statistical analysis, it is clear that the previous interpretations may be incorrect. Within the following chapter, I will consider the patterns identified above and their ramifications in terms of Leokwe and its status within the Shashe-Limpopo Valley during the Middle Iron Age.

CHAPTER V: DISCUSSION

Within the previous chapter multiple methods of analysis were undertaken. From these, preliminary interpretations for each site (and their corresponding samples) were outlined. It is the purpose of this chapter to amalgamate all of this information and provide a final decision concerning the status of Leokwe people. I begin this chapter with a discussion of the analytical methods used and the overall results obtained. This will be followed by a paragraph concerning the Leokwe debate and whether or not my analysis has clarified the issue of Leokwe status.

DISCUSSION OF METHODS OF ANALYSIS

Multiple faunal samples were analysed (twenty usable samples in total), some of the sites analysed had faunal samples from several areas within them, while others only had one sample. Dzata, Tshitheme and Manekweni, specifically, only had one sample each, whereas Great Zimbabwe, Mapungubwe and K2 each had samples from multiple areas. For each of the twenty samples three main methods of analysis were utilised in order to clarify the matter of the Leokwe people's status. These were (1) the numerical comparison of Bov II/ Bov III remains with the use of MNI's, (2) the comparison of the three Bov III body part divisions and finally (3) a statistical analysis of patterns identified as a result of the second method of analysis. We shall begin with the analysis of the results from the Bov II/ Bov III MNI comparisons.

This method was included because although cattle are of high status, lower status sheep/ goat may be used both as a dietary and cultural substitute for them. Thus, sheep/goat (Bov II) remains may indicate the presence of lower status people. From the histograms presented in the previous chapter it may be seen that, in general, sheep/ goat remains are more numerous than cattle remains (based on MNI numbers) for the majority of the samples analysed (twelve out of the nineteen samples included in Figure 4.26). This indicates that sheep/ goat played a key role in the lives of Middle Iron Age people. It is possibly that due to their symbolic nature as well as their fiscal value that cattle were not eaten as much as sheep/ goat; it was cheaper to eat sheep/ goat.

My next method of analysis focused specifically on Bov III remains. This was the comparison of status elements (fore-quarter, hind-quarter and lower leg/ foot bones) for Bov III sized animals. In total, four patterns were identified as present within the faunal remain, three of which are distinctive, the last is slightly more difficult to define. The first three are: (1) an Above-Average Pattern where both the fore and hind quarters have high percentages, with low percentages for lower leg/ foot bones when compared to the normal animal percentages, (2) a Below-Average Pattern where the lower leg/ foot bones have a high percentage, while the fore and hind-quarters have low percentages when compared to the normal animal percentages and lastly, (3) an Average Pattern where all three percentages fall within the normal range when compared to the normal animal percentages. The first two patterns are indicative of an abnormal distribution of faunal elements, while the last indicates the presence of a normal distribution of faunal elements. The Below-Average Pattern is taken here to indicate the presence of the ethnographically identified 'Herdsman Pattern', while the Above-Average Pattern is taken to indicate the presence of high status peoples or settlements. The final pattern, (4) the Borderline Pattern, is where a specific status element percentage, either the fore quarter, hind quarter or lower leg/ foot bone, does not fall within the expected range of any of the above defined patterns (see Table 3.2 in Chapter III on page 30). Consequently creating an additional pattern which was not expected. However, taking into account Venda ethnography concerning the divisions of a cattle carcass, the chief receives one of the hind legs. Thus, the hind-quarter is more representative of high status.

Table 5.1 below, shows the different types of patterns identified within the faunal samples before statistical analysis was undertaken.

Table 5.1: Summary of identified patterns within the faunal remains.

Normal animal Percentages (SAP)	13%	13%	74%
Patterns	Fore quarter	Hind quarter	Lower leg/ foot bones
Average Pattern	Same as Normal animal Percentage	Same as Normal animal Percentage	Same as Normal animal Percentage
Above-Average Pattern	Higher than Normal animal Percentage	Higher than Normal animal Percentage	Lower than Normal animal Percentage
Below-Average Pattern	Lower than Normal animal Percentage	Lower than Normal animal Percentage	Higher than Normal animal Percentage
Borderline Pattern	Partially follows one of above patterns but one of the percentages will be borderline.	Partially follows one of above patterns but one of the percentages will be borderline.	Partially follows one of above patterns but one of the percentages will be borderline.

From the analysis of the Bov III body part distributions before statistical analysis only one sample, Castle Rock Kraal 4, may be said to clearly follow the ‘Herdsman Pattern’. Of the remaining 19 samples, one sample, Great Zimbabwe Z3, follows an average pattern. Five samples, one from Mapungubwe MK1/ level 8, three from K2, K2/ Ts 1/ level 1, K2/ Ts 2/ levels 1 and 2, and the Leokwe Hill Area B sample, indicate the presence of one of the Borderline Patterns. The remainder (thirteen out of the twenty) all adhered to a high status pattern.

As Table 5.2 shows, the vast majority of the sites analysed here showed high status patterns when compared to the normal animal percentage. Listed in Table 5.3 are the four samples that had to be excluded from analysis due to small sample sizes. The excluded sites were incorporated here to show just how low the sample sizes are in comparison to the included sites.

Table 5.2: Comparison of fore-quarter, hind-quarter and lower leg/foot bone NISP/ percentages for all sites.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
		no.	%	no.	%	no.	%
Dzata T2/1-6	53	14	26	11	21	28	53
Tshitheme TI/1-4	67	11	16	18	27	38	57
Manekweni	74	15	20	21	29	38	51
Great Zimbabwe: Hill midden	901	241	27	212	23	448	50
Great Zimbabwe: Z1 Main Midden	2427	534	22	638	26	1255	52
Great Zimbabwe: Z3	97	14	14	12	12	71	74
Mapungubwe: MK 1/level 2	124	31	25	21	17	72	58
Mapungubwe: MK 1/level 8	125	29	23	14	11	82	66
Mapungubwe: MK 1/level 10(i)	233	55	24	68	29	110	47
Mapungubwe: MK 1/level 11	211	49	23	35	17	127	60
K2 MM Ts 1/A/F/F-I/G-I	785	232	29.6	201	25.6	352	44.8
K2/Ts 1/ level 1	98	9	9	18	18	71	73
K2/Ts 1/ level 2	153	30	20	23	15	100	65
K2/Ts 2/ level 1	234	36	16	22	9	176	75
K2/Ts 2/ level 2	395	80	20	48	12	267	68
K2/Ts 3/ level 6	157	44	28	29	18	84	54
K2/Ts 3/ level 13	64	20	31	12	19	32	50
Weipe	129	44	34	25	19	60	47
Leokwe Hill Area B	59	10	17	7	12	42	71
Castle Rock (Kraal 4)	47	4	8	5	11	38	81

	Average Pattern		Borderline pattern
	High status pattern		Herdsman Pattern

Table 5.3: Sites excluded due to small sample size.

Normal animal percentage		13%		13%		74%	
Site	n	Fore quarter		Hind quarter		Foot	
	n	no.	%	no.	%	no.	%
KK Leokwe	22	9	41	6	27	7	32
KK Khami	5	1	20	3	60	1	20
Castle Rock (Kraal 1)	14	0	0	1	7	13	93
Leokwe Hill Area A	20	5	25	4	20	11	55

All four of the status patterns outlined above in Table 5.1 were also analysed statistically and were found to be significant. However, the statistical analysis results differed from the

previous findings (See page 96). Within the statistical analysis four samples are seen to follow the 'Herdsman Pattern', two samples follow the High Status pattern, one follows an Average Pattern and thirteen follow the Borderline Pattern (see Table 4.38 on page 92 in Chapter IV).

Below, all the samples will be discussed in order, from youngest to oldest taking into account the results of the three methods of analysis undertaken (see Chapter III from page 23). Therefore I begin with the samples from Dzata, Tshitheme and Manekweni.

MANEKWENI, DZATA AND TSHITHEME

All three of the settlements were of high status, however not equally so, Dzata was a capital and thus of a much higher status than the other two settlements. Manekweni was a Late Iron Age Khami phase centre occupied from the 12th until the 16th/17th century A.D. When Manekweni was excavated it was noted that there was a variation in diet at the site, the people immediately adjacent to the central enclosure had a cattle dominated diet, while the people inhabiting the periphery of the settlement had a diet dominated by sheep, goat and game meat. Dzata, occupied during the 16th and 17th centuries A.D., was a level 4 settlement which later became a level 5 settlement, thus equal in status to Mapungubwe during Leopard's Kopje rule. Tshitheme was occupied at the same time as Dzata, however this settlement was only a level 2 settlement, thus of a much lower status than Dzata and even Manekweni.

Although MNI's could not be calculated for these three samples, the NISP's indicate that cattle outnumber sheep/ goat. However, this does not necessarily mean that cattle were more prevalent within the faunal assemblage, as Tables 4.26 and 4.27 (see page 85 in Chapter IV) show that there does not seem to be a correlation between a high NISP and a high MNI. With cattle being the more prevalent of the two it shows that these three settlements were more reliant on cattle. The Bov III body part distribution patterns for the three sites, originally identified as following the High Status pattern, were all later interpreted as following the Borderline Pattern after statistical analysis. This is an interesting turn of events as all three sites were identified as high status settlements.

Tshitheme and Manekweni both have Bov III distribution patterns, after statistical analysis, they indicate an overabundance of elements related to the chief, while Dzata, the capital settlement, does not. This may be due to the areas which the samples were taken from within each settlement. The presence of an overabundance of fore-quarter elements within the Dzata sample indicates that this sample was still of high status. Thus based on the analysis conducted here, it would appear that Tshitheme and Manekweni were of higher status than Dzata, this contradicts the results of previous research. However, only one sample per site was analysed here meaning that the results are only relevant for a specific area of each settlement.

GREAT ZIMBABWE

Great Zimbabwe is known to be a capital which had a large number of people, including commoners, inhabiting different areas of the settlement. Three areas within the settlement were sampled, providing a better understanding of the general activities undertaken. The three areas sampled were the Hill Midden, Z1 and Z3. Both NISP's and MNI's for all three indicate that cattle greatly outnumbered sheep/ goat at the settlement, especially for the Hill Midden. Statistical analysis of the Bov III body part distribution patterns indicates that the Hill Midden followed the High Status Pattern, Z1 followed the Borderline Pattern and Z1 followed the Herdsmen Pattern. These results differ slightly from the original interpretations.

That the Hill Midden had such an extremely high number of cattle remains proves that cattle played a vital role in the lives and most likely the diet of the people of Great Zimbabwe. The overabundance of cattle in all three of the areas sampled further proves this point. It is interesting to note that although the Hill Midden has an extremely high number of cattle remains it is the Z1 sample that indicates the presence of the chief with its overabundance of hind-quarter elements in relation to the fore-quarter elements. The Hill Midden had significantly high numbers of both fore and hind-quarter elements, indicating that both members of the palace as well as public figures were present within this area (if the divisions of a carcass from Venda ethnography may be used). Z1 appears

to have the high status chief parts, while Z3 has a significantly high number of lower leg/ foot bones indicating the presence of a low status people.

This shows that the three areas sampled had different levels of status. Initially it appeared as though Z1 had the highest status, followed by the Hill Midden and lastly Z3 with the lowest status. This changed slightly after statistical analysis; the Hill Midden now has the highest status followed by Z1 and finally Z3.

MAPUNGUBWE

Mapungubwe is another capital settlement however the samples from this settlement were taken from the top of the hill where the chief resided separated physically from his followers. As such the remains from this hill should mostly be high status/ chief elements. Four samples were analysed from the top of the hill from the same area, the only difference being that they are from differing depths. Statistical analysis yielded the Borderline Pattern for MK 1/ levels 2, 8 and 10(i) while level 11 yielded what has now been redefined as the Average Pattern. The patterns for MK 1/ levels 2, 8 and 10(i) are very interesting showing no constancy over time. From earliest, MK 1/ 10(i), to youngest, MK 1/ level 2, there is a significantly high number of hind-quarter elements, followed in level 8 by a significantly high number of lower leg/ foot bone elements which is followed by a significantly high number of fore-quarter elements in level 2. In terms of the body part distributions and status, what this appears to indicate is that this area changed status at least three times over its period of use. It goes from chief/ palace related status to low status and back to a relatively high status. This is an interesting pattern which indicates that this area was subject to many activities or multiple discard patterns over time. Level 10(i) may signify when the chief resided in the MK area on top of the hill before he moved to his stone walled palace. However, this would make the presence of the low status pattern on top of the hill slightly after this period unusual. The MK 1/ level 11 sample is unique as it exhibits what has now become the Average Pattern as none of the three Bov III body part divisions exhibit an over abundance or under abundance once statistically analysed. This mean that one part is not being favoured over another, the

entire carcass is present in what would be considered normal quantities. This indicates that either the entire carcass is being discarded in one area or there was no distinction between differing levels of status during this period of usage.

K2

From previous research conducted at this site it is known to have been a high status settlement when it was in use by the Leopard's Kopje people. It is also known that lower status people were co-habiting the settlement. This is of relevance when considering the faunal remains and the potential patterns present. Seven samples were analysed for K2, MM Ts 1/ A/F/ F-I/ G-I, Ts 1/ levels 1 and 2, Ts 2/ levels 1 and 2, and Ts 3/ levels 6 and 13. From the multiple samples analysed it is clear that a distinctive pattern is not generally present except for the large sample area of MM Ts 1 and the much smaller sample area of Ts 2/ level 1.

In terms of the overall patterning at this site sheep/ goat are more prevalent than cattle in all but two of the samples, those being Ts 1/ level 1 and Ts 2/ level 1. As Ts 3/ levels 6 and 13 are the deepest levels sampled and they both have high sheep/ goat MNI's it is clearly a trend that continues over time. As the majority of the samples have a high sheep/ goat MNI and only the ground levels (Ts 1/ level 1 and Ts 2/ level 1) indicate a different pattern, it may be stated that the settlement was more reliant on sheep/ goat as a food resource than cattle even though cattle were part of their diets. The two samples favouring Bov III remains may have been affected by depositional factors at the settlement after it was abandoned. This pattern of higher sheep/ goat numbers than cattle is different from the pattern present at Manekweni, Tshitheme, Dzata and Great Zimbabwe. This may be because K2 dates to a much earlier period than the other sites and a different geographical area and therefore there was a dissimilar pattern of use for different domestic animals.

After the statistical analysis of the Bov III body part distribution patterns, five of the seven samples yielded the Borderline Pattern (see Table 5.2 on page 98), of the remaining two samples, one sample, MM Ts 1/ A/ F/ F-I/ G-I, follows the High status pattern, the

remaining sample, Ts 2/ level 1 follows the Herdsmen Pattern. However, it must be noted that MM Ts 1 was a large sample that was the result of a rehabilitation project. Thus its results are indicative of the long term use of the settlement spanning numerous years and a large area of the settlement. The Borderline Pattern is interesting in this instance as they indicate that some areas/ levels have variable abundances in different body part divisions. What it shows is that some body parts are more prevalent than others in different areas/ levels within a single settlement. This indicates that K2 had multiple discard/ body part division patterns.

The statistical analysis of the Bov III body part divisions for K2 yielded interesting results. K2 MM Ts 1 produced the High Status pattern indicating that a significantly high number of both fore and hind-quarter elements were present within the settlement. This may be interpreted to mean that both public figures and the chief or people associated with the palace were located within this area. However, MM Ts 1 was the location of the main midden which was previously the central kraal; the central kraal being linked with high status people and their burial. There was no vertical stratigraphic control for this sample thus the MM Ts 1 sample would likely include faunal material from both the kraal phase and the midden phase of this area. The pattern yielded by this sample is only indicative of the long term use of the sampled area. This sample still indicates that over time both the fore and hind- quarters of cattle were present in significantly large quantities, greater than there should be. This demonstrates that these specific parts of a cattle carcass were important in some way to the inhabitants of K2, not just for a short period of time but over the long term.

Three samples indicated that there was a significantly low number of hind-quarter elements present. Perhaps this means that these parts were being given to someone else within the settlement. These same three samples had high numbers of lower leg/ foot bones indicating that these people were of low status. This observation ties in with the very low hind-quarter numbers. Thus, low hind-quarter numbers and high lower leg/ foot bone numbers indicates the presence of low status people. Interestingly, two of the samples have a high fore-quarter number with a low number of lower leg/ foot bones. This

indicates that although the people residing in this area are of high status they are most likely public figures and not associated with the chief or the palace if we take into account Venda ethnography. K2/ Ts 2/ level 1 has such low numbers for both the fore and hind-quarters that it actually exhibits the Herdsmen Pattern. Thus the samples from K2/ Ts 1 and 2 seem to indicate the presence of people with low status, while the K2/ Ts 3 samples indicate the presence of people with a slightly higher status but not as high a status as the K2 MM Ts 1 area. From this it may be stated that K2 had differing status in at least three of its areas. What these samples have indicated is that specific areas have significantly high numbers of some faunal elements while others have low. This means that people with differing status residing in different areas in the settlement were receiving specific parts and were discarding them in different areas.

WEIPE

This settlement dates to a later period than Leokwe/ K2 interactions, thus the results do not directly impact on the question at hand. It was included in order to identify the faunal pattern present at a commoner settlement. Also to see if the patterns present were similar to the faunal patterns at Leokwe settlements.

At the time the settlement was being utilised (around AD 1200), there was a distinct division between agricultural and cattle oriented settlements with specialisation on only one of the two. Both the large number of grain bins present within the site as well as the sites close proximity to floodplains indicates that when it was inhabited, the settlement was agriculturally oriented. Even though this site was subject to two periods of excavation, only the remains from one period of excavation could be located within the WITS archaeology storeroom, thus only one sample from one area could be analysed. This was from within the central cattle kraal. Cattle were definitely present within the settlement as the presence of the cattle kraal attests to.

Although at Weipe sheep/ goat have a higher NISP than cattle, the MNI's are actually equal. What this indicates is that although a similar number of sheep/ goat and cattle are present within the settlement, some of the cattle bones are missing from the faunal

assemblage. This could mean that either the settlements inhabitants were giving these parts to others or these missing elements may be present within a different unexcavated area of the settlement. This is the only sample analysed here to have equal numbers of sheep/ goat and cattle making it quite interesting. This sample was previously interpreted as following the High Status pattern, however, after statistical analysis Weipe was found to follow the Borderline Pattern. For Weipe specifically, the Borderline Pattern takes the form of a significantly high number of fore-quarter elements indicating that Weipe has a greater quantity of high status parts. Thus it appears that this specific area within Weipe had quite a high status rather than the previously assumed low status, if cattle body parts may be used to determine status. Dzata T2/ 1-6 had the same pattern for Bov III body part distributions as well as K2/ Ts 3/ levels 6 and 13. However, the Weipe sample was taken from the cattle kraal which is associated with people of status. If there are specific patterns of discard being used it makes sense that the high status elements would be discarded within the cattle kraal.

Although interpreted as a commoner settlement, the analysis of the faunal remains from the central cattle kraal indicates that the activities undertaken at this settlement were more complicated than previously thought. At least one area of the settlement indicates a high status pattern meaning that high status parts were present within the faunal assemblage and were therefore available to the inhabitants of the settlement.

It is interesting to note that even though Manekweni dates to a much later period and is located in a different area, this settlement also had a high cattle content for the central enclosure; however, it also had a corresponding sheep/ goat pattern for the periphery of the settlement. As only one sample could be analysed, the central kraal sample, it cannot be said whether or not Weipe and Manekweni followed the same pattern of domestic animal use.

LEOKWE HILL

Two samples came from Leokwe Hill, Leokwe Hill Area A and Leokwe Hill Area B. The faunal remains from Leokwe Hill were left in storage for multiple years after their

excavation before my analysis. This may explain the extremely friable nature of the bones. The interpretation of these areas forms a contentious part of the Calabrese/ Huffman debate. The dates yielded for Area A and Area B indicate that the two areas were inhabited at different times with potentially a few years of overlap towards the end of the Area B occupation and the beginning of the Area A occupation. However, due to the nature of dating this statement cannot be made with utmost certainty. The Hilltop deposit dates to the transition from a K2 occupation to a Mapungubwe occupation by Leopard's Kopje people. While the terrace occupation dates to the Leopard's Kopje occupation of the capital settlement K2, from almost the beginning of their occupation. If the two areas were not occupied at the same time or were only co-occupied for a short period of time, then certain aspects of Calabrese's argument do not hold true. However, Area A was occupied for around 50 years based on the available dates, thus this is one line of evidence indicting that Area A was a settlement and not a rainmaking site as rainmaking would be a sporadic practice and would not leave significant material remains behind.

Stone walling situated half way up the hill, which cannot be attributed to either the Leopard's Kopje occupation or the later Venda occupation, blocked the passage of anyone attempting to reach the summit thereby making the summit difficult to access for both animals and people. However, as the walling cannot be linked with either of the known occupation periods it should be excluded from consideration in terms of the interpretation. However, it is noteworthy that this difficulty of access is an important part of Huffman's rainmaking argument. Taking into account that structural remains are present, it is more likely to be a settlement, thus supporting Calabrese. The material remains identified by Calabrese during his excavations, such as large circular stone features thought to be grain bin foundations, hut platforms, numerous ceramic and faunal remains, beads, ground stone artefacts and non-utilitarian metal artefacts as well as multiple vessel types all indicate that the site was used as a residential location. However, the relatively small assemblage of material identified by Calabrese to indicate status suggests that the settlement was not of as high a status as previously thought.

Both Area A and Area B had a greater quantity of sheep/ goat than cattle based on their MNI's. That sheep/goat remains were more numerous than cattle on the summit of Leokwe Hill would suggest that either the occupants of the site were of lower status, thus, eating more lower status animals or that it was too difficult to take cattle to the summit. It may also indicate that rainmaking activities were being conducted at the summit. The Bov III remains in Area A specifically could not be analysed in terms of the body part distribution patterns as the sample was not large enough. Its analysis was however included as this site is of importance to the Leokwe debate and potential future research may be able to build on these results. The Bov III remains from Area B could be analysed in terms of body part distribution. The statistical analysis of these results indicated that Area B followed the Herdsmen Pattern. This differs substantially from the original interpretation. The presence of the Herdsmen Pattern indicates that Area B, at least the area sampled, was inhabited by or linked with low status people since the high status elements (fore and hind quarter) were highly under represented. However, it should be noted that only one sample was analysed from Area B, thus the results are only representative of this area. Perhaps the high status elements were located somewhere else within the settlement.

CASTLE ROCK

The interpretation of this site is contentious as Calabrese and Huffman have differing arguments concerning the status and use of this site. Calabrese interprets it as an elite settlement and Huffman argues that it is a seasonally used cattle post.

In total, seven kraals were recorded at this site over two excavation episodes: three Leokwe, one Transitional K2, two Khami and one unknown. In terms of the data analysis, Castle Rock, like Leokwe Hill, also had two areas analysed (Kraal 1 and Kraal 4) with only one whose numbers were large enough for the Bov III body part division analysis, this was Kraal 4. Kraal 1 had a small sample size, for this reason it was excluded from the Bov III body part division analysis. It was however, included in the Bov II/ Bov III comparisons. This showed that sheep/ goat were more numerous than cattle for both Kraal

1 and 4. For the cattle remains specifically, statistical analysis has shown that Kraal 4 follows the Herdsmen Pattern.

In terms of the interpretation of this site, as there is a Herdsmen Pattern present, this indicates that high status parts are under represented compared to the number of lower leg/ foot bones meaning that this sample indicates the shows the presence of low status people. This sample follows the same pattern as Leokwe Hill Area B in terms of the presence of the Herdsmen Pattern. Thus similar activities may have been undertaken at these settlements especially considering that they are contemporary. Ethnographically, sheep/ goat may be used as a substitute for cattle; this may explain why sheep/goat outnumbered cattle in both Kraal 1 and Kraal 4. This may also tie in to the results from the Bov III body part distribution pattern analysis (which yielded the Herdsmen Pattern). The presence of this pattern means that the inhabitants of this settlement were only receiving/ eating the low status parts. Thus the high sheep/ goat numbers and low cattle numbers in association with high lower leg/ foot bone numbers for Bov III indicate that at the very least, Kraal 4 at Castle Rock had a low status.

Overall, the results of the Bov III analysis indicate that at least one area within this site was of low status. As Kraal 1 also has a higher number of sheep/ goat than cattle it is perhaps possible to expand the statement of low status to another area of the site. This would indicate that the site was of low status and not high status like Calabrese argues. However, it should be noted that the remains from multiple kraals were unearthed at Castle Rock, some of them dating to much later periods, such as the two Khami period kraals. Thus some of the high status material remains may be attributed to their occupation of the settlement and may not be linked with the Leokwe occupation. However, it is interesting to note that during Calabrese's excavations he noted that in terms of the assemblage and vessel form, there was no distinct break between Stratum I and Stratum II. Stratum I dated to the 13th century placing it within the period of transition between K2 occupation and Mapungubwe occupation. Stratum II dates to between AD 1040 and 1160, making it contemporary with K2. As there is no break between the two strata in terms of vessel form, it may be argued that Leokwe people were using this site from about AD

1040 up until the 13 century AD. The dates for Stratum II also correspond with the dates for the settlement at Leokwe Hill Area B.

The interpretation of this site is complicated by the numerous kraals. The presence of the 'extra kraals' may actually represent the settlement layout trends as the people may not have placed their kraals in the same place year after year. That there is not a break between Stratum I and Stratum II indicates that this site was utilised by the same people over a long period of time when the dates for each Stratum are taken into account. If we also take into account the three Leokwe kraals and the one Transitional K2 kraal it shows that this site was used during the Leopard's Kopje occupation of K2 and of Mapungubwe. Followed only later by the Khami occupation.

Access to the settlement although semi restricted by steep inclines on two of its sides, was not that difficult during the dry season. However, during the rainy season it would have been cut off by the surrounding vlei. Meaning that this site could only be used seasonally; this may explain the number of kraals present. This turns the argument in Huffman's favour.

Calabrese's interpretation is based on the presence of figurines, the bead assemblage and the type of metal artefacts present. Figurines are usually associated with fertility/ initiation rites which came under the domain of the chief and would have been performed close to him in his settlement. This is based on the presence of at least three figurines associated with fertility, one which indicates high status and two animal representations which are associated with initiation. Thus, their presence could indicate that Castle Rock was of high status as they imply the presence of a high status person. With regard to the bead assemblage, Calabrese also argues that Castle Rock inhabitants had greater access to prestige items than some K2 people because of the relatively large number of glass beads and Garden Roller bead moulds. Calabrese (2000) recovered 361 glass and shell beads. The presence of Garden Roller bead moulds indicates production of the beads occurred at the site, which does not directly indicate elite status. For the metal artefacts, Calabrese argues that Leokwe people used the finished metal items for personal adornment rather

than utilitarian implements as the only identifiable metal remains were of personal adornment items and not work implements; thus indicating high status.

NISP's were only marginally useful, mostly as a basis for further investigation. The results of analysis based only on NISP should be used with caution as the results are biased by the fact that NISP is a general count of all elements rather than distinguishing between multiple beasts.

The statistical analysis provided interesting results in terms on the patterns identified for Bov III body part divisions. They showed that on the whole the faunal patterns identified were not arbitrary, however, some of the samples did not fall into the pattern they were initially thought to.

LEOKWE STATUS

When Calabrese discovered the existence of Leokwe people through the presence of their pottery at Leokwe Hill, it had a major impact on the field of archaeology and the interpretation of social interactions during the Middle Iron Age within the Limpopo Valley. Their presence during the period of Leopard's Kopje rule was cause for speculation amongst academics concerning their status within the Valley. This resulted in two opposing arguments being set forward by Calabrese and Huffman. Both substantiated their arguments with aspects of Kopytoff's frontier perspective.

Following Kopytoff, Calabrese argues that Zhizo/ Leokwe as 'Firstcomers' had authority over the area because of their ritual relationships to the land and spirits. He believes that Leopard's Kopje people did not expel Zhizo people outright (*contra* Huffman 1992) and that Leopard's Kopje as 'Latecomers' only subdued Leokwe people later. Huffman argues otherwise, he argues that the Zhizo/ Leokwe people, as the Firstcomers, were overcome from the outset by the Leopard's Kopje Newcomers and as a result the Leokwe people were incorporated as adherents of Leopard's Kopje. According to Kopytoff, in this instance Zhizo/ Leokwe people expected to be incorporated and as such would have

attached themselves to the stronger polity. He argues that Leokwe people filled niche roles within Leopard's Kopje society such as herdsman and craft producers. Both Calabrese's and Huffman's arguments may be possible in terms of Kopytoff's frontier perspective. It was the aim of this work to sort out this issue through the use of faunal remains for numerous sites, specifically Castle Rock and Leokwe Hill.

In total four out of twenty of the samples analysed yielded what has been described here as the Herdsmen Pattern. The samples were from areas within the Great Zimbabwe, K2, Castle Rock and Leokwe Hill settlements. The sites of Castle Rock and Leokwe Hill are the two main sites of which Calabrese and Huffman have opposing arguments. Castle Rock is argued by Calabrese to be an elite settlement and by Huffman to be a seasonal cattle post. Leokwe Hill Area A is argued by Calabrese to be another elite settlement and by Huffman to be a rainmaking site. Leokwe Hill Area B, on the other hand is argued by Calabrese to be a low status Leokwe settlement, Huffman agrees that it is a low status settlement but he argues that it was a herdsman settlement.

The presence of the Herdsmen Pattern has been proven through the analysis of the faunal remains. Whether it is linked with Leokwe people or not is now in question. As both Great Zimbabwe and K2 had samples which followed the Herdsmen Pattern, it may be stated that this pattern is, in this instance, associated with low status people both at the Great Zimbabwe settlement and the K2 settlement. Interestingly though, Great Zimbabwe dates to a later period than Leokwe people and is located in Zimbabwe thus showing that the Herdsmen Pattern is present at different times and in different geographical areas.

As far as Castle Rock and Leokwe Hill are concerned, they both prove the presence of the Herdsmen Pattern at Leokwe settlements. As Castle Rock Stratum II dates to the same time period as the Leokwe Hill Area B settlement it may be stated that they were occupied simultaneously by Leokwe people. The different locations for the settlements are interesting. At Castle Rock specifically, the dates for Stratum I and Stratum II and the lack of a break in pottery style between these two strata indicates that this site was used consistently over a relatively long period. Calabrese's Stratum I and Stratum II fall within

what has been termed here as Kraal 4. The faunal analysis for this sample indicates that this area specifically was of low status or occupied by people of low status. They may have been herdsmen. However, the material remains recovered by Calabrese confuse the matter slightly. The presence of figurines indicates that the chief may have been present at this settlement as only the chief may preside over matters of initiation/ fertility which are usually associated with figurines. Furthermore, the presence of non-utilitarian metal objects also indicates the presence of people of high status. The presence of Garden Roller bead moulds contradicts this as this indicates the presence of bead production usually carried out by low status people. However, as the material remains were considerably affected by the modern construction activities carried out at the site, it is possible that the high status material may have been associated with a different area of the settlement or even a different period of usage. If they are linked with the Leokwe occupation, then Calabrese's argument of high status for the sites inhabitants stands true. This would make the presence of a low status people within the settlement very interesting, thus proving that some Leokwe people were of higher status than others. Huffman's argument of it being a seasonal cattle post is affected by the presence of the pottery trend at the site that does not appear to change over time and the dates for Stratum I and Stratum II. The multiple kraals of different time periods indicate that Caste Rock provided access to prime grazing rather than cultivation. The surrounding vleis may have affected the use of the site during the rainy months.

With regard to Leokwe Hill, it would appear that Area A was occupied at a slightly later period than Area B and thus it is not likely that the Leopard's Kopje inhabitants of Area A ruled over the Leokwe inhabitants in Area B. However, there may have been a slight overlap in the occupations. In terms of these dates Leokwe Hill Area A was occupied during the period of transition between the occupation of K2 and Mapungubwe. Towards the end of the occupation of Leokwe Hill Area A, the control of rainmaking had been taken over by the chief at Mapungubwe, thus making rainmaking at this hill unlikely around the beginning of the 13th century AD. The dates for Leokwe Hill Area A indicate that it was used for a relatively long period of time. This along with the evidence of hut construction and the presence of the material remains indicates that this area was a

settlement and not used as a place for rainmaking during this period. Thus Area A and Area B were separate occupations and the Leokwe people who occupied Area B were not under the authority of the K2 elite residing on Area A. It is possible that as only one sample in Area B was analysed, the settlement may have been a high status settlement and the sample that was excavated was from the low status area of this settlement.

Thus the presence of the Herdsmen Pattern is not necessarily linked with Leokwe people and therefore it does not necessarily mean that they were the herdsman for the high status K2 people.

In conclusion, multiple methods of analysis were undertaken here, each focusing on different aspects of the same faunal remains. In terms of the statistical analysis, the four patterns (the 'Herdsmen Pattern, the high status pattern, the Average Pattern and the Borderline Pattern) identified within the Bov III remains body part division analysis were proven to be statistically significant. Of specific relevance is that the Herdsmen Pattern was proven to exist and was identified in four samples, each from a different site. The presence of the Herdsmen Pattern in two of these sites indicates that it is not predominantly linked with Leokwe people and is a strategy carried out at different times and in different places as evidenced by its use within the Great Zimbabwe settlement. The Herdsmen Pattern appears to only indicate the presence of low status people, either within a high status settlement or in their own settlement.

CHAPTER VI: CONCLUSIONS

The aim of this piece of work was to come to some understanding concerning the socio-political status of Leokwe people, in their own right and in relation to Leopard's Kopje people. This was to be accomplished through the faunal analysis of multiple samples from numerous sites. In total twenty-four samples from ten sites were analysed. Of these, I analysed the samples from five of the sites, while the faunal data for the remaining sites came from published works; taking into account that faunal data from K2 falls into both categories. Four samples had to be excluded from analysis, KK Khami and KK Leokwe (thus the entire site of KK), Leokwe Hill Area A and Castle Rock Kraal 1 because of their small sample sizes.

The faunal analysis focused on the quantities of Bov II and Bov III remains in relation to each other as they were present in each sample, but more specifically on the Bov III remains and the proportions that the body parts were present in. For the analysis of the Bov III remains, the body parts were divided into three categories based on ethnographic evidence concerning the division of a carcass. These three divisions were the fore-quarter, the hind-quarter and the lower leg/ foot bones. The fore and hind quarters are associated with high status, the hind-quarter being of higher status than the fore-quarter, while the lower leg/ foot bones are associated with low status. After analysing the Bov III faunal remains from each of the samples in terms of these three divisions, four patterns were identified. These are the High Status/ Above-Average Pattern, the Average Pattern, the Below-Average/ Herdsmen Pattern and finally the Borderline pattern. After statistical analysis these four patterns were found to be statistically significant, however, as a result of the statistical analysis some samples were identified to follow different patterns than previously identified. Histograms were also used to depict the patterns present more clearly.

After the statistical analysis of the four above mentioned patterns, it was shown that the Herdsmen Pattern does exist, or at least a pattern whereby there are more lower leg/ foot bone elements than fore and hind-quarter elements present within a settlement or an area

within a settlement. That this pattern is present at Great Zimbabwe and K2, which were both high status settlements as well as two Leokwe settlements, indicates that the Herdsmen Pattern, as defined here, is linked with low status in general and not necessarily Leokwe herdsman specifically. Furthermore, as Great Zimbabwe dates to a later period than Leokwe and is found in a different area, the Herdsmen Pattern, is not specifically linked to Leokwe people. Thus, as far as Huffman's argument is concerned, he is partially correct, the Herdsmen Pattern is present in the faunal remains; however it is not specifically linked with Leokwe people as he argues. As the Herdsmen Pattern is linked with low status and herdsman are ethnographically defined to be of low status then it is possible that the Herdsmen Pattern is in fact linked with herdsman. However, there is no evidence as of yet to prove this. The corresponding high quantity of sheep/ goat remains when compared to cattle only backs up the low status interpretation.

As for Castle Rock, Leokwe Hill and the arguments laid out by Calabrese and Huffman: although Castle Rock and Leokwe Hill Area B were contemporary, they were positioned in very different localities associated with different environments, one at the base of a hill and the other in the middle of the vlei. This indicates that Leokwe people were utilising different environments within the landscape. The interpretation of Castle Rock is confused by many factors, such as the surrounding vlei, the number of cattle kraals present, the material remains and the negative effects of modern construction activities. However, the presence of a pottery style over a relatively long period of time without it changing indicates that this site was at least occupied by Leokwe people during the Leopard's Kopje rule over K2, up until their period of transition from the K2 settlement to the Mapungubwe settlement. Only one sample from the site was large enough for the Bov III body part analysis. This sample yielded the Herdsmen Pattern and thus indicates that at least one area within the settlement was of low status.

The dates for Leokwe Hill Area A (hill top) and Area B (terrace) indicate that, on the whole, they were not occupied at the same time. Thus it is unlikely that the hilltop occupants ruled over the terrace occupants. The material remains for the hilltop indicate the presence of a settlement rather than a rainmaking site; especially as the dates for it

span a relatively long period of time and the remains of at least two periods of hut construction were present as well as non-utilitarian metal artefacts. Leokwe Hill Area B followed the Herdsmen Pattern.

The Borderline Pattern turns out to be an interesting pattern indicating the presence of high status and in some cases indicates the presence of a chief within a settlement or an area within a settlement. The majority of the samples conformed to this pattern in one way or another.

Future research should pursue further excavations at Leokwe Hill Area A and Weipe specifically. As these sites show interesting patterns and it would be beneficial to clarify the patterns present. In terms of the question of Leokwe status, more Leokwe sites should be excavated with multiple areas within the each site being sampled paying particular attention to the distribution of faunal parts.

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