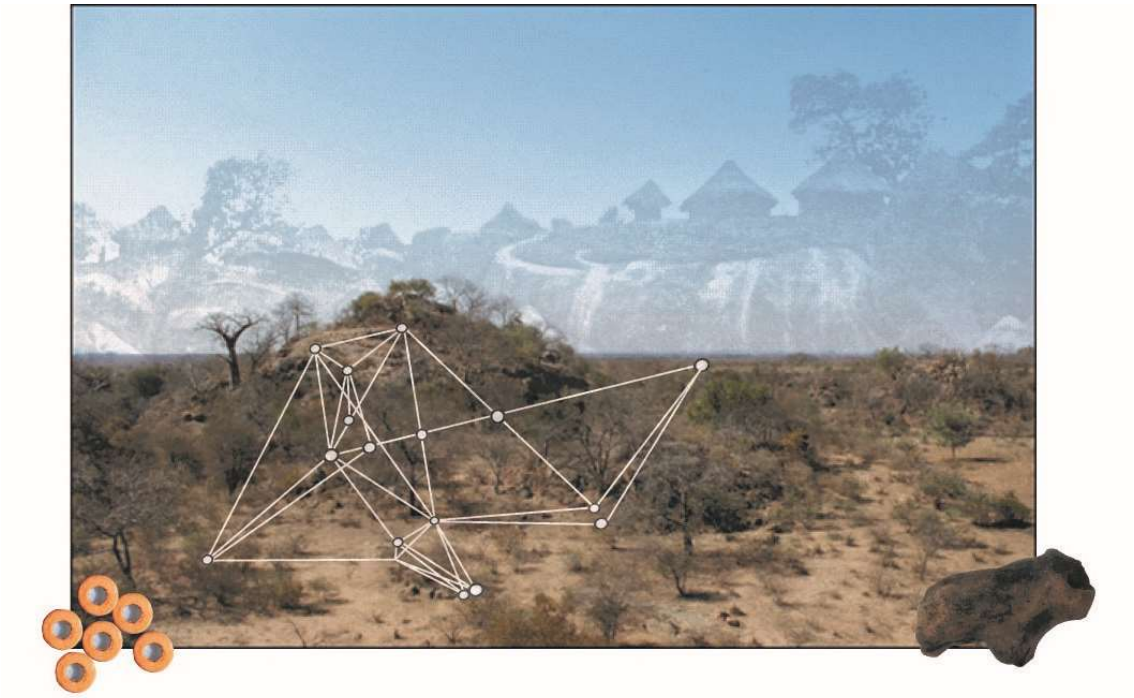
Exploring Networks of Interaction at the Iron Age Site of Mtanye, South Western Zimbabwe.



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Thesis presented in fulfilment of the requirements for the degree of MSc in Archaeology

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Declaration

This is to certify that the results and conclusions found within this thesis are my own and that where the work of other researchers has been used it has been properly referenced. This thesis has not been submitted for a degree at any other institution of higher learning.

Jordan Scholfield

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Abstract

Networks of interaction as well as community formation have been widely researched within Southern Zambezian archaeology of the early second millennium A.D. Despite this, research into these communities is often asymmetrical with objects delegated a passive role in the formation of not only networks of interaction but also socio-material development. Further, research tends to focus on society as the source of action in these processes. Using the site of Mtanye, the aim of this study is to create a relational ontology in which agency is distributed among heterogenous entities. Moreover, this study attempts to demonstrate how networks of interaction might have shaped this community. Mtanye is a Leopard's Kopje phase 2 site with stratified Transitional K2 (1200-1250 A.D.) and Mapungubwe (1250-1300) deposit. This site has further been placed into the wider conventional narrative as being evidence for the expansion of the Mapungubwe state. In order to recreate the networks of interaction that were present at Mtanye, Actor-Network Theory informed in part by the ethno-historical record was enlisted. The results of this study show that Mtanye has hill occupation, stone walling and access to prestige goods, characteristics conventionally not ascribed to periphery sites. Further, the results of this study suggest that it is more prudent to view the socio-material development of Mtanye, not in terms of the political or economic expansion of a hegemonic power but rather as a product of heterogeneous networks of interaction. This study may further provide a framework for understanding socio-material development and networks of interaction during the early second millennium A.D. in Southern Zambezia.

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Chapter 1 : Introduction and Research Aims

1.1 Introduction

The development and emergence of communities in Southern Zambezia is deeply intertwined and entangled within fluid networks of interaction (Mitchell 2002; Pikirayi 2001; Phillipson 2005; Wood 2005, 2012; Huffman 2007a, 2009; Antonites 2012; Moffett and Chirikure 2016; Chirikure 2017). During the second millennium A.D., these networks were multiscalar, from interactions between households and communities, to regional interactions between polities. Through these networks of interaction, people, ideas and objects flowed freely, creating a cauldron of innovation, invention and imitation. Despite these dynamics being quite evident in the archaeology as well as in the historical record, traditional archaeological models for this time, view the region as comprised of homogenous cores and peripheries with capitals such as Mapungubwe, Great Zimbabwe and Khami dominating the landscape (Huffman 2000; 2007a; 2009;2015 a,b; 2016). As Antonites (2012) rightly points out, much research has been devoted to cores/heartland regions with research on hinterland or periphery regions being neglected. These regions are typically seen as underdeveloped, impoverished and homogenous. Furthermore, in conventional Southern African archaeological models, these peripheries are often viewed as passive agents within the formation of states and devoid of innovation or invention (Antonites 2012). Communities residing in these regions are further assumed to lack agency and political or economic power, being subject to the whims of the political elite in core regions (Antonites 2012). Finally conventional models in Southern Zambezian archaeology explain the distribution of prestige goods, ceramic style and settlement layout as products of hegemonic dominance (Huffman 2007a; 2015a,b).

The communities that inhabited Southern Zambezia during the early second millennium A.D. were both pastoral and agrarian, keeping herds of sheep, goats and cattle as well as growing

crops like sorghum, millet and cowpeas (Mitchell 2002; Pikirayi 2001; Phillipson 2005; Manyanga 2006; Huffman 2007a, Nyamushosho 2017). These communities also hunted wild game and collected wild edible plants (Manyanga 2001, 2006; Nyamushosho 2016; Mushangwe 2017).

As long as humans have occupied the landscape, communities throughout southern Africa and more specifically southern Zambezia, have engaged in various forms of interaction. One of the most common forms of interaction that is researched in southern African archaeology, is trade and exchange. Iron Age communities traded extensively amongst themselves, with hunter-gatherer communities and with the Indian Ocean rim (Maggs 1980, 1992; Mazel 1986, 1989; Mitchell 1996; Denbow 1982;1999; Hall and Smith 2000; Mitchell 2002; Pikirayi 2001; Phillipson 2005; Huffman 2007a; Wood 2012; Chirikure 2014). Long-distance trade was primarily supported and facilitated by regional trade networks. Within these networks, items such as metal (bronze, tin, gold, copper and iron), cloth, grain, cattle, animal skins and salt were traded or given as gifts and tribute. Besides trade, marriage arrangements also formed a key form of interaction. A bride price or *labola* was often paid for a bride, with cattle or objects such as iron hoes being used as payment. Evidence for this kind of interaction is perhaps evident in the ceramic vessels these women carried to their new homes. Like with trade and exchange, this movement of objects and people across the landscape not only bonded different households or communities but also facilitated the spread of ideas and customs (Loubser 1991; Schoeman 1998; Esterhuysen 2008; Antonties 2012).

The early second millennium A.D. witnessed a growth in population, innovation, trade and socio-political development (Pikirayi 2001; Huffman 2007a). Around 900 A.D. in some regions such as the Shashe-Limpopo Confluence Area (SLCA), large centres such as Schroda emerged within Zhizo ceramic producing communities and became centres for trade and population agglomeration. In successive years, Leopard Kopje ceramic producing communities

emerged and occupied most of present-day South-Western Zimbabwe, Northern South Africa and Eastern Botswana. Large centres such as Mapela, Mapungubwe and K2 arose from within Southern Leopard's Kopje communities while within the Northern Leopard's Kopje communitiescentres such as Taba Ziko Mambo and Leopard's Kopje became large centres in their own right. In fact, across southern Zambezia within Gumanye, Toutswe and Leopard's Kopje communities, centres arose, and innovation flourished. There has been much debate with regards to where socio-political complexity first arose and the catalysts that caused the emergence of complex societies in Southern Zambezia (Huffman 2000, 2015a,b, 2016; Chirikure *et al*., 2014; Chirikure *et al*., 2016). It is in this atmosphere of debate that Mtanye has often been presented as evidence for conventional models.

While this thesis does not aim to get mired in current debates around socio-political complexity, it does attempt to frame Mtanye within networks of interaction rather than a generalised description of a periphery community within a larger hypothetical state. Furthermore, this thesis follows on from the work of others (Chirikure *et al*., 2013 a,b; Antonites 2012; House 2016, Chirikure *et al*., 2016; Chirikure *et al*., 2014; Nyamushosho 2016; Nyamushosho *et al*., 2018) and attempts to illustrate the development of the community at Mtanye, within networks of interaction and community agency rather than a by-product of any political and economic superpower. Secondly this thesis will demonstrate that Southern Zambezia, in the early second millennium A.D. was a heterogenous space, within which interaction, innovation and imitation thrived (see also Chirikure 2017; Schenck 2017).

Mtanye is located in present-day south western Zimbabwe and has been argued to have been part of a larger Mapungubwe hegemony (Huffman 1972a, 2008; Figure 1.1). Furthermore, this site has been classified as a stratified Transitional K2/Mapungubwe site dating to between 1220-1305 A.D. Research by Scholfield (2017) found evidence of hilltop occupation, stone

walling and 'prestige goods', providing evidence of a more complex picture than originally described.

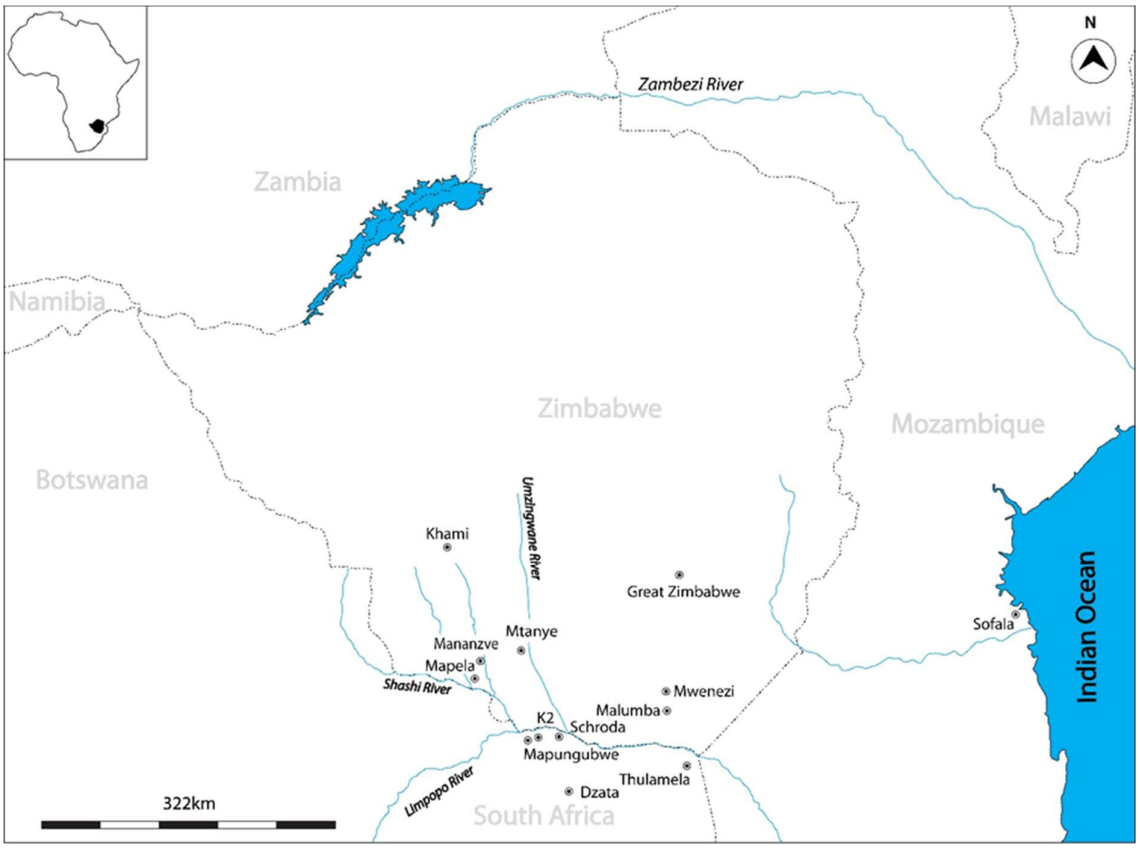

Figure 1.1: Southern Zambezia including key sites mentioned in text. Adapted from Scholfield *et al*., forthcoming.

As mentioned above, traditional narratives create an image of a homogenous periphery with sites like Mtanye being included in broad generalizations. Secondly most studies into this period focus on socio-political and economic dynamics at large centres, neglecting so called commoner sites. Thirdly, many of the models used to understand communities constrain themselves within structuralist Eurocentric models and become mired in dichotomies such as core/periphery (Antonites 2012; Fredriksen and Chirikure 2015; Moffett and Chirikure 2017). Lastly, despite the extensive research into networks of interaction, these studies (for example, Huffman 2007a; Wood 2005; 2011), focus primarily on interaction at the macro and meso scales with only a handful of studies considering the micro scale of interaction networks.

Moreover, these studies neglect the active role that non-human entities play in shaping these networks and the expression of non-human agency.

1.2. Mtanye

Located in the Lowveld of present-day south-western Zimbabwe, the site of Mtanye (S 21°22'59.8" E29°15'10.8"; Figure 1.2) is located around 250m south of the Mtanye river, near the Makapakapa dam. The catchment area for this dam covers an area of 15,500 hectares with water being available most of the year (Walker 1972). The Mtanye river is a tributary of the Sibizini river which in turn is a tributary of the Umzingwane river. The region is sometimes known as the Shashe-Limpopo-Save depression, with this region receiving between 400 millimetres to 600 millimetres of rain annually (Pikirayi 2001). Like much of the south western lowveld; the landscape is dominated by Mopane Tree Savannah (*Colophospermum mopane*) and Eragrostis Veld (Huffman 2008). The Mopane Tree Savannah's are usually supported by sandy soils derived from basalt (Walker 1972; Thorpe 2005). The site of Mtanye also favours various Acacia species, false marula (*Lannea schweinfurthii*), marula (*Sclerocarya birrea*), sickle bush (*Dichrostachys cinerea*), baobab (*Adansonia digitata*), Grewia spp and Commiphora spp (Pope 1972). The geology of the lowlands is usually comprised of basaltic lava, sandstone, shale and rhyolites of the Karoo while the immediate landscape around Mtanye is dominated by scattered granite gneiss inselbergs (Pikirayi 2001; Thorpe 2005; Huffman 2008). Due to the combination of rainfall, temperature and soil types, this region is often regarded as a marginal drylands with low agricultural yields however, this region is said to be good for cattle (Pikirayi 2001; Huffman 2008; however see Nyamushosho 2017 for alternative view).

Figure 1.2: A view of the site of Mtanye from the North.

Previous research

Mtanye was first excavated in 1972 by the Rhodesian Schools Exploration Society on an expendition to Doddiburn ranch (Huffman 1972a, 2008). The Society led by Huffman excavated two trenches. Transitional K2 and Mapungubwe occupations were identified from the ceramics at site (Huffman 2008)(Figure 1.3). During the excavations, a hut was uncovered on the flats at Site B in Trench II/A. This hut was associated with Mapungubwe ceramics and charcoal from the hut posts were radiocarbon dated to between AD 1285 and 1305 cal (Pta-944) (Huffman 2008, Huffman 2007a: 470). The excavations also uncovered a cattle kraal with a single grain pit, dated by association to the TK2 occupation (Huffman 2008). Huffman also recovered faunal remains from site, that mostly comprised tortoise, sheep/goat and cattle remains (Huffman 2008: 207). Huffman's (1972a, 2008) study indicates that Mtanye was contemporary with sites such as Mapela and Mapungubwe. Further, Huffman (2008) suggests the presence of TK2 ceramics at Mtanye, may be indicative of the early expansion of the

Mapungubwe state. Finally, from the distribution of material deposits at Mtanye, Huffman (2008) concluded that the site represents a single community comprised of separate homesteads (Figure 1.4).

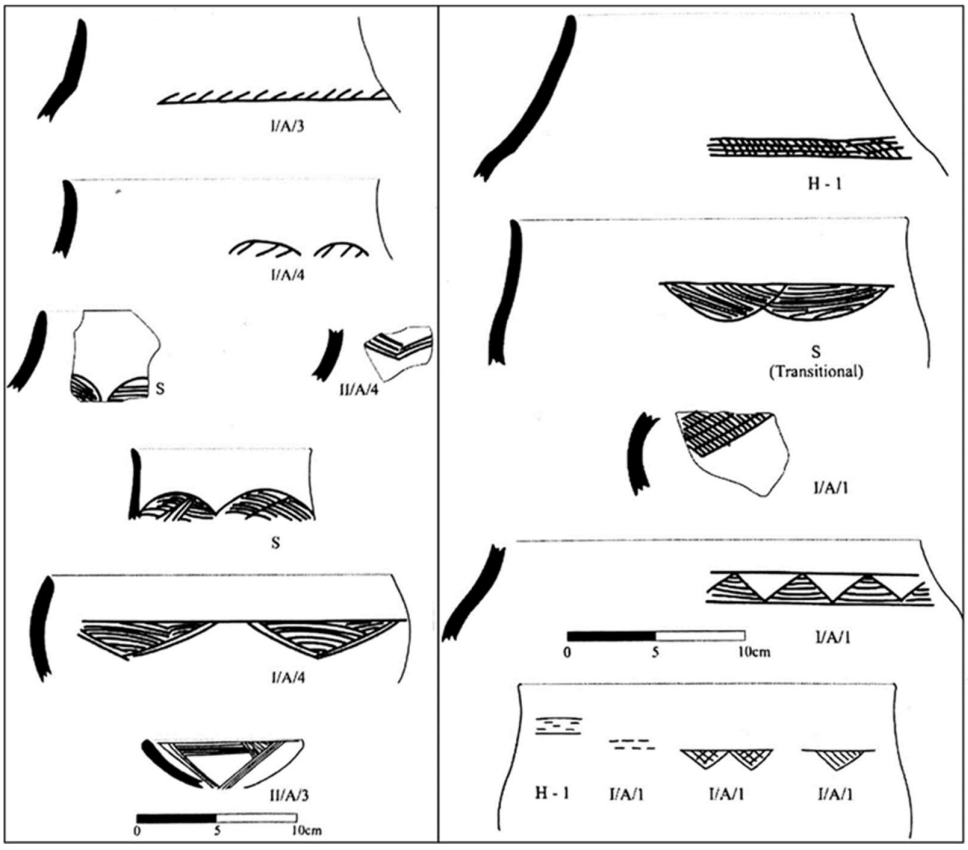

Figure 1.3: Mapungubwe and Transitional K2 ceramics recovered from Mtanye. Adapted from Huffman (2008).

During the 1972 excavation, the Rhodesian Schools Exploration Society also excavated the rock shelter at Mtanye (Walker 1972). The majority of the material recovered belong to the Later Stone Age and was classified as belonging to either the Wilton or Dombozanga stone tool industries. Of particular interest was the recovery of Iron Age material from the shelter with Gokomere, Bambata and possibly Leopard's Kopje ceramics being found (Walker 1972; Thorpe 2005). Charcoal was also collected as well and three samples were radiocarbon dated (Pta-967, Pta-968 and Pta-969) (Vogel *et al*., 1986). About 84cm of the deposit were excavated

with the dated charcoal samples coming from 'Level B' (15 to 20cm), the top of 'Level C' (25 to 30cm) and the bottom of 'Level C' (30 to 40cm) (Walker 1972; Vogel *et al*., 1986). These dates roughly place the sequence to between 1350 and 1500 AD. The dates have led some to suggest that perhaps hunter-gatherer communities persisted among farming communities well into the fifteenth century (Thorpe 2005).

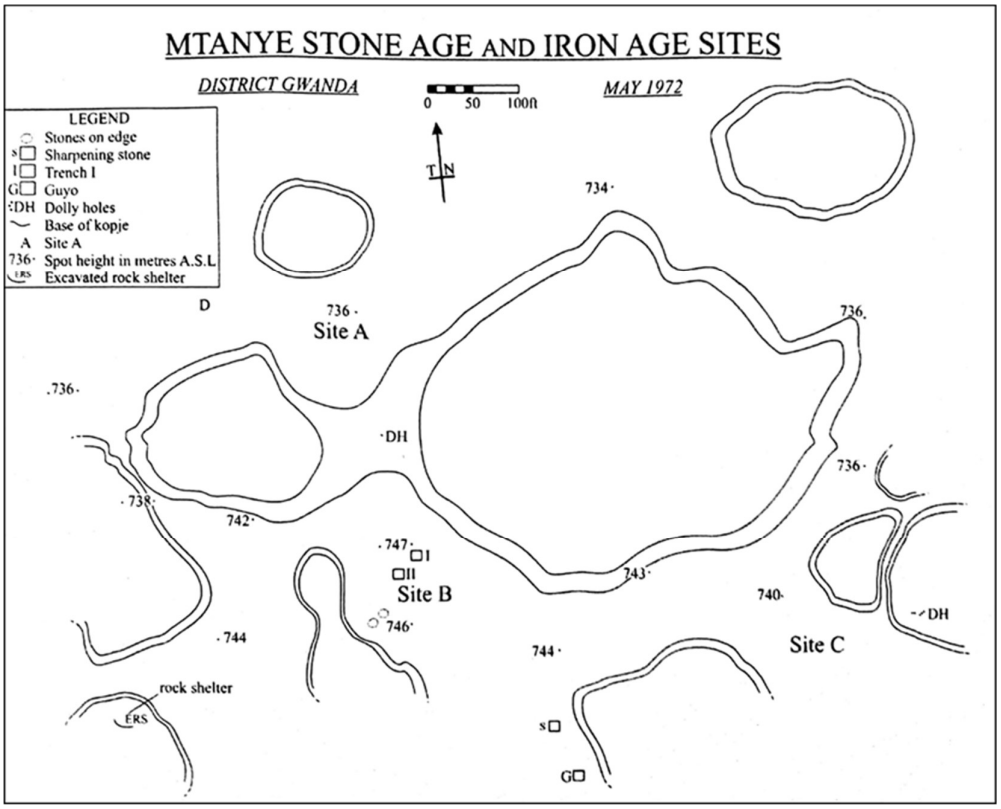

Figure 1.4: Map of Mtanye from 1972 excavations. Adapted from Huffman (2008).

Excavations were again carried out at Mtanye in 2017 with the excavation of four trenches (Scholfield 2017; Mushangwe 2017). Site surveys conducted at Mtanye revealed that the site has a terraced hilltop along with occupation both on the flats and the hill (Scholfield 2017). This suggests that Mtanye has a similar settlement pattern to those seen at Mapela,

Mapungubwe and other sites, such as those in eastern Botswana (Huffman 2007a; Chirikure *et al*., 2014, 2016; House 2013, 2016; Van Waarden 2011, 2012; Klehm 2017). Mtanye shares further similarity with Mapela in that like Mapela, Mtanye has terraced cattle kraals. Further, through ceramic analysis, it was confirmed that Mtanye is a stratified TK2/Mapungubwe site. The comparison of this assemblage with those of other sites, revealed that Mtanye's ceramic assemblage is most similar to those of Mapela, Mapungubwe and Skutwater (Scholfield 2017). This research also provided evidence that Mtanye was connected to various networks through activities such as the trade and exchange in glass beads. Along with other aspects of material culuture such as the ceramics and stone walling, this material hints at a wider network of interaction (Scholfield 2017). Furthermore, this material evidence also raises the question of how these multi-scaler networks helped in shaping the community at Mtanye during the early second millennium A.D.

1.3. Aims and Objectives

1. To analyse the material recovered from Mtanye and interpret this material using Actor-Network Theory. This allows for a more holistic understanding of the community at Mtanye and their socio-material development within networks of interaction.
2. To compare these results with other contemporary sites across Southern Zambezia and relate the socio-material development at Mtanye to those seen at similar sites.

To resolve these issues, this thesis applies Actor-Network Theory, informed in part by ethno-historical sources, to create a more holistic picture of the community at Mtanye. Fundamentally, Actor-Network Theory attempts to create a relational ontology in which socio-material entities emerge from heterogenous networks comprised of human and thing actors. This theory removes the divide between the social and material with both being viewed as co-creators within a socio-material hybrid network (Whitridge 2004, Latour 2005, Knappett 2011,

2013a). What this allows, is for both the social and material to be understood as coeval and inter-dependant (Whitridge 2004; Fazioli 2015). Change is also accounted for within this theory, with socio-material change being a product of not only the enterance of a new entity into a network of interaction but also a product of a change in relations between entities. Furthermore, this theory eliminates technological and social determinism while providing a strong methodological approach for understanding interaction (Knappett 2011,2013a). Moreover, Actor Network Theory is inherently multi-scaler, transversing multiple scales simultaneously (Knappett 2011).

To further understand the networks of interaction, present at Mtanye, this thesis conducted a material culture study. The classification and identification of ceramics at Mtanye, was achieved through the use of Huffman's (1982, 2007a) Multi-Dimensional Approach. The glass beads at site were identified with the aid of Wood's (2005) methodology for glass bead classification in Southern Africa, while the shell beads were classified according to Tapela's (2001) typology. Finally, the fauna was analysed using standard zooarchaeological methodology with Badenhorst's (2011) and Fraser and Badenhorst's (2014) Cattle Index used to determine if there were more goats and sheep then cattle at Mtanye

1.4. Thesis Outline

Chapter two provides a background of archaeological research into interaction in Africa, as well as providing a review of current studies into the development of societies in Southern Zambezia during the early second millennium A.D. **Chapter 3** presents the theoretical underpinning of this thesis while **Chapter 4** presents data collected from site surveys and excavations at Mtanye. **Chapter 5 and 6** provides a typological classification of ceramics and beads recovered from Mtanye. **Chapter 7** presents data on the remaining material culture recovered from site. **Chapter 8** explains the findings of this study and will attempt to frame

socio-material development at Mtanye and in Southern Zambezia, within networks of interaction at the micro, meso and macro scale.

Chapter 2 : Ethno-Archaeological Context

2.2. Introduction

The aim of this chapter is to provide not only an archaeological context for the site of Mtanye but also to provide a source for analogy in the form of Shona ethnography and history. The region known as Southern Zambezia has hosted a number of powerful Shona states through the second millennium A.D. Southern Zambezia, is a region bounded by the Soutpansberg mountains in the south, the Zambezi River in the north, the Kalahari Desert in the west and the Indian Ocean in the east (Chirikure 2017). The societies in this region during the early second millennium experienced widespread and rapid socio-material and socio-political development (Huffman 2007a; Chirikure *et al*., 2014; Chirikure *et al*., 2016). Further, this period was a time of increased wealth and expanding trade networks (Wood 2005, 2012; Huffman 2007a; Chirikure 2014, 2017; Klehm 2017). In this maelstrom of innovation and interaction, arose the Zimbabwe culture made famous by sites such as Great Zimbabwe and Khami. In Leopard's Kopje communities like thoses at Mtanye, Mapela and Mapungubwe, this culture was nurtured and formulated through shared networks of interaction (Huffman 2007a; 2010; Chirikure *et al*., 2016).

One is forced to ask however, what were these networks of interaction and what form did they take? While archaeology may be able to highlight some of these networks through an interrogation of material culture, it is in the ethno-historical records that the mechanisms and full extent of these networks are most vividly portrayed. It is widely accepted that the Leopard's Kopje communities of this period represent ancestral Shona-speakers (Beach 1980; Huffman 2007a, 2010; Chirikure 2014, 2017) and as such it is to the Shona ethno-historical records that one turns to in order to gain some ideas about possible networks of interaction that were present at Mtanye during the early second millennium A.D. This is done with caution so as not to create

the impression of unchanging pristine African societies (Lane 1994/5, 2005). There is however, a need to sometimes refer to historical and ethnographic sources due to the fragmentary nature of material recovered from most sites (Chirikure 2019). One must however be aware that when the archaeological and ethnohistorical record diverge, this should be understood as evidence of changes in practice through time (Chirikure 2019). A good example of this is Shadreck Chirikure's (2019) study of Great Zimbabwe's political economy. By applying Stahl (1993) concept of illustrative and comparative analogy, Chirikure (2019) was able to remedy the shortcoming of previous studies, namely Huffman (1996).

2.2 Summary of Archaeological Sequence

Almost 2000 years ago in the early first millennium AD, Bantu-speaking agro-pastoralists are said to have begun to arrive in southern Africa (Huffman 1982, 2007a; Mitchell 2002; Pikirayi 2001; Phillipson 2005; Parkington and Hall 2010). As the name suggests, these people practiced mixed farming, cultivating crops as well as keeping herds of domestic animals (Huffman 2007a). These communities were often sedentary; practising metalworking as well as manufacturing ceramics (Huffman 2007a). These agrarian communities were self-sufficient and kin-based (later communities are suggested to be class based), living in semi-permanent villages (Huffman 2007a). In Southern Africa this period is often referred to as the 'Iron Age' and is commonly divided into two periods; namely the Early Iron Age (EIA) (A.D. 200-900) and the Late Iron Age (LIA) (A.D. 1000-1840) (Huffman 2007a). A third period, namely the Middle Iron Age (MIA) (900-1300 A.D.) is also sometimes included by some archaeologists for the Shashe-Limpopo region (Huffman 2007a).

The scope of this thesis will focus primarily on a period of history that stretches from the late first millennium A.D. to the early second millennium A.D. (circa 900-1400 A.D.). Further, this

thesis focuses on a specific region of Southern Zambezia that encompasses present-day south-western Zimbabwe and eastern Botswana as well as the Limpopo depression. It is therefore prudent to provide a brief sequence of occupation for this period and region.

Farming Communities of the Late First Millennium A.D.

One of the most widespread communities during this period and in this region, were the Zhizo ceramic producing communities (Huffman 2007a: 143) (Figure 2.1). Zhizo (Taukome) ceramics have been found over a wide area, across much of present-day south-western Zimbabwe and eastern Botswana and at sites such as Leopard's Kopje, Schroda, Simamwe, Great Zimbabwe, Mawala, Taukome and Taba Zika Mambo, to name a few (Huffman 2007a). This ceramic facies developed out of the earlier Gokomere facies (550-750 A.D.) which in turn derived from the Ziwa facies (300-550 A.D.) (Huffman 2007a; Figure 2.2 & 2.4).

Zhizo communities shared the landscape with Malapati communities with Malapati (750-1030 A.D.) giving rise to the later Gumanye ceramics (1030 - 1250 A.D.) (Huffman 2007a; Figure 2.2). These Zhizo communities where also contemporary with Doornkop communities (750-1000 A.D.) further south, who have been argued to be the ancestors of Leopard's Kopje communities (Huffman 2007a, 2015a; Figure 2.2).

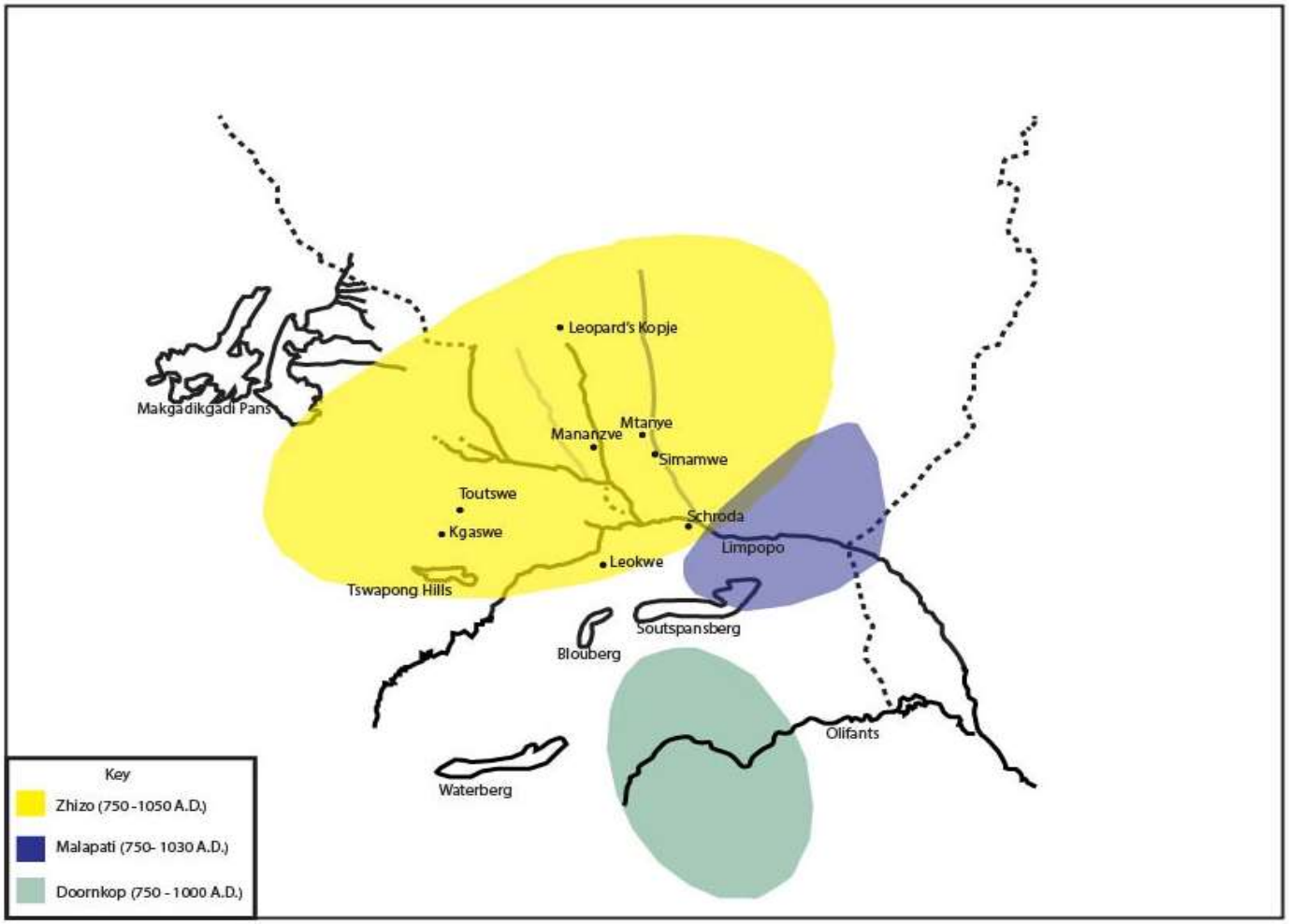

Figure 2.1: Distribution of late first millinium ceramic facies in southernmost Zambezia. Adapted from Huffman (2007a)

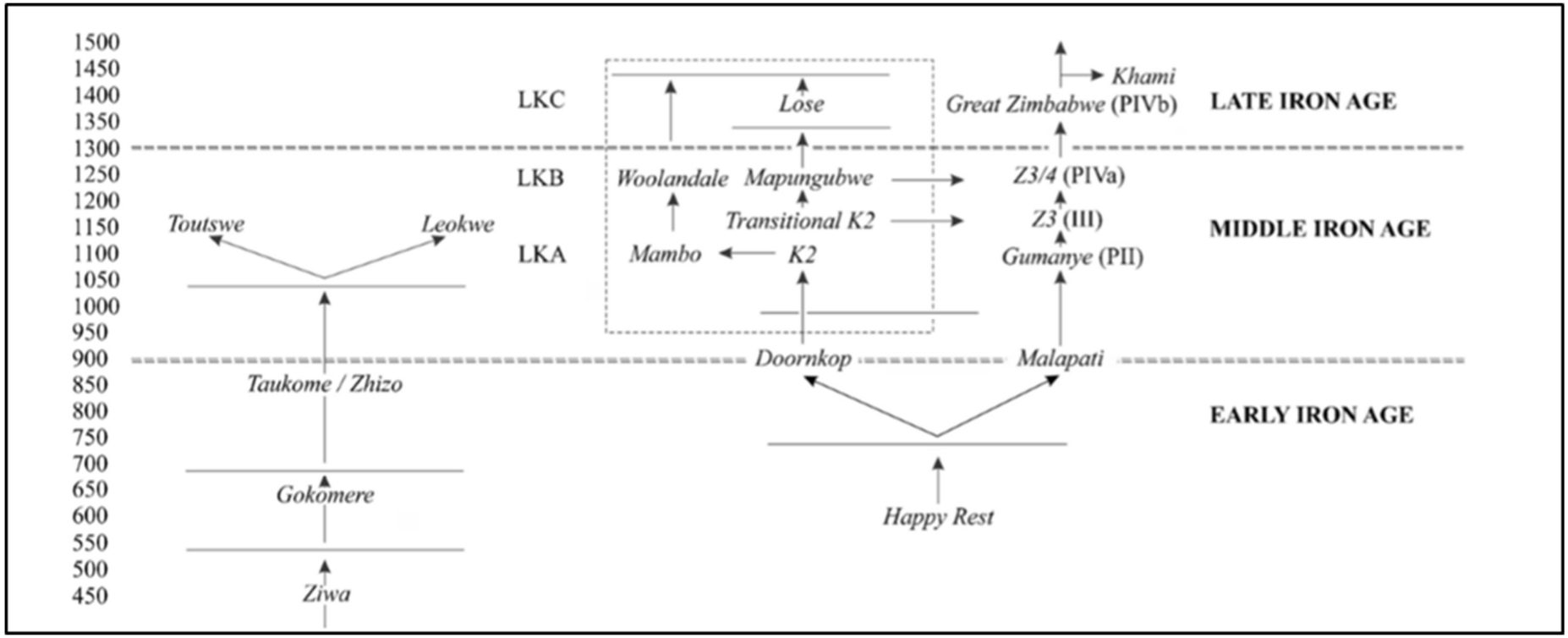

Figure 2.2: The evolution of ceramic facies in southern Zambezia during the late first millinium A.D. to early second millinium A.D. Adapted from Huffman (2015a)

Farming Communities of the Early Second Millennium A.D.

The early second millennium A.D. in this region of Southern Zambezia is marked by the emergence of a new ceramic entity known as Leopard's Kopje (Huffman 2007a, 2015a; Figure 2.2 & 2.3). The Leopard's Kopje (LK) ceramic cluster contains the Mambo, K2, Woolandale, Mapungubwe, Transitional K2 (TK2) and Lose facies (Huffman 2007, 2015a). These have been divided into three groupings based on their temporal distribution, with Mambo and K2 belonging to Leopard Kopje A (LKA), Woolandale, Mapungubwe and TK2 belonging to Leopard's Kopje B (LKB) and Lose belonging to Leopard's Kopje C (LKC). Northern Leopard's Kopje ceramics, namely Mambo and Woolandale, are often distributed across present-day north-eastern Botswana and south western Zimbabwe. Southern Leopard's Kopje ceramics, namely K2, TK2 and Mapungubwe are found across a region that encompasses what is today south eastern Botswana, Northern South Africa and South Western Zimbabwe (Huffman 2007a; Figure 2.5 & 2.6). Leopard's Kopje A communities namely, K2 (1000-1200 A.D.) and Mambo (1000-1250 A.D.), thrived during the early second millennium A.D. while Leopard Kopje B communities (TK2 (1220-1250 A.D.), Mapungubwe (1250-1300 A.D.) and Woolandale (1250-1400 A.D.) appear to have emerged towards the end of the early second millennium A.D (Huffman 2007a).

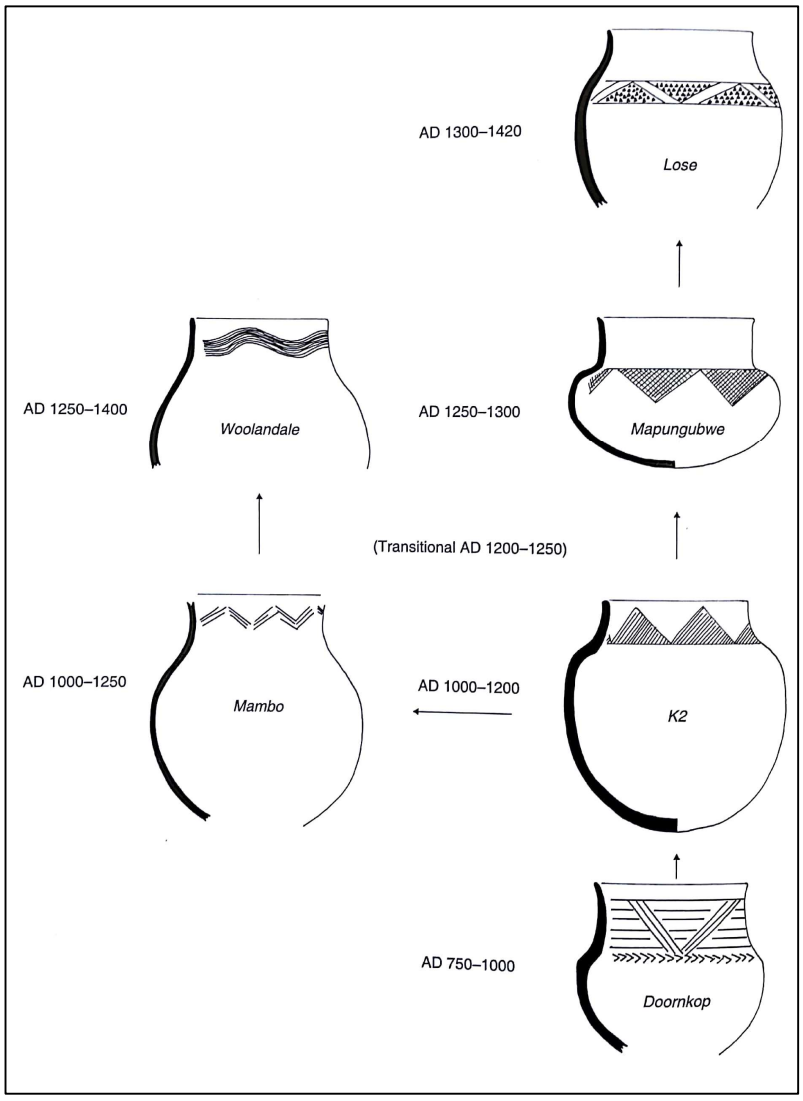

Figure 2.3: The proposed evolution of the Leopard's Kopje ceramic cluster in southern Zambezia during the late first millinium A.D. to early second millinium A.D. Adapted from (Huffman 2007a).

Zhizo ceramics underwent a change around 1000 A.D. with the appearance of Leopard's Kopje ceramic producing communities on the landscape. In the Shashe-Limpopo, Zhizo ceramics appear to have adopted Leopard's Kopje designs evolving into the Leokwe facies (1030-1220A.D.), while in present day eastern Botswana, Zhizo developed into the Toutswe ceramic facies (1050-1300 A.D.) (Denbow 1982, 1983; Calabrese 2000, 2007; Huffman 2007a; Figure 2.2. & 2.4).

Along with Zhizo, Gumanye ceramic producing communities (1030-1250 A.D.) were also contemporaries of Leopard Kopje communities, namely, Leopard's Kopje A (K2 and Mambo) (Figure 2.5). Gumanye ceramics have been found in what is today eastern and central Zimbabwe (Huffman 2007a) and are associated with the early development of Great Zimbabwe (Period III) (Chirikure *et al*., 2012; 2013a). Gumanye communities appear to have given rise to both Zimbabwe (1200-1700 A.D.) and Mutamba (1250-1450 A.D.) communities (Huffman 2007a; Figure 2.2 & 2.5). Mutamba ceramics are usually restricted to present-day south-eastern Zimbabwe and northern South Africa (Huffman 2007a) with these ceramics being found at sites such as Mutamba (Loubser 1991; Antonites 2012) in the Soutspansberg. Zimbabwe style ceramic have been mostly found in what is today southern and central Zimbabwe, northern South Africa and parts of eastern Botswana (Huffman 2007a; Figure 2.6). These ceramics are further associated with the Great Zimbabwe state.

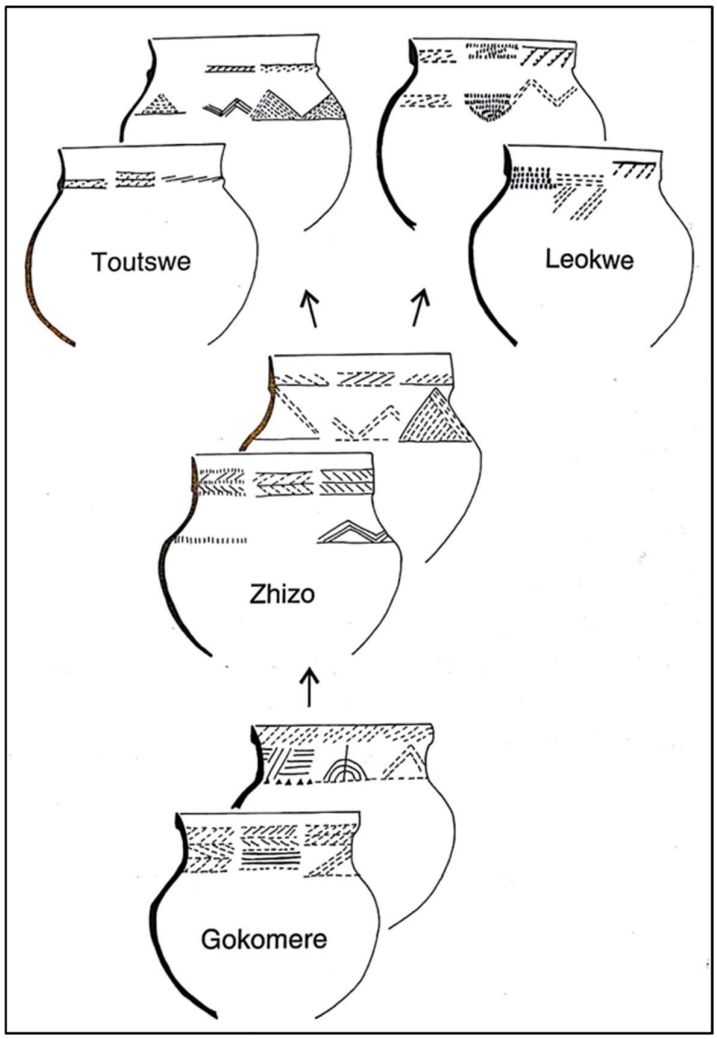

Figure 2.4: The proposed evolution of Zhzio related ceramics in southern Zambezia during the late first millinium A.D. to early second millinium A.D. Adapted from Huffman (2007a)

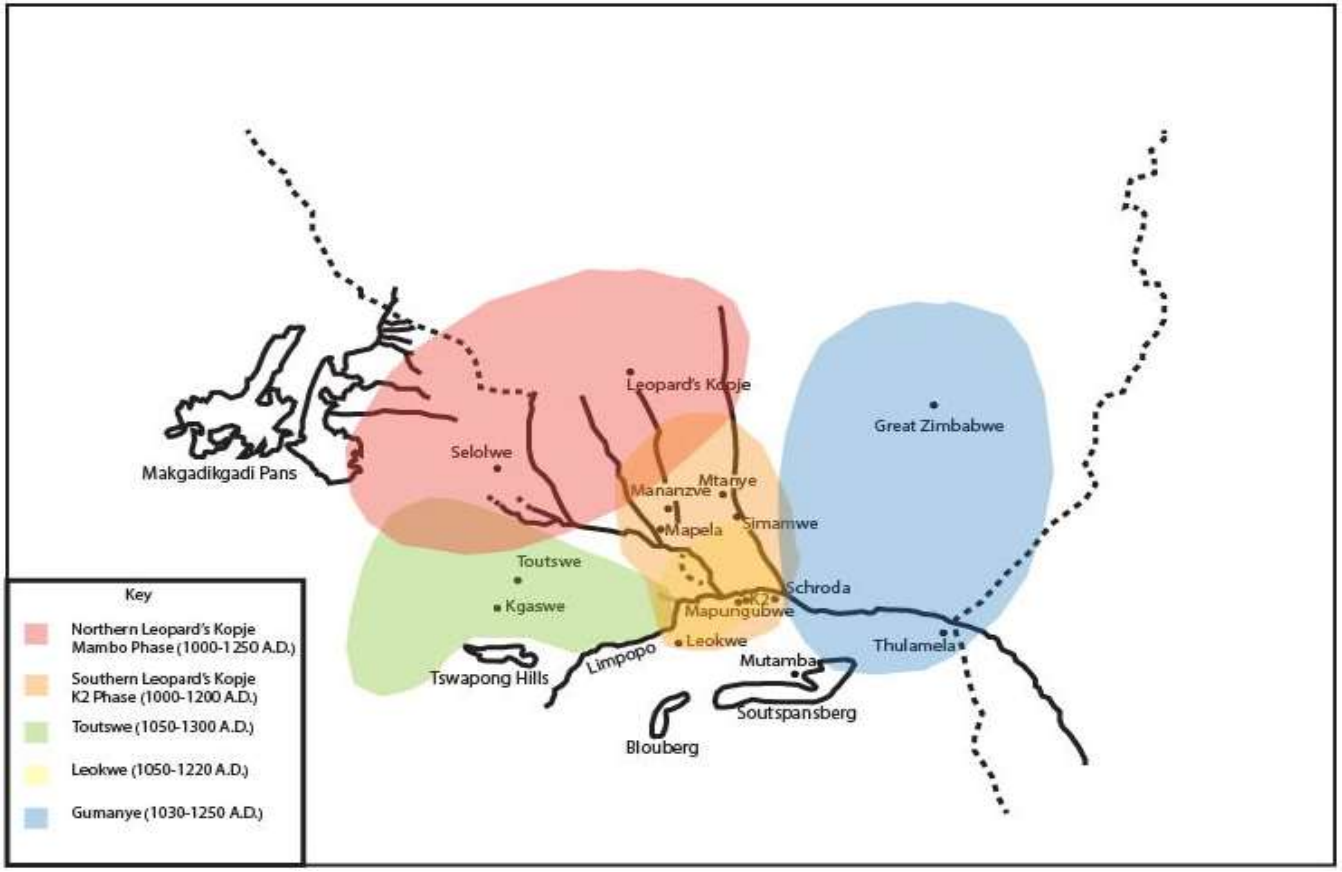

Figure 2.5: Distribution of early second millinium (specifically, 1000-1200 A.D.) ceramic facies in southernmost Zambezia. Adapted from Huffman (2007a)

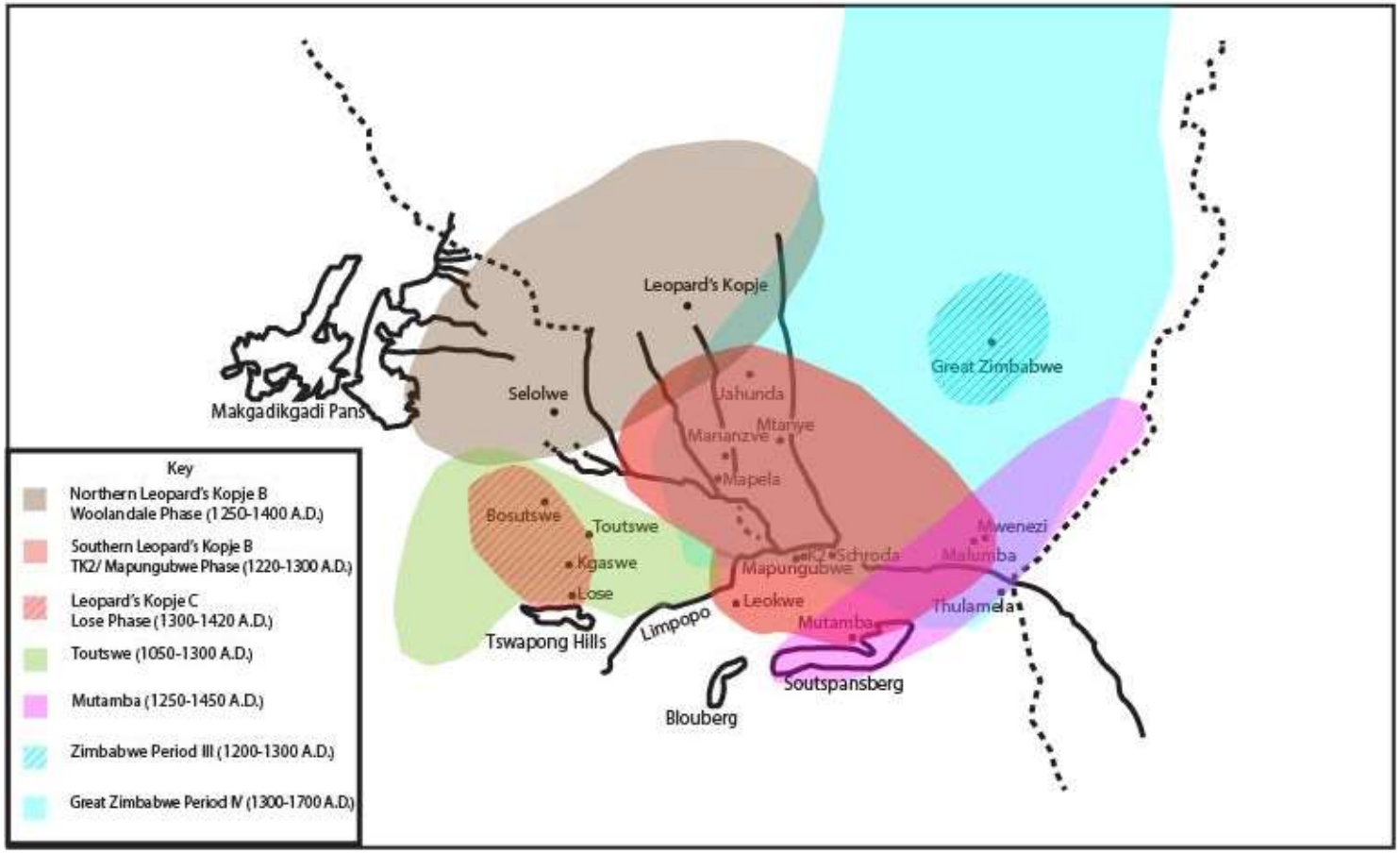

Figure 2.6: Distribution of early second millinium (specifically, 1200-1700 A.D.) ceramic facies in southernmost Zambezia. Adapted from Huffman (2007a)

2.3 Socio-Political Development

From the late first millennium to early second millennium, societies within southern Zambezia began to experience both economic and socio-political transformation (Huffman 2007a) During this period, population size began increasing with people beginning to aggregate around centres such as Schroda, K2, Mapungubwe, Mapela, Great Zimbabwe and Toutswemogala to name a few (Denbow 1983, 1999; Huffman 1982, 2000, 2007a, 2015a; Chirikure *et al*., 2013a,b, 2014, 2016, 2018a; Van Waarden 2011, 2012). The intensification of settlement witnessed during this period is often indicative of an increase in socio-political complexity (Denbow 1983, 1999; Manyanga 2006, Huffman 2007a). As such, most of the research into this period has focused around socio-political complexity and its development. Many different catalysts have been put forward for the emergence of socio-political complexity, namely an increase in wealth due to an accumulation of cattle (Beach 1998; Denbow 1984), external trade (Huffman 2000, 2007b), changes in religious ideology (Beach 1998; Pwiti 1996; Huffman 2000, 2007a), warfare and coercion (Manyanga 2006; Kim & Kusimba 2008) and climate change (Pikirayi 2001).

Shashe-Limpopo Basin

The conventional model holds that socio-political complexity began first in the Shashe-Limpopo River Confluence Area (SLCA) and its trajectory can be traced back to a Zhizo kingdom based at Schroda (Huffman 2000, 2007a, b, 2009, 2010, 2016). This kingdom is said to have flourished between 900 and 1000 AD, supported to some degree by both local and long-distance trade with the East Coast of Africa (Huffman 2000, 2007a, b, 2010). This has been suggested to have changed around 1000 A.D. when a new group of unrelated people migrated into the region taking control of trade with the East Coast of Africa (Huffman 2007b, 2010). These new people produced K2 Leopard's Kopje ceramics and are said to have been

Kalanga Shona speakers (Huffman 2000, 2010). This migration proposed by Huffman (Huffman 1982, 2010, 2016), is said to have forced some Zhizo people to relocate to present day Botswana, where they merged with Zhizo (Taukome) people living in the region and in the process became the later Toutswe communities. According to this model, the remaining Zhizo people created a new ceramic entity known as Leokwe and were incorporated into the socio-political hierarchy of the K2 Leopard's Kopje people (Huffman 2007a,b, 2010; Calabrese 2000a, 2007). Some have further argued that this multi-ethnic society could have allowed for class distinction (Calabrese 2000, 2007) with Leokwe people forming the lower classes (Huffman 2016).

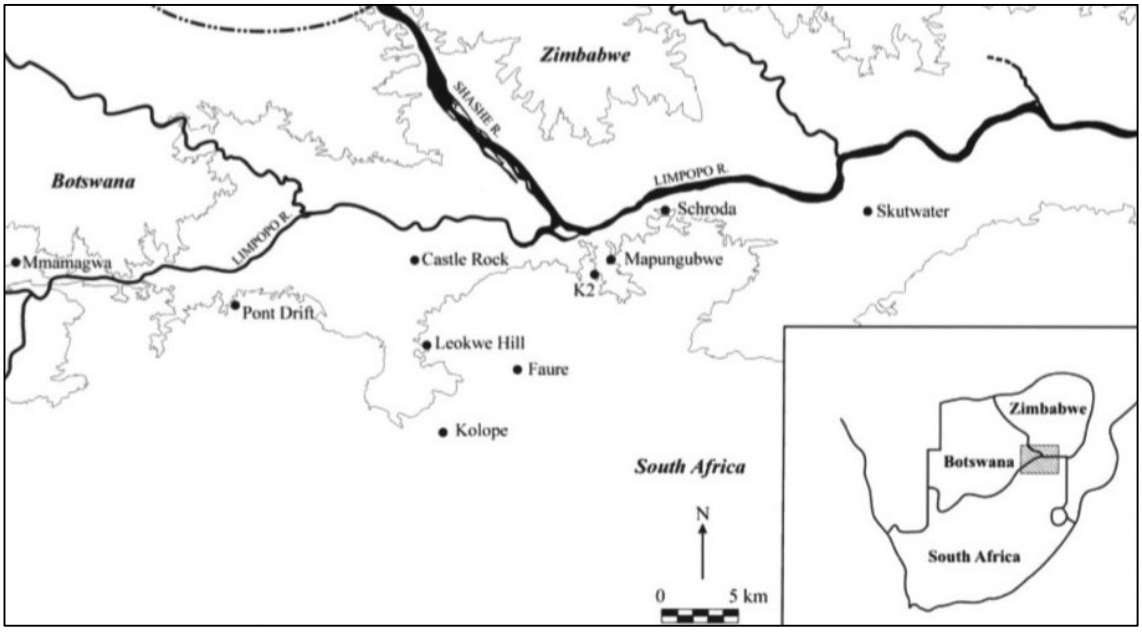

Figure 2.7: Shashe-Limpopo Confluence Area with key sites. Adapted from Hufffman (2000/

The conventional model further suggests that, the newly arrived Leopard's Kopje people established a capital around 1220 AD at K2 (Bambandyanalo) (Huffman 2007a,b, 2010). This capital is said to have been populated with 1500 people at its peak and organised according to the CCP. During this period these societies experienced both demographic and economic change which in turn may have caused changes in socio-political complexity (Huffman 2000,

2007a, b, 2010; Figure 2.8). For example, around 180 known K2-period sites have been identified in the South African side of the Limpopo river, indicating an increase in population and perhaps socio-political complexity. (Huffman 2000, 2016). Some such as Manyanga (2006) suggest that the Shashe-Limpopo's ecological setting facilitated increased population agglomeration and settlement while Huffman (2000) theorises that floodplain agriculture was practised which allowed this increasing population to be supported. This increase in population is argued to have coincided with an increase in the accumulation of wealth and the intensification of trade (Pikirayi 2001; Huffman 2000, 2007a; Manyanga 2006; van der Walt, 2012).

It appears that around 1220 AD, K2 was suddenly abandoned with an apparent intensification of settlement on and around a nearby hill known as Mapungubwe Hill. Subsequently, archaeologists such as Gardner (1963) and later Huffman (1982) suggested that this represented a change in capitals with Huffman further elaborating that the old capital could no longer facilitate the new social values and structure that had begun to emerge (Figure 2.8). A new ideology of sacred leadership and class distinction is said to have been materialised by this move with commoners living at the bottom of the hill while elites along with the ruler resided on top of Mapungubwe Hill (Huffman 2000, 2007a, b; van der Walt, 2012). Further, prestige stone walling is argued to have first appeared at Mapungubwe and acted as ritual seclusion, separating the sacred leader from his subjects. By occupying a rainmaking hill like Mapungubwe, the king was also apparently making a statement about his role as a sacred leader (Huffman 2007a). According to Huffman this marked a move away from the CCP and the emergence of a new settlement pattern known as the Zimbabwe Pattern (ZP) as well as the emergence of the Zimbabwe culture (Huffman 2000, 2007a) (Figure 2.8). Further it is suggested to have redefined society as a classed based one rather than a ranked kin-based society (Huffman 2007a; van der Walt 2012). Within this conventional framework, proponents

argue that the elites also monopolised the trade in imported prestige goods and levered this control to gain political power (Calabrese 2007; Huffman 2000, 2007a, 2016; Wood 2005, 2012).

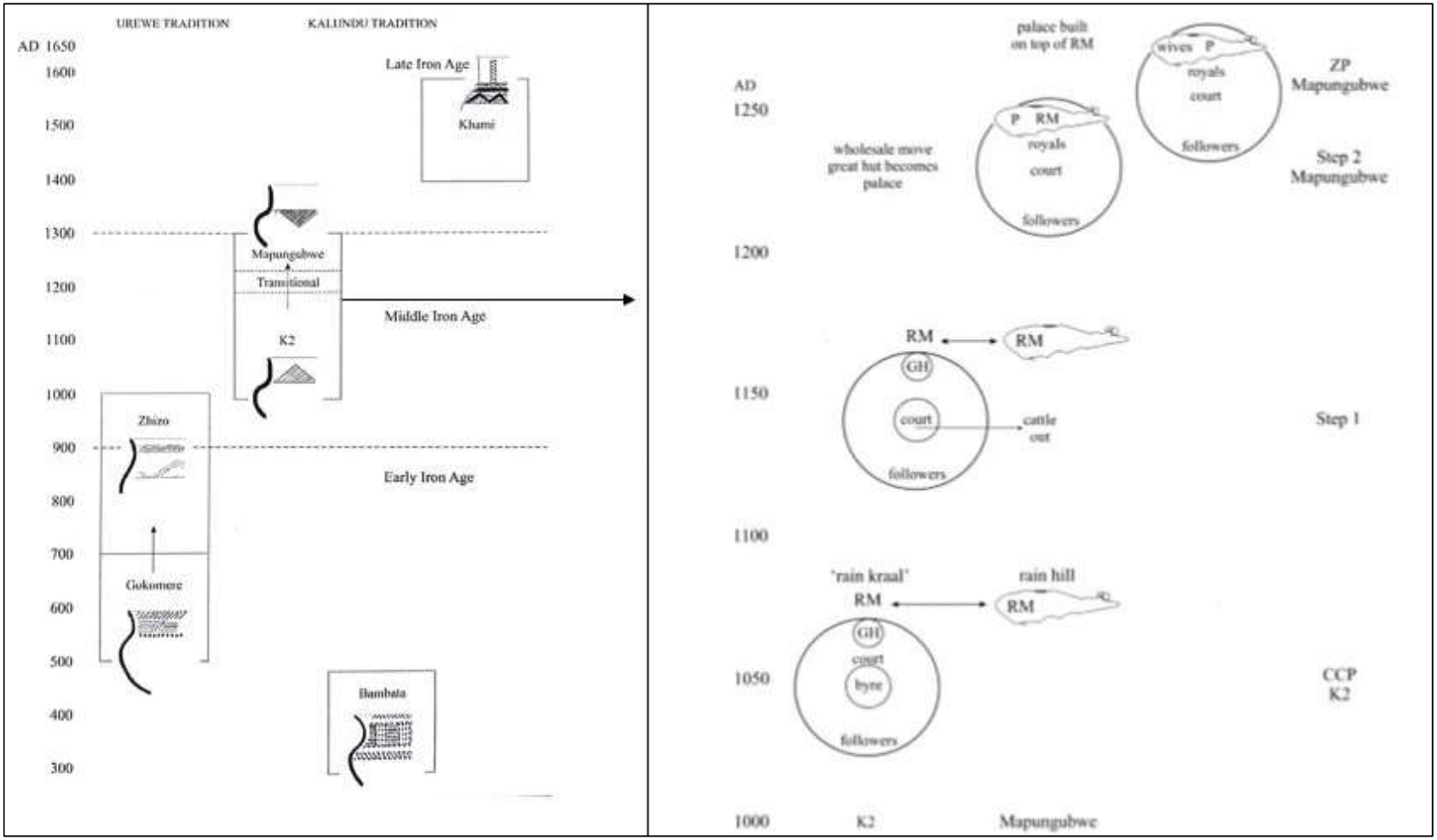

Figure 2.8: The ceramic sequence for present-day south-western Zimbabwe and the proposed change in settlement pattern and ideology between the K2 and Mapungubwe periods. Adapted from Huffman (2008, 2015b).

It has been argued that Mapungubwe was inhabited between AD 1220 and 1300, reaching a population of about 5,000 at its peak (Huffman 2007a). The Mapungubwe state that emerged is further argued to have controlled an area of 30,000 km^2, with governance of the state involving various provincial and district centres (Huffman 2007a). These centres or settlements were organised based on their size within a series of hierarchies (Huffman 2007a). Level 1 and 2 settlements were occupied by ward headmen and family heads while petty chiefs occupied level 3 settlements. Senior chiefs occupied level 4 settlements and paramount chiefs occupied level 5 settlements (Huffman and Hansich 1987; Huffman 2007a, 2009:45).

Huffman (2008, 2009) suggests that it was during the TK2 period that the Mapungubwe polity or state began to expand beyond the immediate sphere of Mapungubwe. He supports this claim by pointing out that TK2 ceramics are not only found at sites such as Skutwater (Van Ewyk 1987), Wiepe, Pont Drift (Hanisch 1980, Huffman 2000) within the Shashe-Limpopo; but also beyond the basin at sites in present day Botswana like Bobonong Road (Kinahan *et al*., 1998), and at sites in present day South-Western Zimbabwe like Mapela (Garlake 1968; House 2013,2016; Chirikure *et al*., 2014), Mtetengwe (Robinson 1958) and Mtanye (Huffman 1972a, 2008). It has been suggested that expansion of the Mapungubwe state northward, may have been an attempt to control the gold trade (Huffman 2009).

By around AD 1250, TK2 ceramic facies appear to have been replaced by the Mapungubwe facies. Huffman (2007a) argues the expansive nature of the Mapungubwe state is partly supported by the wide distribution of these ceramics which is suggested to provide further evidence of the spread of this culture and state. During this period commoner settlements such Bobonong Road (Kinahan, *et al*., 1998), Skutwater (Van Ewyk 1987), Weipe appear to still be organised around a CCP settlement model while the capital at Mapungubwe followed the ZP (Huffman 2009a). Huffman (2009a) points out that this dual settlement pattern is a diagnostic feature of a class-based society.

The conventional model holds that around AD 1290, Mapungubwe along with rest of the Shashe-Limpopo basin was abandoned (Huffman 2007a). Climate change has been suggested as the cause with radiocarbon dates and discontinuity of the material culture, particularly ceramics, used to support this abandonment theory (Huffman 2000, 2007a). Some (Huffman 2007a) point to the disappearance of the Toustwe culture at the same time as further support for climate change in the region. It is further suggested that the elite of Mapungubwe moved north to Great Zimbabwe, founding the Great Zimbabwe State (Huffman 2007a; Van Waarden 2011). Huffman (2007a) states that these elite probably arrived in Period IV at Great Zimbabwe; a period in which stone walling apparently first appeared at site. The commoners from Mapungubwe are also suggested to have relocated to the Soutpansberg while a small portion of the population relocated to present day Eastern Botswana establishing themselves at sites such as Lose Hill (Huffman 2007a; Van Waarden 2011).

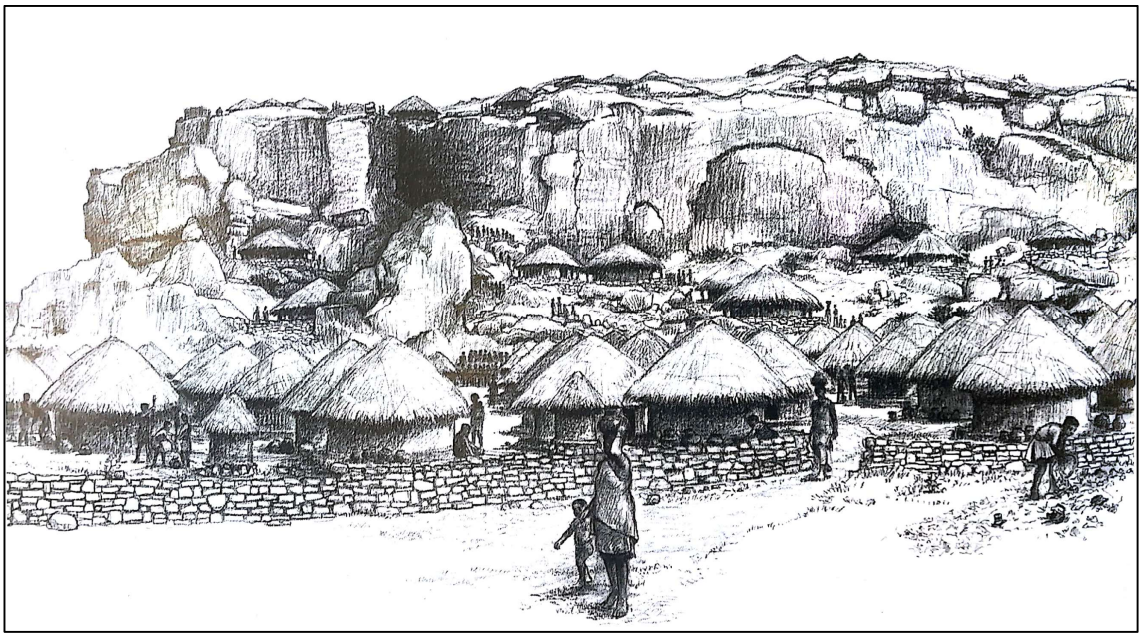

Figure 2.9: An artist's impression of Mapungubwe (1220-1300 A.D.). Adapted from Huffman (2007a).

Eastern Botswana

The increase in population experienced in the first millennium to early second millennium was not limited to the Shashe-Limpopo. As mentioned above, the Toutswe culture (700-1200 A.D.) that emerged in present day Eastern Botswana developed out of the previous Taukome/Zhizo culture (Denbow 1982, 1983; Huffman 2007a). These societies were not only socio-politically complex but are also argued to have been organised according to a three-tiered hierarchy (Denbow 1982, 1983, 1999; cf. Huffman 2007a). Around 1000 AD these communities experienced a significant increase in population with Denbow (1982, 1983) arguing for a natural population increase and Huffman (2007a) attributing the increase to the migration of displaced Zhizo people from the Shashe-Limpopo. As in other regions, the intensification of settlement clearly indicated increasing socio-political complexity with Denbow (1983, 1999; cf. Huffman 2007a) suggesting that the catalyst for socio-political complexity in this region was the increase in cattle wealth of elites. This is supported by the low number or absence of trade goods like gold and beads at sites (Denbow 1983, 1999). There appears to be three primary hill top settlements in the region, namely Bosutswe, Toutswemogala, and Shoshong (Sung) which may have been the capitals of independent chiefdoms (Denbow 1982, 1983, 1999; Huffman 2007a). Toutswemogala appears to be the largest of these settlements extending over an area of about 100,000m^2 and containing around 350 settlements within a 80 km radius of Toutswemogala (Denbow 1982, 1983, 1999). Covering a smaller area were the tier two settlements like Taukame and Mmadipudi and tier one settlements such as Kgaswe and Maipethwane (Denbow 1982, 1983, 1999). In this region, the hilltop location of the primary settlements has been suggested to have served a defensive purpose to protect the settlements from cattle raids (Denbow 1982, 1983, 1999).

An increase in population and intensification of settlement has also been noted in other regions including the Mosu and Sowa Pan (Reid and Segobye 2000) as well as the Tati region (Van

Waarden 2011). The Leopard's Kopje sites in these regions have been found to be contemporary to the sites mentioned above in the Shashe-Limpopo and Toustwe regions (Reid and Segobye 2000; Van Waarden 2011).

In what is present-day north-eastern Botswana, Northern Leopard's Kopje communities also formed centralised polites with stone walling and hilltop occupation being a common practice (Waarden 2011, 2013a). These sites all appear to be contempory with Southern Leopard's Kopje phases I (K2) and II (TK2 and Mapungubwe), Toutswe, Gumanye communities (Van Waarden 2011). Van Waarden (2011) focused on a few walled sites, with sites of particular interest including Dinokwe, Mupane East, Tholo, and the Mupanipani Ruin located in the Mupane area. The earliest of these appears to be Tholo with a perimeter wall built around AD 1184 which would in turn make it a contemporary of K2 (Van Waarden 2011). Based on the walling style found at Mupane East, it appears to be contemporary with Tholo while Dinokwe appears to be older then both sites (Van Waarden 2011). Of particular interest is the site of Mupanipani Ruins which has been dated to AD 1293. This date is significant because Mupanipani Ruins has Zimbabwe traditional wallling commonly found at sites like Great Zimbabwe (Van Waarden 2011).

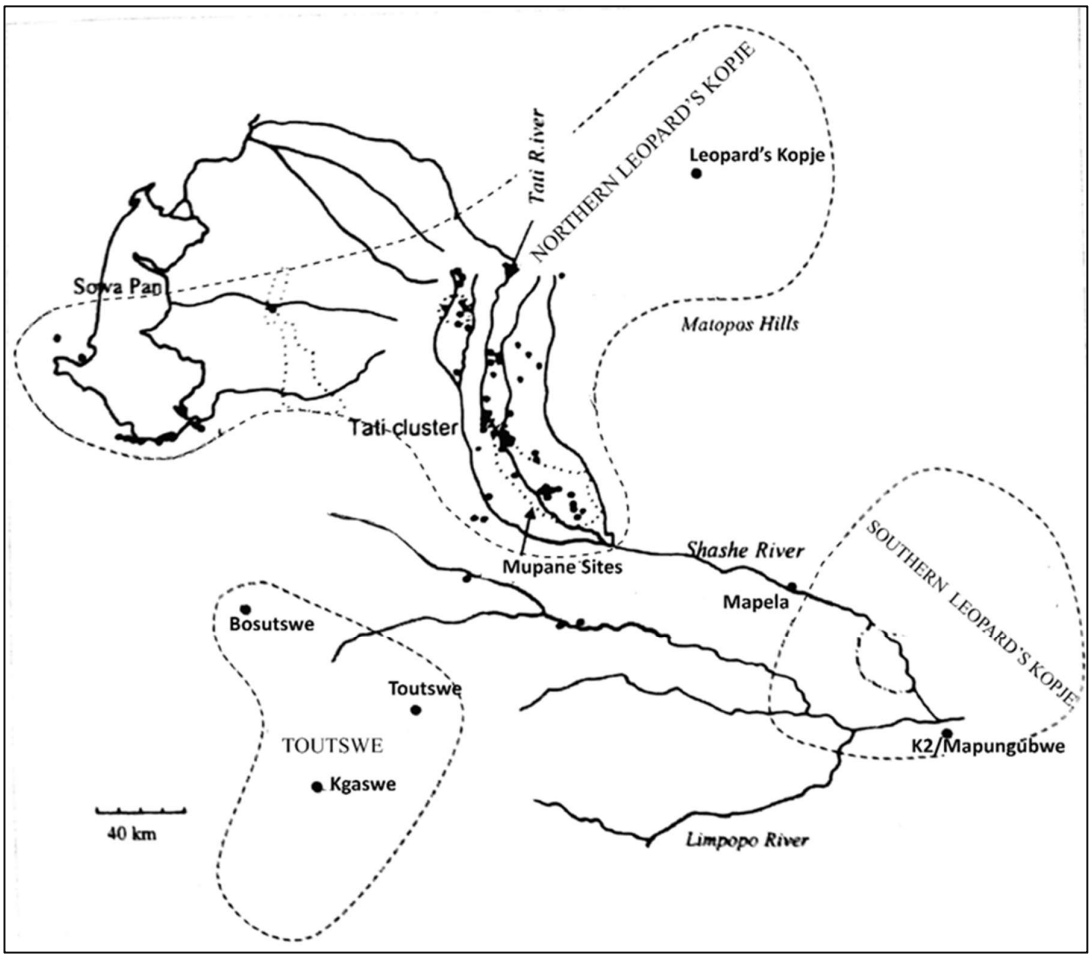

Figure 2.10: The distribution of Toutswe and Leopard's Kopje ceramic producing communties. Sites mentioned in text also included. Adapted from van Waarden (2011) and Van Waarden & Mosothwane (2013).

South Western Zimbabwe

This region played host to a number of different communities with Zhizo, Gumanye, Leopard's Kopje, Zimbabwe and Khami political centres emerging between the late first millennium AD to early second millennium AD (Robinson 1965, 1982, 1984; Waarden 1998; Huffman 2007a; Chirikure *et al*., 2012, Chirikure et al., 2013a,b Chirikure *et al*., 2014, 2016).

Early Zhizo settlements can be found across the region including sites like Zhizo Hill, Fumbaje, Ngwapani Hill, York and Simimwe (Robison 1965; Huffman 2007a; 2008; House 2016). These communities appear to have engaged in long distance trade with the East Coast of Africa, with

some Zhizo settlements like Ngwapani Hill and Fumbaje having evidence of stone walling. At some sites such as Leopard's Kopje Main Kraal, Zhizo occupation is succeeded by Leopard's Kopje (Mambo) occupation. Some notable Northern Leopard's sites in the region include Leopard's Kopje Main Kraal, Woolandale, Nali Hill, and Enyandeni Far. These communities also engaged in long distance trade with the East Coast of Africa with some such as Leopard's Kopje, Taba Zika Mambo and Woolandale being contemporary with Leopard's Kopje site further south like Mapungubwe and K2 (Chirikure *et al.*, 2012, 2013a). Interestingly, sites like Enyandeni farm and Nali Hill have stone walling (Chirikure *et al.*, 2012, 2013a; House 2016).

Gumanye and later Great Zimbabwe communities also became more centralised during this period with Gumanye communities being accredited with the early establishment of Great Zimbabwe (Robinson 1961b; Huffman 2007a; Chirikure *et al*., 2012, 2013a). Sites like Chiwova and Gumanye Hill also attracted Gumanye settlers during the early second millennium A.D. (Sinclair 1987; House 2016). During the Zimbabwe phase (1200-1700), Zimbabwe communities like Great Zimbabwe, Jahunda and Tsindi also experienced socio-political development with these sites providing evidence of long-distance trade and craft specialisation such as metal production (Huffman 2007a; Chirikure *et al*., 2013 a.b, 2018a; Bandama *et al*., 2018; Chirikure 2019).

Southern Leopard's Kopje sites in the region have often been linked by some (Huffman 2008, van der Walt 2012) with the expansion of a hegemonic state based at Mapungubwe. Sites like Mtanye (Huffman 1972a; 2008) have often been associated with this expansion, particularly during the TK2 period (1220-1250 A.D.). Research in the region has found a number of sites with stone walled terracing and hilltop occupation including Malumba, Mwenzi farm, Sentinal, Mapela, Mtanye and Mananzve (Garlake 1968; Manyanga 2006; House 2013, 2016; Chirikure *et al*., 2014, Chirikure *et al*.,2016, 2018a; Nyamushosho 2016; Scholfield 2017). Many of the communities also have evidence of long-distance trade in the form of glass beads.

Mapela is perhaps one of the most impressive sites in the region with extensive stone walled terracing (Garlake 1968; House 2013, 2016; Chirikure *et al*., 2014, Chirikure *et al*.,2016, 2018a). From the recent research at Mapela, it would appear that Mapela Hill was occupied during the K2 period and that during this period there were houses built on the hilltop terraces (House 2013, 2016; Chirikure *et al*., 2014, Chirikure *et al*.,2016). K2, TK2 and Mapungubwe ceramic assemblages have been found at site which may indicate that Mapela suggest was a Southern Leopard's Kopje settlement (House 2013, 2016; Chirikure *et al*., 2014, Chirikure *et al*., 2016 *contra* Huffman 2015b, 2016). Mapela also appears to have been a large centre on par with Mapungubwe which has sparked much debate within this field of research (Chirikure *et al*., 2014, Chirikure *et al*., 2016 Chirikure *et al*., 2017, 2018; Huffman 2015a,b, 2016).

New Insights

In recent years, the primacy of the SLCA as the birth place of not only socio-political complexity but also the Zimbabwe culture, has been called into question (Van Waarden 2011, 2013a; Chirikure *et al*., 2016; Chirikure *et al*., 2014; Chirikure *et al*., 2013a,b; House 2013, 2016). Mapungubwe is often propped up as the first centre to emerge in Southern Africa with hill occupation and prestige stone walling linked with social stratification and sacred leadership (Huffman 2007a). It has, however, been well documented that both stone walling and hill occupation was quite common at sites pre-dating and contemporary with Mapungubwe (Chirikure *et al*., 2013a, Chirikure *et al*., 2016; Chirikure *et al*., 2014; Waarden 2011, 2013a). Some such as Chirikure *et al*., (2013a) and (Robinson 1965) stated that many Zhizo and Leopard's Kopje phase 1 (K2 and Mambo) have low stone walled terracing with this pattern being intensified during Leopards' Kopje phase II (Mapungubwe and Woolandale). At least at some Leopard's Kopje sites such as Dwaleng, stone walled platforms were present by AD 1200 (Van Waarden 2011). Hill top occupation appears to be widespread at Zhizo, Gumanye, and Leopard Kopje sites such as at Zimbabwe Hill, Malumba, Mapela, Toutswe, before and during

the Mapungubwe period (Chirikure *et al*., 2013a). This has led to an alternative model to the linear development of socio-political complexity being put forward, which suggests, that the multidirectional development of socio-political complexity, simultaneously across Northern South Africa, Northern Botswana and South Western Zimbabwe (Van Waarden 2011; Chirikure *et al*., 2016; Chirikure *et al*., 2014; Chirikure et al., 2013a, b). Furthermore, this is not a new argument with some researchers like Garlake (1978:490) suggestion early on that 'several semi-autonomous, autonomous or competing centres' likely existed. This model has been further supported by new evidence from the site of Mapela (House 2016; Chirikure *et al*., 2014, 2016) Jahunda, (Chirikure *et al*., 2014, 2016, Chirikure *et al*., 2018 a,b), Mananzve (Nyamushosho 2016; Nyamushosho *et al*., 2018) Mtanye (Scholfield 2017) and the Tati region (Van Warden 2011, 2012).

This recent research also demonstrates that centres like Mapungubwe, Mapela and Great Zimbabwe were contemporary (Chirikure *et al*., 2013a; Chirikure *et al*., 2018a). Furthermore, based on the re-evaluation of radiocarbon dates and material culture, it seems unlikely that Mapungubwe gave rise to Great Zimbabwe and further still, that the sites of Mapungubwe, Great Zimbabwe and Khami did not succeeded each other in a linear manner (van Waarden 2011, Chirikure *et al*., 2013 a,b; 2014, 2016, 2018a). It would also appear that Mapungubwe ceramic producing communities did not disappear at 1300 A.D. but persisted into the 14th century (Antonities 2012; Chirikure *et al*., 2013 a,b; 2014, 2016; House 2016, Nyamushosho 2017). Current research also suggests that communities persisted in the Shashe-Limpopo basin long after the proposed fall of Mapungubwe (Prinsloo and Colomban 2008; Chirikure *et al*., 2013 a,b). Continual occupation at sites in present-day south-western Zimbabwe such as Mapela (Garlake 1968, Chirikure *et al*., 2014, 2016; House 2016), Jahunda (Manyanga 2006) and Mananzve (Chirikure *et al* 2018b; Nyamushosho *et al*., 2018) as well as sites further afield in the Soutspansberg (Loubser 1991; Antonites 2012) and present-day Botswana (Denbow *et*

al., 2008; Denbow *et al*., 2015 Van Waarden 2011, 2012; Klehm 2017) further support this theory.

Moreover, it would also appear that long distance trade was not monopolised by elites (Antonities 2012; Chirikure *et al*., 2013 a,b; 2014, 2016, Chirikure 2014, 2016; Denbow *et al*, 2015; Moffett and Chirikure 2016) mirroring historical Zimbabwean states (Beach 1980; Mudenge 1974, 1988). This new research also suggests that Zhizo communities persisted in the SLCA and South Western Zimbabwe long after the emergence of Leopard's Kopje ceramic producing communities (Calabrese 2000, 2007; Chirikure *et al*., 2013b).

These new insights, highlight the multi-directional development of socio-political complexity across southern Zambezia. It now appears likely that there were mutiple centers of socio-political development across southern Zambezia and that this development was not restircted to the SLCA (Garlake 1978; Van Waarden 2011; Chirikure *et al*., 2014, 2016, Chirikure et al 2018 a,b; *contra* Huffman 2015 a,b; 2016; Figure 2.11). It would also appear that Zimbabwean capitals like Great Zimbabwe, Mapungubwe, Mapela and Khami did not succeed each other in a linear manner but instead were contemparary competitors (Chirikure *et al*., 2013 a,b; Chirikure *et al*., 2014, 2016; Chirikure *et al*., 2018 a,b). Further, it would now appear that stone walling and hilltop occupation was a well established practise within Leopard's Kopje, Zhizo, and Gumanye communties, with this practise pre-dating Mapungubwe at some sites (Robinson 1965,1985; Garlake 1970; Manyanga *et al*. 2000; Van Waarden 2011; House 2016; Nyamushosho 2016; Scholfield 2017; Chirikure *et al*., 2012, 2013 a,b; Chirikure *et al*., 2014, 2016).

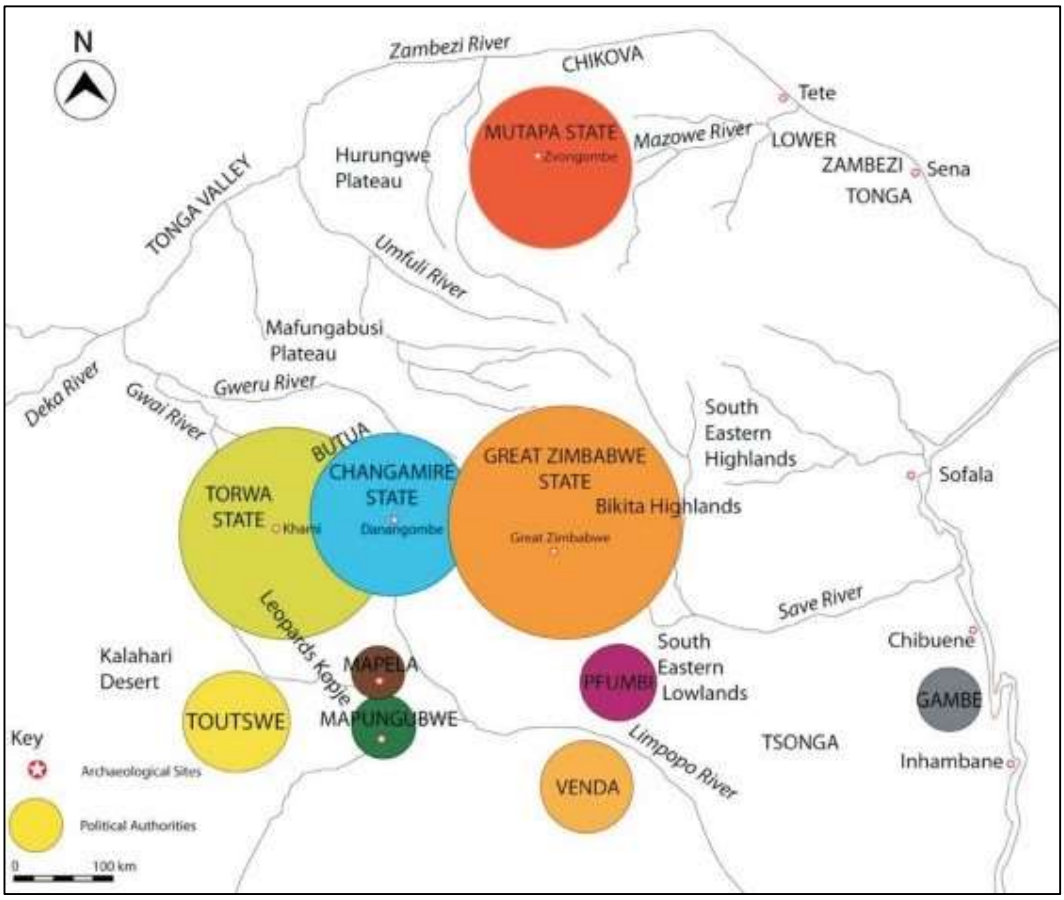

Figure 2.11: Southern Zambezian polities of the second millennium A.D. Adapted from Beach (1984) and Manyanga and Chirikure (2019).

2.3. Ethno-Historical Context

"Looking only at the mechanism of some technical device and ignoring its social entanglements "is like watching half a court during a tennis game; it appears as so many meaningless movies" (Latour 1992:247)." Whitridge (2004; p 456)

Analogy

The use of analogy is unavoidable in archaeology (Chirikure 2019, Lane 2005, Stahl 1993). One way to overcome many of the shortcomings of previous analogies (for example Huffman 1996), is to adopt Stahl's (1993) concept of illustrative and comparative analogies (see also Chirikure 2019). Illustrative analogies are used to construct work hypothesises in the absence of archaeological evidence (Stahl 1993; Chirikure 2019). Comparative analogies focus on how well an analogy and the archaeological record match (Stahl 1993; Chirikure 2019). Both convergence and divergence between an analogy and the archaeology record, provides insight into continuity and change in practice through time. This section aims to provide an ethnohistoric source from which illustrative and comparative analogies can be created.

Shona Ethnography and History

The region in which Mtanye is located, is currently inhabited by different ethno-linguistic groups including Kalanga, Karanga, Babirwa, Ndebele, Tswana and Venda groups (Nyamushosho 2017). Historically speaking this region was occupied by Kalanga (Shona) people with migrations of Babirwa (Sotho) and Ndebele (Nguni) people during the *mfecane* period of the early nineteenth century (Beach 1974; Nyamushsho 2017). This region has also witnessed the rise of different political entities some of which are mentioned above (Figure 2.11).

It is generally accepted that the Leopard Kopje communities of the early second millennium A.D. likely represent ancestral Kalanga Shona people (Beach 1974, 1980; Huffman 1974,

2000, 2010; Pikirayi 2001; Chirikure *et al*., 2012, 2013a,b; Chirikure 2014, 2017). The name Mapungubwe is in fact is a Kalanga word meaning 'place of the jackels' (Moyo 2016). Huffman (1974: 123) supports this contection through three lines of evidence. Firstly, Kalanga oral accounts provide a depth of time to Kalanga occupation that is not found in other Bantu-speaking groups in the region. Secondly, there is a continuity between 19th century Kalanga ceramics and Leopard's Kopje ceramics. Lastly the distribution of Leopard's Kopje sites, lines up with the historical distribution of Kalanga communities. Moyo (2016) points out another connection between Leopard's Kopje and Kalanga society. The animals represented in golden figurines at Mapungubwe are symbols of power in Kalanga society. For example, Mambo Chibundule, the last ruler of buKalanga (Torwa state); has his power compared to that of a rhino in his praise song (Moyo 2016: 128-130; Figure 2.11).

Figure 2.12: Inyika yaChibundule wali; Chipwihe lakapwiha hou ne nhema. "It is in the country of Chibundule, Indeed! A refuge which gave shelter to the elephant and the rhinoceros." Mambo Chibundule's praise song (Moyo 2016: 128). Image of the golden rhino from Mapungubwe adapted from Boeyens and van der Ryst (2014)

Beach (1980) proposes that the adoption of the term Kalanga occurred when the Rozvi Karanga speakers occupied the Torwa state and what is today south western Zimbabwe. At this point, Beach (1980), argues, Leopard's Kopje communities adopted the term Kalanga which is a mispronounciation of Karanga. The term, Karanga before European exploration, was a general term used to describe the language spoken by many different communities who now identifiy as Shona (Beach 1980). Prior to the arrival of the Ndebele, Shona people were refered to as either *Makalaka*, of Sotho-Tswana origin or *Mocaranga* by the Portugese (Moyo 2016). As Moyo (2016) and Beach (1980) argue, the term 'Shona' was originally a derogatory term used by the Ndebele to refer to the Rozvi. This term was later adopted by European settlers and used to describe people who shared a similar culture and language across southern Zambezia.

Both Moyo (2016) and Beach (1980) highlight the fact that much of Kalanga oral traditions are either poorly recorded or no longer exist. Beach (1980) attributes this loss of history to the various migrations into the region, including the Rozvi, Ndebele, Birwa and European settlers. Due to this, it may be necessary at times to rely on accounts from broader Shona traditions in order to create a holistic image.

One form of interaction that the historical record illuminates in vivid detail is trade and exchange (Moffett and Chirikure 2017). It was through these interactions that new networks were formed, and old ones were discarded for more profitable and beneficial ones. According to historical sources the exchange and distribution of both local products (e.g. iron, copper, grain and cattle) and imported goods (e.g. beads and cloth) passed through the same local networks such as marriage, tribute, regional exchange and barter (Moffett & Chirikure 2016). Some of these trade and exchange items were transported through southern Zambezia by itinerant traders (Mudenge 1988; Bandama 2013; Moffett and Chirikure 2017). Within the later Zimbabwean states, these traders were known as *vashambadzi* (*mushambadzi* - singular) and were a distinct class who would travel between communities (Mudenge 1988; Bandama 2013;

Chirikure 2015a; Moffett & Chirikure 2016). Interestingly, Mudenge (1988: 44) points out that *vashambadzi* were trading directly with Swahili traders long before the Portuguese arrived (Bandama 2013). These traders were known to visit mines and communities and trade directly with them (Bhila 1982; Mudenge 1988, Moffett and Chirikure 2017). A portion of the profit of these trading enterprises was in turn paid to local chiefs as a form of tribute, with this tribute being further redistributed along kinship networks. This tribute was also often collected by the army which moved between regions (Beach 1980; Moffett and Chirikure 2017). Another way exotica from the coast made their way in land is through young men who would travel to the coast in order to get cowries and beads as gifts for their intended wives (Chirikure 2014; Moffett and Chirikure 2016).

It is well documented that the status of *vashambadzi* varied between Zimbabwean Shona states. For example, within the Mutapa and Manyika states, these itinerant traders experienced a less privileged status and traded on a seasonal basis (Bandama 2013). This was due to the proximity of the Shona communities in these states to Portuguese trading centres or *feiras*. Within the Rozvi and Butwa states, *vashambadzi* experienced great prestige and privilege, often acquiring great wealth. Bandama (2013: 50), referring to the work of Bhili (1982: 107) points out how the *mushambadzi,* Nyamuza was able to acquire for himself at least 800 cattle through his trade. Further, entire Shona communities could also act as intermediaries (Phimister 1974: 50 cited in Bandama 2013: 50). This is seen in the case of Chief Hwata's small Hera polity which acted as an intermediary between the Portuguese and other Shona groups.

Interestingly, the historical record suggests that trade, particularly in exotic or prestige goods was not monopolized by elites or rulers (Mudenge 1988; Moffett and Chirikure 2016). Within both the Mutapa and Rozvi states, both foreign and local trade goods often formed a part of tribute and therefore neither the Mutapa ruler (*mutapa*) or the Rozvi ruler (*mambo*) had need to monopolize trade (Moffett and Chirikure 2016). It appears that the norm, whether it was in

the Mutapa, Rozvi or Torwa–Changamire state, was for *vashambadzi* to conduct much of the trade, traversing much of southern Zambezia, bartering between villages. It was also common for communities to pay tribute to rulers in the form of gold, beads, cattle and cloth. Moffett and Chirikure (2017) suggest that there is little evidence for trade being primarily carried out in the court of Zimbabwean rulers and *vashambadzi* need not visit the court of a ruler (at least in the Rozvi state) to trade gold. Furthermore, Beach (1980) points out, that within the Mutapa state, if a ruler desired gold, he would send cattle to a gold producing community and in return, members of that community would offer up a portion of their gold to the ruler.

It appears that at least within the Mutapa state, there were different communities of traders such as Portuguese, Swahili and Muslim Shona (Beach 1980). Swahili, Lemba and Muslim Shona speakers (possibly even Arab), called *mwenye* are suggested to have been active traders within Zimbabwean states prior to the arrival of the Portuguese (Beach 1980; Figure 2.13). In fact, some Muslim Shona speakers could achieve high status such as Mingane, who was the leader of a Shona Muslim community within the Mutapa state (Beach 1980: 107). Historically, the Lemba people of present-day South Africa and Zimbabwe were also important itinerant traders (Bandama 2013) with Beach (1980) suggest that these communities may have in part descended from *mwenye* traders. The existence of Islamised Shona communities points perhaps to a side effect of interaction which is the transfer of ideas and practices; in this case, the Islamic religion. An interesting facet concerning trade during this historical period is the expression of a consumer's agency in terms of what trade items are acceptable. Beach (1980), points out that Portuguese traders had to be aware of cultural logics when it came to glass bead trade. If a trader did not provide the right type of beads, he would be unable to sell his stock. Further, Mudenge (1988), documents similar situations in which exotic trade goods were rejected if they did not fit the community's existing logics.

Figure 2.13: An artist's impression of traders in the king's court at Great Zimbabwe. Adapted from M.Hall and Stefoff (2006).

As mentioned above, trade items along with agricultural produce could be used as tribute for a chief or ruler (Beach 1980; Moffett and Chirikure 2016). Tribute could also take the form of labour for a ruler such as in the Mutapa state (Beach 1980). Individuals could perform manual labour for the ruler such as working the fields, in order to pay tribute. Trade and mining was usually seasonal, being conducted during the dry season between agricultural cycles with entire communities and families participating (Chirikure 2015; Moffett and Chirikure 2016). While trade and mining were important economic activities, the economy of many historical Zimbabwean societies were fundamentally based on agriculture and pastoralism (Moffett and Chirikure 2016). This is expressed in the frustration of some Portuguese writers such as Dos Santos who found that the people of the Rozvi state were primary occupied with pastoralism, rather than gold mining (Moffett and Chirikure 2016).

Traditionally the Shona *musha* has been likened to a village (sometimes interpreted as home) however it more accurately is translated as homestead (S Chirikure 2019 pers. comm; Figure 2.14). A *musha* is often not tied to a specific location but rather to a specific headsman (Bourdillion 1987: 57-63). If a headsman was to move, the *musha* would move as well. These settlements are often constituted around a headman and his family with individuals within these settlements being either related through blood to the headsman or related to him through marriage (Bourdillion 1987: 57-63). Sometimes the son-in-law of a headsman might move to his father-in-law's homestead, bringing his extended family as well. Thus, the Shona *musha* is often created through kinship networks (Bourdillion 1987: 57-63).

Figure 2.14: A Kalanga Shona homestead or *musha*. Adapted from Huffman (1974, 2007a).

Within Shona society, cattle were perceived as a store of wealth or bank with this wealth multiplying naturally (Moffett and Chirikure 2016). Furthermore, cattle were crucial in social relations, being a key aspect in the formation and negotiation of many social relations such as

marriage (Moffett and Chirikure 2016). Negotiation and payment of bride wealth in Shona society is known as *roora* and formed an important part of social relations (Meekers 1993). Furthermore, Shona marriages are not just between two individuals but between two families creating strong bonds between the two groups (Meekers 1993). During courtship, tokens of affection are often exchanged between the man and the woman with these tokens having personal and symbolic meaning. Women often give a personal item like beads while a man might give a gift such as a coin (Meekers 1993).

Shona marriage and bride wealth payments usually consist of two parts, namely *rutsambo* and *roora. Rutsambo* involves the payment by the groom of utility objects like an iron hoe or goat for example, in exchange for sexual rights to his intended (Bourdillion 1987: 41-43; Meekers 1993). *Roora* on the other had was often paid in cattle and gave the groom rights to children born of the marriage (Bourdillion 1987: 41; Meerkers 1993). This custom is often viewed as giving a gift to parents as thanks for raising a good daughter (Meerkers 1993). *Roora*, further, not only provides a man with an added labourer and follower in their wife but also provides the possibility of gaining more labourers and followers (wealth-in-people) through children born from the marriage.

As mentioned above, *roora* bonded different families together, and involved different members of the respective households. In Shona society for example, the *vatete* or paternal aunt of the bride usually played a significant part in the courtship and *roora* custom (Meerkers 1993; Hattingh and Hall 2009). It was this aunt whose *roora* paid for her brother's marriage and therefore she was allocated special authority in her nieces' marriage arrangements and negotiations. Often, the bride would discuss her romantic relationship with her aunt, with this bride often introducing her intended to her aunt during courtship for approval (Meerkers 1993).

Throughout this process, cattle are important mediators of these social relations. When the bride finally moves to her husband's home, her in-laws welcome her by slaughtering a beast (Meerkers 1993). Before consummation of the marriage, the bride is presented with a beast of her own, while a cow is also given to the mother of the bride in an important symbolic act (Meerkers 1993). The *roora* payment can be paid over a quite a lengthy period of time, but the final instalment is often paid after the first child is born (Meerkers 1993).

Families without cattle are often seen as impoverished while individuals with large herds of cattle were able to not only extend their social relations, but also gain political influence and power (Moffett and Chirikure 2016). Moyo (2016: 168) citing Reverend Mothetho, demonstrated this in a Kalanga proverb which translates to, 'A man is a man with cattle and a man without cattle is a boy." This is further demonstrated in the Kalanga proverb, '*Nlume kusafila n'ombe unofila nkadzi: Nlume unofila n'ombe mbudzi, kene lobola nkadzi*'; which translates to, 'if a man does not die for cattle, he will die for a woman: a man can die for cattle, goats or marrying a wife.' (Moyo 2016: 170). Cattle owning however, does not seem to be the preserve of men alone with women also gaining cattle through practices such as *lobola/roora* (Shenjere-Nyabezi 2016).

Cattle could also be loaned out, a practise known as *kuronzera*, which results in not only the expansion of social relations but also the creation of political, social and economic alliances (Moffett and Chirikure 2016: 358). This loaning of cattle created a system of dependency and was used by rulers to control their vassals. At any moment, a loan might be called in, impacting a loanee negatively (Moffett and Chirikure 2016: 358). This is captured in the Shona proverb '*mombe yekuronzerwa kama wakaringa nzira*' which translates to, 'whenever milking a loaned cow, always watch the path because you do not know when the owner may recall it' (Moffett and Chirikure 2016: 358). Further, cattle wealth could be converted to wealth-in-people by gaining not only wives, but also subordinates. This wealth-in-people was fundamental for

gaining political power in historical Zimbabwean states such as the Torwa-Changamire and Mutapa states (Moffett and Chirikure 2016). The wealth and prestige of an individual was tied to both his wealth-in-cattle as well as his wealth-in-people. This is a common theme throughout Africa, with political power often coming through the control of people's labour and reproduction (Guyer 1993, 1995, 2004; Ashley *et al*., 2016; Moffett and Chirikure 2016). Social inequality could arise from this system through access to wives, which was in turn controlled by chiefs and elders (McIntosh 1996: 6; Ashely *et al*.,2016). These dynamics are probably summed up by the Kalanga proverb that states; "*Tjimidza mbvula wagala bwe yipato gulu: Unnu unolobola bakadzi akalinga danga len'gombe nembundzi"*, which translates to; 'He who swallows a marula seed trusts in a wide anus: a person who marries many women because he trusts in his many cattle.' (Moyo 2016: 167). This proverb suggest that people should live within their means. Beyound labour, however, the control of people also was important because it also represented the control of knowledge that was held by these individuals (Ashely *et al*., 2016).

Cattle were not the only acceptable form of payment for a bride. Cloth, iron hoes, glass beads, brass and copper arm rings were also accepted as payment (Beach 1980; Moffett and Chirikure 2016). There also is a practise known as *kutema ugariri* whereby, a young man without cattle was able to pay off a bride price by working at his in-law's homestead for a couple of years (Moffett and Chirikure 2016). As shown above, these regional networks of trade and exchange (i.e. marriage, loans, tribute) created a movement of items and produce across the landscape (Beach 1980; Moffett and Chirikure 2016). Furthermore, this helped mitigate the negative effects brought on by drought and crop failure (Beach 1980; Moffett and Chirikure 2016).

The sharing of produce such as food is an important part of Shona culture (Tavuyanago *et al*., 2010). This is most aptly captured in the Shona proverb, '*ukama igaswa hunozadziswa nekudya*', translated as 'relationships are on their own never adequate, they are only made

adequate by people sharing food' (Hamutyinei and Plagger, 1987 as cited in Tavuyanago *et al*., 2010: 5). Individuals who are able to produce large amounts of agricultural produce and are willing to share were often held in high esteem. Conversely, individuals who were lazy or unwilling to share are often scorned (Tavuyanago *et al*., 2010). Foods, particularly those derived from grain, often play a mediatory role in Shona society, expanding social relations and enhancing social cohesion (Tavuyanago *et al*., 2010). By sharing food, an individual is able to gain more followers therefore increasing their wealth-in-people. It should be noted; however, that traditional farming was labour intensive and required collective action (Beach 1983; Tavuyanago *et al*., 2010). A single individual would find the various tasks associated with agricultural production, almost impossible to achieve singlehandedly (Tavuyanago *et al*., 2010).

Shona communities are therefore, often supported by an underlying mutualistic spirit of cooperation (Tavuyanago *et al*., 2010: 5). This spirit or idea of cooperation is reinforced within Shona proverbs such as '*kuchera mbeva kukomberana*' ('to dig mice is to encircle them'), '*chara chimwe hachitsvanyi inda*' ('one finger cannot squash louse') and '*kuita mushandira pamwe samajuru*' ('to work together like ants in building an anthill'). Linked to this, is the belief in reciprocity, engrained within Shona society (Hamutyinei and Plagger 1987 as cited in Tavuyanago *et al*., 2010: 5). Members of the community often help each other without expectation of immediate returns. It is however; expected that in the future this favour will be repaid (Tavuyanago *et al*., 2010). This type of reciprocal exchange, in this case labour, is somewhat similar to the *hxaro* exchange describe among San communities by Wiessner (1982). Again, much of this ideology is emphasised by proverbs such as '*kupa hwuturika*' ('to give is to put up for the time of need') and '*kandiro kanoenda kunobva kamwe'* ('a small plate of food goes where another comes from') (Hamutyinei and Plagger 1987 as cited in Tavuyanago *et al*., 2010: 5). These cultural values were demonstrated within work parties that were organised

within communities to help with agricultural work or homestead construction (Tavuyanago *et al*., 2010). An individual who did not reciprocate and join another's work party was likely to become a social outcast (Mudenge 1988; Tavuyanago *et al*., 2010).

Figure 2.15: Southern Shona work party, threshing finger millet (*rukweza*) in 1895. Adapted from Beach (1980:210). Originally from the National Archives of Zimbabwe.

Two main work parties exist, namely *humwe* (beer work parties) also known as *jakwara*, *hoka* or *nhimbe*, and *majangano* (non-beer work parties) (Tavuyanago *et al*., 2010). A *humwe* work party was organised by an individual who would provide beer and food for the workers during rest breaks. The work done by these parties often involved fencing a homestead, working the fields or thatching huts (Tavuyanago *et al*., 2010). *Majangano* work parties are usually organised towards the end of the agricultural cycle and the organiser of this work party is not expected to provide beer (Tavuyanago *et al*., 2010). This work party is usually organised to help with agricultral activities such as threshing (Figure 2.15). However, as Tavuyanago *et al*., (2010) points out, this organiser may provide compensation such as food. These work parties are social events that allowed the community to discuss and deal with issues affecting their

society. Furthermore, this event afforded elders and members of the community, an opportunity to confront individuals who were behaving in a manner that was not socially acceptable (Tavuyanago *et al*., 2010). This might be done directly during a rest break or through a song directed at the guilty party. Young individuals are incorporated into these events to enforce social norms and values while encouraging them to develop a spirit of cooperation (Tavuyanago *et al*., 2010) (Figure 2.15).

Religion was an important part of Shona society as well, that not only united communities in a shared belief but also provides a fascinating insight into the interconnectedness of historical societies in southern Zambezia. The fundamental belief shared by different sects of Shona theology, is that there is one supreme god called *Mwari musikavanhu* (Beach 1980; Moffett and Chirikure 2016). *Mwari*, according to Shona theology, was able to communicate through humans and things (pots, trees, animals) (Beach 1980; Moyo 2016). Further he often could speak from caves and sometimes took the form of a snake; a symbolic sign associated with rain (Murimbika 2006; Moyo 2016).

It should be noted, that Shona rulers were not seen as divine, rather, the ruler had access to powerful royal ancestral spirits through a spirit medium, *mhondoro* (Beach 1980; Moffett and Chirikure 2016; Chirikure *et al*. 2017a). People turned to their ruler to help provide rain, not because he could make rain, but because of his connection to powerful ancestral spirits through spirit mediums (Beach 1980; Moffett and Chirikure 2016; Chirikure *et al*., 2017a). The ruler was therefore, not seen as a religious leader but rather a political one. Every year, prayers, *mukwerera* or *kukumbira mvura*, were offered up by Shona people, to ask for a good harvest and rain (Moffett and Chirikure 2016). These 'rainmaking' ceremonies have many different names based on the Shona dialect, for example, in Kalanga it is called *ku thumba vula*, in Karanga it is known as *mutoro* or *mushosho* and in Korekore it is known as *rukato* (Murimbika 2006; Chirikure *et al*., 2017a). *Mukwerera* however, is a general term used acrossed all dialects.

At each level, from family to chiefdom, prayers were offered to the representative ancestral spirits (Murimbika 2006; Moffett and Chirikure 2016; Chirikure *et al*., 2017a). Like the world of the living, the spiritual world has an established hierarchy with tribal ancestral spirits towards the top of the hierarchy and recently deceased parents and grandparents near the bottom (Murimbika 2006). Founders of chiefdoms also usually enjoyed the highest status (Murimbika 2006). *Masvikiro* or spirit mediums were important religious meditators between the spirit world and the world of the living. *Mhondoro* is the name commonly used to describe these individuals by Korekore, Zezuru and Manyika speakers, while Kalanga speakers use the names *mahosanna*, *mbonga* or *mathobela* and Karanga speakers refer to them as *homwe* or *manyusa* (Bent 1895; Chirikure *et al*., 2017a). For the sake of simplicity, the general term *masvikiro* is used. Rainmaking ceremonies are yearly cyclical events, with the start of these ceremonies occuring between August and October (Murimbika 2006; Chirikure *et al*., 2017a). Headsmen from different communities are required to bring their grain to the chief as contribution towards the brewing of ritual beer (Murimbika 2006). Entire communities gather to take part in this ceremony which involves feasting, dancing, singing and drinking of beer (Murimbika 2006; Chirikure *et al*., 2017a). During *kusvikirwa* or intercession, a spirit medium is possessed by a *midzimu* ancestral spirit, who could then make known the will of *Mwari* and the ancestors or could be asked for aid in terms of the welfare of a particular family, community or state (Chirikure 2014; Moffett and Chirikure 2017; Chirikure *et al*., 2017a). This is a time of interaction and socialising between different members of the community and a unifiying event that creates a sense of community. Two other rituals are held at different times of the year and constitute the other ceremonies that make up what is termed ‘rainmaking’ (Murimbika 2006). One of these occurs around January to February, the first fruits ceremony and the other is the harvest ceremony, *mishashe*, held around April (Murimbika 2006). These ceremonies or practises vary between Shona communities with different aspects of ‘rainmaking’ ceremonies

occurring in different places depending on local cultural logics (Murimbika 2006; Chirikure *et al*., 2017a). Hilltops, rock shelters and sometime designated areas outside the homestead were used to conducted specific rituals associated with 'rainmaking'. Different locations were also used throughout these ceremonies with much of the preparations occurring in the homestead (Pwiti *et al*., 2007; Chirikure *et al*., 2017a).

Throughout these ceremonies, objects play pivotal roles. Wooden snuff (*bute*) bowls (*ndiro*), gourd cups (*mikombe*) and beer pots (*makate*) feature predominately in these ceramonies. Further, the ritual adornment of individuals such as the ostrich feather headdress (*ngundu*), blue/black bead necklace (*zvuma*) and the white and black kilt (*sava/fuko*) worn by the *masvikiro* all have symbolic meaning associated with rain and ancestors (Chirikure *et al*., 2017).

For the Shona and other southeastern Bantu-speakers, death is not seen as a permanent and is life-giving in a sense (Aschwanden 1982; Huffman and Murimbika 2003; Hattingh and Hall 2009). The various rituals and beliefs associated with the funeral and burial of an individual mimic those of pregnancy and birth (Huffman and Murimbika 2003; Hattingh and Hall 2009). For example, the grave is understood to be a womb of sorts that transforms a family member from a living member of the community to a *midzimu*. There is also a gestational period in which this transformation occurs after the *midzimu* is born. There usually follows a welcoming ceremony, *kugadzira,* which brings the ancestor home (Aschwanden 1982; Huffman and Murimbika 2003; Hattingh and Hall 2009).

The bodies of people were seen as important containers that were key to communication between the living and the dead (Chirikure 2014). This concept of human bodies as containers is evident in Shona material culture. One example of this is the house which as Chirikure (2014) puts it, was a container 'par excellence'. Symbolic parallels have been drawn within Shona

society that link the life-giving container of a woman's body to that of a house (Chirikure 2014). In fact, some houses within Shona society are adorned with womanly features such as scarification and breasts (Bent 1896; Murimbika 2006; Chirikure 2014). These parallels have also been drawn with other containers such as grain bins and furnaces (Bent 1896; Huffman 2007) (Figure 2.16).

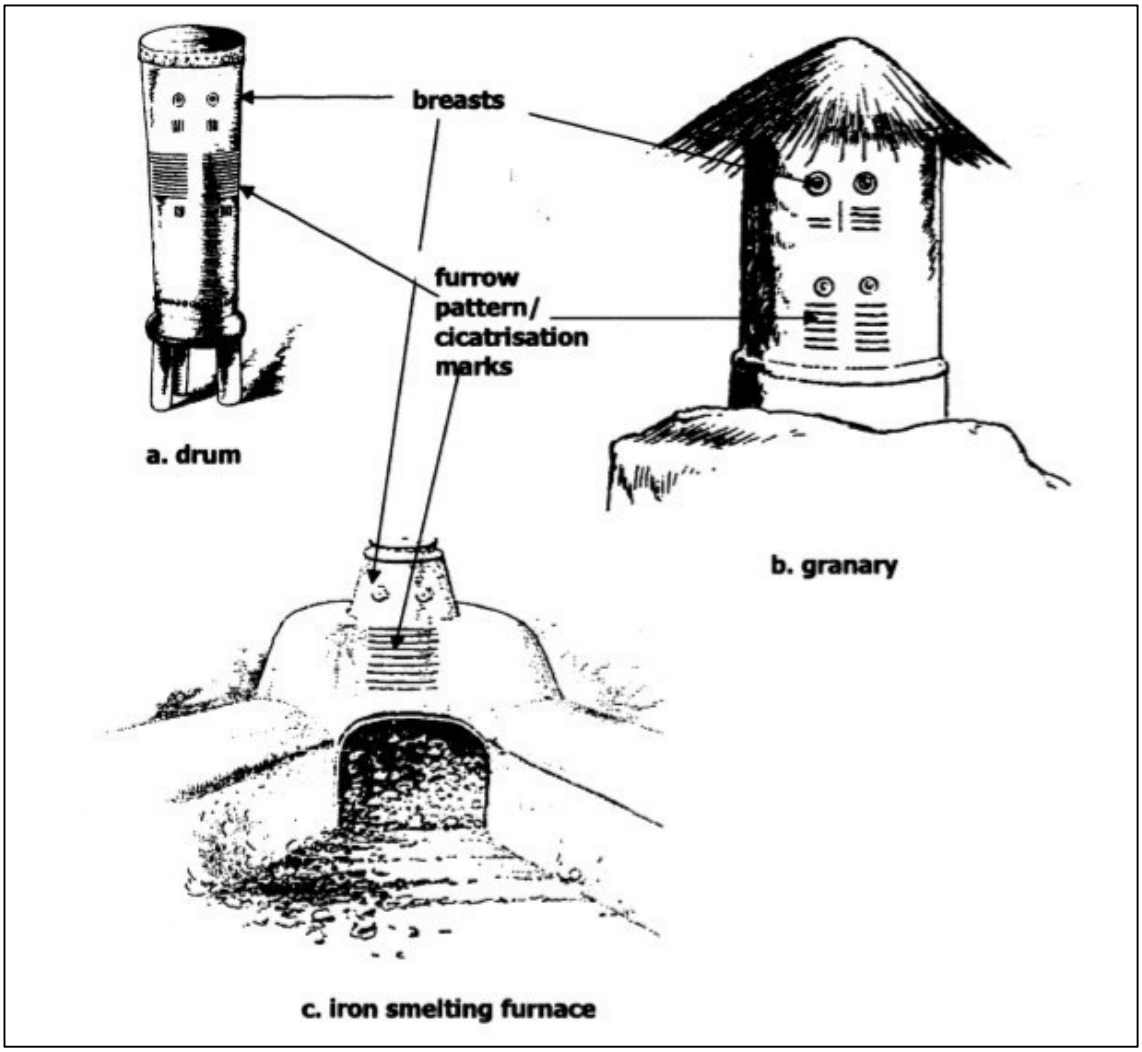

Figure 2.16: Objects like furnaces, granaries (grain bins) and drums were often decorated with the features of a woman's body, symbolising their connection to concepts of fertity and procreation. Adpated from Bent (1895) and Chirikure (2005).

The embodiment of the house as woman's body can be seen to have social ramifications such as various customs involving death and fertility (Huffman and Murimbika 2003; Hattingh and Hall 2009). For example, a person who has died is often removed headfirst from a house

representing birth (Huffman and Murimbika 2003). This metaphor has been extended even further to the puberty rites of Karanga girls. The girls' parents emerge from the house towards the end of the rite mimicking birth (Hattingh and Hall 2009).

Within a Shona house, there is often a raised platform or pot-shelf (*chikuva*) at the back of the house, used by the husband to honour his ancestors (Hattingh and Hall 2009; Chirikure 2014; Chirikure *et al*., 2017; Figure 2.17). While the wife stored her pots here, her pots were commonly seen as reflecting her fertility, womanhood and contribution to the family rather than embodying the ancestors of her husband (Hattingh and Hall 2009; Chirikure 2014). This is primarily because she was still an outsider. The spacial layout of the house further reflected the patriarchal social hierarchy present in the wider Shona society, with men often seated on the right senior side and woman seated on the floor on the left junior side (Huffman and Murimbika 2003; Hattingh and Hall 2009).

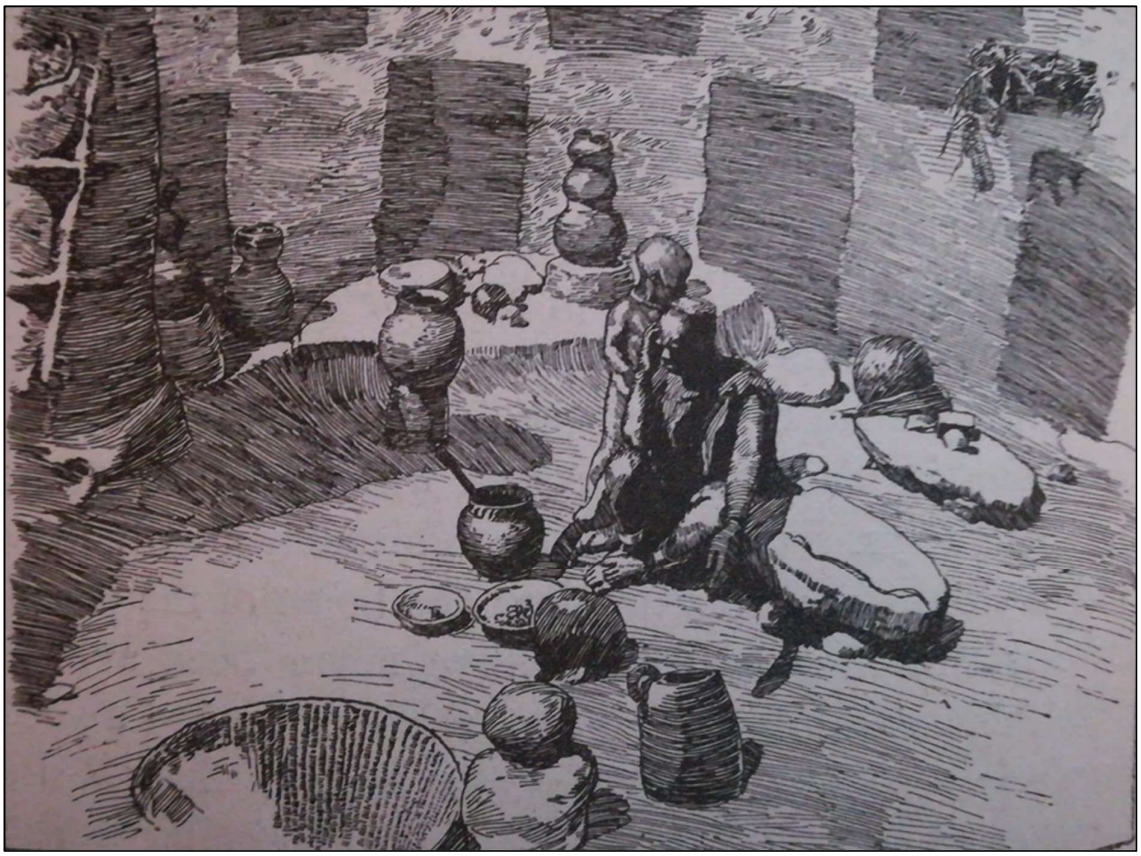

Figure 2.17: The inside of a Shona house. Note the pot-shelf (*chikuva*) towards the back of the house. Adapted from Bent (1895).

Pots, like houses and women's bodies are understood as containers, with pots also often seen as a symbolic representation of the womb, birth and fertility (Aschwanden 1989; Huffman & Murimbika 2003; Hattingh and Hall 2009; Chirikure 2014). The pots status as a symbol of transformative power and importance in Shona society is renforced when one takes a closer look at the Shona name for God. *Mwari* is essential comprised of two root words, *mu* and *hari* and roughly translates as 'to be in a pot' (Hattingh and Hall 2009; 305)

The ancestors were and are often associated with specific colours, namely red, white and black. Certain pots were coloured black (black or graphite burnishing) or red demonstrating the linked between the living and the dead (Chirikure 2014). These colours were also reflected in other forms of material culture such as glass beads (Moffett and Chirkure 2016) and metals such as

iron (black) and copper (red) (Chirikure 2014). This triad of colours was fundamental in ancestor veneration through acts of communication and transformation (Chirkure 2014).

Sub-Saharan African societies, and more specifically south eastern Bantu-speaking societies like the Shona; are deeply entangled in a milieu of meaning, symbols and taboos revolving around acts of transformation such as procreation (Gosselain 2000; Huffman 2007a). Ceramics such as pots and bowls are products of acts of transformation and are thus deeply entangled in ideas of procreation and fertility not only in Shona culture but throughout south eastern Bantu-speaking and Sub-Saharan African societies (Aschwanden 1982; Ndoro 1996; Gossalain 2000; Huffman 2007; Armstrong *et al*., 2008; Hattingh and Hall 2009). The *rongo* jar in Karanga society for example is associated with not only a women's fertility, but also her menstrual cycle (Hattingh and Hall 2009). These jars are highly decorated and key pivots between different social categories such as men and women (Ndoro 1996). When a new wife arrives at her new homestead, she often brings with her a *rongo* jar which symbolises that her fertility is for the benefit of the entire community (Hattingh and Hall 2009). Open bowls like the *mbia* are likewise often associated with pre-pubescent girls (Hattingh and Hall 2009). The meaning of the *mbia* however, is enhanced when it is associated with the *rongo* jar. For example, when the *mbia*, is inverted and placed over the the *rongo* jar on the *chikuva*, this association symbolises wife's closed fertility (Hattingh and Hall 2009).

Glass beads also transmitted symbolic meaning through their properties and specific colour combinations (Moffett and Chirikure 2016). The combination of black, white and red beads was often worn by healers and deviners and as mentioned previously, these colours are associated with the ancestors (Moffett and Chirikure 2016). In the context of burials, glass-bead aprons along with other associated material culture acted as mediators, facilitating the transformation of an individual from a living person to an ancestor (Moffett and Chirikure 2016). In life, glass beads were often incorporated into skirts and aprons. Woman in southern

Zambezia often wore small beads that were strung around their waist, with these beads being symbolic representations of their fertility (Bvocho 2005; Moffett and Chirikure 2016). To enhance the symbolic meaning of these beads, they were often combined with other objects such as shell beads, marine shells, metals like copper and iron as well as cloth (Moffett and Chirikure 2016). These combinations along with the glass beads themselves were closely linked to a person's identity, with beads also playing an important role in the construction and negotiation of social categories (Bvocho 2005; Moffett and Chirikure 2016). Interestingly, these beads were historically worn by all members from elites to commoners.

2.4. Gap Analysis

Despite the plethora of research into communities of the early second millennium A.D., some notable gaps emerge. Firstly, some authors (Antonities 2012; Chirikure 2014, 2017; Schenck 2017; Klehm 2017) have recognised the importance of networks of interaction in community formation. However there is a need for further application of these concepts. These concepts need further exploration, particularly in understanding the development of communities in Southern Zambezia during the early second millennium A.D. Secondly there is a need to for approaches that are able to articulate between different scales (Chirikure *et al*., 2012, 2013a; Fredriksen and Chirikure 2014). Lastly, while the archaeology does provide evidence of interaction, there is a need to fill in the gaps with the aid of ethnohistoric analogy (see for example, Chirikure 2019). Some scholars have bemoaned the fact that archaeologists often neglect the ethnohistorical record which can provide key insights into precolonial societies (Beach 1998). The use of these records to inform the archaeological record is done with caution (Lane 1995/1996; 2005; Chirikure 2019) as adopting these analogies uncritically can present an image of unchanging African societies. To remedy this, one should recognise that the divergence of archaeology and ethnohistorical record represents change in practise over time

(Chirikure 2019). It can be seen from these points that the is a need for a multi-scaler study that closely examines archaeological networks of interaction and their effect of community formation. Further still, there is a need for a study that draws on the ethnohistorical record in order to provide a holistic understanding of these networks, as well as highlighting continuity and change in practises through time and space.

2.5. Summary

The region known as Southern Zambezia has a rich history supported by both the archaeological and historical records. The second millinium A.D. witnessed the rise of powerful Zimbabwean states like those based around Mapungubwe, Mapela, Great Zimbabwe and Khami. In recent years, conventional models have been called into question leading to new understandings of the socio-material developments of these communities. Much of the debate in this field of research has focused around the development of socio-political complexity, however most researchers recognise the significant role networks of interaction played in the formation of these societies. It has been widely accepted the the Leopard's Kopje communities of the early second millinium A.D. likely represent ancestral Kalanga Shona speakers. The ethnographic record as well as the historical record provide rich evidence of a society composed of networks of interaction across different scales. These networks include interactions within homesteads to state and interregional interaction such as long-distance trade. The insights provided from this record are useful in providing a framework for understanding the networks of interaction that may have been present in the early second millinium A.D.

Chapter 3 : Interaction and Theoretical Frameworks

3.1. Introduction

In this chapter, the history of archaeological research into interaction in Africa is explored. Further, the dominant models used to interpret material culture at sites like Mtanye, are elaborated on. Finally, this chapter offers a new perspective for understanding socio-material development with the aid of Actor-Network theory.

Africa has played host to networks of interaction for millennia, through which innovation thrived and new socio-material entities emerged (Chirikure 2017). These networks of interaction were inherently multi-scaler drawing in the micro, meso and macro scales. Interaction is often understood to be key to socio-material change and has been extensively explored (Huffman 2007a; Wood 2012; Antonites 2012; Bandama 2013; Moffett 2016; Chirikure 2017). Within conventional literature, popular models are often anthropocentric, structurlist and battle to transverse scales effectively. Further these models have drawn criticism for being eurocentric and unable to fully capture practise (Moffett and Chirikure 2016; Knappett and Malafouris 2008).

Humans are unique in that their desire to interact often supersedes their capacity (Knappet 2011) with things often facilitating the 'release from the proximate'(Quiatt and Reynolds 1993: 141; Gamble 1998: 431; 2007: 211 as cited in Knappett 2011). In recent years there has been a widespread recognition in archaeology that networks of interaction are fundamental to the creation, negotiation, and transformation of the socio-material world (Olsen 2003, 2007; Whitridge 2005; Witmore 2007; Webmore 2007; Knappett 2011; Chirikure 2014, 2017). Some such as Cresswell (2010: 550) point to the fact that communities are often not isolated entities but rather are co-constituted within networks of interaction. Humans are deeply entangled in

networks that are not only social but also material (Hodder 2012). These networks as Hodder (2012: 97) further points out, are not just social, practical, technical and economic but are also conceptual, symbolic, spiritual and meaningful.

Actor-Network Theory (ANT) offers an opportunity to create a relational ontology in which both the subject and object, material and human are co-constituted (Latour 2005). This approach further allows for the transcending of scale through networks and eliminates social, technological or environmental determinism by affording all entities within a network, the same level of agency. ANT's merits have been briefly discussed by some Southern African scholars such as Chirikure *et al*., (2014) and Ashely *et al*., (2016). However, there is need for more indepth research and application. Furthermore, ANT aligns to the perspective of Shona communities in that humans are not seen as separate from nature but deeply entangled within it. This claim is supported, for example in Chapter 1 with humans often personally linked to animals in totems and praise songs (Moyo 2016).

3.2. The Archaology of Interaction

"Nevertheless, the political genesis, development, and decline in southern Zambezia are conceived not as isolated phenomena but as part of broader processes of information exchange and cultural development within an interactional sphere comprising much of central Africa"- Innocent Pikirayi, 2001

Humans have been interacting for millennia with interaction occurring through trade, exchange, migration, war and marriage alliances. Chirikure (2017) points out that even though interaction incapsulates a broad swathe of social processes relevant to archaeological studies; it is rarely explicitly defined. The definition of interaction offered by Darvill (2008) has been adopted by some such as Bandama (2013) and states that interaction is; "A general term used in archaeology to refer to any close contacts established between communities or regions that is evidenced in the archaeological record through material culture." In archaeology, perhaps the easiest form of interaction to document is trade and exchange as this leaves visible evidence in the form of trade goods.

Archaeological studies of trade find their roots in the early 20th century with trade often being defined as the commercial exchange of products between communities or individuals (Bandama 2013; Chirikure 2017). Traditionally trade studies have focused on the commercial aspects of trade. However beginning in the 1960s and 1970s, trade and exchange, began to be seen as imbedded primarily in social contexts rather than just economic (Chirikure 2017) Within this field of research, objects act as proxies or indicators of trade between different communities and/or regions which in turn can inform us about the interconnectedness of communities, states and regions. Trade often takes various forms in terms of organisation, varying from highly organised to irregular and disorganized (Chirikure 2017). For example, trade can take place at permanent or shifting distribution and redistribution centres like markets or it can be carried out by informal itinerant traders that move between regions (Chirikure

2017). This trade can also be full-time and controlled by elites or seasonal and conducted by everyone. Trade has often been divided up into different forms from organised trade over long distances to local hand-to-hand exchanges (Bandama 2013). Chirikure (2017), however points out that both local (regional) trade and long-distance trade are hard to tease apart within a region as these forms of trade merge into each other, using the same networks at smaller scales. Further, Chirikure (2017), points out that trade and exchange, often overlap and therefore should be considered together. Exchange often involved the reciprocal transfer of goods and may take the form of tribute, gifts, theft, looting or occur through marriage alliances (Chirikure 2017). Both trade and exchange can vary, from face-to-face interactions (direct) to transfer of goods through middlemen (indirect). This practise is crucial for some communities to gain access to scares or non-local resources (Knappett 2011; Chirikure 2017). Other motivations for trade and exchange can also include, political motivations, religious and sociocultural needs and economic motives (Chirikure 2017). Trade can also form an essential part of a communities' adaption strategy to unpredictable environmental change. As some researchers have demonstrated (Nyamushosho 2016; Nyamushosho *et al*., 2018; Chirikure *et al.,* 2018b), some communities in southern Zambezia may have been able to trade locally produced metal for grains. This mitigated the effects of seasonal droughts or poor yields. Trade however has an interesting side effect in that it facilitates the transfer of ideas between communities and regions (Kristiansen 2005; Bandama 2013).

The earliest evidence of trade and exchange in Africa, perhaps dates to as far back as 5000 B.C. with domestic animals being introduced to Africa from Asia (Chirikure 2017). The earliest documented accounts of trade and exchange in Africa come from Egypt and Nubia with the Tomb of Rhekhmire (1550-1298 B.C.) and the Turin Papyrus Scroll (1160 B.C.) documenting these events (Chirikure 2017). Trade items included gold, ebony, skins and ivory as well as slaves being traded. Records from the ancient Kingdom of Aksum (270-700 A.D.) also

provides early accounts of trade with gold, ivory, emeralds and tortoise shell being traded for silk and spices (Chirikure 2017).

Trans-Saharan trade was practised for thousands of years with one study in particular demonstrating that some copper objects found in West Africa originated in the Mediterranean region (Chirikure 2017). Using lead isotope analysis, Fenn et al., (2009), discovered that copper in objects found in the *Mare de Kissi* region of present-day Burkina Faso and at places like Marandet in present-day Niger most likely came from the Mediterranean region and perhaps further afield (Chirikure 2017). Trans-Saharan trade appears to have increased after 700 A.D. which opened the way for the spread of Islam and literacy in West Africa. This increase in literacy allowed for the recording of trade and exchange in the Ghana (c.700-1200 A.D.), Mali (c.1200-1550 A.D.) and Songhai (c.1300-1600 A.D.) empires (Chirikure 2017). These networks also opened the region to exploration by travellers such as Ibn Battuta (c.1304-1368 A.D.) who documented Trans-Saharan trade. Within the Mali Empire, slaves, gold and kola nuts were traded for copper and salt with these networks allowing for the spread of culture and technology as well as the Malian Empire's *lingua franca*, Mande. A similar trade also occurred on the east coast of Africa, with the spread of the Swahili language and culture.

In central Africa, interaction is most evident in trade items such as copper ingots (Chirikure 2017). Sites such as Sanga provide evidence of stylised copper ingots that were widely traded from 900 A.D. onwards. Oral accounts from the Luba (c.1585 -1889 A.D.) and Lunda (c. 1665-1887 A.D.) document the trade of highly stylised copper ingots that were group specific (Chirikure 2017). In fact, copper ingots known as Katanga crosses were used as a form of currency in central and southern Africa after about 1000 A.D.

In Southern Africa, new networks of interaction formed with the migration of various Bantu-speaking agro-pastoralists into the region. These groups not only interacted with each other but

also Khoe-San hunter-gatherer and herder communities that occupied most of Southern Africa prior to these migrations (Maggs 1980, 1992; Mazel 1986, 1989; Mitchell 1996; Denbow 1982, 1999; Huffman 2007a). Wiessner's (1982) ethnographic studies on Khoe-San people identified a form of interaction and exchange called *hxaro* in which gifts were exchanged over a wide area, mitigating the effects of negative unforeseen events like food shortages. This interaction has been extended into the archaeological past with a form of *hxaro* exchange thought to have existed. Furthermore, this exchange may have also incorporated earlier agro-pastoralist communities. During the period in Southern Africa often referred to as the Early Iron Age, San or rather hunter-gatherer communities living in present-day KwaZulu-Natal and Lesotho likely traded meat, hide and ostrich egg shell beads with agro-pastoralist communities that often occupied the coastal plain of KwaZulu-Natal (Maggs 1980, 1992; Mazel 1986, 1989; Mitchell 1996). Within the Kalahari region of present-day eastern Botswana, Denbow (1982, 1999), suggests that during the early second millennium AD, hunter-gatherer communities may have lived within agro-pastoralist communities with some bands even being hired to herd and care for agro-pastoralist livestock. Within the Shashe-Limpopo region, research by Smith and Hall (2000), suggests that hunter-gatherers began to specialize in the manufacture of hides to trade with newly arrived agro-pastoralists. Over time however, Smith and Hall (2000) suggest that these communities either relocated or were absorbed by agro-pastoralists communities. This position however is debated, as some such as Thorpe (2005) have suggested that hunter-gatherer communities persisted within Southern Zambezia until the historical period. Further, these communities actively interacted with agro-pastoralists, trading and intermingling (Thorpe 2005).

Communities in southern Zambezia have participated in long-distance trade with the east coast of Africa since as far back as 700 A.D. (Chirikure 2014, 2017; Wood 2012). However, the east African coast has been involved in trade with Eurasia since perhaps as far back as 1000 B.C.

(Huffman, 2007:75; Bandama 2013). Perhaps the oldest records of this trade are recorded in the *Periplus of the Erythrean Sea* and Ptolemy's *Geographia* (2nd c. AD) which details trade networks that connected Egypt, India and Persia with the east coast of Africa (Wood 2012; Bandama 2013). In recent years, some (Chami 1999a,b; 2004, 2006) have presented possible evidence for early Roman trade with the East Coast of Africa, in the form of trade beads. However, as Wood (2012) points out there is need for further research to substantiate these claims.

One of the oldest known ports on the east coast of Africa and perhaps the furthest south; is Chibuene (Sinclair 1982, 1987; Sinclair *et al*., 1993; Ekblom 2004; Wood 2012). As mentioned above, objects often act as proxies, indicating or providing evidence of historical trade and interaction networks. Glass beads found at Chibuene provide perhaps the earliest evidence of trade between the Indian Ocean rim and southern Africa. These Chibuene series beads date to between the 7th-8th century and probably originated in the Middle East, east of the Euphrates river (Wood 2012). This bead series has also been found as far inland as Nqoma in modern day Botswana. Wood (2012) suggests that early trade with the east coast of Africa, and in particular, the south eastern coast of Africa; was direct with Persian or early Islamic merchants visiting ports like Chibuene. At this time, it would appear that the Persian Gulf was the primary hub of trade with the east coast of Africa and that the source of Chibuene beads may have been the Sassanid Persian port of Ubulla in present day Iraq (Wood 2012).

The Indian Ocean formed an important geo-economic zone with communities on the east coast of Africa developing into entrepôts (Sinclair 1987; Pwiti 2005, Mitchell 2005; Huffman 1972b; 2007a; Wood 2012). These communities helped facilitate trade between the hinterlands and the Indian Ocean world (Sinclair 1987; Pwiti 2005, Mitchell 2005; Huffman 1972b; 2007a). Communities from southern Arabia and Persia to the Indian subcontinent and China benefited greatly from the addition of southern Zambezia to this network, with southern Zambezian trade

contributing to the development of many of these communities (Pwiti 1991, 2005; Killick and Fenn 2012; Chirikure 2014). These trade networks acted as conduits through which not only goods were transferred but also ideas. For example, this is particularly evident in the creation of Swahili culture with adoption of Islam and architectural innovation (Chittick 1966; Kusimba 1999; LaViolette 2008). This new architecture was a fusion of local and foreign designs (Chittick 1966; Kusimba 1999; LaViolette 2008; Chirikure 2014), resulting in magnificent structures such as the Great Mosque of Kilwa Kisiwani (Figure 3.1).

Figure 3.1: The Great Mosque of Kilwa Kisiwani which combined both indigenous and foreign architectural influences. Adapted from Fleisher *et al*., (2012).

The oceanic routes taken by these merchants is well known and usually took advantage of the monsoon winds. One of these routes began in present-day Indonesian around the islands of Java and Sumatra and from there, the ships would sail towards Madagascar; finally arriving on

the east African coast (LaViolette 2008, Chirikure 2014). Another route taken, began with trade vessels sailing from the coast of the Indian subcontinent, towards southern Arabia via the Persian Gulf, then southwards along the east African coast (LaViolette 2008, Chirikure 2014). The routes taken into the southern hinterland regions from the east coast of Africa are not well known. Rivers such as the Limpopo, Zambezi and Save could have helped facilitate the transport of goods from the coast while it is also possible that overland routes were also exploited (Chirikure 2014).

Around the 10th century, trade with the eastern coast of Africa, appears to have intensified with ivory, slaves, hides, gold and cattle (possibly iron and grain) being traded for exotic items such as glass beads, bronze and cloth (Huffman 2007a, Wood 2012; Chirikure 2014, Moffett & Chirikure 2016). Prior to this trade boom, trade with the Northern Hemisphere appears to have decreased with the decline of the Sassanid Persian and Byzantine empires and the subsequent rise of the Umayyid Caliphate in 636 A.D. (Wood 2012). Trade with the east coast of Africa began to flourish again with the emergence of the Abbasid Caliphate in the 8th century and a shift of power to Baghdad. Driven by the new wealth and power of Baghdad, large scale trade increased between the Persian Gulf and the Indian Ocean rim (Wood 2012). This expansion of trade was also felt in southern Africa with the introduction of a new bead series. These new Zhizo beads had a similar chemistry to the previous Chibuene series and, most likely, also originated in the Middle East. Wood (2012), posits that the likely port of origin may have been Sohar in modern day Omman.

Wood (2012) further theorizes that these beads may have entered southern Africa through the port of Chibuene, with early sites in southern Africa with Zhizo series beads including Chibuene in present day southern Mozambique, Schroda in northern South Africa and Makuru in present day Zimbabwe (Sinclair *et al*., 2012, Wood 2005, 2012, Chirikure 2014). These beads were widely distributed through southern Zambezia; being found from Taukame

(Denbow 1979) and the fringes of the Kalahari to Doddiburn in present-day south-western Zimbabwe (Huffman 1972a, Wilmsen *et al*., 2009, Chirikure 2014). The distribution of these beads highlights the extent of regional distribution networks with Wood (2012) pointing out that these beads were transported as far as the Tsodilo Hills which are around 1500 km from Chibuene. These beads have also been reported as far south as present-day KwaZulu-Natal in South Africa (Wood 2012: 26).

Outside of southern Africa, Zhizo beads appear to be rarely found on the east coast of Africa with a few being found at Shanga in the Lamu Archipelago and Tumbe on Pemba Island (Wood 2012). The reason for their rarity in East Africa could have to do with the communities that lived in the region at that time. These agrarian and fishing communities may have simply traded when need or want arose and were not fully fledged entrepôts (Horton and Middleton 2000; Wood 2012). Zhizo series beads have also been found in West Africa, at Gao (Mali), Ibgo Ukwu (Nigeria) and Kissi (Burkina Faso) (Robertshaw *et al*., 2010). Zhizo beads appear to disappear in southern Africa around the start of the 2nd millennium AD. This could have been for various reasons. At this time, political turmoil and change in the Middle East resulted in the Red Sea replacing the Persian Gulf as the main trading hub in the region. Wood (2012) also notes that the port of Sohar also appears to have been in decline during this period. Further, southern African long-distance trade networks, appear to have shifted with trade predominantly occurring with traders from South and South-East Asia (Wood 2012). Another point noted by Wood (2012), is that Chibuene was no longer an important port by the 10th AD, possibly due to Waq-Waq (Indonesian) raids on the coast of Sofala.

Table 3.1: Glass bead series found in Southern Africa along with their associated dates, provenance and where they have been found. Adapted from (Wood 2005).

Bead series	Dates	Provenance	Sites with bead series
Chibuene	AD 700–800	Middle East	Chibuene, Nqoma
Zhizo	AD 700–1000	Middle East	Schroda, Bosutswe, Nqoma, Pont Drift,Gokomere tunnel site, Leopard's Kopje Main Kraal, Chibuene, Zhizo Hill
K2 Indo-Pacific	AD 900- 1200	South Asia	Kilwa, Ntaba Zika Mambo, Schroda, Pont Drift, Great Zimbabwe (phase II), K2, Bosutswe, Kgaswe, Mmamagwe, Gokomere, Mabveni, Nali Hill, Leopard's Kopje
East Coast Indo-Pacific	AD 1000-1250	South Asia	K2, Pont Drift, Schroda
Islamic	AD 1250–1300	Middle East	Mapungubwe, Great Zimbabwe
Mapungubwe oblate	AD 1250–1300	South or southeast Asia	Woolandale, Mapela, Skutwater, Great Zimbabwe (Phase III) Ntaba Zika Mambo,Bosutswe, Mapungubwe, Khami
Zimbabwe	AD 1300–1450	South or southeast Asia	Hlamba Mhlonga, Thulamela, Skutwater, Great Zimbabwe
Khami Indo-Pacific	AD 1450–1650	South Asia	Bosutswe, Toutswe, Faure, Great Zimbabwe, Khami

As mentioned above, starting in the early 2nd millennium AD, trade began to increase in southern and east Africa (Huffman 2007a, 2010; Robertshaw *et al*., 2010; Wood 2012;

Chirikure 2014). Two new bead series appeared in this region, namely K2 and East Coast Indo-Pacific beads. It seems as if East Coast Indo-Pacific beads were more popular in East Africa then Southern Africa whereas, K2 Indo-Pacific beads are rare in East Africa, but popular in Southern Africa (Wood 2012). This made be further evidence for the difference in long-distance trade networks between the East African Coast and Southern Africa (Wood 2012).

Another shift in the Indian Ocean trade appears to have occurred around 1250 with the introduction of the Mapungubwe Oblate series in southern Africa. This coincides with a massive increase in beads transported and distributed in Southern Africa. Both Mapungubwe and Zimbabwe series beads appear to be chemically, closely related with slight difference reflecting different ports of origin in South Asia (Wood 2012). During this time, there were two different trade circuits that southern Africa was linked to. One brought beads across the southern Indian Ocean to the Sofala coast while another brought trade goods like cloth from the North via Kilwa (Wood 2012).

Between the late 1st millennium and early 2nd millennium AD, ivory and gold appear to have been important trade goods, often bartered for beads, cowries and cloth. Writing around 915 AD, al Mas'udi describes large ivory tusks and gold being traded on the east coast that came from 'the land of Sofala' (Freeman-Grenville 1962: 14-16; Huffman 2009; Wood 2012; Chirikure 2014; Moffett & Chirikure 2016; Chirikure 2017). Other trade items described besides gold and ivory, include iron, hides and slaves. Foreign ceramics such as Chinese porcelain also formed apart of trade items exchanged and have been found at sites such as Mapungubwe and Great Zimbabwe (Huffman 2007a, Prinsloo & Colomban 2008; Prinsloo *et al*., 2011, Chirikure 2014, 2017, 2019) (Figure 3.2). Trading settlements on the Bazaruto Archipelago appear to have been the Sofala described by al Mas'udi; which in turn, based on geological evidence, would suggest that this gold most likely came from the Zimbabwe plateau (Sinclair 1982; Huffman 2009, 2010; Chirkure 2014; Moffett & Chirikure 2016). Concurrently,

between 600-900 AD, agro-pastoralist communities began settling in gold bearing regions of southern Zambezia (Chirikure 2014). Similarly, some have suggested that Zhizo migration into the Shashe-Limpopo Basin during this period was an attempt to take advantage of the ivory trade. (Huffman 2007b, 2010,2016; van der Walt 2012). This region was known for the large elephant herds that occupied the landscape and sites like K2 and Schroda have provided evidence of a thriving economy of ivory working (Voigt, 1983, Hanisch 1980, 1981, 2002; Huffman 2007a, 2010; Wood 2012; Chirikure 2014). Necessary to ivory trade was interaction and co-operation between communities at a regional level (Antonites and Ashley 2016). This is due to the migratory nature of elephants which cover huge distances and their sensitivity to over exploitation (Antonites 2012). It is of utmost importance to note that both long-distance trade and the development of socio-political complexity in southern Zambezia, could not have occurred without the long-established structures and administration that supported regional trade and exchange (Manyanga 2006; Wood 2012).

Figure 3.2: A Chinese jade teapot found at Great Zimbabwe. Adapted from Chirikure *et al*., (2017b)

Trans-Kalahari trade formed another important network that connected communities throughout southern Zambezia and the East Coast of Africa (Denbow 1983, 1999; Reid and Segobye 2000; Denbow *et al*., 2008; Denbow *et al*., 2015). During the late first millenium A.D. trade routes appear to have linked ports like Chibuene, on the east coast with sites like Nqoma on the fringes of the Okavango Delta (Denbow *et al*., 2008; Wood 2012; Denbow *et al*., 2015). The evidence for this connection is found in the presence of Chibuene series beads and cowry shells found at sites like Kaitshàa, Matlapaneng and Nqoma (Wood 2012; Denbow *et al*., 2015). Denbow *et al*., (2015) speculate, that based on the fact that Chibuene series beads are only found at two inland sites, namely Kaitshàa and Nqoma, early trade routes to the region may have crossed the Zimbabwean plateau bypassing the Shashe-Limpopo region completely. This route is further suggested to have begun in Chibuene, and continued towards the Makgadigadi pans via the Zimbabwean plateau. From there the route would have follwed the

Boteti river across the Kalahari Desert, finally reaching the Okavango Delta and sites like Nqoma (Denbow *et al*., 2015). With the rise of centres like Toutswe and Bosutswe, came additional nodes and routes within the region's networks. Sites like Toutswe and Bosutswe connected the Shashe-Limpopo region with the Okavango Delta (Denbow 1999; Huffman 2007a; Denbow *et al*., 2008; Denbow *et al*., 2015). Exports from this region included ivory, rhinoceros horn, gold, salt and hides which were traded for goods from the East Coast. Sites like Kaitshàa on the edge of Makgadigadi pans exploited local salt deposits for trade and may have been an active competitor to sites like Bostuswe (Denbow *et al*., 2015). In fact, the decline of different sites within these networks has been linked by Denbow (1999) and Denbow *et al*., (2015) to changes in trade routes. As mentioned earlier, Bostuswe was an important Trans-Kalahari trading center. Ceramics as well as swamp dwelling antelope such as sitatunga (*Tradelaphus spekei*) and lechwe (*Kobus lechwe*) found at this site, link it with the Okavango Delta. Furthermore, specularite found at site and other nearby sites, was sourced in the Tsodilo Hills. East coast goods such as glass beads, marine shells and chicken (*Gallus gallus domesticus*) remains have also been found at site, furthering this claim. Denbow (1999) speculates that around the 12th century A.D., trade shifted from Bostuswe to the Tati region. This may have been due to greater demand for salt, gold and copper.

Around the time when socio-political complexity began to increase in southern Zambezia; trade and working of various metals intensified (Miller 2002, 2003; Huffman 2007a; Bandama *et al*., 2013; Bandama 2013; Bandama *et al*., 2015). Between the late 1st millennium A.D. and early 2nd millennium A.D., tin, gold and bronze began to be worked and traded through regional networks. Tin from Southern Waterberg sites such as Rooiberg, was traded to centres such Mapungubwe, Great Zimbabwe and Bosutswe where some of it was combined with copper to make bronze (Denbow and Miller 2007; Denbow *et al*., 2008; Miller and Hall 2008; Molofsky 2009; Bandama *et al*., 2013; Bandama 2013). The earliest evidence of tin mining and exchange

likely dates to between 1000-1300 A.D. and has been associated with Eiland communities in the Southern Waterberg (Bandama *et al*., 2015). Gold was also widely traded with much of this gold originating from the Zimbabwe plateau (Huffman 2007a). Gold found at Mapungubwe is thought to have come from the Gwanda-West Nicholson gold belt in Zimbabwe (Huffman 2000) and Huffman (2009) argues that Mapungubwe's expansion North could have been an attempt to control the gold trade. The distribution of Mapungubwe sites in this area as well as gold mines that date to the Mapungubwe period like Geelong mine and Aboyne, are said to be evidence of this attempt (see Huffman 2009). Gold from this region would have been exchanged through local systems such as tribute or traded along local routes towards sites like Mapungubwe to the south (See Moffett & Chirikure 2016: 367). Some such as Van Waarden (2011) have further suggested that these gold trade routes could have facilitated the transfer of ideas allowing practises such as stone walled terracing to be introduced to sites like Mapela and Mapungubwe from the Tati region.

Along with the sudden expansion in the working of various metals, came the introduction of different economies and technologies such as weaving of cotton with ceramic spindle whorls (Antonites 2019) and the production of Garden Roller glass beads (Wood 2005). At K2, there developed an industry of melting trade beads into what has been called Garden Roller beads which were distributed through trade and exchange networks throughout southern Zambezia and beyond (Reid and Segobye, 2000; Wood 2005, 2011; Huffman 2007a). These glass beads can be found as far as 450 km away at Moritsane, 350 km away at Tshaitshe and at Bosutswe (Huffman 2007a). Garden Roller bead moulds have also been found at sites like Kaitshàa (Denbow *et al*., 2015) possibly suggesting that not only did this technology spread through regional networks but also that these beads may have been manufactured at other sites. The diversification of economies during this period were perhaps stimulated through the growth of

regional and long-distance networks. This in turn allowed for the transfer of ideas which stimulated innovation, invention and imitation.

Interaction and exchange during the 'Iron Age' could have also involved the exchange of women and cattle (M. Hall 1986; Loubser 1991; Huffman 1998, 2007a; Shenjere-Nyabezi 2016). Cattle may have been used to pay a bride price or *lobola* which in turn may have resulted in the exchange of cattle, women, ceramics and perhaps even practises and ideas (Loubser 1991; Schoeman 1997, 1998; Esteryhusen 2008). Using historical records, items such as hoes could also have been used to pay a bride price (Bandama 2013; Moffet and Chirikure 2016). Ceramics often provide hints of this form of interaction but may also be the product of trade (Loubser 1991; Antonities 2012). An example of this in the archaeology of southern Zambezia, is the presence of Toutswe ceramics at Mapungubwe and K2 (Denbow 1982; Reid and Segobye 2000; Huffman 2007a). K2 ceramics have also been found in the present-day Botswana associated with Toustwe sites (Denbow 1982; Reid and Segobye 2000; Huffman 2007a). Interestingly it would appear that in some cases, this interaction results in the transfer of ideas and practises with Toutswe ceramics taking on Leopard's Kopje ceramic characteristics (Huffman 2007a).

3.3. Conventional Approaches to Interaction

One of the most influential models for understanding interaction in Southern African archaeology is World Systems Theory (WST). Wallerstein (1974) is credited with the creation of this model, which has been widely adapted and adopted by archaeologists (Huffman 2007a; Wood 2005, 2012). This model divides space into geographically separate core and peripheries, with these areas following different socio-evolutionary trajectories. The application of this model in archaeology has drawn criticism from various scholars (see Stein 1999). Some of the criticisms of WST is that it often ignores human agency, lacks the explanatory power to explain

micro-scale interactions with cores and peripheries region often arbitrarily defined (Stein 1999; Knappett 2011; Antonites 2012).

This theory is often linked with the prestige good systems model (Friedman and Rowlands 1977; Huffman 2007a; Wood 2012). Influenced by the likes of Coquery-Vidrovitch (1969) and Ekholm (1972), the prestige good system is identified by expanding trade networks where production and exchange of trade goods is controlled by elite political centres or cores (Wood 2012). These elite political centres act also as redistribution centres for periphery regions (Wood 2012). Further, these centres become sites of craft specialisation with an increase in production and the assignment of status to particular objects (Huffman 2000, 2007a, 2016; Calabrese 2007). This model has been heavily critiqued in recent years with a number of serious limitations raised by Moffett and Chirikure (2016: 341). One of these limitations is that this model ignores cultural logics (Moffett and Chirikure 2016). Prestholdt (2004) demonstrates this concept in his ethnographic studies of societies in East Africa. What Prestholdt demonstrated is that not all foreign trade goods should be viewed as 'prestige' and that local tastes play a vital role in what items are consumed (see also Chirikure 2014, 2017).

Most notably, Southern African archaeology has been heavily influenced by structuralism with interpretations of interaction often filtered through this lens (Chirikure and Fredriksen 2015). This structuralist influence in Southern African archaeology perhaps comes from the reliance on anthropological theory rather than say, theory arising from disciplines such as geography (see for example Huffman 2001, 2007a; see also Knappett 2011). This trend is likely linked to global changes in archaeological thinking and the rise of Post-Processual theory (Trigger 2006; Knappett 2011). This structuralism can further be linked more specifically, to the French school of structuralism and the work of scholars such as Lévi-Strauss (Trigger 2006, Knappett 2011). The premise of this structuralist approach is that humans are governed by ingrained cultural structures, norms and values. These in turn are based on the conflict of dichotomies found in

nature and society (e.g. men/woman or social/material) (Trigger 2006). The major drawback of this thinking is that it favours generalizations instead of investigation of individual sites. (Chirikure and Fredriksen 2015). Moreover, it neglects both material and human agency while creating the impression that both the material and social exist in two distinct ontological realms (Dolwick 2009; Knappett 2011; Chirikure and Fredriksen 2015)

Within global archaeology, some notable models have arisen to try and better understand interaction and its consequences. Some notable examples are Schortman and Urban's (1987) Interregional Interaction Model and Renfrew and Cherry's (1986) and Renfrew's (1996) Peer-Polity Model. A number of other scholars have also attempted to better understand and model interaction with the likes of Stein (2002), Gamble (1998,1999) and Hodder (2012) presenting promising models that attempt to combine both top-down and bottom-up approaches. Despite this plethora of research, scholars still encounter difficulty transversing scales coherently (see Knappett 2011). As can also be seen, the dominant models and theory in Southern African archaeology, used for understanding interaction, often neglect both human and material agency within these processes. Furthermore, these models (except for perhaps Hodder's (2012) Entanglement) ignore how both the social and material come together and equally contribute to the formation of networks of interaction (Latour 2005; Dolwick 2009). Moreover, archaeologists at times, become too focused on institutions, inadvertently neglecting interaction between individuals which form the bases of institutions. Another shortcoming is that the relationship between institutions and material culture is often seen as a hierarchical relationship in which institutions become materialized within material culture (Knappett 2011, Fazioli 2015). There is therefore a need for new theoretical approaches that are able to address these concerns and limitations.

3.4. Actor-Network Theory

"Instead of reducing the world to a regime of two opposing ontological realms, culture nature, this approach claims that nearly everything happens between the two extremes, happens by way of mediation and translation, by heterogeneous networks linking all kinds of materials and entities. Reality is not to be found in essences, but in imbroglios and mixtures, the seamless and rhizome-fabrics of culture and nature that link humans and nonhumans in intimate relationships" (Olsen 2003: 98).

Actor-Network Theory's genesis can be traced back to the 1980s within the science and technology studies of Callon and Latour (1981), Law (1986), Callon (1986) and Latour (1988a, b). Throughout the years, Actor-Network Theory (ANT) has had many different names, namely, *the semiotics of materiality* (Law 2007), *the sociology of associations* (Latour 2005), *actant rhizome ontology* (Latour 1999b) and *the sociology of translations* (Callon 1986). As will be demonstrated in this section, this new methodology provides insights into interaction that conventional models are unable to do. This is particularly important for research into interaction in Southern Zambezia during the early second millinium A.D. where models like the ones described above require re-examnination (Moffett and Chirikure 2016; Chirikure and Fredriksen 2015).

Archaeologists such as Bjørnar Olsen, Michael Shanks, Timothy Webmoor and Christopher Witmore seeing the benefits of this theory, were among the first to adopt ANT and from this adoption arose what has been termed *symmetrical archaeology*. From this position, these researchers propose that the primary focus of archaeology must shift from people or objects to the relationships or networks from which things and people emerge (Harris and Cipolla 2017; 135).

Much debate has revolved around what constitutes society. However, it is conventionally agreed that society refers primarily to human association or interaction (Dolwick 2009). The world is therefore divided into the social consisting of the human and the natural-material world

consisting of things. Within this framework, objects are merely seen as symbolic representations of society and society itself, a product of meaningful human interaction (Dolwick 2009). Theorist like John Law, Bruno Latour and Michael Callon challenge this definition and define 'social' as a collection of associations and represented as actor-networks, comprised of materially heterogenous entities (Dolwick 2009). In this broader definition, society is a product of interaction between humans, objects, animals and plants with no hierarchy or external forces existing (Latour 2005; Dolwick 2009).

During the 1990s, there occurred an important shift from understanding social life through structural and systemic models towards models with more of an actor centred understanding of sociality (Whitridge 2004). This new way of thinking proposed that society itself, was comprised of, as well as the product of, variable and differentiated behaviours of individual agents (Whitridge 2004: 447). This contrasted with the established focus on individuals within collectives or categories such as class hierarchies within a society. This shift was also somewhat coupled with a shift from the idea of behaviour to practise (Whitridge 2004). As Whitridge (2004: 447) points out, behaviour implies actions that are the product of biology, society or psychology and are therefore always programmed and predictable. This contrasts with the term practise which implies that actions are contextually variable and are "emergent with respect to biographies of individuals and historical unfolding of a local social and cultural setting." Whitridge (2004: 447).

Moving on from this point, society can therefore be understood as a product of individuals' practical actions and interactions (Whitridge 2004). Furthermore, individuals are themselves, a product of their history and social context. This approach does recognise the existence of structures however, these structures are not external to individuals' thoughts and actions, but rather, these structures are formed through everyday practise (Whitridge 2004). Conventionally, practise is further viewed as a sort of 'dance of agency' (Pickering 1995;

Whitridge 2004: 448; Knappett and Malafouris 2008) in which individuals may be guided by cultural norms and conventions at one time, and at another they may be creative and ingenuitive.

Despite the name, Latour (2005) points out that ANT is not a theory so much as it is a methodological approach. ANT, therefore merely attempts to describe the various relations in a network rather then explain the *why* and *how*. The main objective of this approach is to create a relational ontology rather then the conventional ontological realms of nature and society, human and material (Witmore 2007). Further, ANT attempts to reconfigure the relationship between meaning and materiality (Yaneva 2013). It is perhaps best to understand this framework as a semiotics of materiality (Law 2007; Knappett and Malafouris 2008; Hodder 2012) or as Yaneva (2013), ANT should be understood as a new method of social inquiry. Some such as Latour (2005) have admitted that the network side of this approach is weak, preferring terminology such as rhizomic over networks to discribe the various relations within heterogenous interactions. Others, such as Carl Knappet (2011) have applied affliated networks theory to bolster this aspect of the method with insightful results. It is perhaps, at this point that one should define exactly what an actor and a network are. Essentially, an actor can be a thing (object, idea, animal) or a person which can form a node within a network (Knappett 2011). A network is comprised of multiple nodes (actors) connected through links. Moving on from this starting point, the three main concepts that are fundamental to ANT are translation, generalized symmetry and heterogenous networks (Latour 2005; Witmore 2007; Dolwick 2009; Hodder 2012).

Within Actor-Network, there is an acknowledgement that both the material/nature and society exist in a single ontological realm, comprised of heterogenous actor-networks comprising both material and human nodes or actors (Olsen 2003; Latour 2005; Whitemore 2007; Dolwick 2009; Knappett 2011). This aspect of ANT's framework draws heavily from Heideggerian

phenomenology (Dolwick 2009). Essentially, Heidegger (1927, 1973) understood that humans cannot be separated from the world in which they inhabit, expressed in the concept of 'being-in the-world' or Dasein (being there) (Hodder 2012). Human and thing, self and world exsist within a single entity – Dasein (Hodder 2012; p28). Therefore, humans are a product of their interactions with the world and are constantly being shaped by these interactions throughout their lifetime (Hodder 2012). Further, humans are not apart from the world but are a part of it. They are created and defined through practise deeply intertwined with things; with things and humans being unique by-products of particular historical contexts.

The starting point for Heideggerian phenomenology is not an object or human but rather the unique ways 'equipmental contexts emerge in reciprocal interdependence' (Hodder 2012: 28). Furthermore, individuals are born into a meaningful world instead of merely imparting meaning into it themselves (Hodder 2012). ANT however does not completely mirror Heidegger's (1927, 1973) phenomenology. Where Heideggerian phenomenology's view is somewhat anthropocentric, ANT provides allowances for a world outside of the human 'Dasein' (Dolwick 2009). Further, unlike Heideggerian phenomenology, ANT incorporates conflict (Dolwick 2009).

One of the major tenets of ANT is that it offers an alternative to the dualist paradigm found within sociology (Latour 2005; Witmore 2007; Dolwick 2009: 37). Latour (2005) points out that within this field of research there exists two distinct ontological realms (nature-material and social) however one is usually privileged over another. In order to avoid technological (material) or social determinism, every entity, human or non-human is treated equally, which eliminates the dichotomies of, social/natural, subject/object, local/global, micro/macro, agency/structure and individual/groups (Dolwick 2009: 36). Both human and non-human (thing) are therefore understood to be the product of relations or associations. Further, society is not a human property but the product of heterogenous networks of interaction (Dolwick

2009). A practise or object can therefore be thought of as the product of numerous interactions between actants or actors within a network (Whitridge 2004). Further, humans and non-humans exist in a world of hybrid heterogeneous networks through which the material and social are co-created (Latour 1993, 2005; Whitridge 2004; Shiga 2007; Knappett 2011; Hodder 2012).

This conclusion draws perhaps from both material culture and materiality studies as well as cognitive studies (Hodder 2012). Dating back to the likes of Hegel and Marx, the social and material; human and thing, were understood to some degree as co-constituted within relations (Hodder 2012).

Often the role of things in human society has been often overlooked resulting in perception that human society is bound together by humans acting in a bubble devoid of the material. The material world has often been viewed as passive and things as fillfulling the role of either symbols or tokens, nothing more (Dolwick 2009; Hodder 2012). Human society is therefore inadvertently conceived as pure 'naked' humans divorced of things (Whitridge 2004; Dolwick 2009), a concept Latour (1993) refers to as brain-in-a-vat. Things are mobilized as 'faceless minions' facilitating power and change through their deployment (Witmore 2007; 552). Furthermore, object-things are often perceived as merely the by-products of human intentionality and are secondary agents (Witmore 2007).

As Whitridge (2004:450) points out, the central premise of ANT is that human sociality is not merely interactions and relations between humans but rather an emergent property of networks of interaction between human and non-human entities. Following on from this, agency is therefore understood to be a product of hybrid heterogeneous networks of human and non-human interactions (Whitridge 2004). Agency in ANT therefore, is shared between different entities rather than a fixed characteristic of a single entity (Shiga 2007; Dolwick 2009). This concept of distributed agency is markedly different from traditional concepts in that there are

multiple human and non-human agents with agency. Furthermore, both human and non-human entities are recognised and are perceived as exercising the same level of agency (Whitridge 2004, Knappett and Malafouris 2008; Knappett 2011). This concept is best described as general symmetry and acknowledges that all actors within a network are equal, with variations between actors determined by their relations (Latour 2005; Witmore 2007; Dolwick 2009; Knappett 2011). This concept draws on ideas of material agency that recognise that things and more specifically objects posesess agency (Knappett and Malafouris 2008). The agency of non-human entities or things is perhaps captured partly by Gibson's (1986) concept of affordance. According to Gibson (1986), things or more specifically, objects, have potentialities that afford particular actions. When a new object is being created, there is often a negotiation between the human and the materials and tools used (Hodder 2012). Be it a potter working with clay (Gosselain 2000; Malafouris 2008; Fredricksen and Bandama 2016) or a weaver weaving material (Ingold 2000), there is a negotiation between the potter or weaver and their medium. The physical properties of the clay or material afford specific potentialities which the human actor must negotiate with in order to achieve their desired goal (Hodder 2012). Often, a human craftsman, might not be able to impose their preconceived design and must adapt accordingly.

Action in ANT, is understood as a product of relations between actors rather then originating from a single actor (Knappett and Malafouris 2008). This is perhaps best demonstrated by the example of the gun-man, a unique hybrid entity. A simple question is posed, do guns or people kill? (Latour 1999: 176-180; Knappett and Malafouris 2008; Harris and Cipolla 2017; 129). The problem with answering such questions, is that it assigns essences to each actor. Knappett and Malafouris (2008), further suggest that assigning these essences leads to antinomies which ultimately prevent modernist theories from fully capturing practise. Fundamentally, the responsibility for action lies neither with the gun nor the human but rather action is created within the socio-technical relations that form the hybrid agent known as a gunman (Latour

1999; 176-180; Knappett and Malafouris 2008; Harris and Cipolla 2017; 129). Fundamental to ANT is the idea that things are not defined by some inherent essence but rather they are defined by their relations within situated practise (Van Oyen 2015).

ANT further provides a framework for understanding the collective actions of agents. Collective actions can be understood through the concept of *translation* (Whitridge 2004; Shiga 2007). According to Callon (1986) there are four stages of translation, namely problematization, interessement, enrolment and mobilisation of actants or actors. Essentially, two actors align themselves to a new goal that may be similar to each actor's original goal. This is often done through a mediator which in most cases is a thing (Whitridge 2004; Shiga 2007). Latour (1999a) illustrates this through the example of a speed hump at a university. The university wants to prevent students from being knocked over by speeding drivers, who themselves have the goal of reaching work on time. In order to prevent this, the university creates a speed hump which enforces the goal of the university. Likewise, the driver's goal is somewhat adjusted, in that they do not want to damage their car so, they therefore slow down and become aligned with the university's goal (Latour 1999a as cited in Whitridge 2004:456). The human actors, the university in this case, has delegated a form of agency to the speed bump. The speed bump therefore demonstrates its agency in its ability to slow down drivers and make them comply. Furthermore, inscribed in the thing itself, is a program designed to mediate and align the goals of two groups of actors (Whitridge 2004). These programs, therefore, inscribed within things, are as much a part of society as human actors (Whitridge 2004).

From this, one can see that this approach offers a number of advantages over conventional approaches. Unlike conventional approaches, ANT accounts for material agency and its consequences on networks of interaction. Further, ANT does not assume a hierarchy in which society always proceeds material. Coupled with this ANT is inherently multiscaler. These

characteristics allow this study to examine how the community at Mtanye was shaped through multiscaler socio-material networks of interaction without privileging social institutions as the primary creators of this community.

Identity

The identification of group identity or ethnicity in material culture has been a point of major debate not only in world archaeology, but also in Southern African archaeology (Faust 2000; Huffman 1982, 2007a; M.Hall 1984, 1987; Lane 1994/5; Schoeman 1998; Pikirayi 2007; Esterhuysen 2008, Fazioli 2015; Pikirayi and Lindahl 2013). Some such as Giddens (1984) suggest that ethnicity is a product of both agency and structure while others such as Moffett (2016:72) citing Hammond-Tooke's work (2000) suggests that; "Ethnicity can be approached as something that is fluid and manipulated, related to the formation and negotiation of strategies of differentiation."

Two main approaches to answering this question can be identified in the literature, namely the culture-history approach and the interpretive approach (Fazioli 2015). From a culture-historical approach, tradition and 'ways of doing' are viewed as inherently stable, conservative and resistant to rapid change (Fazioli 2015). This however, has been called into question through ethnographic and sociological research, which has shown that group identity is fluid, complex and often multifaceted (Fazioli 2015: 21). The second approach is an interpretive approach drawing mainly on Anglo-American theory (Fazioli 2015). Group identity according to this approach is created, negotiated and destabilized through the manipulation of material culture (Fazioli 2015).

Comparing the two approaches, the culture-historical approach on the one hand, would suggest that group identity, is passively reflected in the material world, while a more interpretive approach would suggest that the material is actively created by people in order to manipulate

or shape group identity (Fazioli 2015). In other words, a culture historical approach would view material culture as a reflection of societal norms and values while an interpretive approach, suggests that material culture is purposely manipulated by individuals in order to create, destabilize or negotiate social categories (Fazioli 2015).

What these two perspectives do agree on is that the material is often a reflection of the social with the subject being active while the object remains passive (Fazioli 2015; Figure 3.3). As Fazioli (2015: 26) points out, this view has been called into question within the disciplines of sociology (Latour 1993, 2005), anthropology (Miller 2005; Ingold 2011) and archaeology (Knappett 2005, 2011; Hodder 2012). This wealth of new research suggests that objects do not just function as symbolic carriers of meaning, mediating human experiences, but are also active partiscipates in shaping human action and intention through their materiality (Fazioli 2015:26). Materiality is further defined as "the processes of human life that are irreducibly both social and material" Knappett (2011:7). Another quite insightful definition of materiality comes from Johnson (2010:264) who states that materiality is "the proposition that things create people as much as people create things."

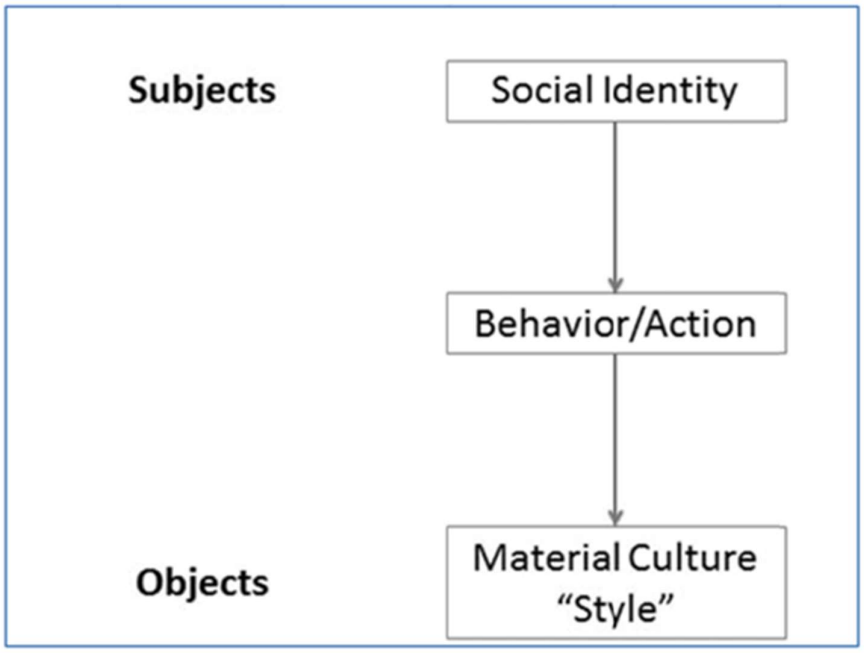

Figure 3.3: Traditional understanding of the relationship between social identity and material culture. Adapted from Fazioli (2015).

ANT offers a different perspective on group identity by firstly placing skilled practise at the nexus between materiality and sociality (Fazioli 2015). Further, objects and people come together in the creation and negotiation of identity. Identity is actively created by individual's engagement in shared practise (Wenger *et al*., 2002) and as Fazioli (2015) puts it, an individual's sense of belonging, of 'being-in-the-world', is in turn shaped by the daily enactment and renactment of specific sequences of motor habits and bodily gestures. From this, one can sumize that identity is formulated and negotiated within communities of practise (Lave and Wenger 1991; Wenger *et al*., 2002; Gosselain 2000; Knappett 2011). Moreover, a community of practise is understood to be a product of relations between members of the community, with these relations created through everyday practise (Lave and Wanger 1991; Gosselain 2000; Knappett 2011). Furthermore, socio-material networks of interaction both create and are created by these communities of practise.

Some have recently explored the notion of identity from the point of view of extended personhood (Harris and Cipolla 2017: 61-65). Harris and Cipolla (2017: 61-65) point out that as archaeologists, we often assume that our current definitions of identity extend back into the past or to non-Western societies. Marilyn Strathern's (1988) work in New Guinea demonstrates that in these societies, people do not see themselves as individual, bounded entities but rather see themselves as the product of relations with multiple heterogenous entities (Harris and Capolla (2017: 61-65). These relations are in turn formed through the exchange of bodily substances, objects or domesticated animals. Further still, the work of Joanna Brück (2006) suggests that in the Late to Middle Bronze Age in Britain, personhood was fluid and relational. She argues that there was a relational understanding of personhood shared among transformative entities such as people, pottery and metalworking (Harries and Capolla 2017; 65). Similar themes are echoed by Ashley *et al*., (2016) who point out that society is constituted and reconfigured within networks. Social identity is therefore a meshwork of associations and is dynamic rather then bounded discrete entities, localitites and people (Ashley *et al*., 2016).

Innovation

As Harris and Cipolla (2017: 135-136) suggest, by stating that the spread of agriculture was the product of new 'social' relations or that the downfall of the Roman Empire was caused by 'economic' factors; one overshadows the true causes of change. It is these causes that require explanation. Further, ANT posits that change does not arise due to forces that lie outside human and thing interactions but rather change results from the emergence of new entities formed within human-thing relations (Harris and Cipolla 2017: 135-136). One example of this is the emergence of metal production, in which people, ores, clay, fire, wood and charcoal came together to unvail a new entity - metal (Harris and Cipolla 2017: 135). This mirrors closely the recent work of Arthur (2009), who shows that new innovations are combinatorial, that is they

are often not the product of entirely new entities but rather the product of new combinations of exsisting entities.

Whiteridge (2004) demonstrates that innovative changes in whale hunting in Birnirk-Thule societies of the late first millinium, had a ripple effect throughout society and material culture. The introduction of new entities such as new harpoon points or whaling techniques, had a dispersive effect in Thule society, causing changes in how different entities relate to eachother. Societal structures as well as settlement pattern changed as a result of these changes in relations (Whitridge 2005). What Whitridge's (2005) study illustrates is that changes in whale hunting are neither the result of adaption to the environment nor cultural borrowing (Preucel 2012: 14). Rather the change in sea mammal hunting techniques should be understood as 'a social imbroglio that is simultaneously, social, technological, ecological and discursive.' (Preucel 2012: 14). Moreover, the work of Fazioli (2015) shows that changes in habitual, embodied practise and the social knowledge of communities of practise often results in material change as well.

Using the introduction of agriculture in Greece and the transition between the Mesolithic and Neolithic in Europe as an example, Witmore (2007) contrasts the conventional notion of innovation with the notion of innovation fostered by a symmetrical approach. The conventional understanding of innovation sees innovation as synonymous with discovery (Witmore 2007: 555). Further there is a presupposition that innovation involves a radical shift or revolutionary transition. This radical shift is said to change how humans relate or see their world (Witmore 2007: 555). As described above, a symetrical or ANT perspective suggests that humans are entangled in fluid heterogenous networks of interaction, or as Witmore (2007: 555) referes to them, 'networks of associations'. These flexable networks allow for change, which in hindsight appears radical (Witmore 2007: 555). The addition of new entities into a network or collective,

such as new ideas or new technologies, can provoke changes in other associated entities or in how entities within the network relate to one another (Witmore 2007: 555).

Witmore (2007: 555) moreover, argues that the transition between the Mesolithic and Neolithic in Europe did not solely revolve around the enrollment of new entities into a community or actor-network, but rather also involved the change of entities or in the relations between entities already enrolled in the network or community.

But why are certain innovations transmitted and adopted while others are not? Hodder (2012) points out that innovations often do not spread because of the reproductive advantage they confer, but rather because they fit into existing entanglements, or as Knappett (2013b) puts it, they must 'fit within exsisting technological practises and structures.'(Figure 3.4). Knappett (2013b:5) moreover, appears to address this issue using the adoption of the potter's wheel in the Aegean. This concept of 'nested fittingness' that Hodder (2012) developed, is multi-scaler, transcending scale through macro-scale coherences to micro-scale affordances (Knappett 2013b: 5). Further as Knappett (2013b, 2016) points out, the agency for change therefore is distributed across multiple scales and multiple actors (things and human). In order for an innovation to be transmitted at the macro-scale, there needs to be some kind of brokage between communities for disembodied knowledge to become embodied knowledge (Hodder 2012; Knappett 2013b). At the meso-scale, Knappett (2013b) suggests that for an innovation to spread, there needs to be the wider support of a community of practise. Further still, at the micro-scale, a specific technological innovation may need indepth learning or enskillment (Ingold 2000) for an innovation to take root (Knappett 2013b, 2016).

Figure 3.4: A Mesolithic villiage with a piano. The piano does not 'fit' within this socio-material context. Adapted from Hodder (2012).

Transmission

Ashely *et al*., (2016) points out that mobility is a key factor in transmission with the mobility of people, technologies and ideas playing a critical role in social change and renewal. Further, the movement of people was often prompted by push and pull factors, be it political, social or economic (Anthony 1997; Ashley *et al*., 2016). Fundamentally, however one should understand these social phenomina, as the product of a change in relations, be it with the environment, society or with the regional economy. As Ashley *et al*., (2016) point out, the agency of individuals is deployed by their ability to move to new localities due to a change in their relation to any of the above-mentioned entities. Caution should also be applied as to not

become overly reliant of mobility models which at times deny local agency (Lwanga-Lunyiigo 1976; Gramly 1978; Onyango-Abuje 1980).

As mentioned previously, ANT does not provide answers to the *why* and *how,* rather it is a methodological approach for understanding socio-material development and change. In order to attempt an answer of these questions, particularly around transmission, one must look elsewhere. One such approach that will be applied to understand the transmission of ideas, technologies and practices at Mtanye, is Knappett's (2011: 100-104) Situated Semiotics. This approach balances both the pragmatic and representational by situating semiotics within practise (Knappett 2011: 100-104). Further, by incorporating Piercean semiotics, one can consider the outcomes of human and non-human agencies rather than solely focusing on human intention (Harris and Cipolla 2017: 121). Knappett (2011: 100-104) combines Piercean Semiotics with Rowland's (1993) incorporating and inscribing practise. Pierce created a triadic sign system comprised of three types of signs, namely icon, index and symbol signs (Knappett 2011; Harris and Cipolla 2017: 116-119). Further, Pierce's triadic sign system composes of three facets, namely the Object, the Sign and the Interpretant (Harris and Cipolla 2017: 116-119)(Table 3.2).

Table 3.2: The three facets of Peirce's triadic sign system. Adapted from Harris and Cipolla (2017: 116).

Term	*Basic definition*
Sign	Something perceived by an interpreter
Object	Meaning of Sign; exists outside of interpreter
Interpretant	Meaning of Sign; connection between Sign and Object made by interpreter; potentially becomes a new Sign

As this thesis deals primarily with index and icon signs, these will be described in a little more detail. An indexinal sign is a sign where there is a direct relationship between the sign and referant exist; for example, a fire (referant) and smoke (sign) (Harris and Cipolla 2017: 116-

119; Knappett 2011: 100). An example of an icon sign is a tree (referant) and a photograph of the same tree (sign). As Knappett (2011) notes, iconic signs trancend the proximate more easily then indexinal signs. Piecrean semiotics have been applied to answer archaeological questions (see Preucel 2006, Watts 2008) such as Zoe Crossland's (2013) study on Tswana settlements in the nineteenth century. What studies like this, demonstrate is that the interpretation of signs is based partly on the material surroudings and cultural background of the observers; irrespective of the intentions of the sign creator or 'sender' (Harris and Cipolla 2017: 120-125).

Table 3.3: The three types of signs with Pierce's triadic sign system. Adapted from Harris and Cipolla (2017: 119).

Term	*Basic definition*
Icon	Sign and Object linked by physical resemblance to one another for an interpreter
Index	Sign and Object linked by physical connection in space-time for an interpreter
Symbol	Sign and Object arbitrarily linked through cultural convention for an interpreter

Following on from Rowland's (1993), Carl Knappet (2011: 100-104) describes an inscribing practise as one in which both memory and the transmission of culture is achieved through inscribing meaning onto an object. By contrast, within incorporating practise, ritual practise enables the embodiedment of practise with memory being internalized and incorporated by participants (Rowland 1993; Knappett 2011). Combining these two approaches, Knappett argues that incorporating practises creates signs with a static semiotic status, while inscribing practise creates signs that have a fluid semiotic status, such that indexinal signs can transform into iconic signs. Each practise and sign has a set of unique transmission qualities. For example, inscribing practises with iconic signs are conspicuous and easily imitated and assimilated (Knappet 2011). This allows for them to be culturally transmitted rapidly.

3.5. Summary

Interaction in Africa dates back millennia and is clearly a fundamental part of human society. Networks of interaction in Africa transversed the continent and were multiscalar linking individual households to a wider geopolitical region (Wood 2012, Moffett and Chirikure 2016, Chirikure 2017). The main form of interaction that has been explored by archaeologists is that of trade and exchange, with exchange incorporating tribute, gifts, marriage exchange, raiding and looting (Chirikure 2017). This girth of research into interaction also extends to studies in Southern Africa (Maggs 1980, 1992; Mazel 1986, 1989; Loubser 1991; Schoeman 1996; Huffman 2007a; Denbow *et al.,* 2008; Wood, 2012; Antonites 2012; Bandama 2013; Denbow *et al*., 2015; Moffett 2016; Chirikure 2017), which highlights networks of interaction that connected communities in the Kalahari with the communities on the East Africa Coast. Further these networks bonded communities, homesteads and households together.

Many of the models used to understand both interaction and socio-material development are contrained by structuralism or Eurocentric frameworks (Fredericksen and Chirikure 2016; Moffett and Chirikure 2016). Current models also often favour society as the source of agency and action. Even Darvill's (2008) definition of interaction, leaves no room for the interaction of things or socio-material interactions. Moreover, both top-down and bottom-up approaches used in conventional models, often have trouble transversing scale and are usually most inaccurate from their starting position (Knappett 2011). ANT offers an opportunity to address these issues by creating a relational ontology. ANT asserts that the world is not made up of dualisms, culture and nature, subject and object but rather networks, associations or relationships in which all entities, human and thing exist (Olsen 2003; Latour 2005; Witmore 2007). This theory is composed of three key principles, general symmetry, translation and heterogenous networks (Latour 2005; Dolwick 2009). General symmetry is the understanding

that both humans and thing actors have equal agency and are equal in their effects. Translation recognises that often things actor as mediators between actors and aid in aligning the goals of two actors. Lastly, ANT acknowledges that the socio-material is constituted and negotiated with heterogenous networks of interaction of things and humans. Change according to ANT therefore comes about through the enterance of a new entity into a network of interaction or through a change in relations between existing entities (Whiteridge 2005; Witmore 2007). Moreover, through the use of concepts such as Situated Semiotics (Knappett 2011 ; p100-104) and Nested Fittingness (Hodder 2012) our understanding of how innovations are transmitted through networks of interaction is enhanced. It is this methodological and theoretical framework that informed the data collection at Mtanye.

Chapter 4 : Site Survey, Settlement Layout and Excavations

4.1. Introduction

This chapter presents the findings of the site survey conducted at Mtanye and includes the methodology used during excavations. These excavations were carried out under a permit issued from the National Museums and Monuments of Zimbabwe. The aim of surveying and excavations was to provide insight into the networks of interaction that once existed at Mtanye during the Iron Age. This was achieved through the acquisition of artefacts from both surface collections and excavation. Physical features and settlement layout were also record. Further, radiocarbon dating was conducted on charcoal recovered from the excavations to provide a chronology for the occupation at site. These activities were essential for providing data to answer questions regarding the netowrks of interation that shaped the Iron Age community of Mtanye.

4.2. Site Survey and Spatial Layout

Intially a desktop study was conducted which closely scrutinized Huffman (1972a, 2008) reports on the excavations carried out at site. Using the map found it this report in combination with Google Earth Pro, the site of Mtanye was located (Figure 4.1). An intra-site survey was carried out in order to determine the spatial layout of the site as well as to identify and document relevant archaeological features. Inspection of Mtanye Hill resulted in the identification of numerous terraced platforms with uncoursed stone walling (Figure 4.2). Associated with most of these platforms, were the remains of houses and grain bins. These were identified by exposed *dhaka* and grain bin foundations (Figure 4.3). A substantial amount of material culture was exposed across the terraced platforms, including glass beads, figurines, slag, metal objects,

grindstones, diagnostic and undiagnostic ceramics. Two terraced cattle kraals were also identified by exposed deposits of dung and ash with fauna and ceramics protruding from these deposits. Most of the walling for these terraced kraals had eroded down the slope causing the exposure of deposit that had accumulated behind the walls. A by-product was the creation of small talus slope most notable at the base of Kraal 1. At the base of the hill, below Kraal 1; a large area of deposit (~ 40 m) was identified. This deposit could have been the result of the eroded terrace or a midden.

Figure 4.1: Google Earth image of the site of Mtanye including part of Makapakapa store dam and Mtanye river. Also note the agricultural fields near the site.

Material cultural remains were scattered across the flat areas around Mtanye Hill with two areas with concentrated archaeological scatter. These were originally identified by Huffman

1972, 2008) as Site B and Site A. Numerous ceramics were found scattered around Site B along with slag debris and *dhaka* from house remains. Ten stone features associated with *dhaka* were also distributed on the flat area between the kopjes. These stone features may be the remains of furnaces while others may be the remains of grain bins (Figure 4.3). The remains of walling were also noted on this flat area, particularly one stretch of walling which was around 7 meters long. Three large middens were also identified in a nearby agricultural field with ceramic sherds being widely scattered over this area. Dolly holes were also found throughout the site, some of which had been identified by Huffman (1972a, 2008; Figure 4.3)

Figure 4.2: Map of the site of Mtanye showing archaeological and geographic features. Note the extensive stone walling as well as the hilltop occupation on Mtanye Hill.

Figure **4.3**: **Examples of grain bin foundations, stone features and dolly holes found at Mtanye. A: grain bin found**ation on Terrace 1, B: stone feature between kopjes and C: dolly hole. Adapted from Scholfield (2017).

4.3. Excavation Procedures and Stratigraphy

4.3.1. Test pit excavations

Terrace 1 Test Pit (S 21°22'59.1" E29°15'12.1")

During the site survey, a large terrace was found on the north-western end of Mtanye Hill. This terrace not only contained the remains of hut floors and grain bin foundation but also had a rich scatter of artefacts. On this basis a 1 x 1 meter square was laid out next to the foundations of a grain bin that was located in the centre of the terrace. This test pit was excavated in 10cm spits with four stratigraphic layers being observed. Three of these layers were comprised of a fine gravel-like soil while the final layer was comprised predominately of the granite bedrock (Figure 4.4). Ceramic density was low when compared to those of other test pits with very few decorated sherds. Glass beads where also found in this test pit while faunal remains increased between 30 to 40 cm. A hut floor was uncovered around 40cm and lay just above the granite bed rock (Figure 4.5).

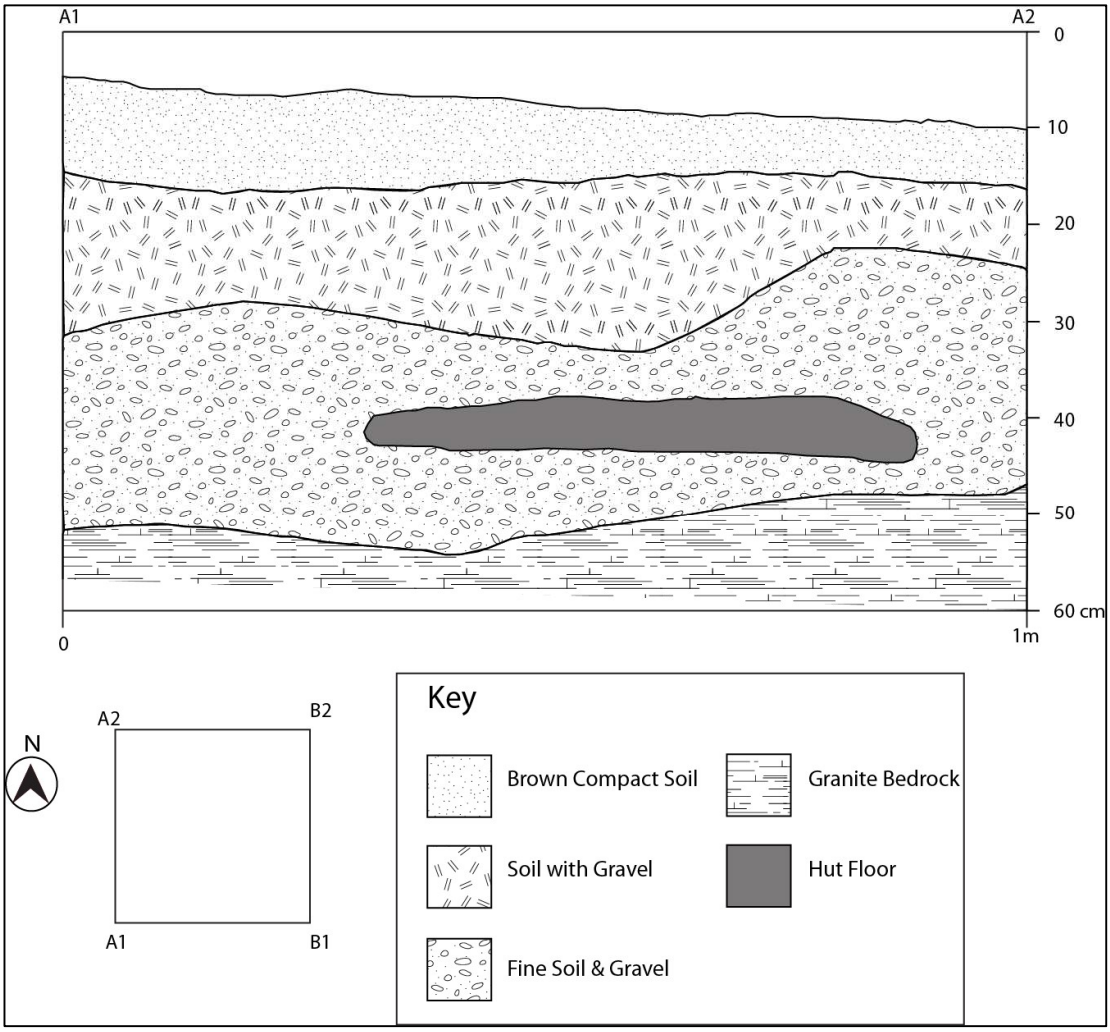

Figure 4.4: The stratigraphy of Mtanye Hill Terrace 1 test pit. Adapted from Scholfield (2017).

Figure 4.5: Mtanye Hill Terrace 1 test pit. Note the hut floor visible in the test pit wall.

Kraal 1 Test Pit (S 21°23'00.4" E29°15'12.1")

During the site survey, two cattle kraals were identified on Mtanye Hill. Due to the collapse of the stone walled terracing; the dung and ash deposit behind the walls had begun to erode exposing artefacts. It was therefore decided to excavate one of these deposits and a 1x2 m test pit was excavated in the Kraal 1 terrace. This test pit was excavated according to the visible horizons with excavations stopped at around 100cm due to the deposit becoming sterile (Figure 4.6). The first horizon or stratigraphic layer was predominately khaki/grey soil with large deposits of dung (Figure 4.7). Charcoal increased towards the bottom of this layer with the next layer being a white to light grey ashy soil containing pockets of charcoal. Between 70-100cm, large stones were uncovered, and it was determined that these were in fact the partial remains of terrace walling that once enclosed this platform (Figure 4.7). The next stratigraphic layer was a compacted, grey ashy soil with finds decreasing below this layer. It appears that there

were two distinct occupations on this platform. Namely, a cattle kraal represented in the deposit to about 50cm and the second occupation, likely a midden, seen between 50-110cm. The number of ceramics recoverd increased between levels 2 and 4.

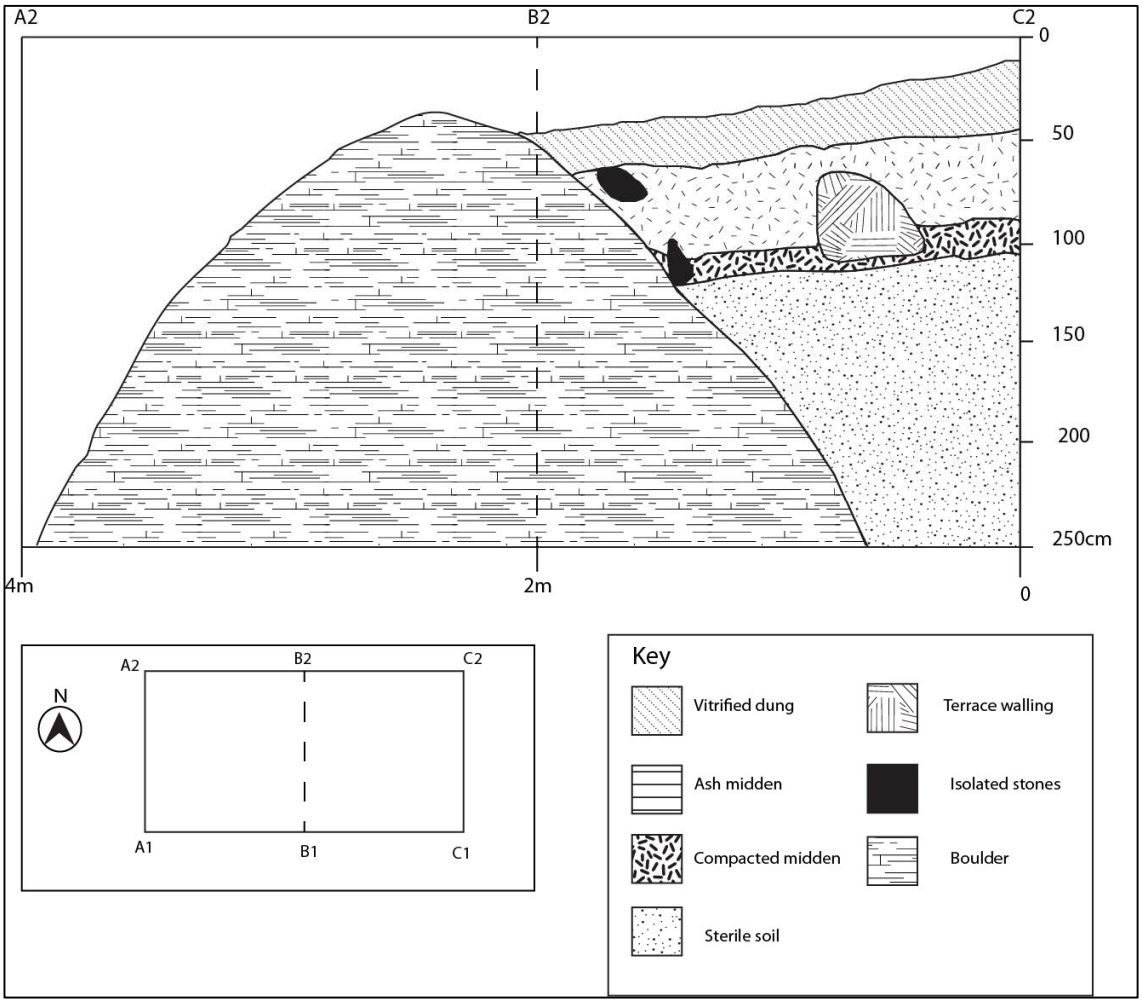

Figure 4.6: The stratigraphy of Mtanye Hill Kraal 1 test pit. Adapted from Scholfield (2017).

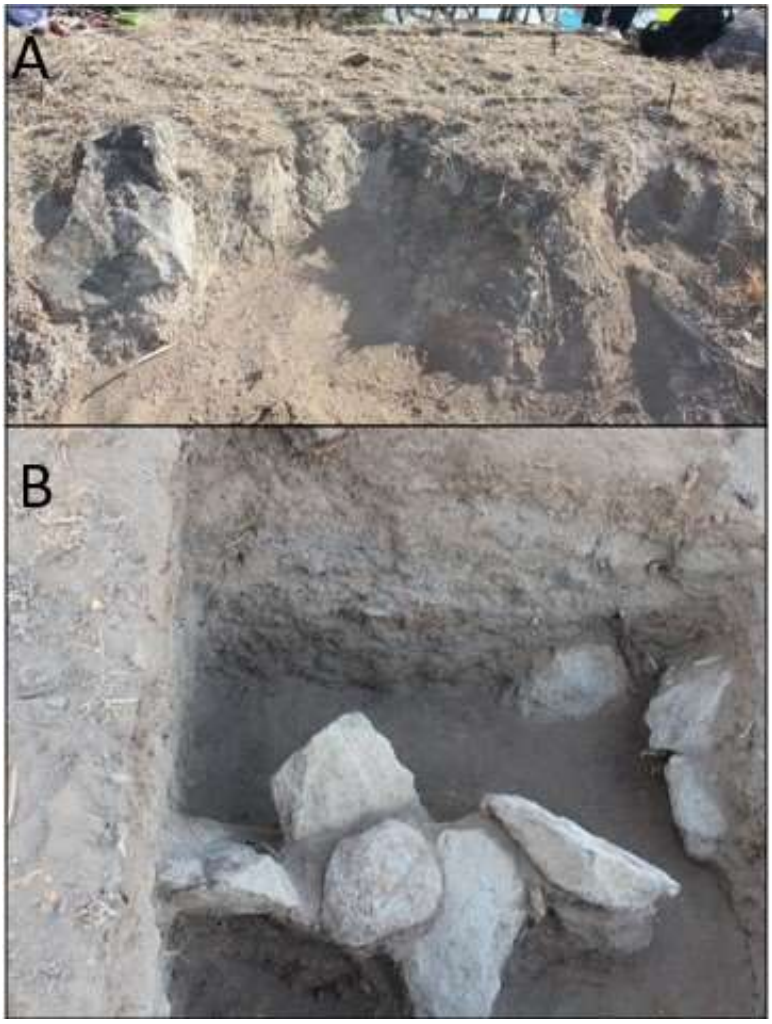

Figure 4.7: A: Exposed dung and ash from Kraal 1. The erosion of the terrace walling led to much the deposit in the area being exposed. B: The remains of terrace walling found in the Kraal 1 test pit.

Site B Test Pit (S 21°22'59.8" E29°15'10.8")

The test pit at the Site B location was decided in order to extend the 1972 excavation by Huffman and the Rhodesian Schools Exploration Society. Previous excavated squares appeared to be present and were identified by square depressions in the deposit. It was decided that this test pit would extend Trench I from the 1972 excavations in order to test the

observations of Huffman (1972a,2008)(Figure 4.8). This test pit was a 1x1 m square that was excavated in 10 cm spits (Figure 4.9). The upper stratigraphic layer of the test pit appeared to be composed of an ashy, light grey soil becoming a darker grey in the next layer. The third layer was ashy as well but contained vitrified dung deposits. The last layer excavated was made up of brown compact soil with pockets of ash deposits. These deposits contain large pot sherds and it appears that below 110cm the deposit became more sterile. Two occupations appear to have created this deposit with the first being a midden and the second a cattle kraal. The midden was identified in the deposit between the surface and around 50-60cm while the cattle kraal was identified between 50 - 110cm. The basal level (level 11) contained sporadic ash and ceramic pockets.

Figure 4.8: Dr. Foreman Bandama excavating the Site B test pit. Note the 1972 excavation square.

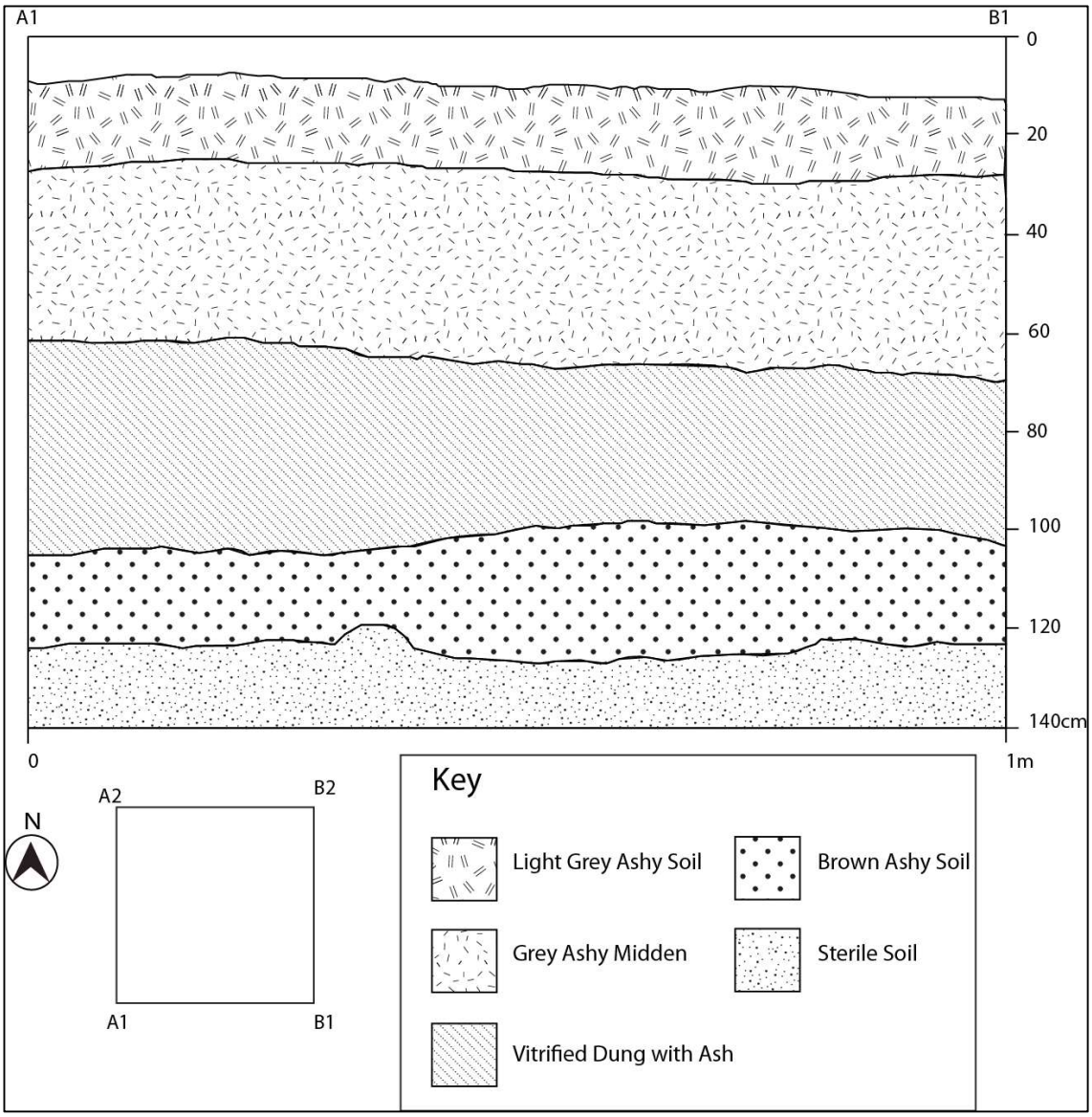

Figure 4.9: The stratigraphy of the Site B test pit. Adapted from Scholfield (2017).

Western Pot Test Pit (S 21°22'59.6" E29°15'10.0")

During the intra-site survey, a large beaker was found protruding from the surface (Figure 4.10). This beaker was located a short distance westward from the main Site B midden, near a rocky outcrop. The aim of this test pit was to recover this beaker and any associated material.

A 1x1 meter test pit was excavated with two stratigraphic layers being identified (Figure 4.11). The upper layer was a brown to grey soil while the layer below was fine compact gravel-like soil. Once the beaker was safely removed and the bottom of the test pit level off, the excavations stopped. This was due to the main aim of the test pit being achieved.

Figure 4.10: Western Pot test pit with a large beaker protruding from the surface.

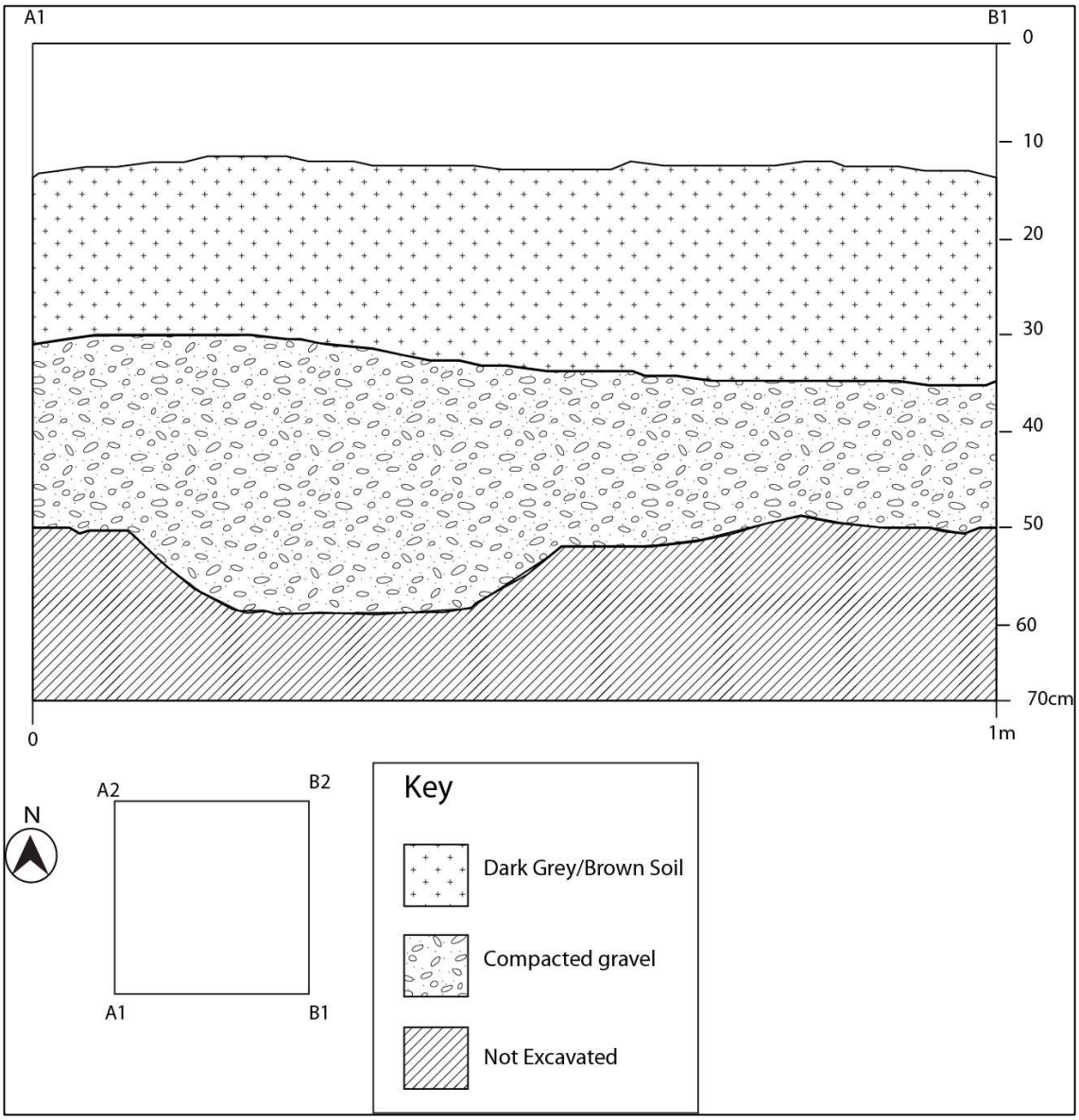

Figure 4.11: The stratigraphy of the Western Pot test pit. Adapted from Scholfield (2017)

4.4. Radiocarbon dates

Charcoal from Mtanye was dated in order to get an absolute date for the various occupations at site. Dates from the literature were also recalibrated in order to verify if these dates were accurate. Some dates, such as those recovered from the rock shelter are unpublished and in order to gain a better understanding of how this shelter fits into the chronology of the rest of the site, a Bayesian model was created. All dates were calibrated according to the southern

hemisphere curve (SHCall3) (Hogg *et al*., 2013), with the aid of OxCal version 4.2.3 software (Bronk Ramsey 1994, 1995, 2017). Bayesian models were also created with the help of this software (Bronk Ramsey 2009). Charcoal samples were collected from all four test pits. These were collected in situ for the stratigraphic level that contained charcoal. Samples from level 4 of the Terrace 1 test pit, level 2 and 5 of the Kraal 1 test pit and level 11 of the Site B test pit, were sent to BETA ANAYTIC for radiocarbon dating. The sample from the Terrace 1 test pit was chosen as it was associated with a hut floor found in that level. The samples from Kraal 1 were chosen to provide a date range for the deposit as well as a date for the walling found in this test pit. This is particularly helpful as the ceramic and glass bead assemblages were small making it difficult for accurate relative dates. The last sample from Site B was chosen to provide a starting date for the Site B deposit as Huffman (2008) provided a date already for the later Mapungubwe occupation.

As mentioned previously, a single date (Pta-944) was acquired from the charcoal samples extracted from the 1972 excavation (See Huffman 2008:205). This sample came from what has been identified as a Mapungubwe occupation (Huffman's Occupation A) (Huffman 2008, 205-207) and based the recalibrated dates, it would appear that this occupation dated to between 1270 and 1390 cal A.D. (Table 4.1). The date range for bottom level of this deposit is 900-1129 cal A.D (Beta-531758; Table 4.1). This level is associated with a kraal occupation (Huffman's Occupation B) described above. Using this date in association with Huffman (2008) date for the Mapungubwe occupation, this deposit appears to have been formed between 900 and 1390 cal A.D.

The sample (Beta – 531756) from the Terrace 1 test pit provides a date range of 1220 – 1290 cal A.D. for the earliest occupation on the Mtanye Hill (Table 4.1; see also Appendix B). This date is associated with the hut floor found in the Terrace 1 test pit, which lay on top of the bedrock (Figure 4.5)

The results for the dating of the Kraal 1 deposit was more complex (Appendix B). The event in question likely occurred over a short period of time causing the radiocarbon dates to be tightly clustered (V Hare pers comm 2019). In order to understand the sequence in this test pit, a Bayesian model was created (Appendix B). What this model demonstrates is that the entire deposit was created between between 1225 and 1290 cal A.D (Table 4.1). The sample from level 2 (Beta- 531756) was dated to between 1230 – 1290 cal A.D. while the sample from level 5 was dated to between 1225- 1280 cal A.D. This last date also provides a date for the construction of the terracing in this square as this sample was associated with foundations of this terrace.

As mentioned previously three charcoal samples collected from Mtanye rock shelter were dated. These dates were, however, unpublished (Vogel *et al*., 1986). The sample (Pta-967) from 'level B' was associated with Later Stone Age (LSA) lithics and Early Iron Age ceramics (Vogel *et al*., 1986). Once modelled and calibrated, this sample appears to date from between 1440 to 1615 cal A.D (Table 4.1; Appendix B). The charcoal sample (Pta-969) from the top of 'level C' was associated with a 'Matopan' lithic assemblage and Bambata pottery while sample (Pta-968) from the bottom of 'level C' was also associated with 'potsherds' and Matopan lithic assemblage (Vogel *et al*., 1986). The modelled and calibrated dates for these samples are 1420 to 1490 cal A.D. and 1390 to 1450 cal A.D. respectfully. The results of this model therefore date the sequence to between 1390 and 1615 cal A.D. There appears to be a disconnect between the dates and the material, as the material should be a lot older than the dates provided.

PROVENIENCE	LAB ID	UNCALIBRATED DATE BP	CALIBRATED DATE CAL A.D.	CERAMIC FACIES	REFERENCE
SITE B - OCCUPATION A	Pta-944	720 ± 40	1270 -1390	Mapungubwe	Huffman (2008)
SITE B -LEVEL 11	Beta-531758	1080 ± 30	900-1129	K2	Scholfield (2019)
KRAAL 1 LEVEL 2	Beta- 531756	830 ± 30	1230 – 1290	TK2/Mapungubwe	Scholfield (2019)
KRAAL 1 LEVEL 5	Beta- 531757	760 ± 30	1225- 1280	TK2/Mapungubwe	Scholfield (2019)
TERRACE 1 LEVEL 4	Beta – 531755	800 ± 30	1220 – 1290	Mapungubwe	Scholfield (2019)
MRS LEVEL B	Pta-967	410 ± 45	1440 - 1615	EIA ceramics	Walker (1972); Vogel *et al*., (1986)
MRS LEVEL C TOP	Pta-969	480 ± 40	1420 - 1490	Bambata	Walker (1972); Vogel *et al*., (1986)
MRS LEVEL C BOTTOM	Pta-968	560 ± 40	1390 - 1450	unidentified	Walker (1972); Vogel *et al*., (1986)

4.5. Stone Walling at Mtanye

During the initial intra-site survey of Mtanye in 2017, it was observed that Mtanye Hill was heavily terraced. Scattered across the hill were numerous (~29) stone walls (or their ruinous remains) in various states (Figure 4.12 & 4.13). These walls had clearly been used to create terraced platforms which could allow for more living space. This is significant because walling had not been mentioned in previous research at the site (see Huffman 1972, 2008).

The terraced walling found at Mtanye appears to be made of roughly placed uncoursed stone of various sizes, placed on top of each other in an irregular manner. Huffman (2007a: 46-49) has labelled this style **Leopard Kopje (LK)** terracing. However as some have pointed out (S Chirikure pers comm 2019; Van Waarden 2011) this type of terracing has the same function as later Khami terracing.

At Mtanye, there also appears to be small freestanding walls of roughly placed stone. This walling appears to be akin somewhat to R-style walling with uncoursed stones of different sizes placed irregularly on top of each other. The terreacing walling also appears to be linked with the Leopard Kopje community at the site, as the base of walling found in the Kraal 1 test pit was associated with Leopard Kopje ceramics. As previously mentioned, the walling found at Mtanye creates platforms to increase living space. This type of walling has been found at some Zhizo and Leopard Kopje sites dating from the early second millennium settlements in southern Zambezia. Site such Taba Zika Mambo (Robinson 1965), Mapela (Chirikure *et al*., 2014; House 2016, Mapungubwe (Meyer 1980) and Mananzve (Nyamushosho 2016) all share this type of walling. Some of the best examples of this style walling can be seen at later sites like Khami, which differs significantly in both structure and ideology from the free-standing walls found at later Zimbabwe culture sites like Great Zimbabwe (Van Waarden 2011; Chirikure *et al*., 2018a).

Figure 4.12: Remains of rough freestanding walling (Top) and collapsed Leopard's Kopje terracing (Bottom) at Mtanye.

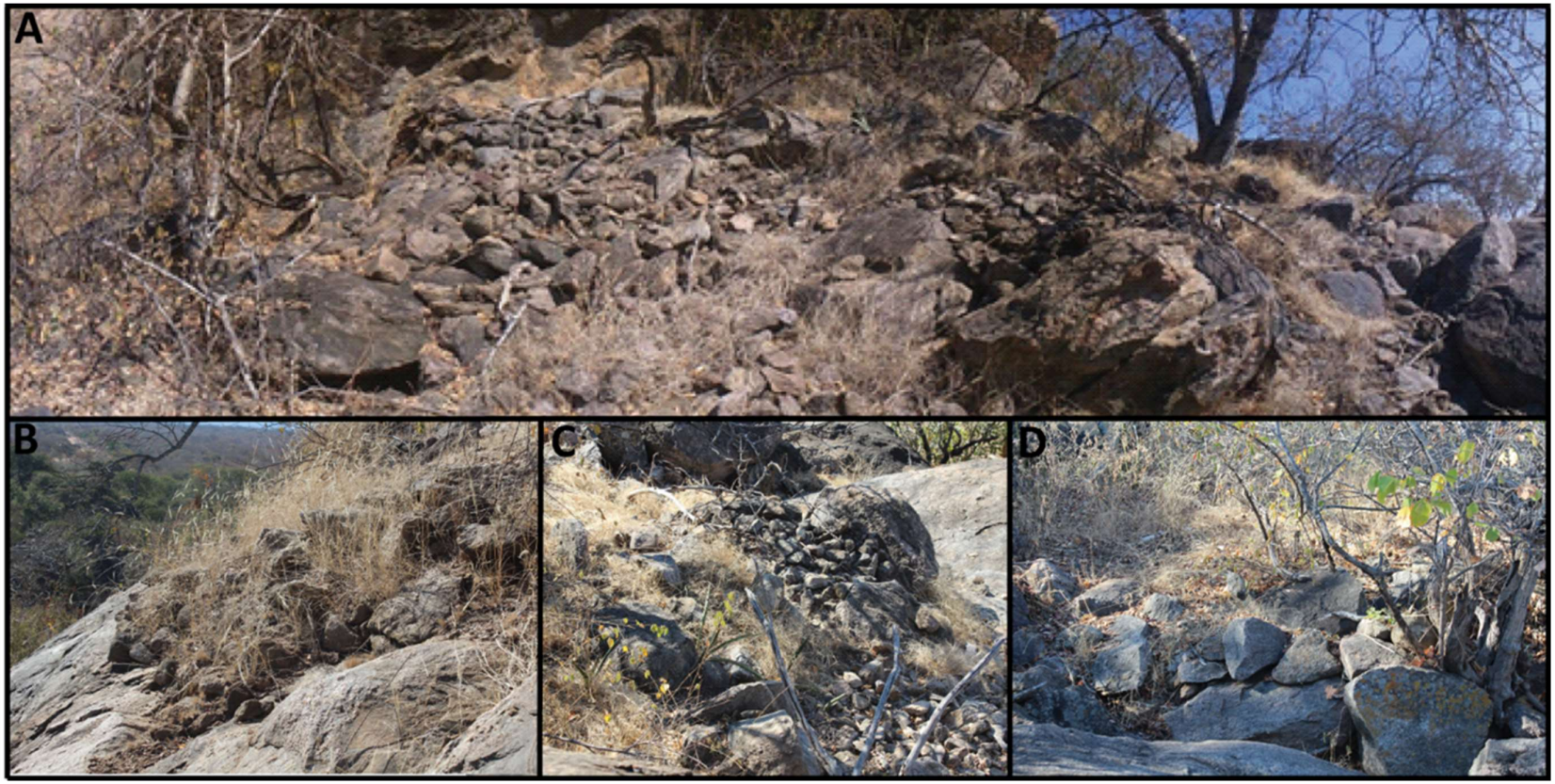

Figure 4.13: Leopard's Kopje stone walled terracing located on Mtanye Hill. A: Terracing from Terrace 1, B: terracing from Terrace 2, C & D: terracing from southern end of Mtanye Hill. Adapted from Scholfield (2017:35).

4.6 Finds

Both surface collection and excavation yielded a diverse array of objects including ceramics, glass and shell beads, faunal and plant remains, slag, clay figurines, crucibles and an iron arrowhead (Figure 4.14). Ceramics and faunal remains appear to have been most concentrated in the Kraal 1 test pit with only a small number of artefacts recovered from the Terrace 1 test pit

Figure 4.14: Notable finds from Mtanye, namely a large beaker uncovered during excavations of the Western Pot test pit and an iron arrowhead found on the surface of Mtanye Hill on Terrace 1.

4.7. Discussion

Evidence emerges from the site survey, excavations and chronology, that hint to the community's involvement in different networks of interaction. Furthermore, these results of these activities shed light on the history of occupation at the site.

Like Huffman (2008), two occupations were identified in the Site B test pit. The midden occupation found during this study likely corresponds with Huffman's (2008) Occupation A. This occupation was identified as a Mapungubwe occupation by Huffman (2008). However this identification will be further scrutinised in the subsequent chapters. Huffman's (2008), recalibrated dates from this occupation, suggest a possible Mapungubwe occupation that extends beyond the conventional time frame for the Mapungubwe period. What this suggests, is that unlike in the SLCA, the Mapungubwe period at Mtanye, may have continued up until 1390 cal A.D. These findings coincide with those found at sites like Mapela and Mananzve (House 2016; Nyamushosho 2017).

The cattle kraal found in the Site B test pit corresponds to Huffman's (2008) Occupation B, with Huffman also finding a cattle kraal from this occupation. The dates for the start of this occupation are quite interesting, suggesting an occupation as early as the late first millinium A.D. A small number of diagnostic ceramics were recovered from this layer with their analysis in the next chapter providing implications for not only Mtanye's early occupation but also providing evidence for previously unexplored networks of interaction.

The hilltop occupation at Mtanye appears to have occurred at a later date with the earliest occupation on the hill, dated to between 1220-1290 cal A.D. The earliest date is particularly interesting as it coincides with the first occupations on Mapungubwe Hill (Huffman 2007a). The terraced cattle kraal on Mtanye hill also appears to date from between 1225 and 1290 cal

A.D. From this, one can note that the occupation of Mtanye extended from 900 – 1390 A.D. This has a number of implications. In particular, this may infact show that Mtanye was not only a contemporary of other Leopard's Kopje ceramic producing communities, but also a contemporary of both Zhizo and Zimbabwe ceramic producing communities. This further, opens the possibility that the community of Mtanye not only interacted with Leopard's Kopje communities but also Zhizo and Zimbabwe communities at different stages of the site's occupation.

The early date for Mtanye suggests that the community likely shared the landscape with Zhizo ceramic producing communities. This point is supported by the recalibration of Huffman's (2008) dates for the Zhizo site of Simamwe (Figure 4.15). Simamwe is a Zhizo site located roughly 19km south east of Mtanye and from the recalibrated dates, it would appear that this site was occupied between 780-1150 A.D. These results further support the work of Calabrese (2000a, 2005) and Chirikure *et al*., (2012, 2013b), who suggest based on their data that Zhizo and Leopard's Kopje communities interacted and shared the landscape for much of the early second millinium A.D. The fact that these two communities were likely contemporary is fascinating and opens new avenues of research.

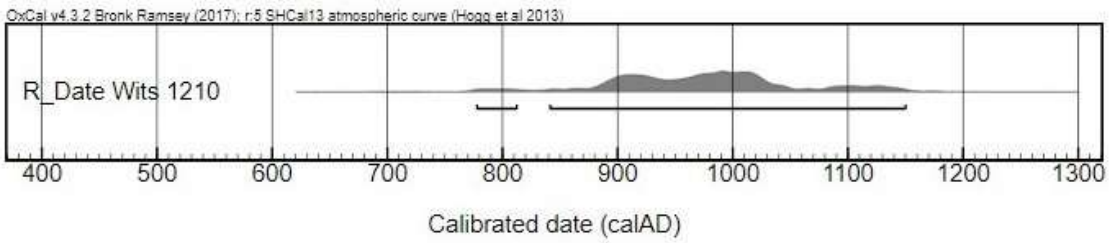

Figure 4.15: Recalibrated dates for the Zhizo site of Simamwe (Wits 1210) located 19 km from Mtanye. Sample originally collected by Huffman (1972, 2008; 201).

The dates from Mtanye also demonstrate that this site was a contemporary of other Southern Leopard's Kopje sites like K2, Mapungubwe, Mapela, Mananze, and Malumba, to name a few

(Manyanga *et al*., 2000; Huffman 2007a, Chirikure *et al*., 2014; House 2016; Nyamushsho 2017). Further afield, Mtanye was also a comtemporary of Northern Leopard's Kopje sites like Tabazikamambo, Woolandale and Leopard's Kopje as well as the terraced sites of Selolwe and Tholo (see van Waarden 2011: 75).

The later date for Mtanye's occupation also suggests that this community was a contemporary of those at Jahunda (1220-1430 cal A.D.) and Chumungwa (Bandama *et al*., 2018; Nyamushosho pers. comms 2019). The site of Jahunda is located roughly 50 km north west of Mtanye near the modern town of Gwanda. This site has similar architecture to Great Zimbabwe, having both Q-style freestanding walling and a conical tower. The site of Chumungwa also has walling like Great Zimbabwe as well as Zimbabwe ceramics (Nyamushosho pers. comms 2019).

Considering the number of hut floors identified during site surveys and using the methodology laid down by Chirikure *et al*., (2017), the population of Mtanye may have been somewhere between 56 to 98 individuals. This assumes however that all the hut floors are contemporary and further, these hut floors have not yet been linked with either the Mapungubwe or TK2 occupation. This method also does not consider polygamous families. Nevertheless, Mtanye was a small community, significantly smaller than those at Mapela and Mapungubwe. Further, Mtanye does not appear to conform to the standard settlement layout of the CCP (Figure 4.3) (see also Huffman 1974, 121), which is a common settlement layout according to Huffman (2007a, 2009, 2016) for commoner settlements.

The research at Mtanye has uncovered a settlement with not only occupation on flat land but also hilltop occupation coupled with stone walled terracing (see also Scholfield 2017). Various features have been identified at the site including grain bin foundations, terraced kraals and dolly holes. This hints at different activities that were conducted by the community at Mtanye.

The hilltop occupation suggests that the community were resourceful, able to exploit the landscape for their benefit while the stone walling may hint at the community's connection to a wider tradition of stone walling among Leopard's Kopje communities (Figure 4.16).

In conventional literature, hilltop occupation associated with rain making hills, is often argued to be indicative of social stratification. Further according to Huffman (2007a,b, 2009, 2010, 2015a, b) for hilltop occupation to represent social stratification, the settlement must conform to his Zimbabwe Pattern (ZP). At sites like Mapungubwe, Great Zimbabwe, Khami, and Bosutswe, hilltop occupation is often thought of as the materialization of class distinction (Huffman 2000, 2007a, b, 2016; Figure 4.16). At commoner sites like Taukome however, hilltop occupation is argued to be primarily for defence (Huffman 2015a). The hilltop occupation at Mtanye, likely does not represent the materialization of class distinction, judging by the size of the community and the hill itself. This occupation further does not appear to serve a primarily defensive function (Scholfield 2017). Hilltop occupation coupled with terraced kraals does have some significant benefits, affording protection from predators such as lions as well as protection from biting insects like mosquitos and tsetse fly (Huffman 1974, 129; Van Waarden 2011). Furthermore, hilltop occupation would provide the occupants view of the landscape. Another consideration, is that hilltop occupation associated with terraced walling, represents a widespread practise that may have crosscut ethno-linguistic boundaries. This last point is supported by the likes of Robinson (1965), Chirikure *et al*., (2013a) and Van Waarden (1998, 2011, 2012) who argue that hill occupation associated with terraced walling, can be found at many Zhizo and Leopard's Kopje sites. Huffman (1974: 129) points out, that some Early Iron Age communities occupied the same hill as later Leopard's Kopje communities (e.g. Taba Zikamambo). Moreover, he concludes that hill occupation is likely not a reflection of ethno-linguistic boundaries but rather represents communities' localised adaptive strategies. Drawing on ANT, this could further be understood as a dynamic

relationship between communities and the landscape in which multiple actors, such as the raw material and the hill, itself are influencial actors.

Figure 4.16: A hut terrace on Mapungubwe Hill like those found at Mtanye. Adapted from Huffman (2007a, 51).

As mentioned in Chapter 2, prestige stone walling and hill occupation are often conceived as originating within the SLCA, with Mapungubwe being the progenitor of these new cultural practise (Huffman 2000; 2007a; 2016). However, as Chirikure *et al*., (2018a) point out, the concept of prestige walling does not form part of Shona cultural logics, with there being no distinction between prestige or non-prestige walling. Moreover, within the historical record, such as at Mutapa Nyatsimba Mutota's capital (Pwiti 1996), commoners sometimes lived on the hill while the king lived on the flat ground below the hill (Chirikure *et al*., 2016). Therefore, hilltop occupation and stone walling at sites like Mapungubwe may represent the continuation of a long-established practise within not only Leopard's Kopje communities but also Gumanye -Zimbabwe communties (Robinson 1965; Chirikure *et al*., 2016; House 2016, Waarden 1998,

2011, 2012; see also Huffman 1974: 129) (Figure 4.17 for historical example). Further, this practise was widely distributed across south-western Zambezia during the earlier second millennium A.D., evident at sites like Mapela, Mtanye and Mananzve (House 2016; Nyamushosho 2016; Scholfield 2017). As argued, previously (Scholfield 2017), the stone walling at Mtanye likely represents the collection of transmitted knowledge combined with local innovation and adaption. Further, as the walling at Mtanye reinforces, stone wall terracing might have been a wide spread practise at commoner and elite sites with variation in walling being a product of local contexts such as the shape of the hill, type of raw material used, and the human actors involved.

Figure 4.17: Shona villiage located near Great Zimbabwe (circa 1894). Note the hilltop occupation, stone walling, along with grain bins located next to the houses. Adapted from Du Toit (1987).

The dates recovered from the rock shelter are quite fascinating as they provide a date range that stretches from the late 14th century A.D. up until the early 17th century A.D. Further, the starting date for the rock shelter coincides with the terminal calibrated date for Mapungubwe

occupation mentioned above. The charcoal that was dated in the rock shelter was associated with LSA material as well as Early Iron Age ceramics. The charcoal likely comes from a later event with some form of mixing occurring within the deposit (S. Hall 2018, pers. comm). These dates are however intriguing as they may hint at an extended occupation at Mtanye. In fact, Mtanye is still inhabited by a thriving community, which poses the question, was Mtanye ever abandoned? Or can one find evidence for occupation at the site extending from the modern day right back into the EIA and LSA? These questions do not suggest that the people in the past are the exact same people as today, however it does demonstrate that people have been drawn to this area for centuries. This lends credence to research (Nyamushosho 2016; Nyamushosho *et al*., 2018) that suggest that marginal drylands were not inhospitable barren wastelands but regions of adaption and resilience.

Understanding how the rock shelter fits into the occupation history of Mtanye also provides an interesting avenue of inquiry. As mentioned above, the radiocarbon dating of the deposit suggest possible mixing. Considering the material culture found in this deposit, it is possible that some of the material culture dates from different periods of activity. Some of these activities involve important interactions between community members and are vital to cohesion in the community (Aschwaden 1982 Huffman 2007a; Murimbika 2006; Chirikure *et al*., 2017a). One may be tempted to suggest that the figurines could at one time, have formed part of initiation ceremonies carried out in the shelter (see Huffman 2007a). The problem with this interpretation is that initiation was not a wide spread practice among historic Shona communities (Huffman 2007a: 407; Schoeman 2017: 137). Huffman (2007a: 407) does point out that the Shona Muponda dynasty practiced initiation, however this is by far not the norm for Shona communities. It is only among the Venda that initiation and further, initiation with figurines is conducted (Huffman 2007a). It therefore seems unlikely that these particular figurines were used in this manner. The ESA ceramics found in the shelter may also suggest

rainmaking activities. Rock shelters are sometimes associated with rainmaking activities among Eastern Bantu-speakers such as the Shona (Aukema 1989; Murimbika 2006). In fact, *Mwari*, in Shona culture often speaks to people from rock shelters and caves (Beach 1980; Chirikure *et al*., 2017). One must however be cautious not to cherry pick ethnographic data and attempt to apply historical practises back into the past, creating the impression of a timeless, unchanging African society (Lane 1994/5; 2005). The material culture in this shelter could have equally been deposited by itinerant individuals or people visiting the shelter from the local agro-pastoral villages. The value of the rock art found in the shelter, to agro-pastoralist communities living at Mtanye, also provides a fascinating avenue of further research.

4.6. Summary

Extensive site surveys were conducted at Mtanye, with these surveys discovering both hilltop occupation and stone walling on Mtanye Hill. The remains of huts and grain bin foundations were also discovered on the hill and flat area between the kopjes. Objects such as ceramic sherds, figurines and metal objects were found scattered on the surface of the site. Two terraced kraals were also found on the hill. Also, along with these finds, dolly holes are also found at site. Four test pits were excavated with two on the hill and two on the flats between the kopjes. Four charcoal samples were taken, and radiocarbon dated. The earliest occupation on the flats between the kopjes appears to date from between 900 – 1390 cal A.D. while the hill occupation dates from between 1220 – 1290 A.D. Furthermore, the radiocarbon dates from the rockshelter suggest a dating of the sequences to between 1390 and 1615 cal A.D. Stone walled terracing along with small rough freestanding walling were also found at site.

As can be see, the settlement layout as well as it's occupation history hint at inter and intra community networks of interacation.The artefacts found at site however, provide further

evidence of these networks. How these artefacts act as proxies for interaction will be discussed further in the following chapters.

Chapter 5 : Ceramics from Mtanye

"Potters literally came into being as potters through those techniques of the body learnt through repeated bodily enactment of potting skills and their engagement with material and tools"- Budden and Soafer (2009: p216).

5.1. Introduction

Artefacts often act as proxies for interaction, highlighting networks that operated across multiple scales simultaneously. This is especially true of ceramics which have often provided evidence of interaction between regions or groups of people (Loubser 1991; Calabrese 2000, 2007; Huffman 2007a Wilmsen *et al*., 2009; Diskin and Ashley 2016). Studies such as Wilmsen *et al*., 2009 and Diskin and Ashley (2016) have shown through petrographic analysis that ceramics found at sites were transported over long distances, demonstrating interregional interaction. Further, there is evidence from ethnohistorical sources, that some communities specialised in the manufacture of ceramic vessels, trading these for items such as grain and iron tools (Bent 1895: 45-46; Pikirayi and Lindahl 2013: 463).

Within archaeological research, evidence of interaction, imitation and innovation have been demonstrated through stylistic analysis of ceramic vessels (Loubser 1991; Calabrese 2000, 2007, Esterhuysen 2008; Huffman 2007a; Denbow *et al*., 2008). Through this analysis, archaeological studies can often link ceramics found at a site to a wider community of practise (Huffman 2007a). This analysis has also provided evidence of interaction between different communities (Loubser 1991; Calabrese 2000, 2007, Esterhuysen 2008; Huffman 2007a; Denbow *et al*., 2008; Antonites 2012). For example, there is evidence for interaction between Leopard's Kopje and Toutswe communities, with K2 ceramics being found at Toutswe sites and Toutswe ceramics being found at K2 and Mapungubwe (Denbow 1982; Reid and Segobye

2000; Huffman 2007a). Interaction like this allowed for imitation and innovation with both Zhizo and Toutswe communities adopting some Leopard's Kopje ceramic designs (Calabrese 2000, 2007; Huffman 2007a). Further, this interaction, particularly between Zhizo and Leopard's Kopje communities led to the emergence of a new ceramic entity, namely Leokwe.

From this, one can see that ceramics often form important proxies for interaction. The aim of this chapter is to analyse the ceramics found at Mtanye and classify them within specific regional ceramic facies. It is hoped that one can provide evidence for a link between the community of Mtanye and other contempory communities. Furthermore, this evidence may demonstrate that Mtanye was connected to networks of interaction that spanned much of Southern Zambezia during the early second millinium A.D.

5.2. History of Ceramic Studies

Due to their durable nature, ceramic sherds are quite common at Southern African Iron Age sites, which in turn makes them a useful material for analysis and study (Pikirayi 2007, Moffett 2016, Nyamushosho 2016). Early attempts to create ceramic typologies drew heavily on the popular methodology and theory within British schools of archaeology (M.Hall 1984). One of these early attempts, was the work of Caton-Thompson (1931), who attempted to classify the archaeological ceramics from Great Zimbabwe (M.Hall 1984). Caton-Thompson linked her ceramic classes with tribes, effectively supporting the notion that specific ceramic styles are linked to a specific 'tribe'. Schofield (1934, 1937) taking inspiration from Caton-Thompson's work also began attempting to create ceramic typologies. Schofield (1948) finally created a framework for the classification of archaeological ceramics in Southern Africa, with this framework greatly influencing the of work later archaeologists (M.Hall 1984). During the 1950s and 1960s researchers such as Mason (1951, 1952), Summers (1950a) and Robinson (1966) took up the mantle and attempted to create regional ceramics typologies of their own.

The underlying premise of many of these studies, still fundamentally reaffirm older beliefs, that ceramics classes were representative of 'tribes' (M. Hall 1984). Schofield (1937) believed that a change in ceramic style come about due to the invasion of another ethnic group or tribe. He believed ceramic style did to change through internal stimuli and that these groups were conservative and resistant to change (M. Hall 1984). Echoing these sentiments Summer (1950a, b) believed that change could only arise from conquest or migration. This is in part to the influence Gordon Childe had on the thinking of Summers (M. Hall 1984). Through time however, attempts were made by the likes of Maggs (1973,1980) to improve framework created by Schofield's (1948).

During in the late 1960s, Thomas Huffman (1968, 1970, 1971,1974b, 1978, 1979) introduced a new multi-dimensional approach for ceramic classification. This new approach was firm rooted with the American school of archaeological thinking (M. Hall 1984). Unlike previous British approaches such as Robinson (1966), this new methodology focused on unique modes at the level of individual ceramics. Further, this method defined a tradition based on whether these modes dispersed or persisted within a regional sequence (M. Hall 1984). The bases of Huffman's (1978, 1980, 1982, 2007a) approach is that potters often have an ideal design or style in mind when shaping a ceramic vessel (see also Antonties 2012; p 35). Moreover, ethno-linguistic groups can be identified by shared ideal types among different potters. Huffman (1970, 1974b, 1982, 2007a) like Scholfield (1937) before him, argues that ceramic design is usually linked to a specific ethno-linguistic group. Huffman's (1978, 1980, 1982, 2007) approach further rests on the assumption that these archaeological classifications represent real ceramic classes (see M. Hall 1984).

The link between ceramic design and ethno-linguistic groups is hotly debated within Iron Age research of Southern Africa. Some (Huffman 2007; Whitelaw 2015, 25-28) argue that ceramic designs are usually transmitted via language. Furthermore, there is evidence to suggest that

ceramic designs such as motifs are linked to a set of ethno-linguistic specific designs represented on different types of objects (Evers 1988; Huffman 2007a). One of these case studies is that of Evers (1988) who demonstrated that among the Pedi, Zulu and Gwembe-Tsonga, ceramic designs are often reflected in other culturally linked material culture. Within Karanga Shona society cross-hatching and oblique lines are connected to scarification marks (*nyora* or *mutemwi*) on women (Ndoro 1996: 775; Huffman 2007a; Figure 5.1). A similar tradition is found among other South Eastern Bantu-Speakers like the Zulu (Armstrong *et al*., 2008). Within Karanga society, pendant triangles (*zvikwati*) are found not only on ceramics but also on the beaded aprons (*nhembe*) of women (Ndoro 1996; Huffman 2007a). What this demonstrates is that ceramic design is often drawn from a wider design field (Huffman 2007a).

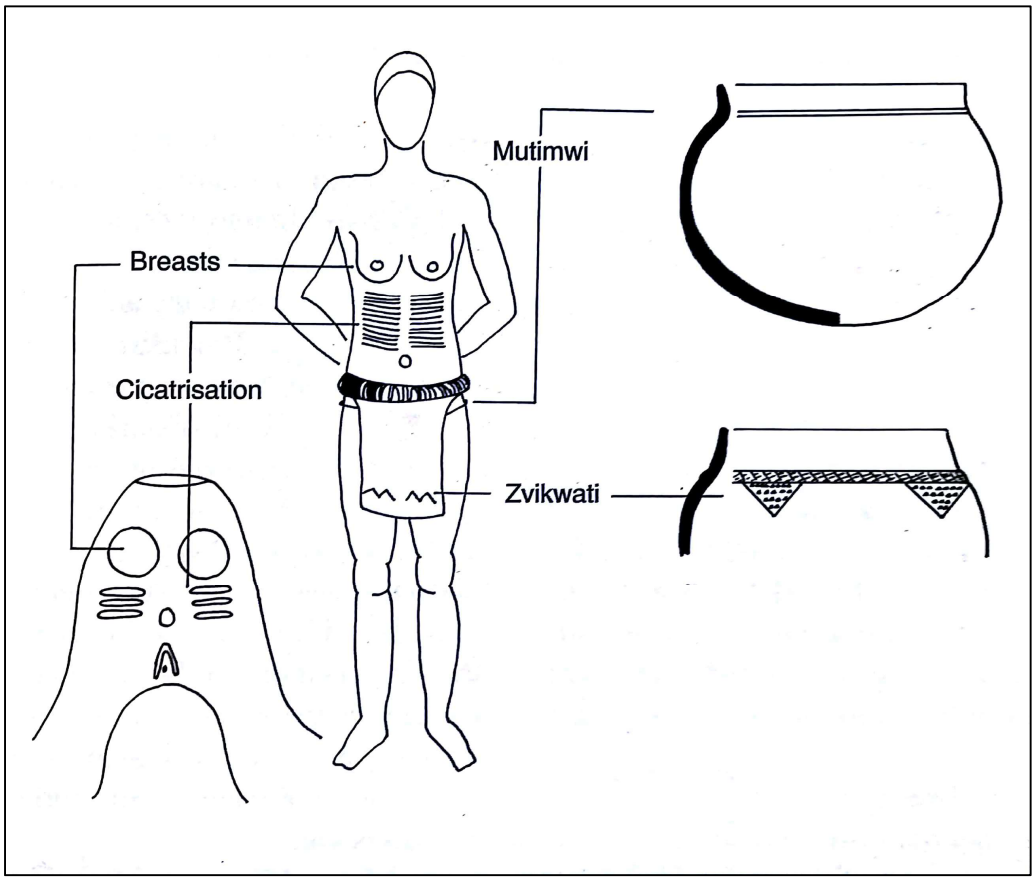

Figure 5.1: Designs shared between clothing and ceramics within nineteenth century Shona society. Adapted from Collett (1993).

The change in ceramic design has been used by some to track the emergence of new ethno-linguistic entities such as the Venda (Loubser 1991). Moreover, the distribution of ceramic designs or decorations has also been linked to the distribution of ethno-linguistic groups. Over the years, this position has been extensively critiqued by many different researchers (M.Hall 1982, 1984, 1987; Lane 1994/5; Schoeman 1997; Pikirayi 2007; Esterhuysen 2008, Pikirayi and Lindahl 2013). A major assumption of conventional ceramic distribution models is that communities that produce ceramics are also the consumers of those ceramics (Esterhuysen 2008). This however is not always the case as shown by the historical record (Bent 1895). In recent research, researchers have demonstrated that ceramic design is not always linked with ethno-linguistic or political boundaries (Schoeman 1998; Gosselain 2000; Esterhuysen 2008).

Further, some such as Gosselain (2000, 2011) argue that the technological aspects of ceramic production are more closely linked to ethno-linguistic groups, with these technological aspects of ceramic production representing a deeper connection to identity (S. Hall 2012). Ceramic production is often deeply embedded within social knowledge and a 'right way' of crafting (Gosselain 2000, 2011; Fazioli 2015; S. Hall 2012). This social knowledge is in turn connected to group identity. Each step of production is guided by group identity with this identity not solely expressed in ceramic design. Group identity is therefore also shaped by the choices made through the sequence of production or *chaîne opératoire* (Gosselain 2000; Fazioli 2015). There are always exceptions, with social identity sometimes linked to ceramic decoration such as with the Halpulaar communities of the Middle Senegal valley (Gueye 2011). As Whitelaw (2015: 25-28) suggests, this research indicates that at times, ceramic design is closely linked to ethno-linguistic groups and at other times not.

Recently, studies on ceramics have branched out, with some studies attempting to understand the technological aspects of ceramic production, as well as the technological sequence or *chaîne opératoire* of ceramic production (Pikirayi and Lindahl 2013; Lindahl and Pikirayi 2010; Fowler 2008, 2011, 2015; Thebe 2017). Moreover, some have suggested Huffman's classes are etic rather than emic (Ndoro 1996). From this school of thought, there has arisen a branch of research that aims to create emic classifications based on ethnographic material and functional use of vessels (Ndoro 1996; Nyamushosho 2013; van Waarden 2016). Despite this research, Huffman's (1982; 2007a) methodology has been widely accepted within Southern African Iron Age and remains the predominant method for classifying ceramics.

6.2. Multi-Dimensional analysis

Despite these shortcomings, Huffman's (1980, 1986, 2007a) multi-dimensional approach (MDA) is still the most useful method available. This method allows for the incorporation of

large amounts of Iron Age ceramic data, while creating ceramic classes that comparible and easy to use (Huffman 2007a; Moffett 2016). Further, Huffman's (1980, 1982, 2007a) typology comprises of well construct typologies that are closely tied to sets of radiocarbon dates which allows for the relative dating of sites across Southern Africa.

Within this methodology, three ceramic dimensions are considered, namely the profile or shape of a vessel, the placement of the motif (design layout) and the motif type (Huffman 2007a). The combination of these three dimensions create a unique style which allows for the classification of various stylistic types or classes (Huffman 2007a). A set of stylistically related ceramics from a specific region and time form a facies, while stylistically related facies can be grouped informally into clusters (Huffman 2007a). Facies (and clusters) that are broadly related can be further grouped into traditions (Huffman 2007a). For example, the Leopard's Kopje (LK) ceramic cluster contains the Mambo, K2, Woolandale, Mapungubwe, Transitional K2 (TK2) and Lose facies (Huffman 2007, 2015a). These have been divided into three groupings based on their temporal distribution, with Mambo and K2 belonging to Leopard Kopje A (LKA), Woolandale, Mapungubwe and TK2 belonging to Leopard's Kopje B (LKB) and Lose belonging to Leopard's Kopje C (LKC). Further still, the Leopard's Kopje cluster itself, belongs to the broader Kalundu Tradition (Huffman 2000, 2007a).

It should be noted however that there are a few drawbacks as highlighted by Moffett (2016). Firstly, due to the incomplete nature of most vessels, differences in identification of the three primary dimensions can arise. For this reason, this method can be quite subjective. Secondly due to the fragmented nature of most of the ceramics recovered; identification of the three dimensions is often difficult if not impossible. Lastly this method is best suited for assemblages were decorated ceramics are common.

Identification of ceramic facies in this study was aided by comparison with similar assemblages found at various Leopard's Kopje sites (Loubser 1991; Van der Walt 2012; Antonities 2012; House 2016; Nyamushosho 2016; Huffman 2007a; 2016). The stylistic classes for both Transitional K2 and Mapungubwe as described by Huffman (2007a ,2008) and Van der Walt (2012) were present within the ceramic assemblage found at Mtanye during this study.

Vessel Profile and Motif Position

Vessel profile in the MDA methodology refers to the shape of a vessel and what type of vessel is represented by the ceramic sherd. At Mtanye, three vessel type were identified, namely jars, beakers and bowls. Jars were further subdivided into recurved jars and necked jars. Bowls were also divided into recurved bowls and open bowls. As noted by Scholfield (2017), determining if a sherd represents a bowl or beaker can be difficult especially if the sherd in question is small.

For the position of the motifs on the ceramics, four main positions were observed; namely lip (P1), neck (P2), shoulder (P3) and body (P4) (Figure 5.2). Combinations of these positions also exist resulting in positions such as neck/shoulder or shoulder/body.

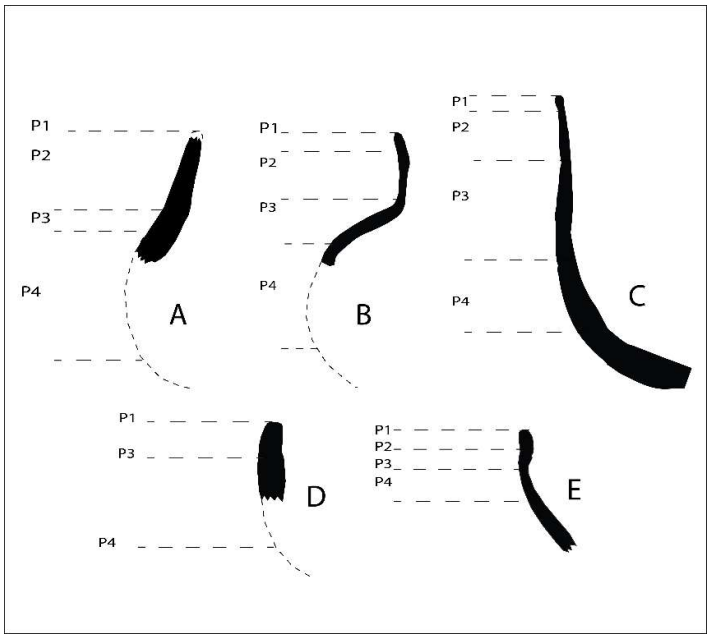

Figure 5.2: Motif placement and vessel profiles for ceramics at Mtanye. A: necked jar, B: recurved jar, C: beaker, D: open bowl and E: recurved bowl. Adapted from Scholfield (2017).

Motif Design

Motif designs were classified based on the technique used to create them, the shape or layout of the motif as well as the direction in which the motif faced. For the direction of the motif, upward facing means the design is pointing towards the lip of the vessel while downward facing means pointing towards the base. It must be noted that many of the diagnostic sherds were too fragmented to determine vessel profile or motif placement however, they were large enough to determine motif design. Those that were unsuitable for the multidimensional method were grouped together in Motif Fragments (Table 5.2).

6.3. Typological Analysis and Results

In total, 2175 ceramic sherds were found during the site survey and excavations at Mtanye in 2017. Of these, only 328 were diagnostic. The predominate decoration technique was incising

with 96% of the diagnostic sherds having incised patterns (Table 5.1). The most common motif designs appeared to be incised horizontal lines (n=53) and incised oblique lines (n=42), however as Scholfield (2017) noted many of these sherds represented fragmented motifs that contain horizontal or oblique incised lines. Considering the complete motifs found at site, upward facing incised triangles and arcades (n= 30; Figure: Motif 1) appear to be the most frequent design while crossed hatched incised lines (n= 17; Figure: Motif 6) and simple incised bands (n=15; Figure: Motif 7) appear to be the next most common designs.

Table 5.1:Decoration techniques found on ceramics at Mtanye. Adapted from Scholfield (2017).

Decoration Techniques	Surface Mtanye Hill	Surface Mtanye Flats	Terrace1	Kraal1	Site B	Western Pot	Total
Incisions	79	23	7	44	10	27	**190**
Punctate	2	1					**3**
Comb Stamping	1						**1**
Hatching		2		1			**3**
Total	82	26	7	45	10	27	**197**

The most common theme in the ceramic assemblage found at Mtanye, appears to be triangles and arcades (Motifs 1-5 & 8; Figure 5.3). Designs with horizontal incised lines (27%) and oblique incised lines (21%) also appears to be common, however as mentioned above, this data may be skewed as it included fragmented motifs, many of which could be fragments of that form part of a large design such as triangles or arcades. In terms of complete motifs, the next most frequent designs at 9% and 8% respectively, were cross hatched bands (Motif 6, Figure 5.3) and simple incised bands (Motif 7. Figure 5.3).

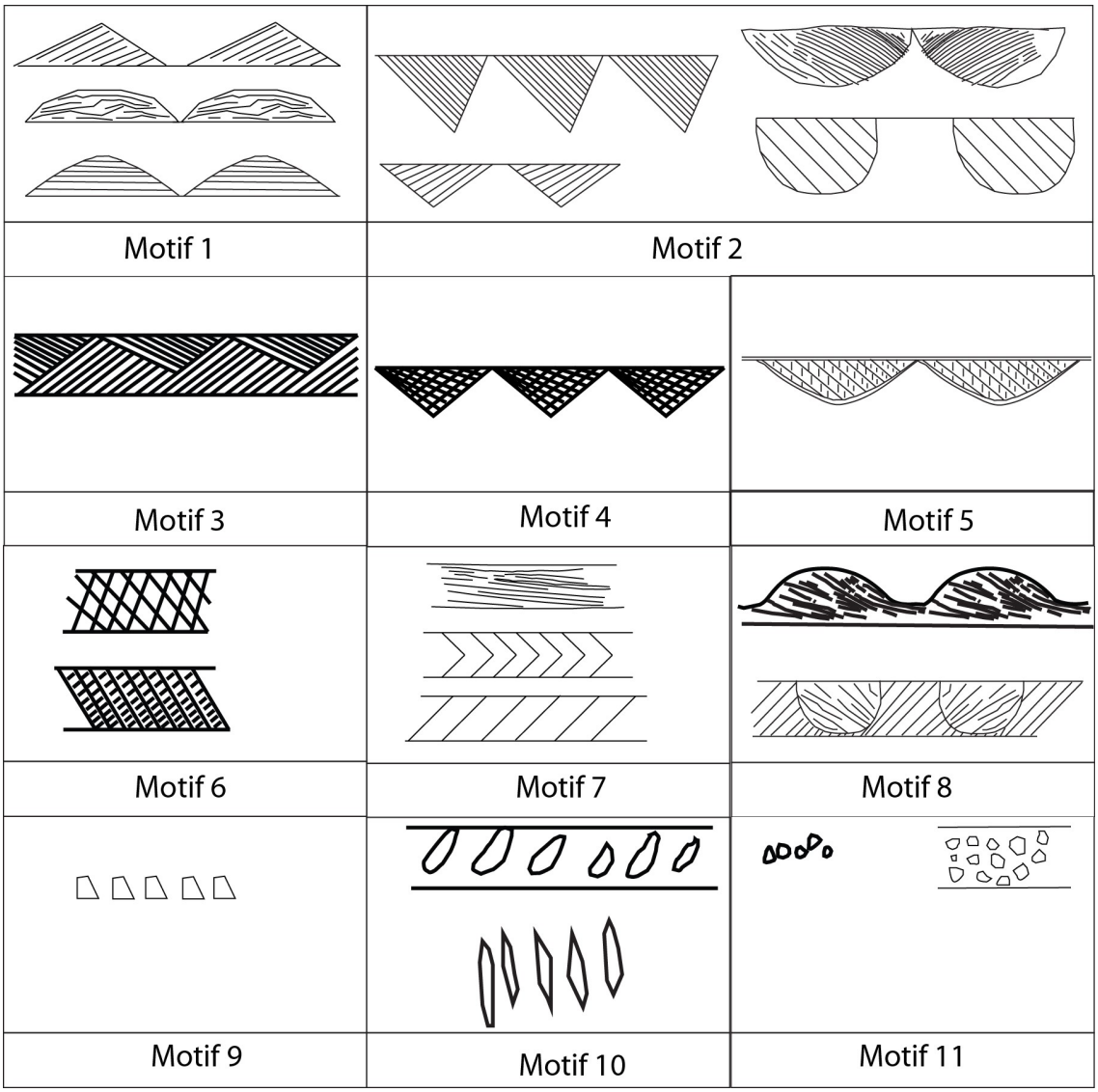

Figure 5.3: Motif designs from ceramics recovered at Mtanye. Adapted from Scholfield (2017).

Of the 328 diagnostic sherds recovered, 130 plain diagnostic sherds were identified. Analysis of these determined that most common vessel type were bowls (n=56), while jars (n=46) were the next most frequent vessel type. Beakers appear to have been the least common type, with only 28 beaker sherds being found at site. It should also be note that out of the 326 diagnostic ceramics, 148 contained motifs but were too small to reconstruct the vessel profile or motif position. These sherds were classified as motif fragments and were used to determine the most common motifs at the site. Only 49 sherds were suitable for multidimensional analysis and

these were used to identify at least 24 multidimensional classes present at the site (Table 5.2 & 5.3).

Table 5.2: The twenty-four multidimensional classes identified within the Mtanye ceramic assemblage.

Bowl classes	
1.	Bowls with cross-hatched triangles on the shoulder
2.	Bowls with downward facing incised triangles on the shoulder
3.	Bowls with punctates on the neck
4.	Bowls with upwards facing incised triangles or arcades on the shoulder
5.	Bowls with incised cross hatched band on the shoulder/body
6.	Bowls with simple incised band on the body
7.	Bowls with interlocking incised triangles the shoulder
8.	Recurved bowls with cross hatched incised triangles on the shoulder
9.	Bowl with large crossed hatched incised band on the body
10.	Bowl with upward facing incised triangle on the shoulder/body
Jar classes	
11.	Necked jars with cross-hatched downward facing incised arcades on the neck
12.	Recurved jars with incised down facing arcades or triangles on the shoulder
13.	Recurved jars with alternating upward facing incised arcades and triangles in band on the shoulder
14.	Recurved jars with interlocking incised triangles on the shoulder
15.	Recurved jars with cross-hatched incised band on the neck
16.	Recurved jars with simple incised band on the shoulder
17.	Recurved jars with upward facing incised triangles or arcades on the shoulder
18.	Necked jars with downward facing incised triangles on the lower neck
19.	Recurved jars with complex band on the shoulder
20.	Necked jars with hatched band on the shoulder
21.	Recurved jars with simple band of incised oblique lines on the lower neck
Beaker classes	
22.	Beaker with upward facing incised arcades or triangles on the shoulder
23.	Beaker with hatched bands the shoulder
24.	Beakers with cross hatched incised lines in band on the shoulder

Table 5.3: Distribution of multi-dimensional ceramic classes for each test pit excavated at Mtanye. The distribution of plain vessels as well as undiagnostic vessels are also recorded. Motif fragments represents sherds too small to classify. Adapted from (Scholfield 2017).

Square	Level	Classes																							Plain			Motif Fragments	Undiagnostic sherds
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Bowl	Jars	Beakers		
Surface (Mtanye Hill)		2	1			1	1	2		1		1	2	2	2	1	1		1			1			1	16	9	1	57	
Surface (Flats)				1													1				1		1	1		4	1	3	21	
Mtanye Hill Terrance 1																														
	1						1																							20
	2																									2				2
	3																									1	1		2	21
	4																												2	7
	5																										2	1	2	21
Mtanye Kraal 1																														
	1																									2	3	1	1	82
	2				2																					2	10	1	7	367
	3						2											3					1			10	1	2	5	306
	4								1		1							1								9	8	10	12	264
	5																		1								3	2	7	113
Mtanye Site B																														
	1																									3			4	56
	3																													10
	4																									1			2	49
	5																													24
	6																													18
	7																									2			2	38
	8																									1				27
	9																					1					5			36
	10																									1				29
	11																1										2			21
Western pot																														
	1												1				2 +	3								2	1	7	18	338

Of the multi-dimentional ceramic classes identitifed at site, recurved jas with upward facing incised triangle or arcades were the post common at 14.3% (Table 5.4) The next most common we recurved jars with a simple incised band (12.2%) and bowls with a simple incised band (8.2 %) (Table 5.4)

Table 5.4: The ceramic classes at Mtanye arranged according to their frequency. Total number of ceramics analysed, n = 49. Adapted from Scholfield (2017).

Class Decoration	Placement	Number	Percentage
Recurved jars with upward facing incised triangles or arcades	Shoulder	7	14.3
Recurved jars with simple incised band	Shoulder	6	12.2
Bowls with simple incised band	Body	4	8.2
Recurved jars with incised down facing arcades or triangles	Shoulder	3	6
Bowls with crossed hatched triangles	Shoulder	2	4.1
Bowls with upwards facing incised triangles or arcades	Shoulder	2	4.1
Bowls with interlocking incised triangles	Shoulder	2	4.1
Recurved jars with alternating upward facing incised arcades and triangles	Shoulder	2	4.1
Recurved jars with interlocking incised triangles	Shoulder	2	4.1
Necked jars with downward facing incised triangles	Lower Neck	2	4.1
Recurved jars with simple band of incised oblique lines	Lower Neck	2	4.1
Beaker with upward facing incised arcades or triangles	Shoulder	2	4.1

Mtanye Hill Surface Assemblage

The Mtanye Hill surface collection contained the most diagnostic sherds with 103 out of a total 328 diagnostic sherds being found on the surface of Mtanye Hill. This is in fact a sample bias as only diagnostic sherds were collected and therefore these represent a fraction of the ceramics scattered across Mtanye Hill. Most of the classes identified were present on the surface of Mtanye Hill (Figure 5.4). One of the classes namely, Class 1 was only identified in the surface collection from Mtanye Hill. This class is of interest, having a dark (black) burnishing with downward facing (inverted) crosshatched triangles (Figure 5.4; 9). Similar bowls have formed part of Mapungubwe assemblages and are quite iconic. Unfortunately, only two sherds belonging to this class were found. It appears that the most common jar classes on Mtanye Hill, were recurved jars with incised down facing arcades or triangles on the shoulder (n=2);

recurved jars with alternating upward facing incised arcades and triangles in a band on the shoulder (n=2) and recurved jars with interlocking incised triangles on the shoulder (n=2). Bowls with interlocking incised triangles on the shoulder (n=2) also formed part of this collection (Class 7, Table 5.2: Figure 5.4:8). The surface assemblage from Mtanye represents a mix of TK2 and Mapungubwe ceramics however the sample size is limiting, and a larger sample may provide a clearer picture.

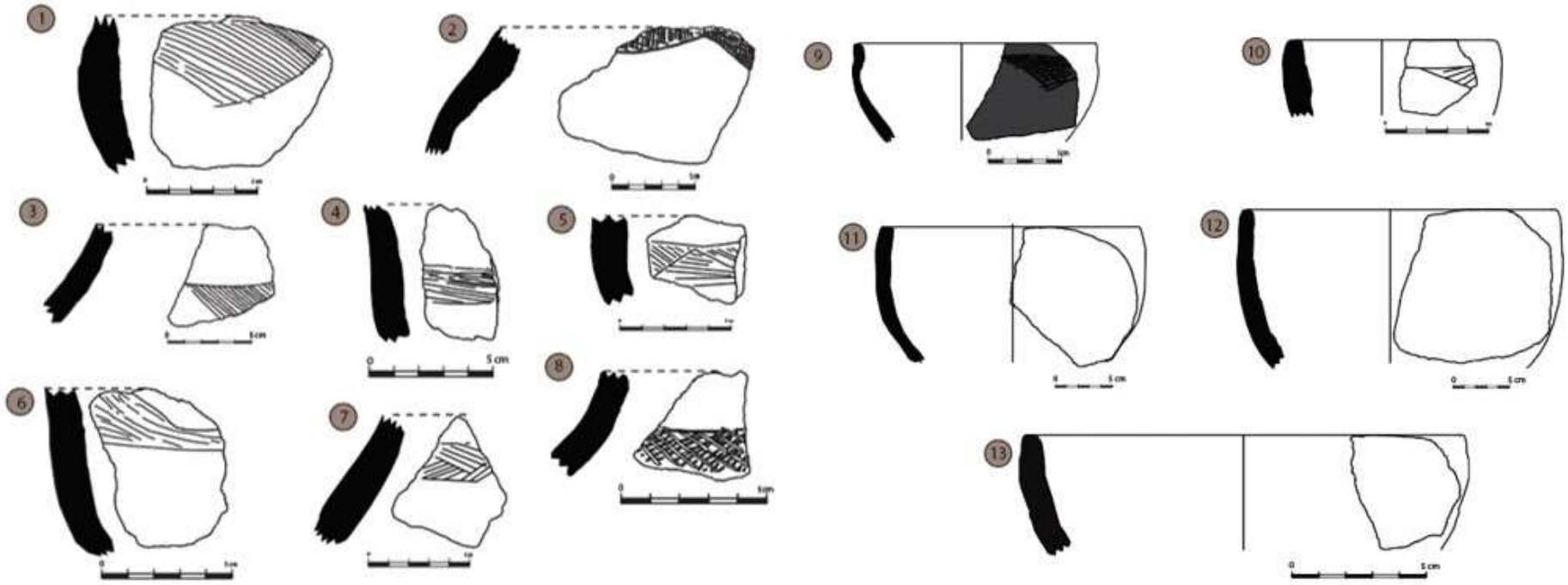

Figure 5.4: A sample of decorated and undecorated ceramic sherds recovered from the surface of Mtanye Hill.

Mtanye Site B Surface Assemblage

Thirty-four diagnostic sherds were recovered from the flat areas of Mtanye (Figure 5.5). These sherds predominately come from Site B and the immediate area around the midden. A beaker sherd representing class 23 was interesting as this class is often found in K2 assemblages (Huffman 2007a). From the various classes represented in this area, it would appear that this collection does represent Leopard Kopje ceramics, possibly a mix of primarily TK2 and Mapungubwe with possibly K2 ceramics also present (Figure 5.5).

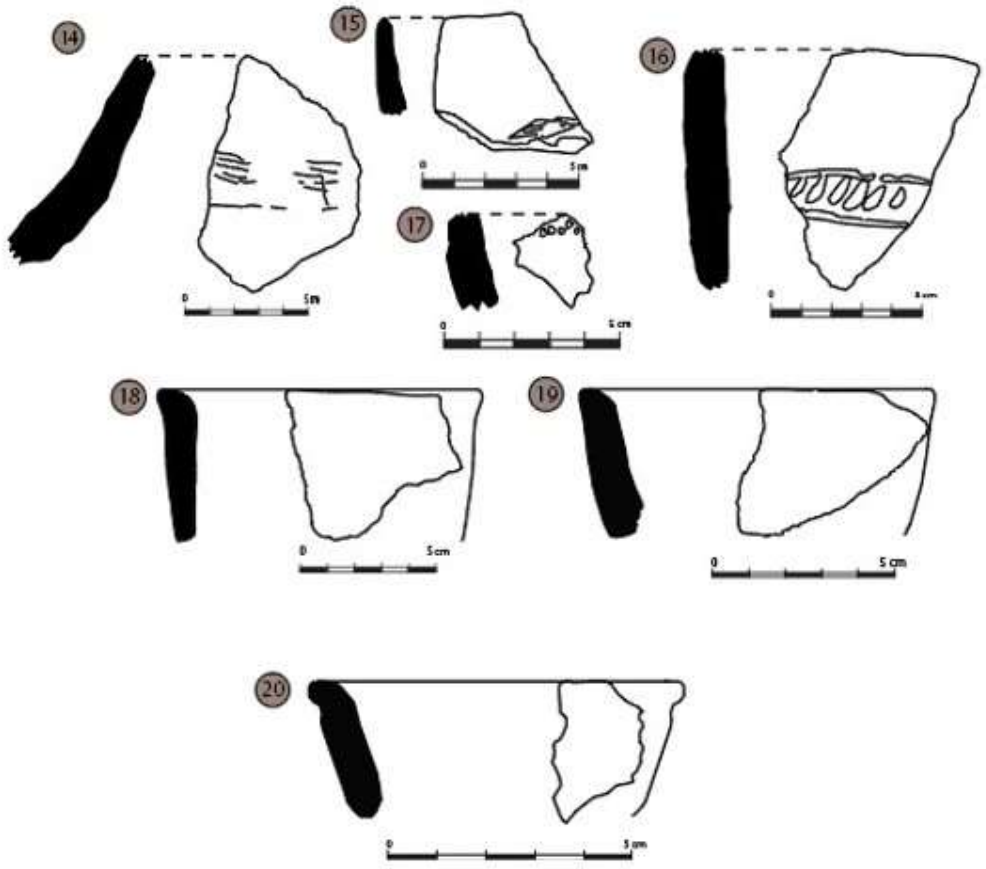

Figure 5.5: A sample of decorated and undecorated ceramic sherds recovered from the surface of the flat area between the kopjes at Mtanye.

Terrace 1 Assemblage

Ceramics were quite sparse in this square, with only 14 diagnostic sherds being found. Only class 6 was represented in this square by a single bowl sherd with a simple incised band on the body. Two plain bowls were also recovered from the square, both of which had a dark burnish (Figure5.6: 22 &23).

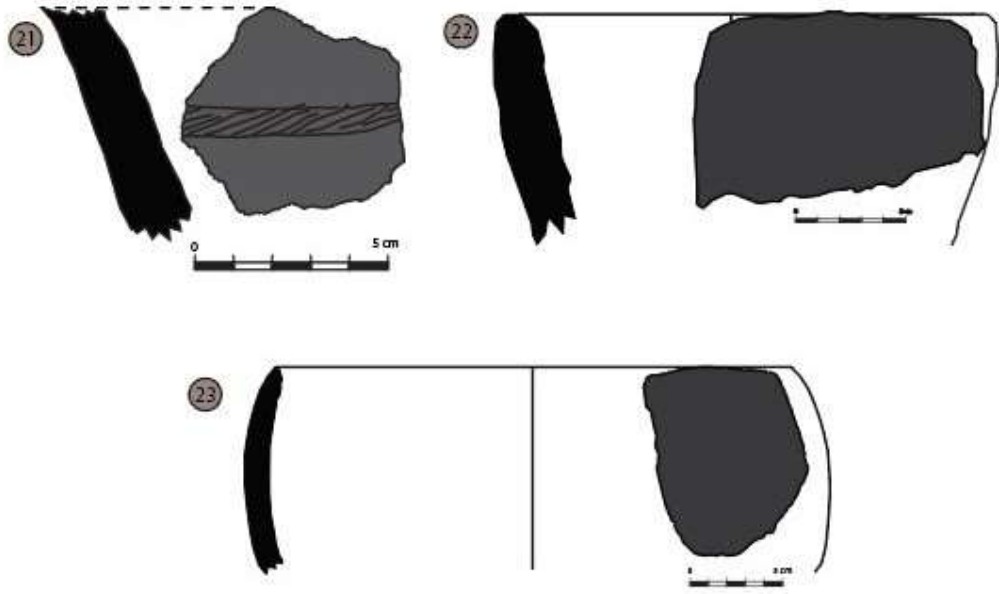

Figure 5.6: A sample of decorated and undecorated ceramic sherds recovered from the Terrace 1 test pit on Mtanye Hill

Kraal 1 Assemblage

More plain ceramic sherds (n=64) were found in this test pit, then any of the other excavations. This pattern is mirrored in the undiagnostic sherds recovered with level 2 having 367 sherds, level 3 having 306 sherds and level 4 having 264 sherds. The undiagnostic sherds and diagnostic sherds recovered from these layers, respectfully make up 51% and 33 % of the total ceramic recovered from Mtanye.

Recurved jars and bowls with incised triangles or arcades appear to be common in this test pit, with at least two plain constricted bowls with a dark burnish being also found in level 4 of this excavation. These bowls are almost identical to the one found in level 2 of the Terrace 1 test pit. It was suggested previously (see Scholfield 2017) that the ceramics found in the upper layers of this test pit represent a Mapungubwe assemblage while the lower layers may be a TK2 assemblage (Figure 5.7).

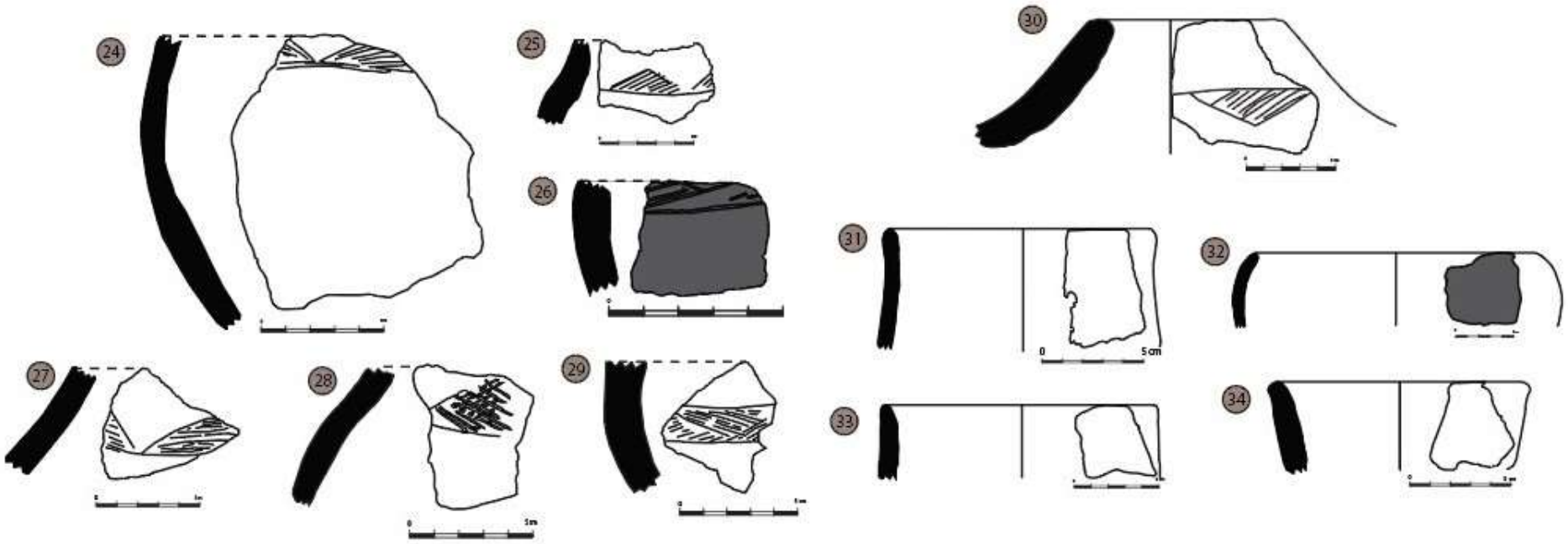

Figure 5.7: A sample of decorated and undecorated ceramic sherds recovered from the Kraal 1 test pit on Mtanye Hill.

Site B Assemblage

Very few diagnostic ceramics were recovered from this test pit. This limits any identification of ceramic facies represented in this test pit. Only two sherds that were suitable for multi-dimensional analysis were found in this test pit. These sherds were both recurved jars with simple bands of oblique lines on the lower neck (Figure 5.8: 35 & 36). This could possibly suggest the presence of a K2 assemblage however this sample is too small to be certain. Plain bowls were dominate up until level 9, when plain recurved jar sherds become more common.

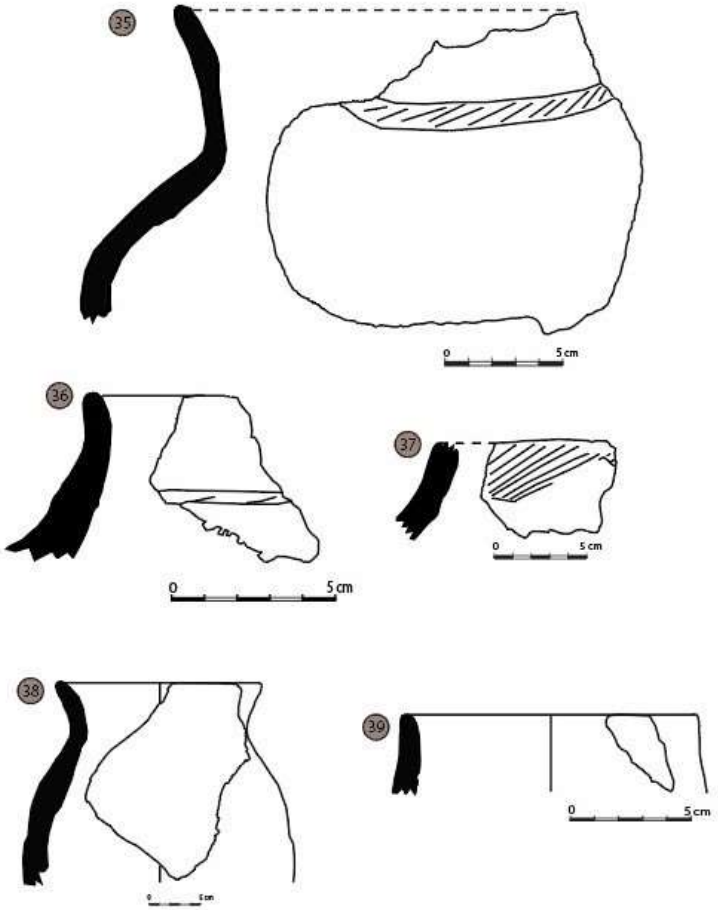

Figure 5.8: A sample of decorated and undecorated ceramic sherds recovered from the Site B test pit at Mtanye.

Western Pot Assemblage

Undecorated beakers were the most common vessels recovered in this test pit (Figure 5.9: 45). Recurved jars with simple incised bands on the shoulder (n=5) and recurved jars with upward facing incised triangles or arcades on the shoulder (n=3) were the most common decorated vessel types. Note, that the *n*-value here represents sherds and not a single vessel. The number of recurved jar vessels with simple incised bands on the shoulder, in this test pit is likely to be three. This is because three of the sherds recovered from this test pit appear to come from the same vessel.

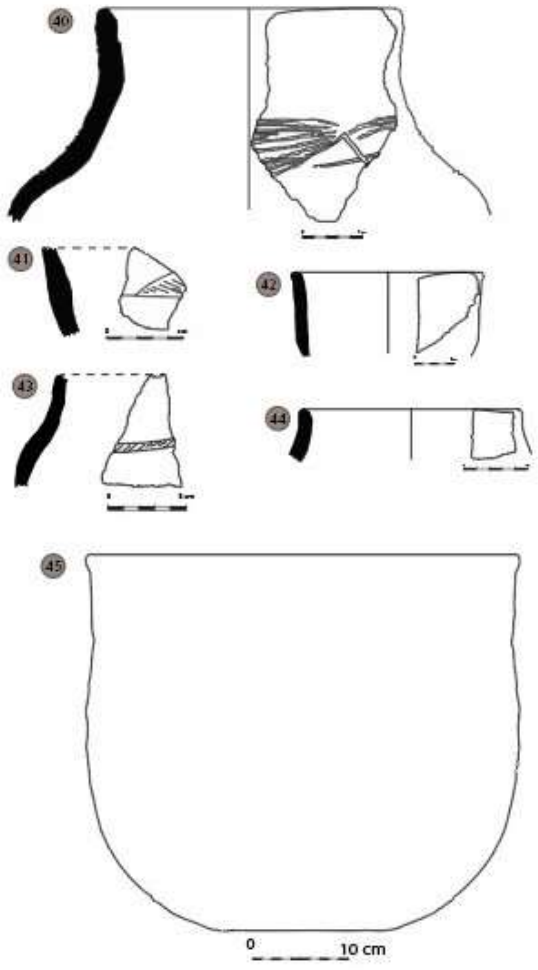

Figure 5.9: A sample of decorated and undecorated ceramic sherds recovered from the Western Pot test pit at Mtanye.

5.6. Discussion

The ceramic assemblage at Mtanye appears to fall into the Leopard's Kopje Cluster and more specifically, represents a Transitional K2 (TK2) and Mapungubwe assemblage with the possibility of a K2 assemblage at site as well. Like Huffman (1972a, 2008) triangle motifs appear to be the most common motif, however unlike the previous research, recurved jars with upward facing incised triangles or arcades, appear to be the most common ceramic class.

Mapungubwe and Transitional K2 assemblages have been found at a number of other sites in South-Western Zimbabwe like Mapela (Garlake 1968; House 2013,2016; Chirikure *et al*., 2014), Mtetengwe (Robinson 1958) and Mtanye (Huffman 1972) as well as sites within the SLCA at sites like Mapungubwe, Skutwater (Van Ewyk 1987), Wiepe, Pont Drift (Hanisch 1980, Huffman 2000) and at sites in present-day eastern Botswana such as Bobonong (Kinahan *et al*., 1998). Mapungubwe ceramics have also been found as far south as the Soutspansberg in present day South Africa at sites like Matumba (Antonities 2012). Further, the Mapungubwe ceramics found at Mtanye resemble the late Mapungubwe ceramic assemblages of the Soutspansberg (Loubser 1991; Antonities per. comms 2019). This is quite significant considering the late date for the Mapungubwe occupation found in the Site B test pit (Huffman's Occupation A).

The cattle kraal occupation (Huffman's Occupation B) uncovered in the Site B test pit is quite interesting. The radiocarbon dates for the start of this occupation suggest an occupation as early as the late first millinium A.D. The two multidimensional ceramics recovered from the lower levels of this occupation fall within a stylistic class commonly found in K2 assemblages. Due to the small sample size however, there was some hesitation in calling this occupation a K2

occupation (see Scholfield 2017). Further still, as both K2 and TK2 share stylistic classes, identifying this occupation as solely a K2 occupation on such limited data is impossible. With the new dates from this study however, it does appear plausible that this occupation could be comprised of an early K2 occupation and later TK2 occupation. This has serious implications, particularly for Huffman's (2008) model. These finds may dispel the idea that Mtanye was occupied first during the TK2 period and further, dispel the notion of Mtanye being a product of Mapungubwe's colonial expansion during the TK2 period (Huffman 2008, Van der Walt 2012).

The ceramic sherds recovered from the Kraal 1, Terrace 1 and Western Pot test pits likely consists of a mix of both TK2 and Mapungubwe ceramic assemblages. Due to the small sample and the fact the TK2 and Mapungubwe share stylistic classes, it may be hard to pinpoint distinct TK2 or Mapungubwe occupations.

Comparing the stylistic classes found at Mtanye (Table 5.4) with other Leopard's Kopje sites demonstrates that the assemblage found at Mtanye is similar to those found at Mapungubwe, Skutwater and Mapela (Table 5.5-5.9). This is after a comparison with contemporary sites, namely Leopard's Kopje Main Kraal (Huffman 1974), Mapungubwe (Calabrese 2005), Mapela (House 2016) and Skutwater (Van Ewyk 1987). This method was in fact used by House (2016) to determine which ceramic assemblages were most similar to the assemblage found at Mapela.

Table 5.5: Common ceramic stylistic classes found at Mtanye (Huffman 1972). Adapted from Huffman (2008) and Scholfield (2017). Total number of ceramics analysed, n=17.

Class Decoration	Placement	Number	Percentage
Recurved jars with a simple band	Neck	7	41.2
Burnished recurved jars with cross-hatched triangles	Shoulder	5	29.4
Recurve jars with meaders, loops and trianlges	Lower Neck	3	17.6
Hemispherical bowls with triangles	Shoulder	1	5.9
Open Bowls with triangles	Body	1	5.9

Table 5.6: Common ceramic stylistic classes found at Mapungubwe. Adapted from Scholfield (2017), House (2016) and Calabrese (2007). Total number of ceramics analysed, n= 328

Class Decoration	Placement	Number	Percentage
Recurved Jars: Incision, Upturned triangles and interlocking triangles	Shoulder	103	28,61
Recurved Jars: Punctate stamping in horizontal line	Shoulder	31	8,61
Recurved Jars: Incision, Upturned arcades	Shoulder	29	8,06
Recurved Jars: Incision, Upturned arcades	Shoulder	28	7,78
Bowl: Upturned and Interlocking Triangles	Shoulder	21	5,83
Necked Jar: Incision, Upturned and Interlocking triangles	Shoulder	20	5,56
Bellied Pot: Incision, Upturned Arcades	Shoulder	19	5,28

Table 5.7: Common ceramic stylistic classes at Mapela. Adapted from House (2016) and Scholfield (2017). See also Chirikure *et al*., (2014, 2016). Total number of ceramics analysed, n = 80.

Class Decoration	Placement	Number	Percentage
Incised, Recurved Jars: Upturned triangles	Lower Neck/Shoulder	37	11,28
Incised, Recurved Jars: Downturned triangle	Shoulder	36	10,98
Incised, Recurved Jars: Upturned arcades	Lower Neck/Shoulder	24	7,32
Incised, Bellied Jars: Downturned triangles	Shoulder	16	4,88
Incised, Recurved Jars: Upturned triangles	Lower Neck	16	4,88

Table 5.8: Common ceramic stylistic classes at Skutwater. Adapted from Scholfield (2017), House (2016) and Van Ewyk (1987). Total number of ceramics analysed, n=360

Class Decoration	Placement	Number	Percentage
Recurved Jars, Incised: Downturned triangle	Shoulder	12	13,48
Recurved Jars, Incised: Upturned triangle	Shoulder	8	8,99
Recurved Jars, Incised: Downturned triangle	Lower Neck/Shoulder	7	7,87
Recurved Jars,Incised: Oblique lines in band	Shoulder	5	5,62
Recurved Jars, Incised and cross hatched: Downturned triangle	Shoulder	4	4,49
Recurved Jars, Incised: Oblique lines in band	Lower Neck/Shoulder	4	4,49

Table 5.9: Common ceramic stylistic classes found at Leopard's Kopje Main Kraal. Adapted from Scholfield (2017), House (2016) and Huffman (1974). Total number of ceramics analysed, n=591.

Class Decoration	Placement	Number	Percentage
2c: Recurved and Shortnecked Jars: Diagonal lines and upturned triangles	Lower Neck/Shoulder	130	21,99
12a: open bowls		92	15,57
3b: Shortnecked Jars: Upturned arcades, upturned triangles	Lower neck	83	14,04
7: Beakers, hatching, horizontal lines and triangles	Body/Shoulder	58	9,81
3a: Necked Jars: Horizontal lines of incision, diagonal lines	Central/Lower neck	56	9,47

The similarity in ceramic style indicates that the community of Mtanye was participating in regional networks of interaction that incopretated different Southern Leopard's Kopje communties. This interaction could have been through trade and exchange for example, with

cattle, ceramic vessels, people and trade items like glass beads moving between communities. This movement likely presented the opportunity for immiation and local adaption leading to innovative new ceramic stylistic classes (Loubser 1991; Calabrese 2000, 2007; Pikirayi and Lindahl 2013).

5.7. Summary

The most common type of motif at site appears to be incised triangles and arcades. Twenty-four multi-dimensional classes were identified at site with the most common class being recurved jars with upward facing incised triangles or arcades (*n*=7). The next most common class was recurved jars with a simple incised band (n=6). Bowls appear to be the most common undecorated vessels with undecorated jars also being common at site. Mtanye appears to be a multi-facies site with both Mapungubwe and TK2 ceramics as well as possible K2 ceramics being present. Furthermore, the ceramics found at Mtanye connect this community to regional networks of interaction between Southern Leopard's Kopje communities. There is however, need to further development this argument, which subsiquent chapters will attempt to do. Artefacts recovered from site as glass beads also provide strong evidence for some of the networks of interaction discussed in this chapter with the next chapter presenting this evidence.

Chapter 6 : Glass Beads from Mtanye

6.1. Introduction

As laid out in Chapter 3, the trade and exchange of glass beads in Southern Zambezia dates to approximately 700 A.D (Wood 2012; Denbow *et al*., 2015). Most glass beads excluding Garden Rollers, were manufactured outside of Southern Zambezia in the Middle East, the Indian subcontinent and south east Asia. These beads were thereafter transported to ports on the East Coast of Africa and during historical times carried inland by itinerant trades such as the *vashambadzi* or *mwenye* traders (Beach 1980; Chirikure 2014, 2017; Moffett and Chirikure 2016). These beads were further traded and exchanged between agro-pastoral communities of the second millinium A.D. often being traded alongside local items such as gold, ivory, grain, cattle, cloth and hides (Pikirayi 2001; Huffman 2007a; Wood 2012; Bandama 2012; Chirikure 2014, 2017; Klehm 2017). Glass beads are therefore invaluable proxies for local, regional and global networks of interaction. This chapter will attempt to identify the glass beads found at Mtanye and highlight the possible networks of interaction that facilitated the movement of these beads across the landscape. Furthermore, this chapter will draw focus to the social significants of glass beads and how they played an active role in not only defining social categories but also mediating and guiding social relations between different members of the community (Bvocho 2005; Chirikure 2014, 2017; Moffett and Chirikure 2016)

6.2. Glass bead research in southern Africa

In southern Africa, glass beads have been extensively studied, as they not only enable the relative dating of a site but also because they are the most abundant trade artefact found at Iron Age sites (Moffett 2016; Mukwende 2016). Before the invention and adoption of absolute dating methods like radiocarbon dating, glass beads were an invaluable resource, aiding in

relative dating of sites (Mukwende 2016). These beads acted as chronological and temporal markers allowing for a better understanding of the development of societies and settlements throughout southern Africa (Caton-Thompson 1931; Beck 1937; Van Riet Lowe 1955; Schofield 1938; 1958; Robinson 1959; 1961a; Wood 2000, 2005). Glass beads in southern Zambezia have been closely linked to the development of socio-politically complex states through the control of their distribution and consumption (Huffman 2000, 2007a, b, 2009). As pointed out by Moffett (2016), this conventional model, resembles a prestige-goods model (see Friedman and Rowlands 1977). Within this field of research, glass beads are often assumed to be status symbols and associated or restricted to the elites of that society (Brumfiel and Earle 1987; McIntosh 1999; Bvocho 2005; Pwiti 2005; Calabrese 2007; Wilmsen 2009). Bolstering this idea, is the presence of large amounts of glass beads in elite burials at sites like Mapungubwe (Meyer 1980, Huffman 2000, 2007a). Occasionally, at a commoner site, a hoard of glass beads is discovered, such as at Kgaswe were 2600 beads were unearthed (Denbow 1986; Wood 2005). These finds are often dismissed by adherents of the conventional model as evidence of an 'illicit trade' (Huffman 2007a, p387). According to the conventional model or framework, glass beads in the second millennium AD, represented a new source of political power and wealth (Calabrese 2007). This new form of wealth was not vulnerable in the same way as cattle for example, and it could be stored (Calabrese 2007). Furthermore, the status of elites is argued to have been determined by the type of glass beads they owned, while the value of the glass bead was determined by its rarity.

Some of the earliest studies on glass beads in southern Zambezia were conducted by Beck (1931,1937). Beck (1931,1937) studied glass beads from K2, Mapungubwe and Great Zimbabwe and was able to determine that these beads originated from the Indian subcontinent. Other pioneers in this field included the likes of Schofield (1938, 1958), van der Sleen (1956), Robinson (1959), Van Riet Lowe (1955) and Gardner (1963). Robinson (1956) was able to

create a typology for Khami and Leopard Kopjes beads, while Gardner (1963) identified differences between Mapungubwe and K2 beads and created a glass-beads series for the Shashe-Limpopo region. In the 1970s, pioneering research by Claire Davison attempted to determine the provenance of the glass beads found in southern Africa through chemical analysis (Davison 1972, 1973; Davison and Clarke 1974). She further attempted to differentiate between glass beads series by their chemical composition using methods such as X-ray fluorescence and neutron-activation analysis. Unfortunately, Davison was unable to determine the provenance of the glass beads due to poor comparative data (Mukwende 2016).

On this foundation of research, Marilee Wood (2000, 2005, 2009, 2011, 2012) created a bead series typology and a methodology for classifying beads into these series. Wood was also able to link this series with carbon dates allowing for relative dating of sites. The method is based mostly on the morphological characteristics of the beads, with this method being widely accepted and used by archaeologists in southern Africa (Huffman 2007a, Robertshaw *et al*. 2010, Antonites 2012, Bandama 2013, Denbow *et al*. 2015, Moffet 2016; Mukwende 2016; House 2016, Nyamushosho 2016). Wood's (2005, 2012) typology has also been supplemented with the addition of the chemical analysis of glass bead series in southern Africa (see Robertshaw *et al*. 2010). Combining this new research with Wood's (2005), typology for glass beads creates a powerful new tool for identifying and classifying glass beads in southern Africa.

6.2. Glass Bead Analysis

The glass beads found at Mtanye were analysed according to the method created by Wood (2005, 2011, 2012) and these beads were placed within existing glass bead series for southern Africa. These beads could also be used to give a relative date for the site as these bead series are also closely link with radiocarbon dates. The main morphological features that considered when classifying these beads are shape, size range, diaphaneity, colour and patination (Wood

2005). Other features that may be consider are surface finish, manufacture techniques, and raw material. In southern Africa, there are three main manufacture techniques, namely wound beads, moulded beads and drawn beads, (Wood 2005). Wood (2005, 2012), has created a typology of bed series which will be used in this analysis to classify the beads found at Mtanye. These series are; Zhizo, Indo-Pacific, K2 Indo-Pacific (K2-IP), Mapungubwe Oblates, Zimbabwe and Khami Indo-Pacific (Appendix D). For these glass bead series, there are closely linked chemically signatures that will also be considered and linked to Robertshaw *et al.* (2010) classification.

Shape

The shape of a drawn bead is determined by the degree to which it is reheated and the ratio between the diameter and length (Wood 2005: 31). Wood divides drawn beads into 7 main shapes (Figure 6.1)

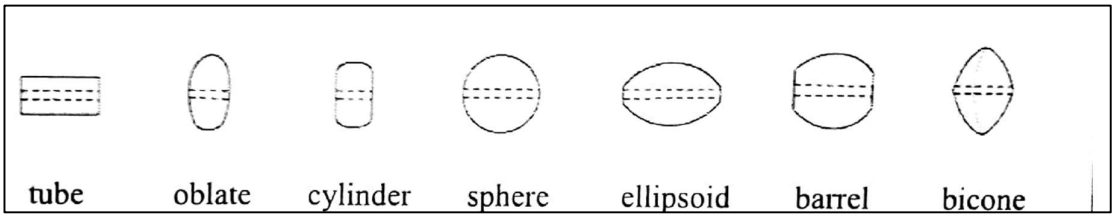

Figure 6.1: Drawn bead shape categories. Adapted from Wood (2005).

Size Range

Size ranges are based on the diameter of glass beads with each range being designated to a class (Table 6.1).

Table 6.1: Glass bead diameter size ranges and their designations. Adapted from Wood (2005).

Size designation	Diameter
minute	<2.5mm
small	2.5-3.5mm
medium	3.5-4.5mm
large	>4.5mm

Diaphaneity

Diaphaneity or transparency relates to how much light can pass through a specific glass bead. For this, Wood (2005) uses 7 categories (Table 6.2).

Table 6.2: Glass bead diaphaneity categories and their description. Adapted from Wood (2005).

Diaphaneity	Description
transparent	objects can be clearly seen through glass
transparent-translucent	glass is slightly cloudy (often due to bubbles)
translucent-transparent	glass is cloudy but light passes easily through bead
translucent	light passes through entire bead
translucent-opaque	glow of light from most of bead
opaque-translucent	slight glow of light at edges of bead
opaque	no light seen through edge of bead

Patination

Levels of patination vary depending on the quality of the glass and for this study five categories of patination are considered; namely none, light, medium, heavy and very heavy.

Glass bead series

Table 6.3: Southern African glass bead series with their associated characteristics, namely shape, size range, daphaneity, colour. chemistry and method of manufactor. Adapted from Wood (2005), Mukwende (2016), Bandama (2013) and Moffett (2017).

Bead series	Shape	Size Range (mm)	Diaphaneity and Colour	Chemistry	Method of Manufacture
Zhizo	Tubes, Oblates and Cylinders	2-7.5	Transparent to translucent blue, yellow translucent to translucent-opaque and blue-green, green translucent	High calcium, low alumina plant ash glass	Drawing
K2 Indo-Pacific	Tubes, Oblates and Cylinders	2 -3.5	Transparent turquoise. Blue-green to greenish-blue, transparent to translucent.	soda-alumina glass	Drawing
East Coast Indo-Pacific	Tubes, Oblates and Cylinders	2.5-4.5	Brownish red opaque; blue-green, green, yellow and light orange translucent to opaque-translucent	soda-lime glass	Drawing
Mapungubwe oblate	Tubes, Oblates and Cylinders	2-3.5	Opaque black to translucent and opaque-translucent blue-green, light green, yellow and orange	high alumina, low calcium plant ash	Drawing
Zimbabwe	Tubes, Oblates and Cylinders		black, brownish-red, yellow, cobalt blue and blue-green. Translucent-opaque to opaque-translucent	high alumina, low calcium plant ash	Drawing
Khami Indo-Pacific	Tubes, Oblates and Cylinders	2-7mm	Translucent-opaque yellow, dull orange, blue, blue–green, green Opaque black and brownish red.	soda-alumina glass. (low Al2O3, higher Na2O, MgO, CaO)	Drawing

Method of Manufacture

According to Wood (2005: 28), hand drawn beads (drawn beads) were fashioned with a metal tool that perforates a hollow in a molten glass gather. This hollow can also be created through blowing. A tube, sometimes up to 300m in length was then created by drawing (pulling) the globe created in the previous step (Wood 2005: 28). The next step in this process involved the tube been cut and divided according to the diameter of the pieces. These were further cut with a wedge-shaped chisel into beads (Wood 2005: 28). If the bead manufacturing process ends at this stage, the product is often referred to as chopped or cut cylinders. In most cases however, the beads were reheated to created rounded beads (Wood 2005: 29). This process involves the beads being mixed with sand or ash in a large pan that was heated by a charcoal fire (Wood 2005:29). The sand and ash were added to prevent the beads from sticking together with these beads only being removed from the heat, once the glass was viscid.

Wood (2005:29) describes another method used to create drawn beads, whereby; "… the glass master shaped a large gather of glass into a cone on a hollow tube, or *lada*, inside a furnace. He then pushed a metal rod through the *lada* into the glass cone, forming a hollow that eventually became the perforation. Next, a second master attached a rod to the other end of the cone through a port in the opposite side of the furnace. He then pulled out a thin glass tube hand over hand, breaking it into manageable lengths as he proceeded." Finally, the beads were cut, reheated and shaped in the same manner as described above. This *lada* method first appeared around the 2nd century BC in India and was used for the manufacture of Indo-Pacific beads (Wood 2005; p29). Beads created through drawing have unique signatures, namely including perforations have parallel sides and are smooth, and "bubbles and inclusions in drawn beads are parallel to the perforation or axis." (Wood 2005:29).

Another method of manufacture results in the production of wound beads. This involves glass being placed in a furnace and melted in a crucible (Wood 2005: 30). A metal rod or mandrel is then dipped into the now molten glass and this glass is wound around the mandrel until the bead is of an acceptable size (Wood 2005: 30). The malleable glass is then shaped by a process called marvering, whereby the glass is shaped by rolling over a flat surface. After this step, the bead is removed from the mandrel. This manufacturing technique creates unique features within the bead that allow easy identification. These include inclusions or bubbles as well as swirl marks that orientated perpendicular to the perforation (Wood 2005: 30). These beads also have a distinctive conical perforation due to mandrels often being tapered (Wood 2005: 30). Due to the complexity as well as time and effort that goes into the manufacture of these beads, Wood (2009: 220) suggests that these beads were more valuable then drawn beads which were mass-produced.

Wound beads are rare within southern Zambezia but have been found at sites like Mapungubwe, K2, Bosutswe, Makahane, Hlamba Mlonga, Matumba and possibly Mapela (Wood 2005; Antonities 2012, 2014; House 2016). These beads are often found to date from the Mapungubwe period and are also chemically closely related to the Mapungubwe Oblate series (Wood 2005). It appears like that both wound beads and the Mapungubwe Oblate serious originated from the same region.

Garden roller beads are the only known pre-European moulded beads found in southern Africa (Wood 2005). These beads were made at K2 were imported glass beads were reworked to form the larger Garden Roller bead. A single-use clay mould was used to fuse small green and blue-green important beads, after which the mould was broken to retrieve the bead.

6.4. Glass Bead Results

Eighteen glass beads were recovered from Mtanye. These beads were identified as belonging to the East Coast Indo-Pacific (EC-IP), K2 Indo-Pacific (K2-IP) and Mapungubwe Oblates glass bead series. Beads belonging to the Mapungubwe oblate series were the most numerous of the glass beads with these beads being found in Terrace 1, Kraal 1 and Site B test pits. These beads were black, brown and green with an average diameter of 2.7 ± 0.29 mm. The most frequent type of bead in this series was opaque black oblates (n=7). Four beads belonging to the EC-IP bead series were found with two found on the surface of Mtanye Hill and the other two found in the Terrace 1 and Site B test pits. These beads were green to turquoise, translucent beads with an average diameter of 3.6 ± 0.25 mm. One K2-IP bead was found the terrace 1 test pit, and this single bead was a minute transparent turquoise tube.

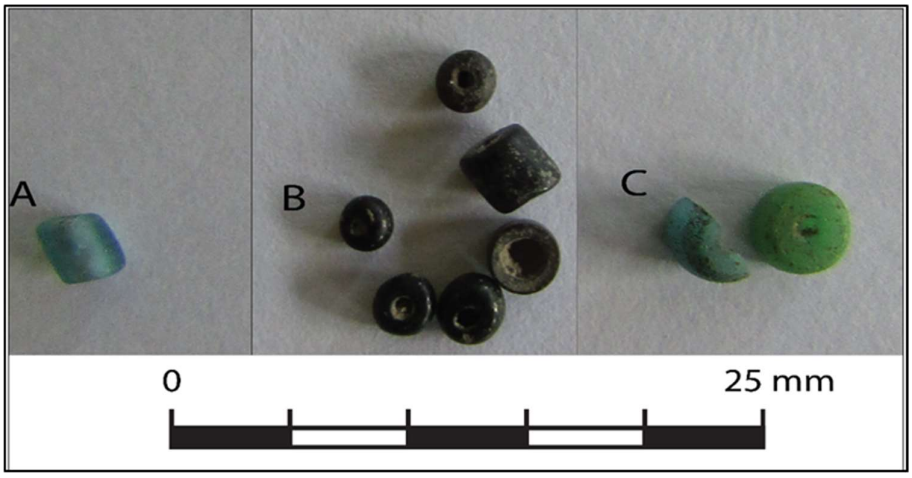

Figure 6.2: Sample of glass beads found at Mtanye. A: K2 Indo-Pacific bead, B: Mapungubwe Oblates beads, and C: East Coast Indo-Pacific beads. Adapted from Scholfield (2017).

Table 6.4: Glass beads recovered from Mtanye, arranged according to their provenance. The morphological features of these beads as well as their classification within Wood's (2005) bead series also included.

Location	Level	Diameter (mm)	Size Designation	Length (mm)	Shape	Diaphaneity	Colour	Patination	Series
MH	Surface	3.72	medium	2.02	cylinder	translucent	green	none	EC-IP
MH	Surface	3.69	medium	2.71	cylinder	translucent	turquoise	light	EC-IP
MH-T1	Level 2	fragmented	N/A	2.92	tube	opaque	white	very heavy	N/A
MH-T1	Level 2	3.15	small	1.56	oblate	translucent	turquoise	medium	Mapungubwe Oblate
MH-T1	Level 2	2.96	small	1.76	oblate	opaque	brown	medium	Mapungubwe Oblate
MH-T1	Level 4	2.44	minute	2.71	tube	transparent	turquoise	none	K2-IP
MH-T1	Level 4	3.86	medium	2.88	cylinder	translucent	green	medium	EC-IP
MH-K1	Level 1	2.96	small	1.37	oblate	opaque	black	medium	Mapungubwe Oblate
MSB-T1SQ2	Level 1	2.87	small	3.6	tube	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 1	2.87	small	1.94	oblate	opaque	black	none	Mapungubwe Oblate
MSB-T1SQ2	Level 1	2.41	minute	1.47	oblate	opaque	black	none	Mapungubwe Oblate
MSB-T1SQ2	Level 2	2.96	small	2.87	cylinder	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 2	2.57	small	1.84	oblate	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 2	2.85	small	2.07	oblate	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 2	3.02	small	1.65	cylinder	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 2	2.55	small	1.76	oblate	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 2	2.3	minute	1.55	oblate	opaque	black	light	Mapungubwe Oblate
MSB-T1SQ2	Level 4	3.27	small	2.09	cylinder	translucent	turquoise	light	EC-IP

6.6. Discussion

The glass beads at Mtanye, also connect the site to other contemporary sites that were entangled in Indian Ocean trade (Wood 2005, 2011, 2012; Robertshaw *et al*., 2010; Figure 6.3). K2-Indo Pacific beads have been found at a number of sites within the SLCA including Skutwater, Schroda and Pont Drift (Wood 2005:43). These beads have also been found at a number of Leopard's Kopje sites located in present day Zimbabwe, such as Mtetengwe (Robinson 1958), Ntaba Zika Mambo (Robinson 1966) and Leopard's Kopje Main Kraal (Huffman 1974). Moreover, these beads have been found at Gumanye and Toutswe sites such as Bosutswe, Kgaswe, Great Zimbabwe phase II (Robinson 1961b), as well as at sites out side of Southern Africa, such as at Kilwa (Period II) (Chittick 1974b) and Mahilaka (Radimilahy 1998) in northwestern Madagascar (Wood 2005: 43) (Table 3.1).

East Coast Indo-Pacific beads have also been found at a number of Leopard's Kopje sites within the SLCA, namely Castle Rock, Pont Drift, Leokwe, K2, Mapungubwe and Skutwater (Wood 2011: 72). These beads have also been found at Kgaswe, Mahilaka and Chibuene on the East African coast (Wood 2011: 72) (Table 3.1).

and the results of this study support this identification, with the majority of Mapungubwe oblate beads found at site, coming from this occupation.

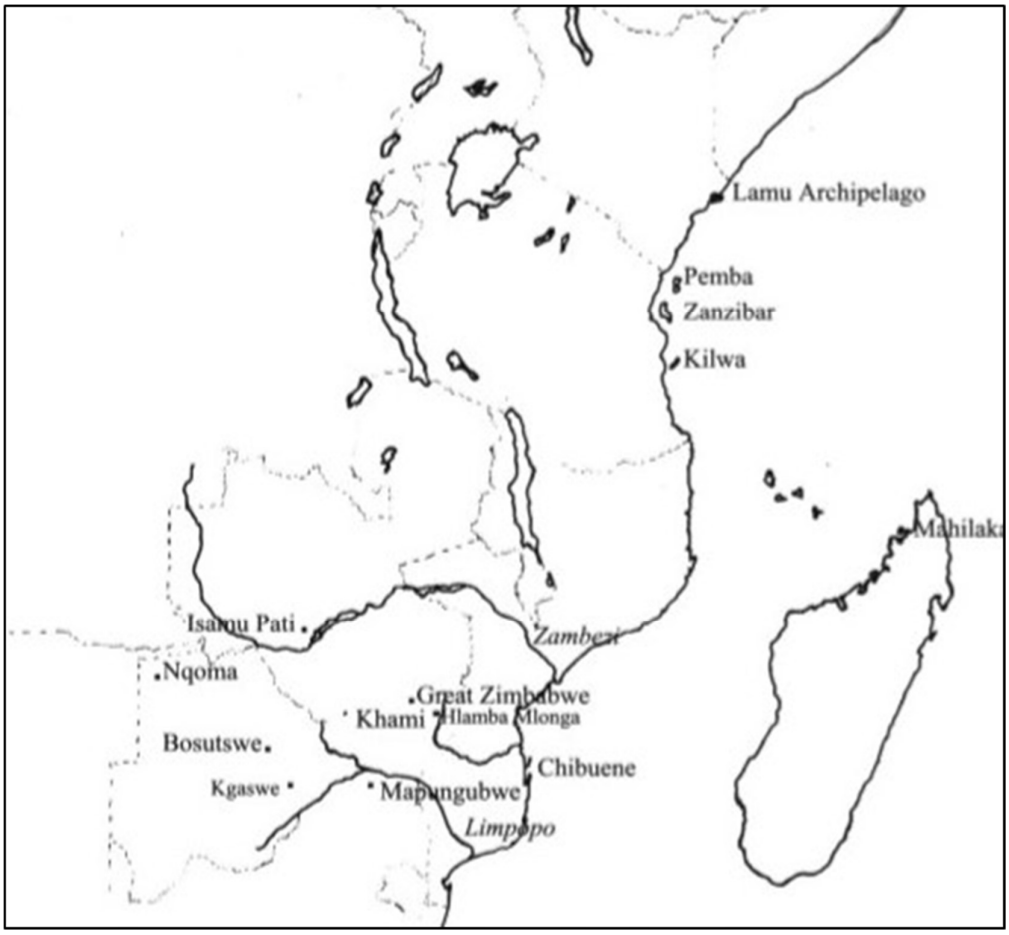

Figure 6.3: Sites mentioned in text with the same glass bead series as those found at Mtanye. Adapted from Wood (2011: 74).

Mapungubwe oblate beads have also been found at a number of Leopard's Kopje sites, such as Mapungubwe, Skutwater, K2, Mapela and Leokwe (Wood 2011; House 2016). A significant number were recovered from Mapungubwe (*n*=2808) and Skutwater (*n*=1775) (Wood 2011: 72). This bead series has also been found at Hlamba Mlonga in present day Zimbabwe and Bosutswe in present day Botswana (Wood 2011: 72) (Table 3.1 & Figure 8.1). What this demonstrates is that the site of Mtanye was embedded in a wide trade and exchange network that incorporated communities across southern and east Africa.

Glass beads are also used as chronological markers allowing for relative dating of sites. The ceramics from site, provide a relative date of between 1200 -1300 A.D., covering both the TK2

period and Mapungubwe period (Huffman 2007a, 2008). The glass beads recovered from site provide a longer time frame of between 900 to 1300 A.D, indicating an occupation that encompasses the K2, TK2 and Mapungubwe periods (Wood 2005, 2011; Huffman 2007a). The early date estibalised by the beads however is based on the K2 Indo-Pacific bead found at site. What is interesting is this single K2 Indo-Pacific bead was found in association with a hut floor in the Terrace 1 test pit. K2 Indo-Pacific appear to have been in circulation between 900 to 1200 A.D. (Wood 2005) which has implications as this occupation has been radiocarbon date to around 1220 A.D. This bead however, was likely recycled and still used during the TK2 and Mapungubwe period at site (Nyamushosho 2016). A second consideration is that a single bead is too small a sample for identification and there is need for further chemical analysis to refine the classification of beads in this study (Wood 2005; Robertshaw *et al*., 2010). The presence of a K2 occupation at site is an interesting prospect, however in order to determine this, more research is needed at the site.

It is also important to contextualise these beads within the society in which they are associated (Bvocho 2005; Mukwende 2016; 135; Moffett and Chirikure 2016). As mentioned in Chapter 2, beads often played a role in defining and identifying social categories. Further these beads may have been used not only as adornment but to decorate various objects. In Shona society, sometimes object such as a walking stick (*tsvimbo*), spear, dagger (*bakatwa*) or snuff box is decorated with glass beads (Bvocho 2005:420). Beaded aprons (*zvichakati*) were another item in which glass beads were incorporated (Bvocho 2005:420; Figure 6.4). Similiarly, the glass beads found at Mtanye could have also been tied to concepts of spirituality and fertility. Within Shona society waist girdles (*mukanda*) worn by women were often decorated with brightly coloured beads, while white beads were often associated with purity and virgin women (Bvocho 2005:420). As mentioned above, black beads like the ones found at Mtanye, were

often associated with *midzimu* or ancestoral spirits. Approaching glass beads from this angle offers insights and depth to the society at Mtanye.

Figure 6.4: A nineteenth century glass bead apron housed in the National History Museum in Bulawayo, Zimbabwe. Adapted from Moffet and Chirikure (2016: 354).

From this discussion one can see that the community at Mtanye was not only embed within a network of interaction with other Leopard's Kopje communities, but also embed in regional networks that encompassed much of Southern Zambezia and East Africa. The glass beads from site indication that this community may have also interacted with Gumanye, Zimbabwe and Toutswe communities as well as communities on the East African coast (Wood 2005, 2011; Chirikure 2014, 2017). One must however, consider that some of these connections may have been indirect with beads being trade down the line. The glass beads found at site also highlight another form of interaction, that of interaction between different members of the community. These beads were social signifiers likely guiding and negotiating interactions between different members of the community. Further these beads were likely important also in communitcation

and interaction between the living and the dead (Bvocho 2005; Chirikure 2014, 2017; Moffett and Chirikure 2016).

6.5. Summary

The glass beads recovered from Mtanye are evidence that this community had access to prestige goods. Further these glass beads provide a relative chronology for the different occupations at site. In total 18 glass beads were recovered from site with beads being found on both the hill and the flats between the kopjes. From the analysis, East-Coast Indo-Pacific, K2 Indo-Pacific and Mapungubwe Oblate beads were recovered from the site. This provides a relative chronology for the site of 900 to 1300 A.D. Moreover, this connects the site of Mtanye with a wider trade and exchange network that linked Southern Zambezia with the Indian Ocean Rim (Wood 2005; 2012). The beads recovered also may also hint at interaction between members of the community with glass beads acting as important mediators of social interactions (Bvocho 2005; Chirikure 2014, 2017; Moffett and Chirikure 2016). While these beads provide strong evidence for local and regional networks of interaction, artefacts that are often associated with various economic activities also provide evidence for interaction across multiple scales. This will be the subject of the next chapter.

Chapter 7 : Economies at Mtanye

7.1. Introduction

The excavations and site survey at Mtanye yielded artefacts often associated with various economic activities. These artefacts include faunal remains, shell beads, ceramic and metallurgic artefacts and provide evidence of animal husbandry, hunting, shell bead manufactor and metal production. These artefacts also provide insight into the networks of interaction that were present at Mtanye during the early second millinium A.D. As can be seen in the ethnographic and historical record, domestic animals like cattle were and are important mediators of social interaction within Southern African Bantu-speaking societies (Beach 1974, 1980; Kruper 1982; Bourdillion 1987; M.Hall 1986; Meerkers 1993; Huffman 2007a; Moffett and Chirikure 2017). Wild game products were also important in the formation and negotatin of networks of interaction in Southern Zambezia during the early second millinium A.D. with ivory, rhinoceros horn, meat and hide being important trade and exchange items (Manyanga 2006; Huffman 2007a; Denbow *et al*., 2008, 2015; Chirikure 2014, 2017; Klehm 2017).

Shell beads also were important actors in regional and local trade and exchange networks (Maggs 1980, 1992; Jacobsen 1987a,b; Mazel 1986,1989; Mitchell 1996; Denbow 1982;1999). These beads were traded within and between agro-pastoral, herder and hunter-gather socieities throughout the Stone and Iron Age. Furthermore, during the Iron Age, metal objects also became important trade items (Huffman 2007a; Bandama 2012; Chirikure 2014, 2017; Moffett and Chirikure 2017) with some communities specialising in the production of metal objects (Bent 1895; Chirikure 2005, 2006; Chirikure and Rehren 2004; Bandama 2012; Moffett 2017).

This chapter therefore aims to analysis these artefacts and demonstrate how these artefacts connect the community of Mtanye to wider networks of interaction.

7.2 Faunal Analysis

A total of 832 bone and shell fragments were recovered from the test pits at Mtanye. These faunal remains were analysed according to the methodology established by Brian (1974), Voigt (1983) and Plug (2000). The remains recovered from the 2017 excavation were identified and classified by Robert Nyamushosho and Kith Mkwanzi. Faunal remains were divided into identifiable and non-identifiable remains. When possible, identifiable remains were identified to species level. This was made possible with the use of the comparative collection available at the Natural History Museum in Bulawayo. Further, the **Number of Identifiable Specimens** (NISP) and the **Minimum Number of Individuals** (MNI) was also calculated. Using Brian's (1974) methodology, bones that could be identified as belonging to Bovidae but could not be identified further were placed in broad classes based on their estimated size. Bovid Class 1 includes small Bovidae (0- 23kg) like Klipspringer (*Oseotragus oreotragus*) and Common Duiker (*Sylvicapra grimmia*). Bovid Class 2 includes medium sized Bovidae (23-84kg) like Impala (*Aespyceros meumpus*), sheep (*Ovis aries*) or goats (*Capra aegagrus hircus*) while Bovid Class 3 includes larger Bovidae (84-296kg) such as Blue Wildebeest (*Connochaetes taurinus*) and cattle (*Bos taurus).* The largest Bovidae (>296kg) are placed in Bovid Class 4 and include Cape Buffalo (*Syncerus caffer*) and Eland (*Taurotragus oryx*).

From the identifiable remains collected from Mtanye, it would appear that wild game was heavily exploited (Figure 7.1). Most of the sample appears to come from wild animals with only 4% representing domesticates. One must, however, consider the high number of faunal remains classified as either Bovid Class 3 or Bovid Class 4. The remains could represent the remains of domesticates like goat, sheep and cattle.

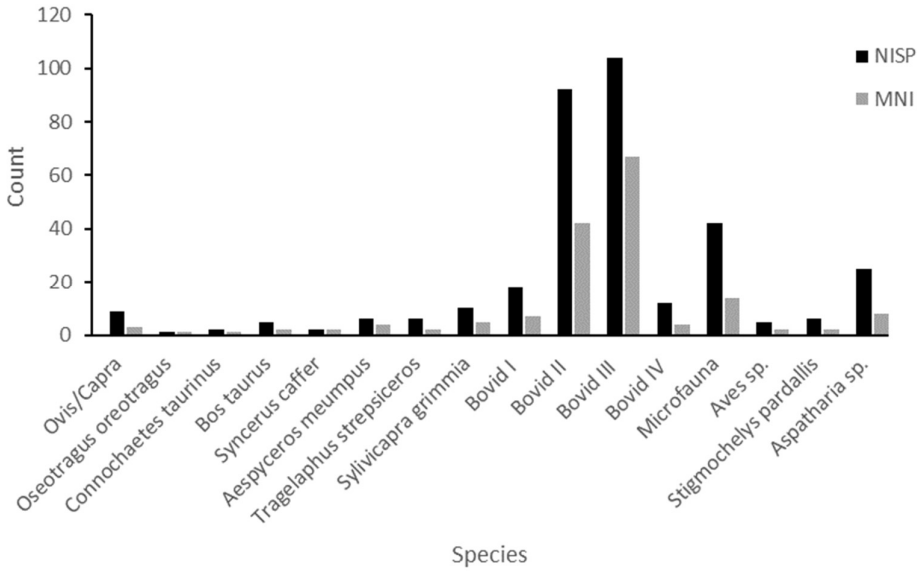

Figure 7.1: The Number of Identifiable Specimens (NISP) and the Minimum Number of Individuals (MNI) for each for each classification of fauna remains recovered from Mtanye.

Mtanye Hill Terrace 1

This test pit yielded relatively little material including only 9 identifiable remains (Figure 7.2). Bones belonging to Bovid Class 3 appear to be most common and may represent the remains of either domesticates like sheep and goats or wild Bovidae like Impala. Impala remains in this test pit were relatively common so it may be likely that some of the bones classified as Bovid Class 3 are in fact Impala.

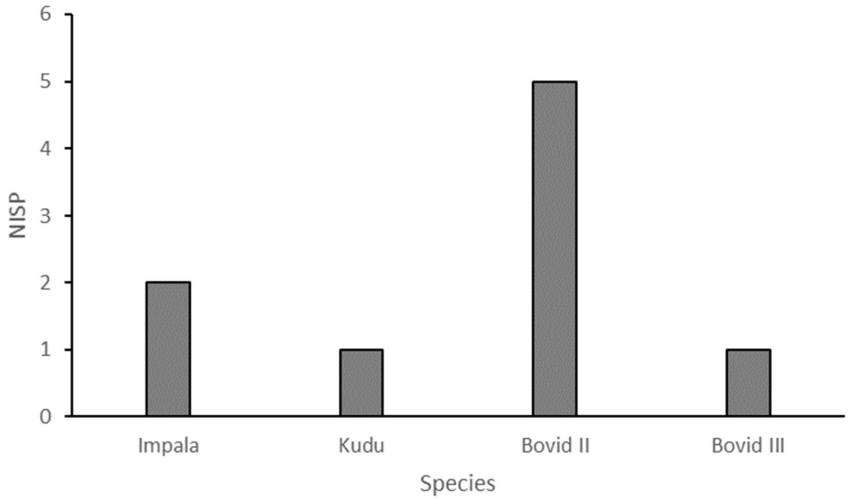

Figure 7.2: The Number of Identifiable Specimens (NISP) for the different classifications of fauna remains recovered from the Terrace 1 test pit.

Mtanye Hill Kraal 1

This test pit produced the largest sample of faunal remains (*n*=421) likely a reflection of the midden deposit encountered during site survey and excavations. Within this test pit, Bovid Class 2 and 3 are again the most common type of faunal remains recovered (Figure 7.3). As mentioned previously, this is however, a product of the identification process and these classes may belong to some of the Bovidae species identified in this test pit, such as sheep, goat, cattle, impala and kudu. Of particular interest, is the high number of freshwater mussel (Aspatharia sp.) remains found in this test pit (*n*=20). This is significant as six mussel shell beads were found in this test pit, with some of them being unfinished. Micro faunal remains were also quite common (*n*=20) and likely entered the deposit as food or through the burrowing activities of certain species. Cattle (*n*=2) and sheep/goat remains (*n*= 2) were poorly represented, however some of the remains belonging to these domesticates may have been classified in Bovid Class 2 and 3.

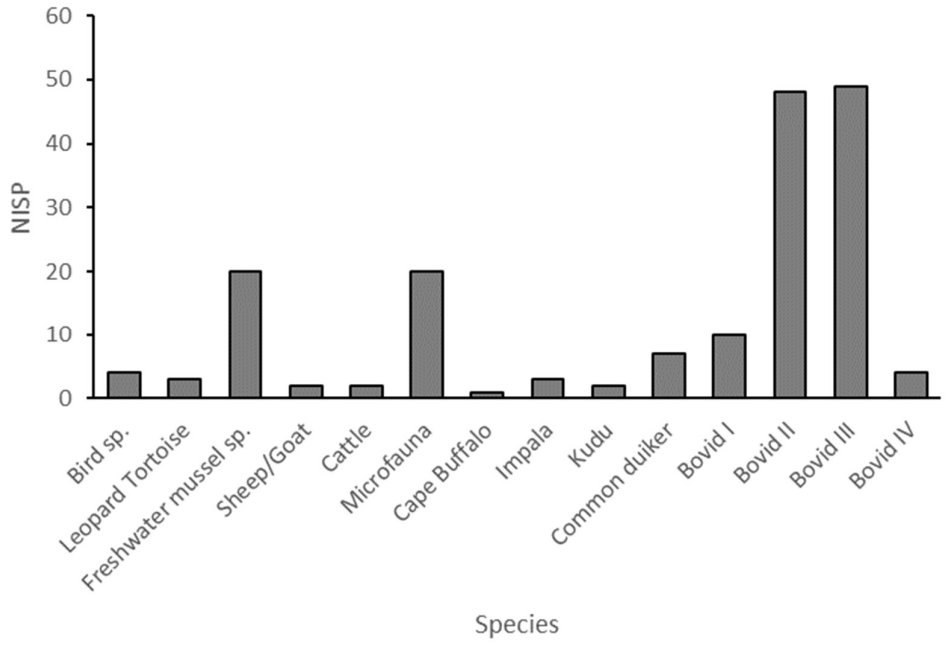

Figure 7.3: The Number of Identifiable Specimens (NISP) for the different classifications of fauna remains recovered from the Kraal 1 test pit.

Site B

The Site B test pit also had a high number of faunal remains recovered (n=339) constituting around 41% of the remains recovered. Again, this is likely a reflection of the midden present in this area. The trend in this test pit is similar to those in others with fauna remains belonging to Bovid Class 2 and 3 being the most common (Figure 7.4). Interestingly, microfaunal remains were also quite common (n = 22) similar to the trend seen in the Kraal 1 test pit. Remains belonging to domesticates like cattle (n=3) and sheep/goats (n=6) were also found in this test pit with these making up a relatively small percentage of the total remains found.

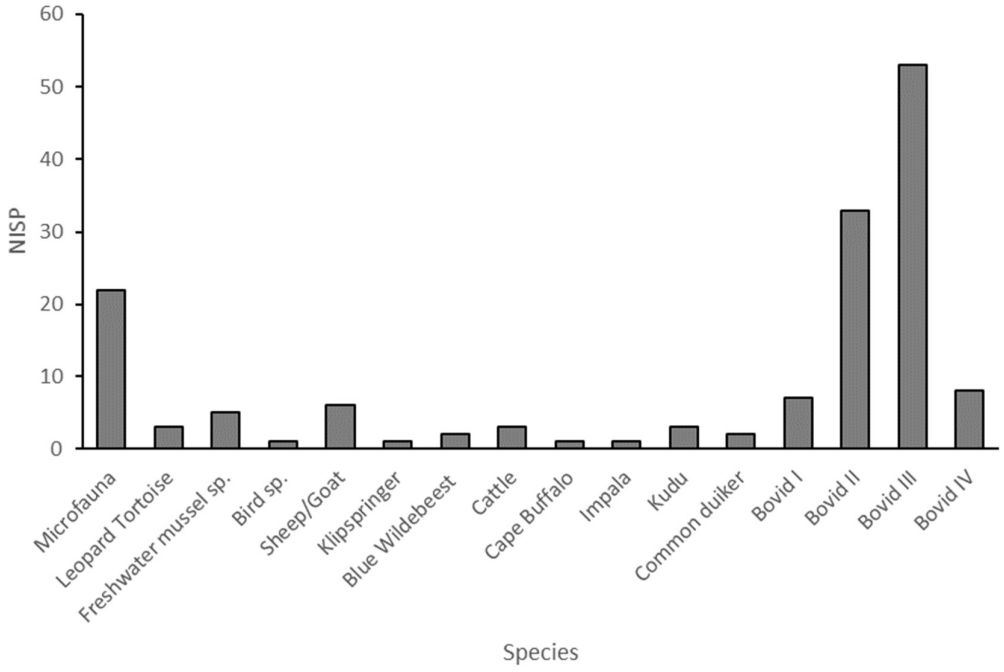

Figure 7.4: The Number of Identifiable Specimens (NISP) for the different classifications of fauna remains recovered from the Site B test pit.

Western Pot

A relatively small sample (*n*=30) of faunal remains was recovered, with the identifiable remains being predominately Bovidae remains (Figure 7.5). There was an equal mix of wild (common duiker) and domesticate (sheep/goat) remains found. Most of the remains, however, were classified as Bovid class 2, with a smaller proportion of remains being classified as Bovid class 1 and 3.

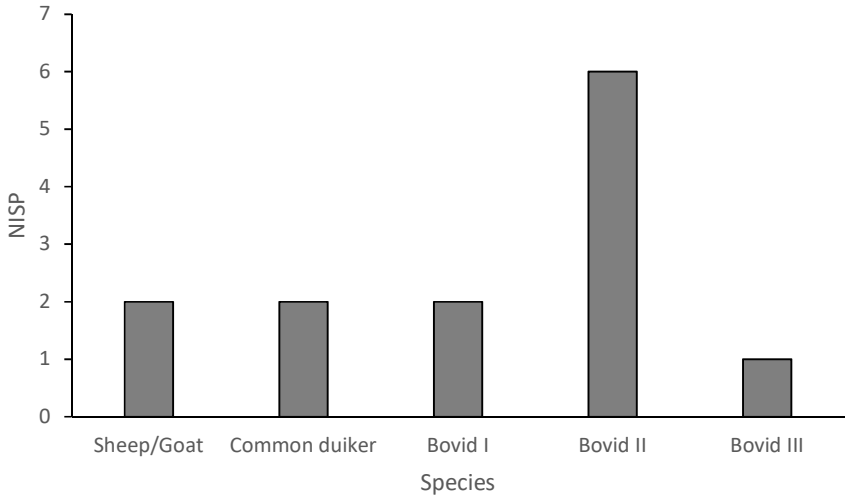

Figure 7.5: The Number of Identifiable Specimens (NISP) for the different classifications of fauna remains recovered from the Western Pot test pit.

Cattle Index

In order to gain a better understanding of how the faunal assemblage found at Mtanye, compares to those of other Leopard's Kopje sites, an inter-site comparison is needed. As Fraser and Badenhorst (2014: 193) point out, NISP can be a product of various factors such as taphonomy, preservation, human population size, how long the site was occupied, the number of animals originally present, the extent of the excavation, the thickness of layers excavated and what features were excavated. This can make inter-site comparison difficult and Fraser and Badenhorst (2014: 193) argue instead for the use of ratios or indexes instead. One index commonly used is the Cattle Index which uses the NISP or MNI value of cattle and sheep/goats to determine the ratio between cattle and sheep/goats at site (Badenhorst 2011; Fraser and Badenhorst 2014). The values produced by this index vary between 0 and 1 with values closer to 0 indicating more sheep/goat and value closer to 1 indicating more cattle (Fraser and Badenhorst 2014). The index is calculated as follows:

$$Cattle\ Index = \frac{Cattle}{Cattle + Sheep/Goats}$$

The results of this caculation indicate that Mtanye falls within the usual range for Leopard Kopje sites during the early second millienium A.D. The NISP index for Mtanye was 0.36 while the MNI index was 0.4. This indicates that there were more sheep and goats than cattle at Mtanye (Figure 7.6).

Figure 7.6: Goats belonging to a local community member near the archaeological site of Mtanye. Photo taken by Robert Nyamushosho.

7.2. Shell Beads

Background to Shell Bead Research

As Moffett (2016) points out, shell beads are quite common at agro-pastoral sites across southern Africa being found at many early 2nd millennium sites (see Hanisch 1980; Voigt 1983; van Ewyk 1987; Antonites 2012). Shell beads were often made from ostrich eggshell, achatina snail shell or freshwater mussel shell and were used alongside glass beads for adornment (Antonites 2012; Moffett 2016). Shell beads were also made, used and traded by hunter-gather societies throughout southern Africa (Maggs 1980, 1992; Jacobsen 1987a,b; Mazel 1986,1989; Mitchell 1996; Denbow 1982;1999). While agro-pastoralists may have traded with hunter-gather communities for ostrich eggshell beads, there is also evidence that farmers made their own beads (Hall and Smith 2000). At sites like Schroda, grooved stones associated with bead grinding were found alongside bead blanks that were yet to be rounded (Hall and Smith 2000).

Antonities (2012) suggests that it was Smith *et al*., (1991) and Yates and Smith (1993) who first associated ostrich eggshell (OES) beads of different sizes with specific groups (e.g. smaller beads associated with hunter-gatherers while large beads associated with herders). Tapela (1995, 2001) has more recently attempted to differentiate between agro-pastoralists beads and hunter-gather beads by creating three categories. Tapela (2001: 67) states that hunter-gather OES beads have an external diameter of between 3.3 to 7.4 mm, while OES beads from smaller agro-pastoralist sites have an external diameter range of 6.1 mm to 13.6 mm. Lastly, OES beads from large agro-pastoralist sites have an external diameter range of 1.5 mm to 13.5 mm. Some such as Reid and Segobye (2000) and Tapela (2001) have suggested that smaller beads present at site may be due to hunter-gathers living at the site or exchange between hunter-gather and agro-pastoralists communities. A more practical explanation has been pointed out by some (Antonites 2012: 221; Jacobsen 1987b:58). Jacobsen (1987b:58) describes how smaller beads were kept by hunter-gathers for domestic use while larger beads were often traded. A similar

pattern is described by Tapela (2001:64) who interviewed individuals in northern Botswana. Tapela found that due to the time-consuming nature of smaller beads, these beads were often viewed as uneconomical. As (Antonites 2012: 221) suggests, the occurrence of smaller beads therefore at agro-pastoralists sites may be a product of this trade.

Another aspect to consider is how OES shell bead manufacture and trade varied across southern Africa. For example, Mazel (1986, 1989) found that OES beads were made by hunter-gathers in the highveld of present-day South Africa and traded with agro-pastoralists in present day KwaZulu-Natal who did not make their own. Hall and Smith (2000) suggest that in the Shashe-Limpopo region both hunter-gatherers and agro-pastoralists communities manufactured OES. These patterns may reflect the distribution of ostrich across the landscape which underlies both the manufacture and trade in OES beads.

Shell bead analysis

Eighteen shell beads were recovered from Mtanye with the highest concentration of shell beads in the Kraal 1 test pit (*n* =14). Most of the beads recovered were made from ostrich eggshell (n=11), while smaller numbers of mussel (*n*=6) and bone beads (*n*=1) were also recovered. The concentration of shell beads in the Kraal 1 test pit is quite interesting as a sizable sample (*n*=20) of freshwater mussel (*Aspatharia* sp.) was also recovered from this test pit. Unfinished mussel shell beads were also found in this square indicating manufacture of beads at site. The average diameter size of ostrich eggshell beads (OES) recovered at Mtanye was 5.7 ± 1.3 millimetres while the average diameter size of mussel shell beads recovered from Mtanye was 5.9 ± 0.99 millimetres (Figure 7.7). The average size of the shell and bone beads was 5.8 millimetres with a range from 4.2-7.8 millimetres. The Mtanye beads would theoretically fall into Tapela's (2001) large agro-pastoral range (1.5 mm to 13.5) despite Mtanye being a relatively small settlement.

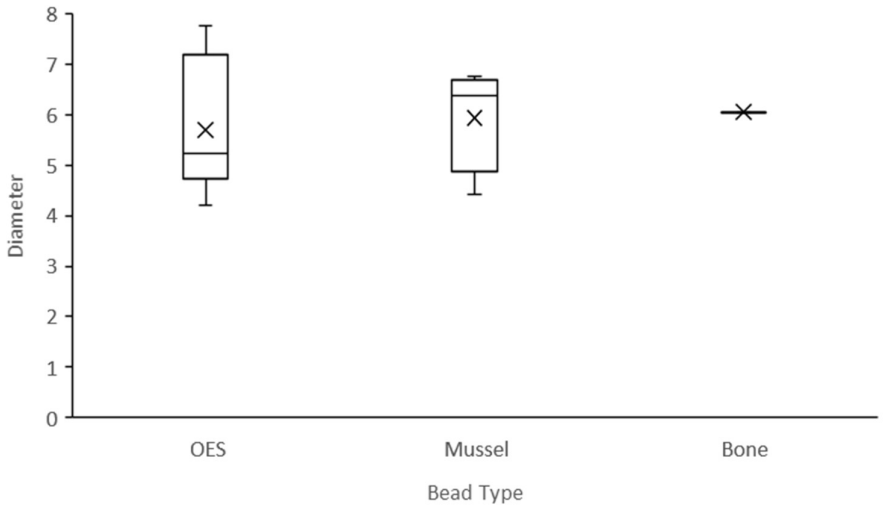

Figure 7.7: The distribution of shell/bone bead external diameter sizes for each type of shell/bone bead found at site at Mtanye.

7.3. Ceramic and Metallurgic Artefacts

Various objects associated with metal working were found at Mtanye. Slag was found across the site with a total of weight of 301.7 grams. Notably the largest quantity of slag by weight was found on Mtanye Hill. The slag found on the hill was distributed across Terrace 1 and 2 and also across Kraal 1 and 2. Interestingly, slag recovered from the flat area between the hills (kopjes), (mostly around Site B) was usually associated with the stone features found in this area; namely stone feature II, stone feature VI, stone feature VII and stone feature IX. The slag found at site appears to fall within two categories, flow slag and furnace slag. These were identified with the help of Ndivhuho Mathoho and Bandama's (2013: 271-272) descriptions. Some of the slag recovered was smooth, with a flowing structure and flat bottoms. This corresponds to Bandama's (2013: 271-272) description for flow slags. Further, these slags form either within tuyeres or when they flow out of a furnace (Bandama 2013; 271-272; Mathoho pers. comm 2019). Some samples had sand grains incorporated from when they flowed out of the furnace. The remaining slag appears to be furnace slag and matches Bandama's (2013: 271-

272) description, being somewhat porous, irregular and with furnace wall inclusions. Interestingly, two large pieces of furnace slag were found *in situ* in level 9 of the Site B test pit. Their combined weight however, was only 14.18 grams (Table 7.1).

Table 7.1: The weight of slag from Mtanye, organised according to where the slag was found.

Location	Weight (g)
Mtanye Hill (Surface)	231.7
Mtanye Flat Area (Surface)	55.8
Site B Test Pit (Level 9)	14.2
Total	301.7

Two crucibles were found during excavations in level 4 of the Kraal 1 test pit and in level 7 of the Site B test pit (Figure 7.8). Originally, Scholfield (2017) identified a piece of the crucible found in the Kraal 1 test pit, as a smoking pipe, however after re-examination, it was found that this piece fits a crucible found in the same level. This crucible was also found associated with the foundations of terrace walling in this test pit. During excavations of the Site B test pit, an unknown ceramic object was found and later identified as a ceramic spoon. The identification of this object was based on comparison with similar objects found by Calabrese (2005: 177 &179) at Castle Rock. Metal objects were also found at Mtanye, most notably, an iron arrow head found on the surface of Mtanye Hill Terrace 1. A piece of iron wire around 3.8cm long was also found in this location. A small piece of iron was also found associated with stone feature VI.

Also found scattered across Mtanye Hill Terrace 1, were figurine fragments. At least five of the fragments were recovered with one figurine being almost complete. This figurine appears to be a cattle figurine (Figure 7.8).

Figure 7.8: Ceramic and metal artefacts found at Mtanye. 1a & b are the remains of crucible found *in situ* in the Kraal test pit. 2 is a ceramic spoon found in the Site B test pit and 3 is figurine fragments found on the surface of Mtanye hill. 4 is an iron arrow head also found on the surface of Mtanye Hill.

7.4. Discussion

The archaeozoological assemblage found at site point to possible networks of interaction in which the community of Mtanye may have been entangled in. Like Huffman (1972, 2008), this study also recovered tortoise, sheep/goat and cattle remains, however more faunal remains were recovered during this study, greatly enhancing our understanding of the community's subsistence. The faunal remains recovered from Mtanye, suggest a greater exploitation of wild

animals with smaller numbers of domesticates being found. Further, sheep and goats appear to be more common in the assemblage, consistent with other Leopard's Kopje sites from the period (Fraser and Badenhorst 2014). The NISP index for Mtanye is the same as that of Mutamba (Antonites 2012) with both the MNI and NISP cattle indexes comparable with sites like Pont Drift, K2, Mapungubwe and Malumba (Fraser and Badenhorst 2014) (Table 8.6). What this indicates is that like other contemporary sites, Mtanye has a higher proportion of sheep/goats to cattle. Interestingly, this trend does not occur at Mapela (House 2016) where it appears the faunal sample at this site had a higher proportion of cattle. The archaeobotanical and archaeozoological remains suggest that the Iron Age community of Mtanye was resourceful, able to enrol different subsistence strategies in order to not only survive but thrive in a region often described as marginal drylands (Beach 1980; Huffman 2008; see also Nyamushosho 2016; Nyamushosho *et al*., 2018). Wild game could have been exploited for food with the hides and meat being traded (Manyanga 2006).

One must however consider also some factors regarding these interpretations. Firstly, there was some difficulty in identifying some of the remains to species level, with these remains being broadly classified within Bovid classes (R Nyamushosho pers. comms 2019). What this implies is that some of the remains classified into either Bovid class 2 or 3 could in fact be the remains of domestics. Another factor that must be considered is that even though sheep and goats outnumbered cattle remains, this does not necessarily mean that there were more sheep and goats then cattle at this site. As Huffman (2008) rightly points out, it is difficult to determine herd sizes from faunal remains alone. These results could indicate instead differences in slaughtering practise with cattle being killed less often. This is supported by the ethnography of different Eastern Bantu-speakers like the Shona, where cattle are often only slaughtered for funerals, weddings and ceremonial events (Hutton 2005: 50). This likely explains the pattern seen at other similar Leopard's Kopje sites (Table 8.6). This region was known historically as

good cattle country and so it is unlikely that the community at Mtanye, would not have exploited this resource (Beach 1980; Huffman 2008; Nyamushosho 2017). Historically, local as well as state level Shona communities were supported mainly by economies orientated around pastoralism (Beach 1980, Pikirayi 2001, Manyanga 2006, Moffett and Chirikure 2016). Evidence at site also suggests thick dung desposits, likely created by cattle herds with these depoists being found at sites like K2 and Mapungubwe (see also Huffman 1974, 119). Further, the presences of a cattle figurine described above supports the claim that these animals were important to the community of Mtanye. Cattle appear to have also been ritually important to Leopard's Kopje communities as demonstated by the beast burials at K2 (Gardner 1963; Huffman 1974, 119). Another possibility that is equally plausible is that communities like Mtanye had smaller herds of cattle and larger herds of sheep and goat. Large centres like Mapela (Table 8.6) might have had larger herds of cattle due to tribute and marriage alliances (Beach 1974;1980; Huffman 2007a). What is also interesting about high cattle index for Mapela, is that it may in fact support Garlake's (1968) theory that Mapela's economy was orientated around pastoralism (see also Huffman 2015b: 19).

Cattle would likely have been important to the community of Mtanye as they would have been important actors in the formation of different social networks of interaction. For example, in the enthnohistorical record, cattle were important in aquiring depends through social interactions such as *roora*/*lobola* or through cattle loaning practices such as *kuronzera* (Kruper 1982; Bourdillion 1982; Meerkers 1993; Huffman 2007a; Moffett and Chirikure 2017).

Table 7.2: The Number of Identifiable Specimens (NISP) and the Minimum Number of Individuals (MNI) Cattle Indexes for Zhizo and Leopard's Kopje sites across southern Zambezia. Adapted from Fraser and Badenhorst (2014).

Site	Date	Cattle NISP	Sheep/goat NISP	Cattle MNI	Sheep/goat MNI	Cattle Index	Reference
Mwenezi	AD 700–1655	83	46			0.64	Manyanga *et al*.2000
Mwenezi	AD 700–1656			5	8	0.38	Manyanga et al.2000
Schroda	AD 750–1000			201	263	0.43	Voigt 1983
Pont Drift	AD 810–1110			59	119	0.33	Plug & Voigt 1985; Plug 2000
Commando Kop	AD 850–1000			29	46	0.39	Plug & Voigt 1985; Plug 2000
K2	AD 970–1220			226	290	0.44	Voigt 1983
K2	AD 970–1220	428	549			0.44	Voigt 1983
K2	AD 970–1220	1 210	1911			0.39	Hutten 2005
Mapungubwe Hill	AD 950–1300			142	200	0.42	Voigt 1983
Mapungubwe Hill	AD 950–1300	177	283			0.38	Voigt 1983
Southern Terrace	AD 900 -1300			46	72	0.39	Voigt 1983
Southern Terrace	AD 900 -1300	98	161			0.38	Voigt 1983
Malumba	AD 1010–1410	37	37			0.5	Manyanga et al.2000
Malumba	AD 1010–1410			11	19	0.36	Manyanga et al.2000
Mapela	AD 1030 - 1385	22	13			0.63	House 2016
Mapela	AD 1030 - 1385			15	9	0.63	House 2016
Mananzve	AD 1185 -1730	6	11			0.35	Nyamushosho 2017
Mananzve	AD 1185 -1731			4	6	0.4	Nyamushosho 2017
Mtanye	AD 1220 - 1390	5	9			0.36	Scholfield 2019
Mtanye	AD 1220 - 1390			2	3	0.4	Scholfield 2019
Mutamba		82	143			0.36	Antonites 2012

The figurines found at Mtanye are particularly interesting considering where they were found. Figurines have been found at many different sites with the site of Schroda yielding 2,000 figurines (Hanisch 2002, Huffman 2007a; Schoeman 2017). Further, at least 1,180 figurines have been recovered from around 200 sites located across Zimbabwe (Matenga 1993; Schoeman 2017). From Leopard's Kopje Main Kraal around 110 figurines of woman and domestic animals were recovered from Zhizo/Mambo layers (Huffman 1974: 63; Matenga 1993, Schoeman 2017). There is often much debate as to what these figurines were used for. Conventional theories suggest they were used for initiation, particularly among non-Shona groups like the Venda or Sotho-Tswana (Huffman 2007a, Schoeman 2017). One must, however consider the context of where these artefacts were found. For example, figurines found at Schroda, were found both in the centre of the settlement and within domestic spaces (Huffman 2007a, Schoeman 2017). As Schoeman (2017) points out, the 'fine' figurines were usually distributed among the domestic spaces and were usually in the shape of woman or domestic animals. These figurines were more durable and therefore, Schoeman (2017) concludes the were likely children's toys. This idea has the support of early researchers such as Summers (1957) who suggested likewise. When considering the cattle figurines found at Mtanye, and the domestic context in which they were found, it seems likely that these were also children's toys. The distribution of figurines within domestic contexts has also been found at other Southern Leopard's Kopje sites such as Bobonong Road (Kinahan *et al*., 1998). Interestingly, Kinahan *et al*., (1998) also states that the ceramics found at this site are like those at Mtanye. The cattle figurine found at Mtanye bares similarity with those also found at Leopard's Kopje Main Kraal (Huffman 1974: 63). This is further evidence of a connection between Mtanye and the wider Leopard's Kopje cultural landscape.

Cattle figurines like the ones found at Mtanye appear to be mostly distributed within the 'cattle belt' which stretched from south-central to south-western Zimbabwe, with the earliest cattle

figurines appearing in the Zhizo period (Schoeman 2017). These figurines have been found at not only Leopard's Kopje sites but also Zhizo and Zimbabwe sites (Figure 7.9). This further suggests that the community of Mtanye was likely influence by wider practises that crosscut different community. Moreover, this reflects the extensive network of interactions that Mtanye was embedded in. Due to the symbolic status of cattle in Bantu-speaking and more particularly Shona communities, the figurines found at Mtanye could have been the toys of young boys (Schoeman 2017). Further, as maleness within these communities is often entangled with cattle, these figurines could have been a means through which ideas of procreation, maleness and fertility are expressed (Schoeman 2017).

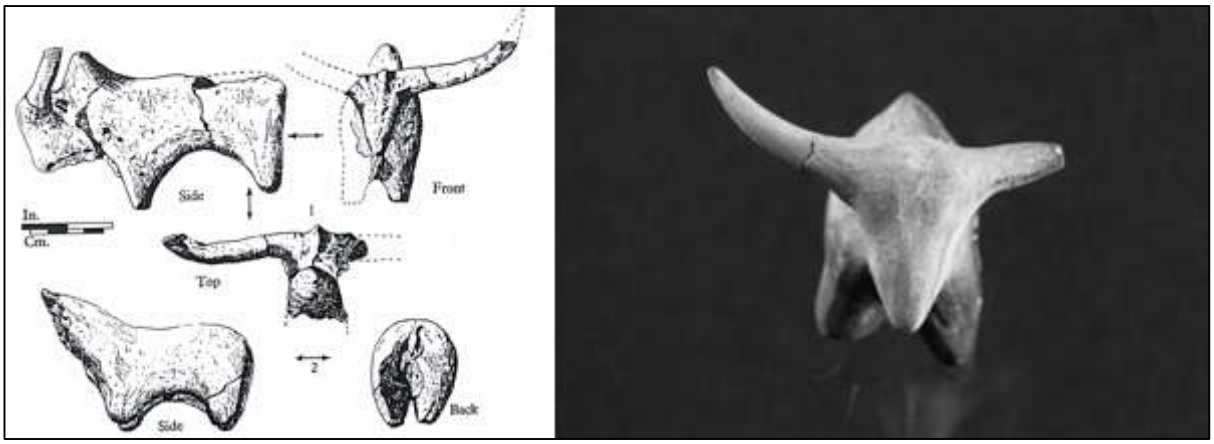

Figure 7.9: Cattle figurine found at Great Zimbabwe Period II (left) and Schroda (right). Adapted from Robinson (1961b), Huffman (2008: 213) and Schoeman (2017: 133).Photograph originally sourced from Ditsong: National Museum of Cultural History.

Mtanye's economy was also likely supported by both local and long-distance trade as evident from the glass and shell. The presence of both glass beads and Leopard's Kopje ceramics also suggests that this community was entangled in a extensive network of interactions that included trade and exchange. The incomplete shell beads found in association with freshwater mussel shell fragments suggest that this community also crafted their own shell beads. These beads could have in turn been traded between individuals in the community or between communities.

The average size of OES beads at Mtanye is quite interesting as these beads are smaller than the expected average of agro-pastoral settlement like Mtanye (Tapela 2001; Antonities 2012: 223; Nyamushosho 2016; 148). Antonities (2012) identified two bead clusters with averages of 4.4 millimetres and 7.3 millimetres at Mutamba. The sample from Mtanye fall between these two clusters. One must however, keep in mind the sample size, which, is also quite small and does not accurately represent the full range of shell beads at Mtanye. Further, this small sample size skews the data.

The production of metal at Mtanye also appears to be complex. The quantity of slag and metal objects associated with iron production, suggests that this production was mainly to provide for domestic needs (Costin 1991; Scholfield 2017). Objects like the iron arrowhead and hoe tang found by Huffman (1972a; 2008) may have been crafted at site to meet the needs of the community (Figure 7.8). The slag found at Mtanye is also interesting as it was found with the settlement usually associated with stone features. The slag found at site is typically associated with iron smelting (Figure 7.10) however, judging by the amount of slag recovered and lack of tuyeres, these pieces may have been carried into the site along with the iron blom (Huffman 2007a; Mathoho pers comms., 2019). If this slag is indeed the product of smelting rather then smithing, then this pattern would fit with historical Kalanga communities. In Kalanga communities smelting was usually carried out in the centre of villiage as women's labour was important in the process of iron production (Chirikure 2005: 137-139). The presences of crucibles and dolly holes however also suggest either copper, gold or both were produced at site (Huffman 2007a; Bandama 2013; Nyamushosho 2017). The production of these metals may have been for domestic consumption however they may also have formed part of local trade.

Figure 7.10: Furnaces in Zimbabwe. Note how the furnaces are decorated to resemble a woman's body. Adapted from Huffman (2007a:81).

The arrowhead found at site is also quite conspicuous and may have been used for hunting or in warfare (Mudenge 1974; Beach 1980) (Figure 7.11). As a hunting tool, this object would have been an important actor within interactions either between the hunter and his prey or in the precurrement of meat and hide for local consumption or trade. As a tool of warfare, this object may have also played a role in social interactions such as warfare (Mudenge 1974) which in turn likely played an important role in community formation during the early second millinium A.D. (Kim and Kusimba 2008; Moffett and Chirikure 2017).

Figure 7.11: A northern Shona man described as a hunter (Beach 1980) and warrior M.Hall and Stefoff (2006). Originally sourced from the National Archives of Zimbabwe

7.4. Summary

From the faunal remains recovered from Mtanye, it would appear that the community at Mtanye relied predominately on wild game. Wild game products like meat and hides could have been traded linking the community of Mtanye with other communities in the region. Further, there were more sheep and goats in the faunal assemblage than cattle. However, this may be due to fewer cattle being slaughtered. Cattle were likely of significant importance to the community with cattle being important actors in the formation and negotiation of different social networks of interaction. There is also evidence of shell bead manufacture at site as well as metal production, but of which could have also formed part of local trade and exchange.

Figurine fragments were also found at site, which link the community through shared practice to Leopard Kopje, Zhzio and Gumanye-Zimbabwe communities across Southern Zambezia. This chapter supports the findings of the previous chapters and indicates that the community of Mtanye was deeply entrenched in local and regional networks of interaction. It should now be possible to demonstrate how these networks of interaction could have shaped not only the community but also their material culture.

Chapter 8 : Discussion and Conclusion

8.1. Introduction

The results of the material culture study at Mtanye indicate that this community was entangled in various networks of interaction. The ceramics from site indicate a connection with other Leopard's Kopje ceramic producing communities while the glass beads hint at a connection with the East African Coast (Huffman 2007a; Wood 2005, 2012). The various economies at Mtanye support these findings indicating that the community may have not only engaged in trade and exchange with other communities but also shared ideas and practices. The practice of hilltop occupation coupled with stone walled terraces indicates that this community was not only connected with other Leopard's Kopje sites like Mapela and Mananzve, but was also connected through shared practise, with Toutswe, Zhizo and Gumanye communities (Van Waarden 2011, 2012; Chirikure *et al*., 2012, 2013a, 2014, 2016; House 2016; Nyamshosho 2017; Klehm 2017). Like walling, ideas regarding cattle were also shared among these communites with these communities sharing the practise of craft cattle figurines. The inter and intra community networks of interaction likely witnessed the exchange of people, objects and ideas.

Through the application of ANT, one finds that the unique socio-material assemblage found at Mtanye is a product of heterogenous networks of interaction, in which the community at Mtanye found themselves in. These networks include actors such as cattle, people, beads, pots, the local geography as well as marriage and exchange practices to name a few. Moreover, this unique socio-material assemblage incorporates actors such as the transmission qualities of styles and practice, local innovation, the fittingness of technologies and designs, as well as who the community of Mtanye was interacting with. Each material assemblage at Mtanye, therefore

can be further understood as a hybrid entity emerging from and negotiated within heterogenous networks of interaction.

8.2. Exploring Networks of Interaction

"People, ideas and objects move within and between these scales, both physically and conceptually, as they act and articulate within different worlds at the same time." - Ashley et al., (2016; p426)

The evidence from Mtanye, indicates that the community was deeply embedded in regional and local networks of interaction (Figure 8.1). Applying a symmetrical framework, grounded in a relational ontology can aid in understanding this community's genesis. Each site and assemblage are a product of relations between unique heterogenous actors (i.e. things, people and ideas). These actors come together in the formation and negotiation of material culture and settlement layout, with differences in either the actors or the relations between actors causing variation across time and space (Olsen 2003, 2007; Latour 2005; Whitridge 2005; Witmore 2007; Knappett 2011).

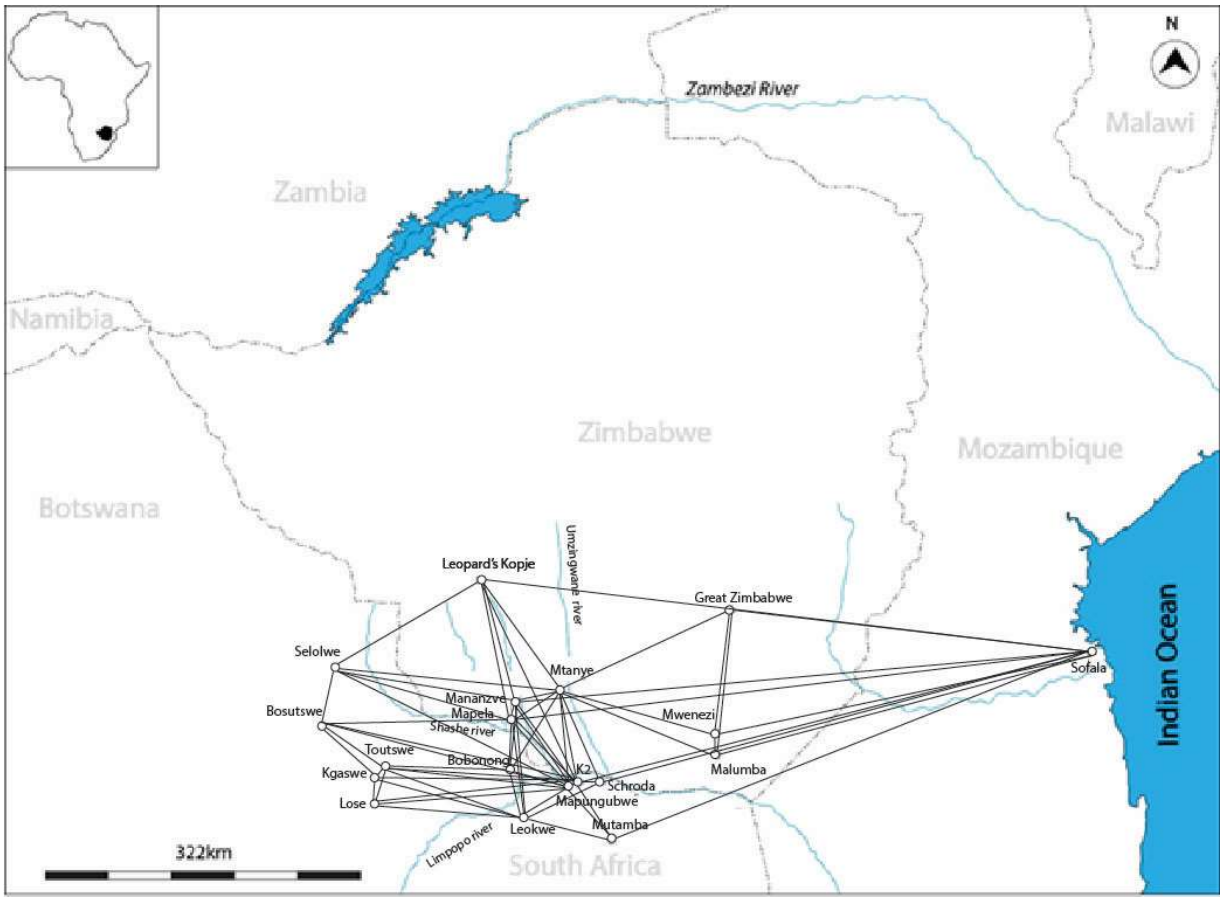

Figure 8.1: Networks of interaction based on material reovered at various sites including Mtanye.

The Iron Age community of Mtanye was likely formed through kinship networks like the modern-day Shona *musha* (Bourdillion 1987). Furthermore, this settlement may have been originally constituted around a headman and his immediate family. Over time this may have change with a new headman taking the former's place. These kinship networks may have been further facilitated by actors such as cattle and women (Kruper 1982; Bourdillion 1987, Meerkers 1993, Huffman 2007a).

As can be seen from ethno-historical accounts, cattle were important mediators in the negotiation of networks of interaction. Their low numbers within the fauna assemblage, coupled with their symbolic representation at site suggests that they may have been valued as a source of wealth and prestige as well as symbolic resource rather than merely a subsistence

resource. Further, cattle likely played an active role in the formation and negotiation of relations at Mtanye similar to historical Eastern Bantu speakers like the Shona (Beach 1974, 1980; Kruper 1982; Bourdillion 1987; M.Hall 1986; Meerkers 1993; Huffman 2007a; Moffett and Chirikure 2017). From an ANT perspective, cattle along with human agents actively created the value system in which they were embedded. Without cattle, these systems, relationships and social obligations would not exist. Moreover, it is likely that cattle at Mtanye could have helped facilitate the movement of people, ideas and objects across the landscape. These exchanges could have occurred through practices like *roora* marriage exchanges or *kuronzera* cattle loans. Raiding as well as the exchange of gifts or tribute could also account for the movement of cattle, people, ideas and objects across the landscape (Beach 1974, 1980, Moffett and Chirikure 2017; Moyo 2017).

Considering the glass beads at Mtanye, one finds that the presences or rather the access to so called prestige goods, is quite unusual within conventional frameworks (see Huffman 2007a; Wood 2012). Recent research has shown that so called periphery Mapungubwe sites such as Mutumba in the Soutspanberg, had access to prestige goods (Antonities 2012). This has been confirmed not only at Mtanye but also at sites like Mananzve (Nyamushosho 2017). This calls not only the concept of elite controlled of trade into question, but also the concept of periphery sites. Who determines a core or periphery when sites had equal access to prestige goods and had local craft production? Perhaps a more informative way to understand these distributions, is to understand them as a product of a wider network of interaction. From the historical record, one finds that access to prestige trade goods like glass beads was not restricted by elites (Beach 1980; Moffett and Chirikure 2017). Furthermore, both *vashambadzi* and *mwenye* traders travelled between villages, exchanging trade items for local products (Beach 1980). In fact, young men are known to have actively sort out glass beads or *chuma* as gifts to their betrothed (Bhila 1982; Chirikure et al 2013b, 359; Moffett and Chirikure 2017). Considering this, it

seems likely that the glass beads found at Mtanye could have likewise been brought to the site by itinerant traders or young men looking for gifts. Moreover, these glass beads could have also been gifts from leaders or headsmen. Yet another possibility is these beads may have arrived as part of the personal adornment of woman who came to Mtanye as part of *roora* marriage arrangements. As shown by Bvocho (2005) and Moffett and Chirikure (2017), beads formed an important aspect of personal adornment. This also opens the possibility that beaded items instead of just unstrung beads, were also traded. If an item such as a woman's apron for example, was traded, then the specific patterns found on this apron could have a significant effect on the transmission of designs and further the fittingness of these designs within a community. This concept will be further elaborated on when addressing the ceramic designs present at Mtanye.

One must now however address how both local communities and the beads themselves expressed forms of agency. First as discussed in the literature (see Presholt 2004; Chirikure 2014; 2017; Moffatt and Chirikure 2017), communities often express a certain level of agency when acquiring trade goods. This is well attested in the historical record, with only the right type of glass beads being accepted by historical Shona communities (Beach 1980). Moreover, as Munn (1983, 284) found within Kula exchange systems, both human and bead are embedded in a reciprocal relationship. The human and the beads define each other's value within this system. Without beads, the men of this society are unable to define their value (see also Knappett and Malafouris 2008, x). As demonstrated above, glass beads were important signifiers in Shona society (Moffett and Chirikure 2017). Therefore, the type of glass beads found at Mtanye, should also be considered as emerging from a reciprocal value system, in which human agents and beads interact and define each other's value. Consequently, one must understand that while the presence of glass beads at Mtanye is partly a product of trade and

exchange networks; it is also a product of individual actor's agency within a contextual actor-network.

Another network of interaction at Mtanye could have been the trade in metals. Mtanye is located near the Gwanda-West Nicholson gold belt and would have been well situated to exploit the gold trade. Huffman (2000, 2009) suggests that the Mapungubwe state expanded into this region in order to control the gold trade, with gold from Mapungubwe said to have originated from this area. While the details of this so-called expansion are discussed in further detail below, it does seem likely that metals such as gold made their way south through sites like Mtanye, Mapela and Mananzve into the SLCA. Mtanye could have also played a role in the wider trade network with the East Coast of Africa, with perhaps a portion of gold or even copper exchanged for glass beads. This last point however may be an overreach as no gold has yet been found at Mtanye. Copper on the other hand, has been found at site, namely by Walker (1972) inside the rock shelter. The quantity of copper however is very small and therefore to propose an industry or economy partly sustained by its production cannot be supported by the current evidence.

As can be seen at this point, the socio-material imbroglio at Mtanye is quite complex. One aspect of this settlement that also stands out is the stone walling. If one were to interpret the stone walling at Mtanye from the perspective of situated semiotics (Knappett 2011; 100- 102), stone walling is both an index sign and an inscribing practise. The semiotic status of stone walling at any particular site in Southern Zambezia, is not static. This status shifts through time from index to icon resulting in its imitation and assimilation across the landscape (Knappett 2011 p 102). Furthermore, as an inscribing practice, it can be rapidly transmitted culturally, although the product is not always faithful to the original.

In order to gain a better understanding of the practise of terraced stone walling at Mtanye and in southern Zambezia at this time, an ethno-archaeological approach is applied. Firstly, one must recognise that the transmission of stone walling described above is facilitated by the mobile nature of knowledge, people and things (Antonites and Ashley 2016; Ashley *et al*., 2016). Furthermore, archaeological research has demonstrated that there existed multiple networks of interaction that crisscrossed Southern Zambezia (Wood 2005, 2011; Huffman 2007a; Chirikure 2014, 2016). Evidence of the Mtanye community's incorporation into these networks of interaction is present in the form of the material culture recovered at site, such as glass beads and Leopard's Kopje ceramics.

Using the ethno-historical record, knowledge of terraced stone walling could have reached the community at Mtanye through itinerant traders such as the historic *vashambadzi*, through *roora* marriage exchanges or through direct interaction with neighbouring communities. Mtanye further, is uniquely situated, being relatively close to Northern Leopard's Kopje communities (see Huffman 1974). It is among these communities that some of the earliest terraced stone walling has been recorded (van Waarden 2011). Further Mtanye's walling is like those seen Mapela (House 2016), Mapungubwe (Huffman 2007) and Mananzve (Nyamushosho 2016). The terraced walling at Mtanye is associated with TK2 ceramics like Mapela, where terraced walling was associated with the K2 and TK2 period (House 2016).

The terraced walling on Mtanye Hill speaks to the ability of the community to mobilise people, knowledge and material in order to achieve a goal. As mentioned in a previous chapter, Shona communities are bound by a spirit of cooperation and reciprocity, with this ideology emphasised in proverbs such as '*kuturika denga remba kubatirana*' which means 'to put up a roof to a hut is to assist each other' and *'rume rimwe harikombi churu'* translated as 'one man does not surround an anthill' (Tavuyanago *et al*., 2010: 5). It is possible that a system like the *humwe* work parties existed through which people could be mobilised to construct not just the

walls found at Mtanye but also the houses. This theory also finds support in the literature with Soper (2000: 224) also suggesting that the Nyanga terraces in Eastern Zimbabwe were likely also built by work parties. Finding willing workers for the construction of the walling at Mtanye could also be found through kinship networks of interaction. For example, an individual could through *roora* or through a similar practice to *kutema ugariri,* gain followers to help in homestead construction or maintenance.

While the above sheds light of the social aspects of walling at Mtanye and the associated networks of interaction, one cannot neglect the material aspects (see Knappett and Malafouris 2008; Knappett 2011; Hodder 2012). Applying concepts from ANT such as general symmetry and material agency, one finds that things are not passive minions enlisted in the construction of the walling. Instead there is a negotiation between human, stone and hill which needs innovation to achieve specific goals. Each thing, enlisted in the construction of the walls at Mtanye, has its own agency and affordances that an individual must work with for the final product of a stone terrace to emerge (Knappet and Malafouris 2008). Construction of the wall is not merely following a plan but also about solving problems within situated practise (see Hodder 2012). This involves a process of being prompted by external stimuli and adjusting or correcting as one works. This echo similar sentiments by Chirikure and Fredriksen (2015) who state; "Rather than treating the process of building as one of imposing ready-made templates or static mental representations onto the world, people, by thinking the thoughts they do in a materially and socially specific dwelled-in world, create and recreate a distinctive architectural environment."

Walling further, is a mediator between humans and the hill. The terracing allows the community at Mtanye to negotiate new affordances with Mtanye Hill allowing new potentialities (Gibson 1986; Knappett 2011; Hodder 2012). These new potentialities allow for living space and as well as space for the community's livestock. However, by constructing

terrace walling, the community living on the hill, becomes dependant on the terrace and entrapped in a sense by it (Hodder 2012). After construction, they are required to maintain the walling in order to secure their living space. This maintance may occur over several generations with members of the family participating in this maintanace (see Soper 2000: 224). To sum up, the stone walling at Mtanye is a hybridised entity emerging from an heterogenous actor-network comprised of people, stones, Mtanye Hill, local innovation, trade and interaction networks, societal relations and obligations, the local environment and geology as well as the mobilities of knowledge, people and things.

If one was to follow Huffman's (2015b) argument, Mtanye, like Mapela also was connected to Northern Leopard's Kopje sites by virtue of also having terraced kraals. Further, Mtanye and Mapela share similarities with Woolandale sites such as Selolwe in the Francistown area (Van Waarden 2012, pp. 154–177; Huffman 2015a). Yet like Mapela, Mtanye has Southern Leopard's Kopje ceramics. The division between Southern and Northern Leopard's Kopje is however an archaeological construct and these two communities of practise likely represent the same western Shona people (Chirikure *et al*., 2016). Huffman (2015b) constrained by structuralist interpretations also argues that Mapela must be a Woolandale site, partly because the site does not conform to the Zimbabwe Pattern. Yet Mapela has been shown to have Southern Leopard's Kopje ceramics (Chirikure *et al*., 2016; House 2016 *contra* Huffman 2015b). Likewise, Mtanye does not conform to either the CCP or ZP settlement pattern (see also Huffman 1974, 121). The fundamental weakness of the current interpretations is the need to pigeon-hole sites within narrow structuralist models and facies. As Chirikure *et al*., (2016) states "The Leopard's Kopje, whether at Mapela, Mapungubwe or Woolandale and regardless of labels used, has a wide expression and was authored by the same western Shona people with a similar ideology. There is no reason to partition these people into little pockets that could and could not do certain things when their archaeology suggests otherwise (Hall 1984)." The

variations seen between the various Northern and Southern Leopard's Kopje communities in terms of settlement pattern and walling has been widely acknowledged (Van Waarden 1998, 120; Chirikure *et al*., 2013 a, b; Chirikure *et al*., 2014; 2016; Huffman 2015a). I would take this further, suggesting variation seen within the Leopard's Kopje community of practise, reflects differences in networks of interaction as well as differences in the expression of societal and material agencies. The differences in actors or their relations in a network, be it differences in exchange networks, human agents, environmental actors or local innovation cause subtle variations that not only affect settlement pattern but also material culture (Whitridge 2005; Witmore 2007; Knappett 2011).

As mentioned above, Mtanye does not appear to follow the CCP, which in terms of strict structuralist frameworks, presents a significant problem. If, however, one adopts the principles of ANT, this divergence is expected. At Mtanye, smelting slag was found through the settlement, located in domestic contexts, on both the flats and on the hill. This is contrary to the predictions of the CCP which suggests that smelting was always carried out, outside of the settlement (Huffman 2007; p). From the archaeological record however, this does not seem to always be the case (Herbert 1996; Calabrese 2007; Chirikure 2014). At sites like Mapugubwe and Great Zimbabwe smelting along with metal working was conducted within the settlement and even on the hilltop (Herbert 1996; Calabrese 2007; Chirikure 2014; Chirikure and Fredriksen 2015). Moreover, Chirikure and Rehren (2004) demonstrated that among some Njanja communities, smelting occurred within the settlement. Furthermore, woman participated in these activities contrary to the expectations produced by the CCP (see also Chirikure and Fredriksen 2015). Quite astutely these deviations from the norm have been accredited to contextual entanglements such as the need for more labour and the scale of production (Chirikure and Fredriksen 2015). This last point is significant when considering Mtanye. While the beliefs and structures that underpin the CCP may have been present at

Mtanye, the expression of these beliefs and structures must accommodate for local contextual situations. The beliefs and structures are actors within heterogenous network and constituted and negotiated in relation to other actors (Olsen 2003; Latour 2005; Whitridge 2007). These other actors can be the geographical setting, the needs of the community, the scale of production and the need for labour. Furthermore, individual or communal human actors may express a certain level of agency in day to day practise. Considering metal production as part of a wider fluid heterogenous network account for the variation not only seen at Mtanye but also at site like Great Zimbabwe and Mapungubwe.

One major draw back to this argument however, is the amount of slag found. As some have pointed out (Mathoho pers. comms. 2019), the amount of smelting slag found within the settlement to date, is too small a sample to be evidence of smelting within the settlement. Another possibility is that this slag was carried into the settlement along with the blom. Whether smelting was carried out within the settlement or not, the arguement outlined above does provide a valid explanation for intersite variation in metal production.

The ceramics at Mtanye have typically been interpreted as evidence of an expanding frontier of a hegemonic state based at Mapungubwe (Huffman 2008; Figure 8.2). This interpretation however is rather simplistic and overshadows the true causes for ceramic change in the region (Harris and Cipolla 2017: 135-136). In order to understand why Leopard's Kopje ceramics are found at Mtanye, one must interrogate the ceramics themselves as well as the people who produced and consumed them. One must move beyond models that assert that TK2 ceramics represent the vanguard of a hegemonic state and take up the perspective that the TK2 and Mapungubwe ceramics at Mtanye are a product of networks of interaction as well as various mobilities (Ashley *et al*., 2016). These mobilities included not only the mobility of people but of things and ideas. Since it is primarily ceramic design that this thesis has focused on, one must consider the specific transmission ability of these designs. Again, the use of Knappett's

(2011) situated semiotics appears to provide interesting insights. This is further combined with Hodder's (2012) concept of nested fittingness.

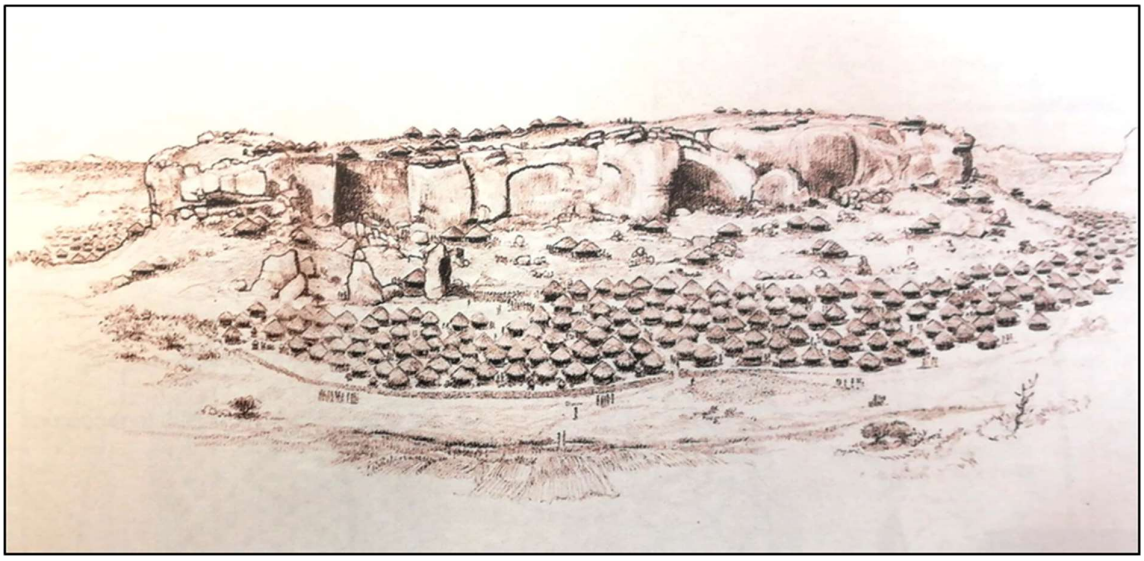

Figure 8.2:Artist's impression of Mapungubwe. Adapted from Huffman (2007a).

The emergence of Leopard's Kopje ceramics on the local landscape presents an interesting conundrum. This is primarily because it provokes the question, 'What happened to the Zhizo ceramic producing communities in the region?' There is evidence of Zhizo communities on the landscape, with the Zhizo site of Simamwe being situated south of Mtanye, along the Umzingwane river. Both Mtanye and Simamwe share similar material culture as well as similar lifeways (Huffman 2008). This pattern is not unique but wide spread among Zhzio and Leopard's Kopje communities (Calabrese 2000a, 2007, Huffman 2007a). In fact, Zhizo and Leopard's Kopje communities co-exsisted in the SLCA for more then two centuries from 1000-1200 A.D. (Calabrese 2000a). This echoes the research of other scholars such as Robinson (1966, 1985), Reid and Segobye (2000) and Chirikure *et al*., (2013b) who also point to evidence for these two communities co-habiting on the landscape.

Conventional narratives interpret the disappearance of Zhizo ceramics, as a product of conquering Leopard's Kopje migrants (Huffman 2007a). Huffman (1978, 1986a, 1996) suggests that these Zhizo communities were driven out of regions like South Western Zimbabwe in an event that mirrored the historical *difaqane*. This harkens back to the work of Schofield (1937) and Summers (1950 a,b) presenting a Childean understanding of change. Change according to ANT however, change can come about through either the entrance of a new entity into a network of interaction or from a change in relations between existing entities (Whiteridge 2005; Witmore 2007). From this position, it seems likely that the change from Zhizo to Leopard's Kopje ceramics could also have likely been prompted by the incorporation of Leopard Kopje potters into Zhizo society through practices like marriage exchange. Moreover, the transfer of ceramic vessels or ideas between communities through interaction such as trade and exchange, could have also facilitated the transition. An increase in interaction between communities could have also affected how Zhizo ceramic producing communities viewed Leopard's Kopje ceramic designs. Through increased interaction, the fittingness of Leopard's Kopje ceramic designs within Zhizo community logics, could have changed allowing for these designs to be adopted (Hodder 2012).

This theory is support by the work of Robinson (1985), who points out that share design techniques and elements between Leopard's Kopje and Zhizo, suggests interaction between the two groups. Further, two sites that were contemporary to Mtanye, Mawaka Hill and Leopard's Kopje, have evidence of Zhizo ceramics that shared elements with Leopard's Kopje ceramics (Robinson 1966). What is interesting is that within the SLCA, this process led to the creation of Leokwe ceramics (Calabrese 2007), however Leokwe ceramics have not been described within the region that Mtanye is located in. The above scenarios are based primarily on the application of ANT in an attempt to understanding a limited data set. There is need for more data as the above theorising likely extends beyond the scope of this thesis.

If one applies situated semiotics to ceramic design one finds that both TK2 and Mapungubwe ceramic designs are rapidly transmitted across multiple scales (Knappett 2011). Further, unlike the technological aspects of ceramics, these designs are likely more easily transmitted horizontally between peers or communities of potters. As Whiteridge (2005) and Whitmore (2007) demonstrate, change comes about either through the entrance of a new actor into a network or a change in relations with existing actors. Considering this, one finds it plausible that the mobilities of not only humans, but also non-human actors could have provoked a change in the ceramic designs in the region in which Mtanye is located. Consider the change from K2 to TK2 or from TK2 to Mapungubwe. This change could theoretically be caused by individuals in the community being exposed to TK2 or later Mapungubwe ceramic designs through networks of interaction. One of these networks could be through *roora* marriage exchanges, with a new bride bringing with her new designs (Huffman 2009, 49). For example, in Karanga society, a bride often brings a pot with her to her husband's homestead (Aschwarden 1982). Pikirayi and Lindahl (2013, 465) provide another example of this within their ethnographic research. In their research, a Malawian bride married into a Shona community and brought with her a pot from her homeland. This design became so popular, that the local community commissioned her to make pots for them in her style. This example not only shows the relative ease with which ceramic design can pass between peers but also speaks to another facet, namely, the fittingness of that design. Through this marriage arrangement, one can imagine that the fittingness of the community change, such that the new Malawian design fitted within the local context. A similar process could have occurred at Mtanye.

Moreover, K2, TK2 and Mapungubwe designs (Figure 8.3) could have been transmitted to the area in which Mtanye is found, through the mobility of ideas. An individual traveling to nearby communities could have brought these designs home. Further, pots also travel along trade and exchange networks which could have further facilitated the diffusion of ceramic designs. Furthermore, as pointed out above, many of the designs found on ceramics are also found on a wide range of objects (Huffman 2007a). From this, one might be tempted to theorise that it need only take the exchange of such items, for a ceramic design to change. This picture would however be incomplete if the fittingness of such designs is not considered. While ceramic designs may be transmitted rapidly as conspicuous iconic signs and inscribing practises, they are not always widely accepted into local cultural logics. This is primarily because of the fittingness of these designs. It should be stressed, moreover, that ceramic designs can crosscut both political and ethno-linguistic boundaries (Schoeman 1998; Gosselain 2000; Esterhuysen 2008; Whitelaw 2015: 25-28). At othertimes, ceramic design does follow ethno-linguistic lines closely (Gosselain 2011, Whitelaw 2015: 25-28). This pattern is linked primarily to the transmission quality of ceramic design as well as whether a design fits into the existing the local socio-material context. Moving on from this point, I would argue that the distribution of TK2 ceramics and Mapungubwe ceramics across the region is better understood in terms of Hodder's (2012) nested fittingness. Communities like the one at Mtanye produced and consumed both TK2 and Mapungubwe ceramics primarily because those ceramic designs fitted within the specific socio-material context found at site. This socio-material context was in turn constituted and negotiated within a wider fluid heterogenous network of interactions. Furthermore, coupled with fittingness, networks of interaction are critical to the type of ceramics one finds at sites like Mtanye.

Figure 8.3: sample of ceramics recovered from Mtanye. Not to scale.

The heterogenous actor-networks or networks of interaction described above, are not static but are fluid and change through space and time. They operate across scales (Knapppett 2011; see also Chirikure and Fredriksen 2015) creating either homology and heterogeneity at the micro, meso or macro scale. It is for this reason that the socio-material development of Leopard's Kopje communities at times follow similar trajectories and at other times vary. One must also be mindful, as Gosselain (2011) points out, that traditions are often also shaped within situated practice. Specific traditions might be acquired at one point in time but are constantly reassessed and modified as people engage in daily practise. Throughout these processes networks of

interaction are crucial, facilitating the flow of material, energy, people and knowledge across the landscape. Taking this relational position greatly enhances our understanding of Leopard's Kopje communities like Mtanye during the second millennium AD.

8.3. Limitations of the research

This thesis is not without its limitations. The first limitation is the amount of material recovered. There is need for larger sample sizes, particularly in terms of the beads and ceramic assemblages. The small sample sizes of beads and ceramics for example make it hard to not only to accurately identify and classify these objects into typologies but also to make assertions based on these finds. The sample sizes of the assemblages found at site also make comparison between communities difficult. One must also consider, particularly with the ceramics, that the stylistic classes recovered may have a lower proportion within the wider assemblage at Mtanye. By increasing the sample size, one may be able to decrease the sample bias and gain a better understanding of the most common stylistic classes at site.

This will allow for a more accurate picture of Mtanye to be gained. Further, this will allow unbiased comparisions with larger assemblages recovered at other Leopard's Kopje sites. This thesis is also limited in terms of intersite comparision within the immediate sphere of Mtanye. At this point, there is no data recovered for the sites that also are in the Mtanye river drainage basin. Further, there is little research that has been conducted on sites within the Middle Umzingwane river basin. In terms of the theory used, one must consider Hodder's (2012) critique of Actor-Network theory. As Hodder (2012) suggests, there are times when human or non-human actors are dominant, with their effects within the network being greater then all other actors. This is a serious critique for ANT that needs further research.

Lastly, when considering the beads found at site one must not only consider context but also sampling techniques. Firstly, these beads appear to come from domestic contexts rather than

burials such as at Mapungubwe (Wood 2005; Huffman 2007a). Due to this factor, one would expect a lower number of beads. Further, the excavation methodology may have hampered the recovery of beads. As Antonities (2012) and Denbow et al., (2015) point out, the methodology for example, sieving as opposed to floatation, influences the quantity of beads recovered. Moreover, the sieve mesh size also effects the number of beads recovered.

8.4. Future research

This thesis opens new areas for future research. There is also a need for a regional survey within the Mtanye river drainage basin as well as the Middle Umzingwane drainage basin. Moreover, much of south western Zimbabwe has been neglected in terms of Iron Age research and there is room for research into the communities, particularly those of the early second millinium A.D. This research would enhance our current understanding of socio-material development in the region and allow for the testing of conventional and alternative models within Iron Age research. There is also a need to reassess the division between both Northern and Southern Leopard's Kopje. This boundry may not be a clear-cut division but may instead be fluid with practices and style changing gradually from North to South. This difference may in fact represent the different networks of interaction that these communities found themselves embedded in.

Another avenue of research is the Zhizo communities of the late first to early second millenium A.D., located in south western Zimbabwe. As mentioned above, conventional models portray the sudden arrival of Leopard's Kopje communities which displaced or absorbed Zhizo communities (Huffman 2007a). There has been little research to see whether these communities may have in fact persisted and through various networks of interaction, adopted Leopard's Kopje ceramic designs. Further, while Leokwe (Calabrese 2007) ceramics are well documented

within the Shashe-Limpopo Basin, this ceramic facies to date has not been found in south western Zimbabwe. There is a need for further study to determine if this is due to a lack of research or whether different processes occurred in this region that led to the uptake of Leopard's Kopje ceramic designs.

For future research there is a need for a large-scale analysis of the technological aspects of Zhizo and Leopard's Kopje ceramics. This may provide evidence of Zhizo communities maintaining their technological practices while adopting Leopard's Kopje ceramic designs. This is important as Gosselain (2000) points out that the technological aspects of ceramic production are more closely linked with identity. Further, by comparing the distribution of Leopard's Kopje and Zhizo ceramic manufacturing techniques with the distribution of designs, one can test the theories laid down in this thesis.

The question of how ethnicity is expressed materially remains to be answered particularly in Southern Zambezia. Take for example the example the site of Jahunda with Zimbabwe style walling. Traditionally this style has been linked with Karanga Shona speakers (Huffman 2007a; Chirikure et al., 2013b) yet from historical accounts, the Jahunda were Kalanga (Sicard Beach 1980; Bandama). This problem of identifying ethnicity materially, is not limited to Africa (see Faust 2000) but despite this plethora of research into this facet of society, there is still need for more research on the matter.

There is further need for the adoption of new theoretical approaches in Southern African Iron Age research. Much reseach is still embedded in structurelist and Eurocentic models with little engagement with current theoretical trends. Some notable exceptions to this, are the works of Crossland (2013) and Ashley et al., (2016) as well as the work of Chirikure et al., (2014, 2016). Moreover, this engagement is needed for challenging of conventional models and increasing our knowledge of Iron Age communities.

8.5. Conclusion

This thesis provides a new avenue of social inquiry through the application of Actor-Network theory (Latour 2005). Further, it highlights the ways in which networks of interaction shapes socio-material development in Southern Zambezia during the early second millinium A.D. From long distance trade to marriage exchanges and intra community cooperation, ideas, people and objects moved across the landscape creating unique sites and assemblages like Mtanye. Within these networks, things such as ceramics, beads and cattle were active partiscipates who came together with human actors to create the unique socio-material milliu at Mtanye.

Moreover, action does not rest solely with a political elite or hegemonic state but rather is the result of multiple heterogenous actors interacting. When considering the ceramic assemblage at Mtanye for example, this study demonstrates that one must consider the transmission qualities of ceramic designs and how these designs fit into a community's socio-material context. This further takes into consideration the networks of interaction that shape the nested fittingness of designs (Hodder 2012). Furthermore, this thesis offers an alternative to simplistic models of hegemonic dominance. By applying this theory and methodology to other aspects of material culture and settlement pattern, one is provided with a more informative model.

This thesis does not stand in isolation but adds to current research in Leopard's Kopje communities of the early first millinium A.D. This thesis complements the work of Cornelius Mushangwe (2019), whose current research demonstrates that the community at Mtanye was entangled in a mutualistic relationship with the plants that they used. This research highlights that plants are active agents along with humans and parallals can be drawn between this research and the interpretations found in this thesis. Further, this research builds on of the recent research of Antonities (2012), Nymashosho (2017), House (2016) and Chrikure et al., (2014,

2016). This thesis also contributes to global research, complementing in particular Alexander Baur's (2013) study of Bronze Age ceramic distribution along the coast of the Black Sea (see Harris and Cipolla 2017: 120-125). Like this study, Baur's research also attempts to understand ceramic distribution and the formation of identity through the application of Piercean semiotics. Furthermore this study contributes to a growing field of network based research into interaction and culture formation and change (Whiteridge 2005; Witmore 2007; Knapett 2011; Knapett 2013; Brughmans 2013; Mills *et al*., 2015; Mills *et al*., 2016). This thesis may also perhaps provide a stepstoning for more indepth analysis of social networks of interaction such as Mills et al., (2015)'s research in the American South West. Moreover, like other authors such as Knappett (2011; 2013b; 2016) this study demonstrates that technologies be it stone walling in Southern Zambezia or the pottery's wheel in the Aegean, are not always universally adopted despite their perceived benefits.

8.4. Summary

Through the application of Actor-Network theory one can see that the settlement pattern as well as the assembleges found at site emerge from the interaction of heterogenous actors, both thing and human actors (Latour 2005; Whiteridge 2005, Whitmore 2007). Further, networks of interaction are fundmental to the socio-material development of Mtanye. The distribution of ceramic designs like those found at Mtanye are argued to be a product of their transmission qualities as well as the nested fittingness of these designs within communities that accepted them (Knappett 2011, Hodder 2012). This fittingness is in turn influenced by networks of interaction. This provides an alternative to models which suggest that the distribution of ceramic designs, are a product of a hegemonic state (Huffman 2008). Further, the distribution of glass beads, hill occupation, stone terracing as well as terraced kraals are products of heterogenous networks of interaction.

This thesis highlights the role networks of interaction played in shaping the communities of Southern Zambezia during the early second millennium AD. This thesis further, supports and compliements the research of other scholars (Antonities 2012, House 2016, Nyamushosho 2017, Chirikure *et al*, 2014, 2016; Mushangwe 2019). Further still this thesis offers an alternative to hegemonic models that attempt to explain material distribution as the product of expanding states. Despite these assertions this study does have a number of limitations, most noteable the amount of material analysed. There is also more research need to understand the different socio-material dynamics that were present in Southern Zambzia during the early second millinium AD.

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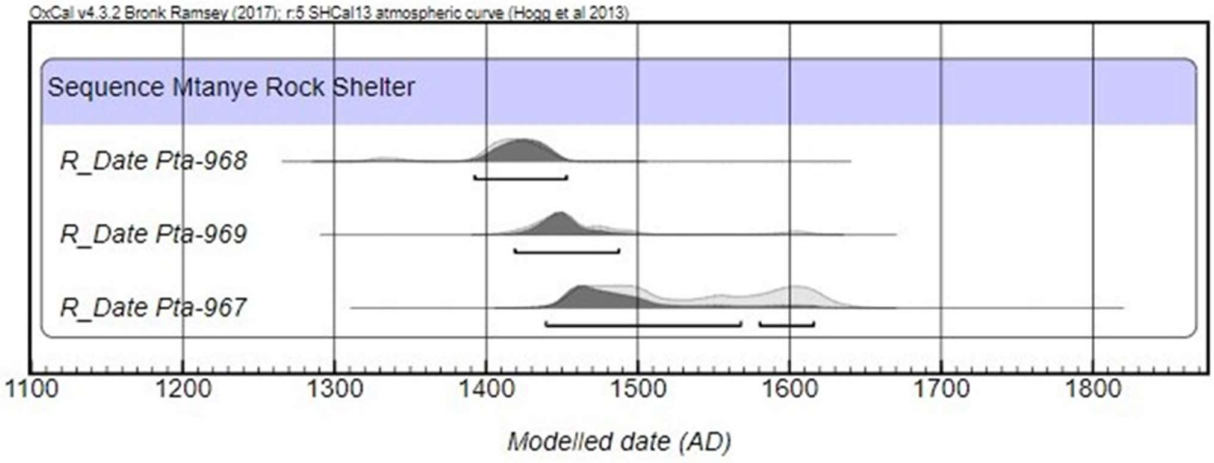
Appendix A: GPS Coordinates for Features Identified in Study

Location	GPS	Elevation	Description
Mtanye Hill	S 21°22'59.1" E29°15'12.1"	759	Grain bin (GB) I and Trench I (Mtanye Hill Terrace I)
	S 21°22'58.9" E29°15'12.4"	760	GB II
	S 21°22'59.2" E29°15'12.0"	762	Hut (H) I
	S 21°22'59.3" E29°15'11.8"	760	GB III
	S 21°22'59.4" E29°15'11.8"	759	Hut II
	S 21°22'59.5" E29°15'11.5"		Hut III
	S 21°22'59.2" E29°15'11.5"	758	Hut IV and Platform
	S 21°22'59.4" E29°15'12.1"	765	Hut V
	S 21°22'59.4" E29°15'12.3"		Hut VI
	S 21°22'59.7" E29°15'12.8"	766	GB IV
	S 21°22'59.3" E29°15'13.0"	771	Sumit Mtanye Hill
	S 21°22'59.2" E29°15'13.4"	764	Overhang
	S 21°22'59.5" E29°15'13.5"	765	Parrallel Passage Platform
	S 21°22'59.9" E29°15'13.0"	762	Hut VII
	S 21°22'59.8" E29°15'12.6"	762	GB V
	S 21°22'59.9" E29°15'12.9"		Grindstone
	S 21°23'00.4" E29°15'12.1"	755	Mtanye Hill Kraal I and Kraal 1 Square (Originally "Western terrance)
	S 21°23'00.1" E29°15'13.4"	759	Mtanye Hill Kraal II (Originally "Southern Terrace") and dhaka
	S 21°23'00.0" E29°15'13.6"	759	Hut VIII
Mtanye Flats	S 21°22'57.0" E29°15'10.8"	734	Site A (Huffman 1972, 2008) - Midden 45m
	S 21°22'56.2" E29°15'16.5"	742	"North Eastern Kopje" Stone walling present
	S 21°22'58.2" E29°15'18.1"	736	Dolly Hole
	S 21°23'02.5" E29°15'16.8"	746	Dolly Holes (Huffman 1972, 2008)
	S 21°23'04.0" E29°15'14.0"	743	Stone wall - 7m
	S 21°23'04.0" E29°15'12.1"		Modern Grave I
	S 21°23'03.5" E29°15'11.9"		Modern Grave II
	S 21°23'03.4" E29°15'12.2"	745	Grindstone
	S 21°23'03.2" E29°15'11.2"	743	Midden I in garden/field
	S 21°23'03.2" E29°15'10.4"	744	Midden II in garden/field
	S 21°23'02.4" E29°15'11.2"		Midden III in garden/field
	S 21°23'01.3" E29°15'12.5"		Stone Feature I
	S 21°23'01.1" E29°15'12.2"		Stone Feature II + Midden (40m) (below Mtanye Hill Kraal 1)
	S 21°23'01.4" E29°15'02.0"		Furnace feature I - slag found
	S 21°23'00.1" E29°15'11.4"	750	Furnace feature II - slag found
	S 21°23'00.5" E29°15'11.0"		Stone feature III
	S 21°23'00.6" E29°15'10.9"		Stone feature IV and Hut IX
	S 21°23'00.9" E29°15'10.7"	747	Stone features V + VI
	S 21°23'00.7" E29°15'10.2"	747	Site B (Huffman 1972, 2008) -Midden 70 m
	S 21°23'00.6" E29°15'09.8"		Stone feature VII
	S 21°23'00.6" E29°15'09.6"	747	Stone feature VIII and Hut X
	S 21°23'00.3" E29°15'09.7"	747	Hut XI
	S 21°23'00.2" E29°15'09.9"		Hut XII
	S 21°23'00.2" E29°15'10.1"		Hut XIII
	S 21°22'59.0" E29°15'10.2"		Stone feature IX
	S 21°22'59.6" E29°15'10.0"	748	"Western Pot" Trench
	S 21°22'59.5" E29°15'10.0"	750	Stone feature X
	S 21°22'59.8" E29°15'10.8"	748	Site B Trench1 SQ 2
	S 21°22'58.4" E29°15'10.4"	749	Dolly Hole (Huffman 1972, 2008)
	S 21°22'58.8" E29°15'10.8"	749	Hut XIV

Appendix B: Raw data for Radiocarbon Dates

Mtanye Rock Shelter

Bayesian model for the calibrated radiocarbon dates from the rock shelter at Mtanye. Uncalibrated radiocarbon dates sourced from (Vogel *et al*., 1986) with original charcoal samples collected by Walker (1972).



Mtanye Hill Terrace 1 Level 4 (MH-T1 04)

(Variables: d13C = -25.0 o/oo)

Laboratory number **Beta-531755**

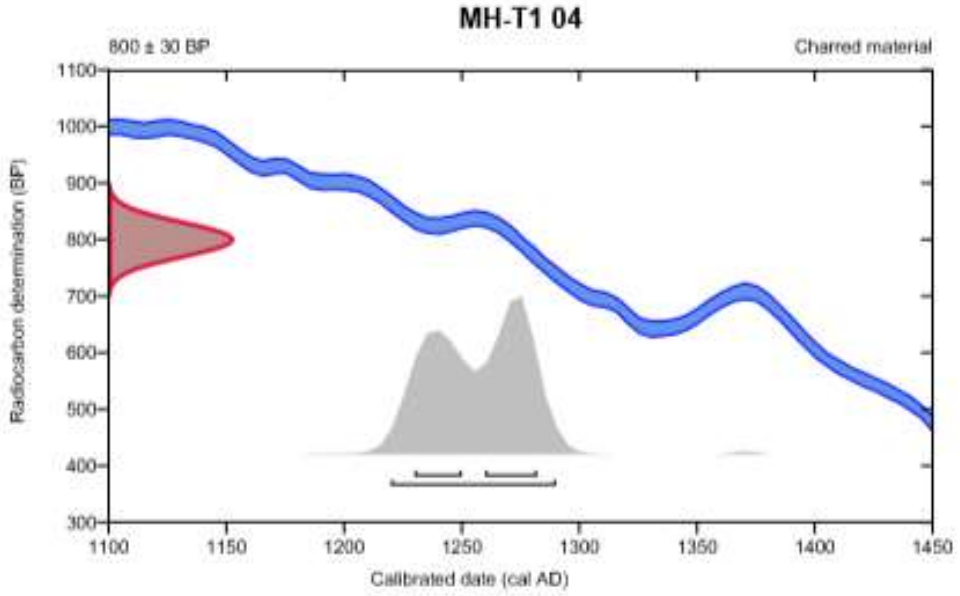
Conventional radiocarbon age **800 ± 30 BP**

95.4% probability

(95.4%) 1220 - 1290 cal AD (730 - 660 cal BP)

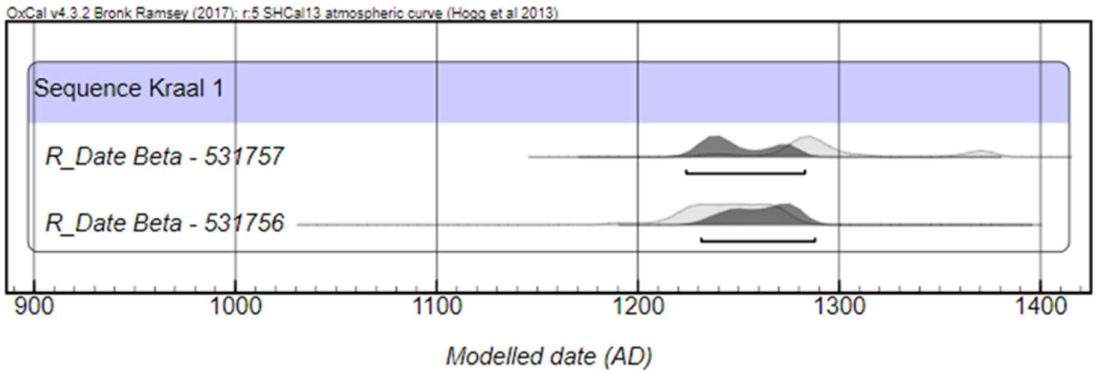
68.2% probability

(37.4%) 1260 - 1282 cal AD (690 - 668 cal BP)
(30.8%) 1230 - 1250 cal AD (720 - 700 cal BP)



Mtanye Hill Kraal

Bayesian model for the Kraal 1 occupation.



(Variables: d13C = -23.4 o/oo)

Laboratory number **Beta-531756**

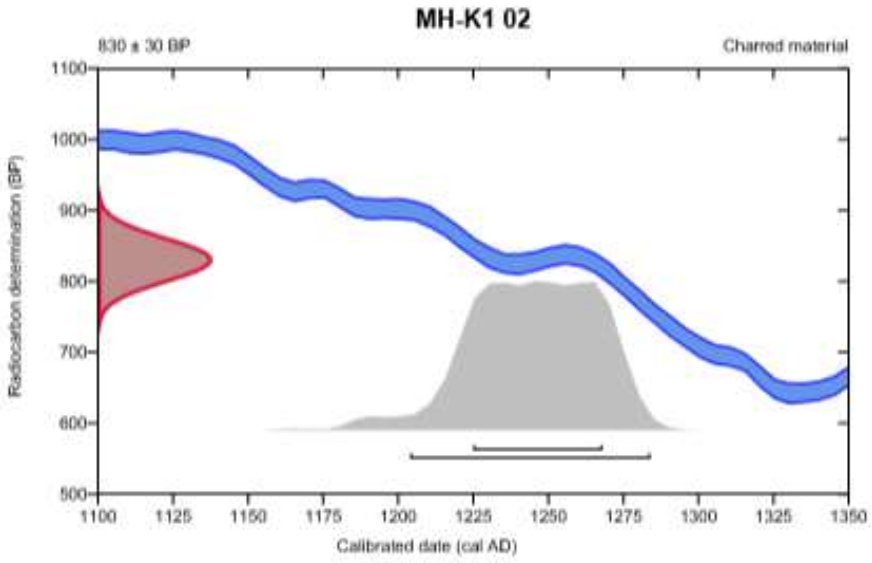
Conventional radiocarbon age **830 ± 30 BP**

95.4% probability

(95.4%) 1204 - 1284 cal AD (746 - 666 cal BP)

68.2% probability

(68.2%) 1225 - 1268 cal AD (725 - 682 cal BP)



(Variables: d13C = -25.9 o/oo)

Laboratory number **Beta-531757**

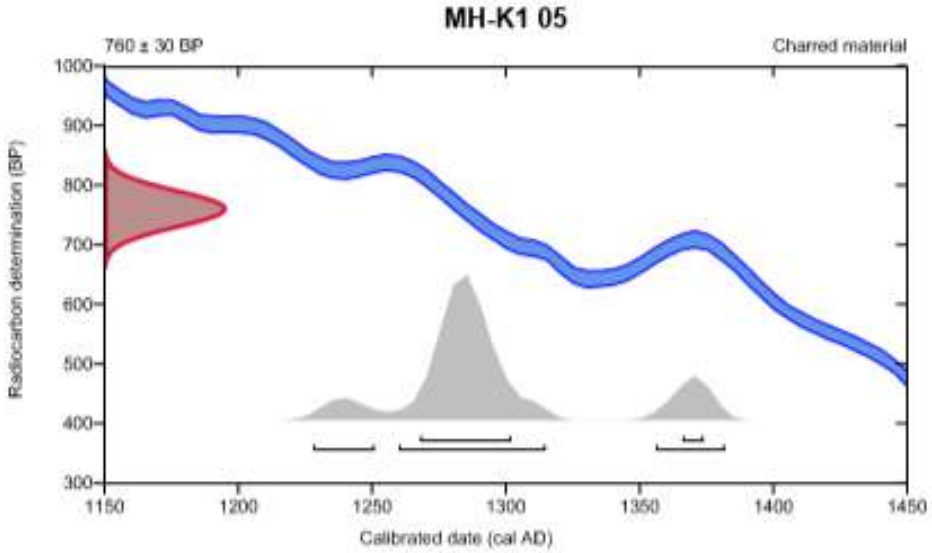
Conventional radiocarbon age **760 ± 30 BP**

95.4% probability

(72.7%)	1260 - 1315 cal AD	(690 - 635 cal BP)
(14.8%)	1356 - 1382 cal AD	(594 - 568 cal BP)
(7.9%)	1228 - 1251 cal AD	(722 - 699 cal BP)

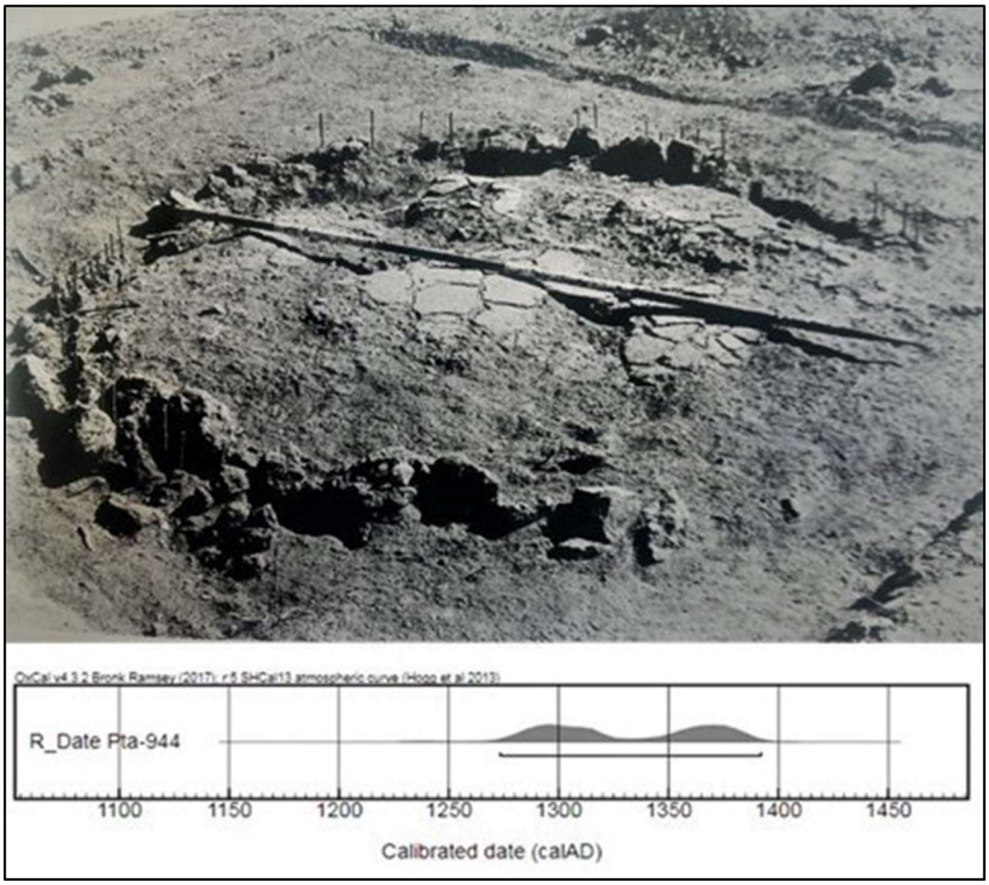
68.2% probability

(61.8%)	1268 - 1302 cal AD	(682 - 648 cal BP)
(6.4%)	1366 - 1374 cal AD	(584 - 576 cal BP)



Mtanye Site B Occupation A

Recalibrated radiocarbon date range for Huffman's (2008) charcoal sample recovered from a hut post. This post came from the remains of a hut uncovered at Mtanye by Huffman and his team in 1972. Image of hut floor adapted from Huffman (2008, 207).



Mtanye Site B Level 11 (MSB 11).

(Variables: d13C = -25.9 o/oo)

Laboratory number **Beta-531758**

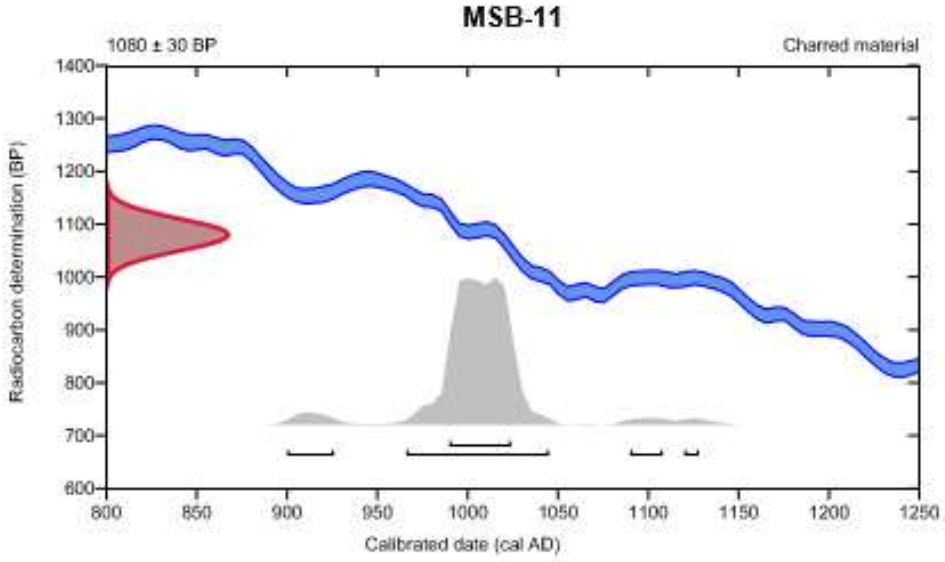
Conventional radiocarbon age **1080 ± 30 BP**

95.4% probability

(88.7%)	966 - 1045 cal AD	(984 - 905 cal BP)
(4.1%)	900 - 926 cal AD	(1050 - 1024 cal BP)
(1.8%)	1090 - 1108 cal AD	(860 - 842 cal BP)
(0.8%)	1120 - 1128 cal AD	(830 - 822 cal BP)

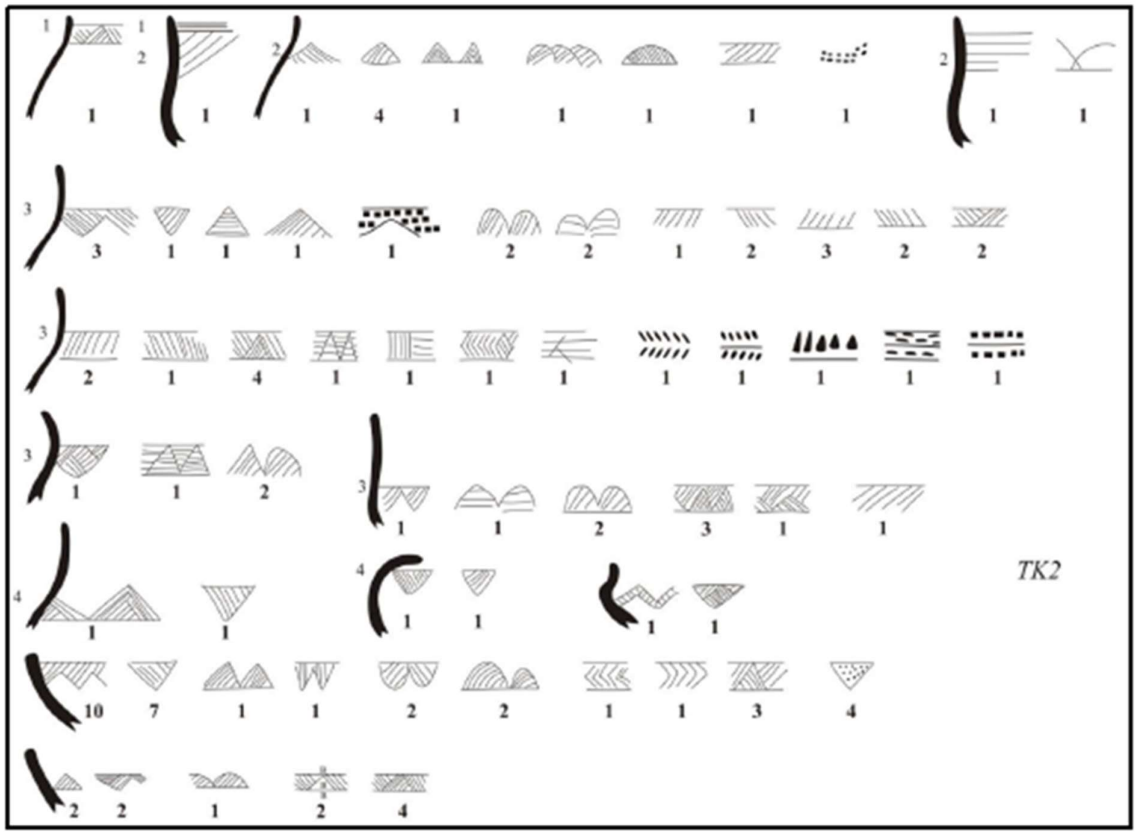
68.2% probability

(68.2%)	990 - 1024 cal AD	(960 - 926 cal BP)

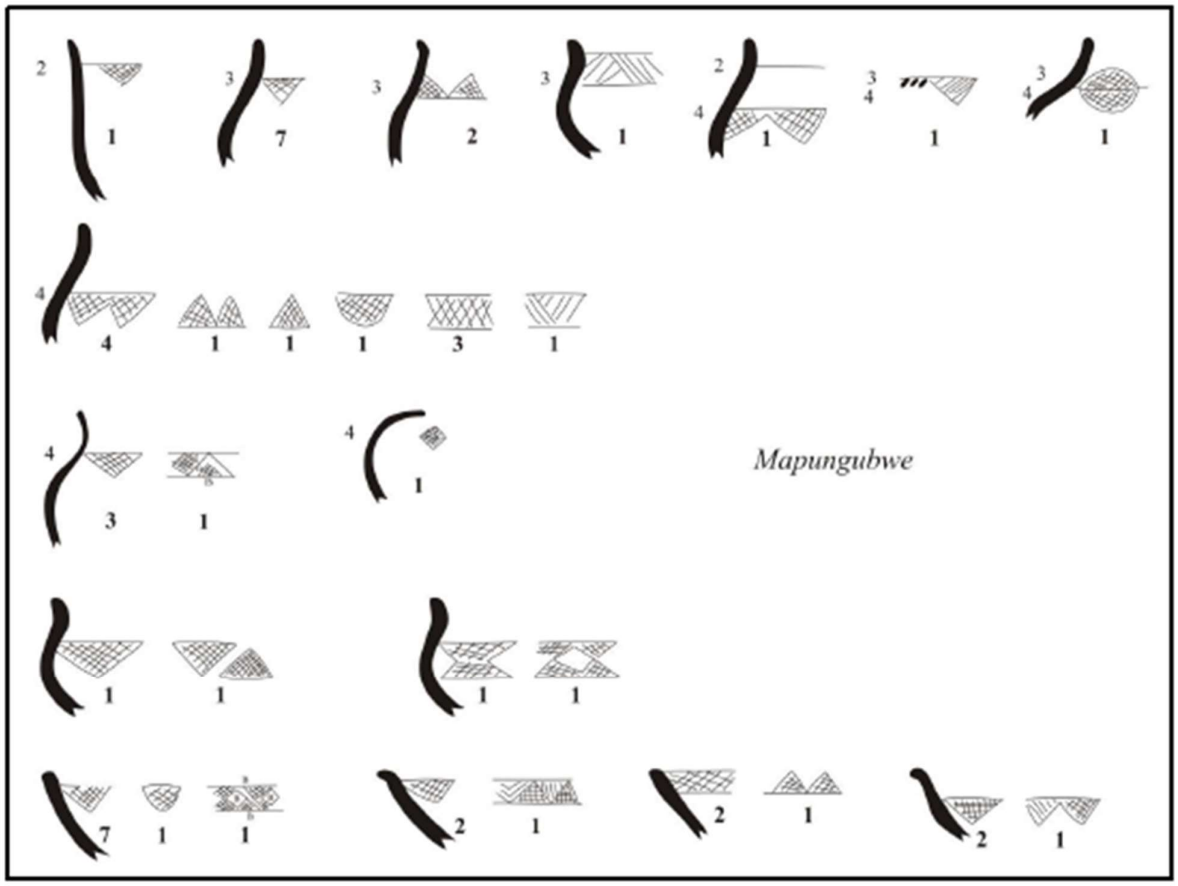


Appendix C: K2, Transitional K2 and Mapungubwe Multidimensional ceramic styles. Adapted from van der Walt (2012), Antonities (2012) and Huffman (2007a)

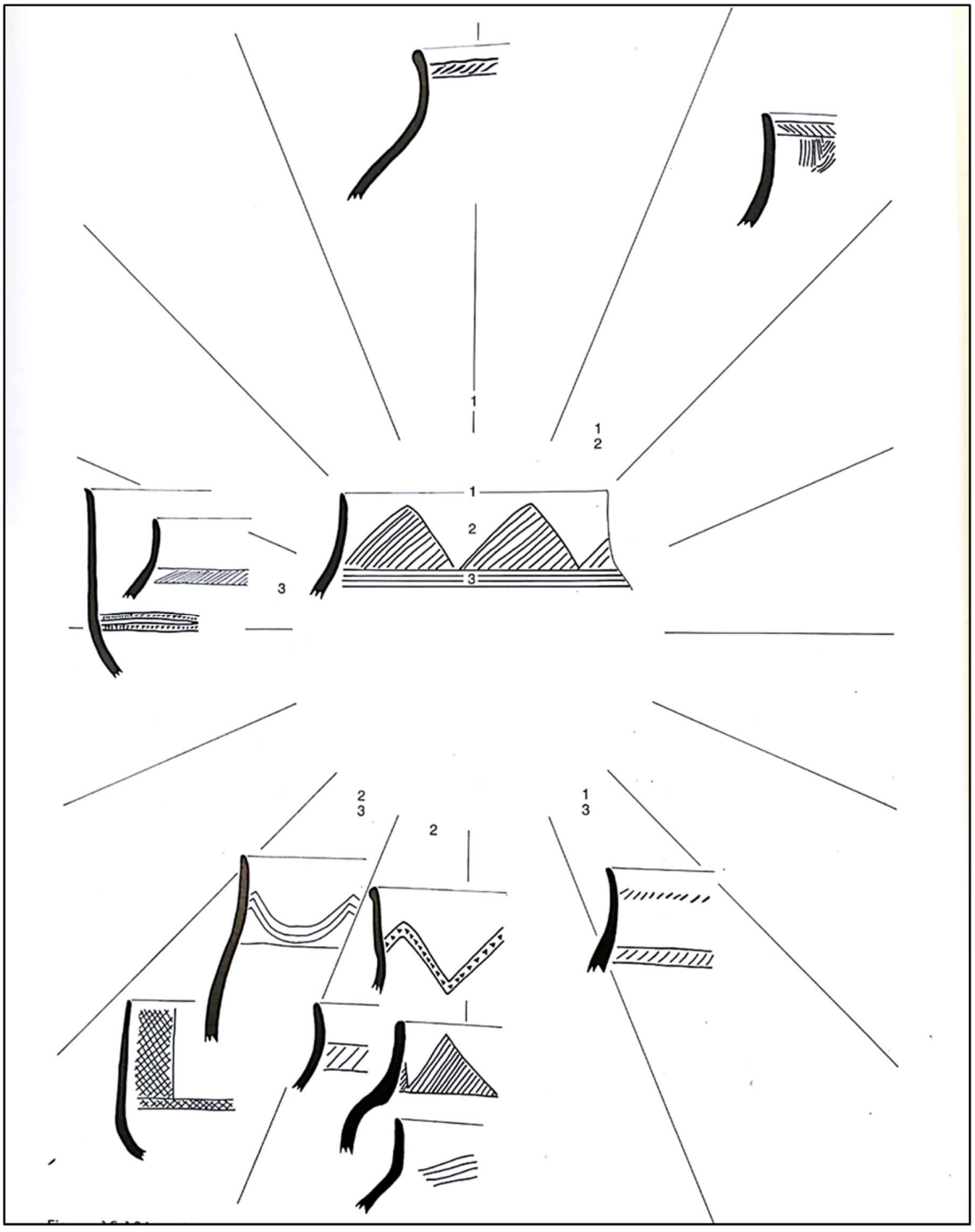
TK2 Facies (van der Walt 2012)



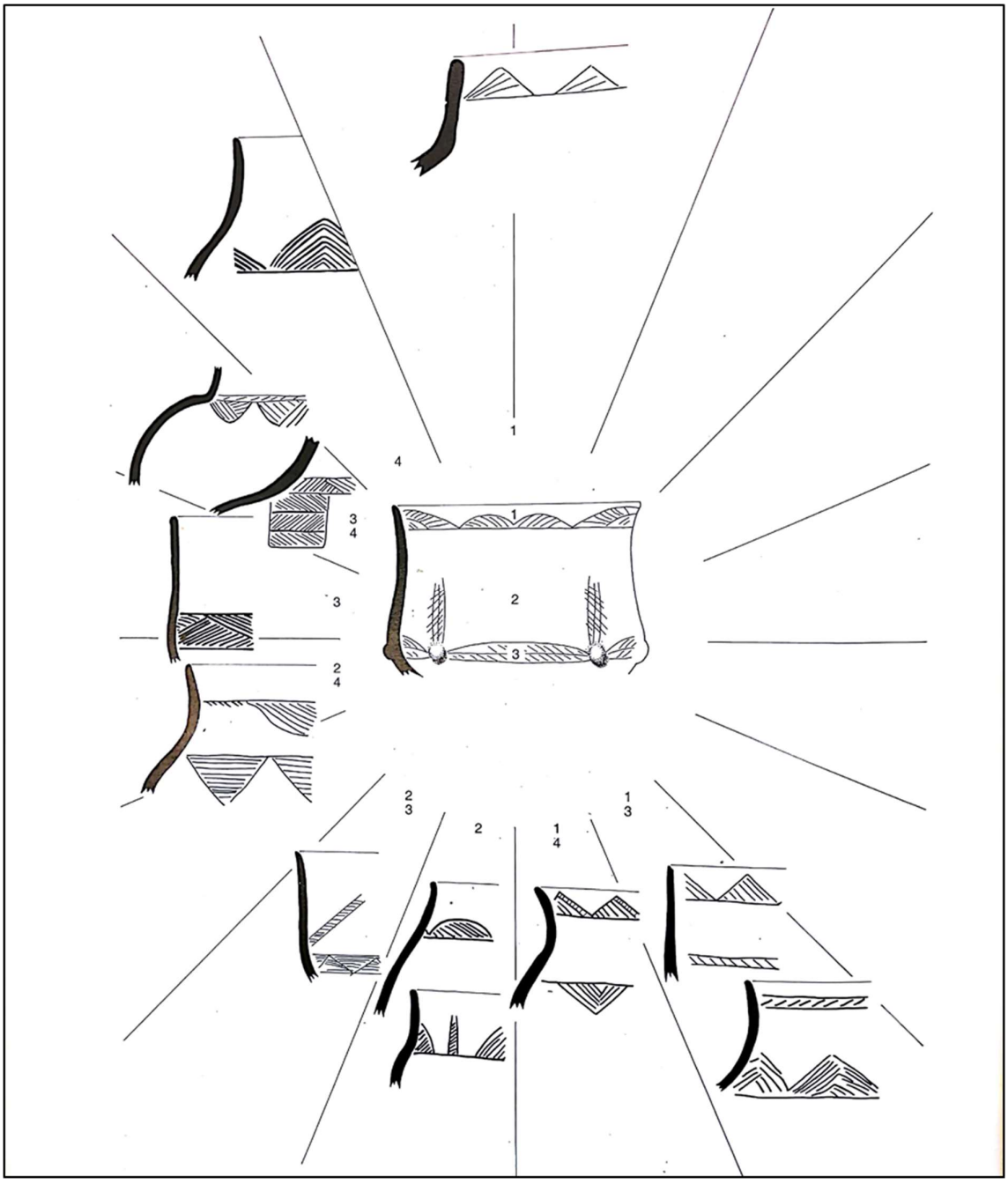
Mapungubwe facies (van der Walt 2012)



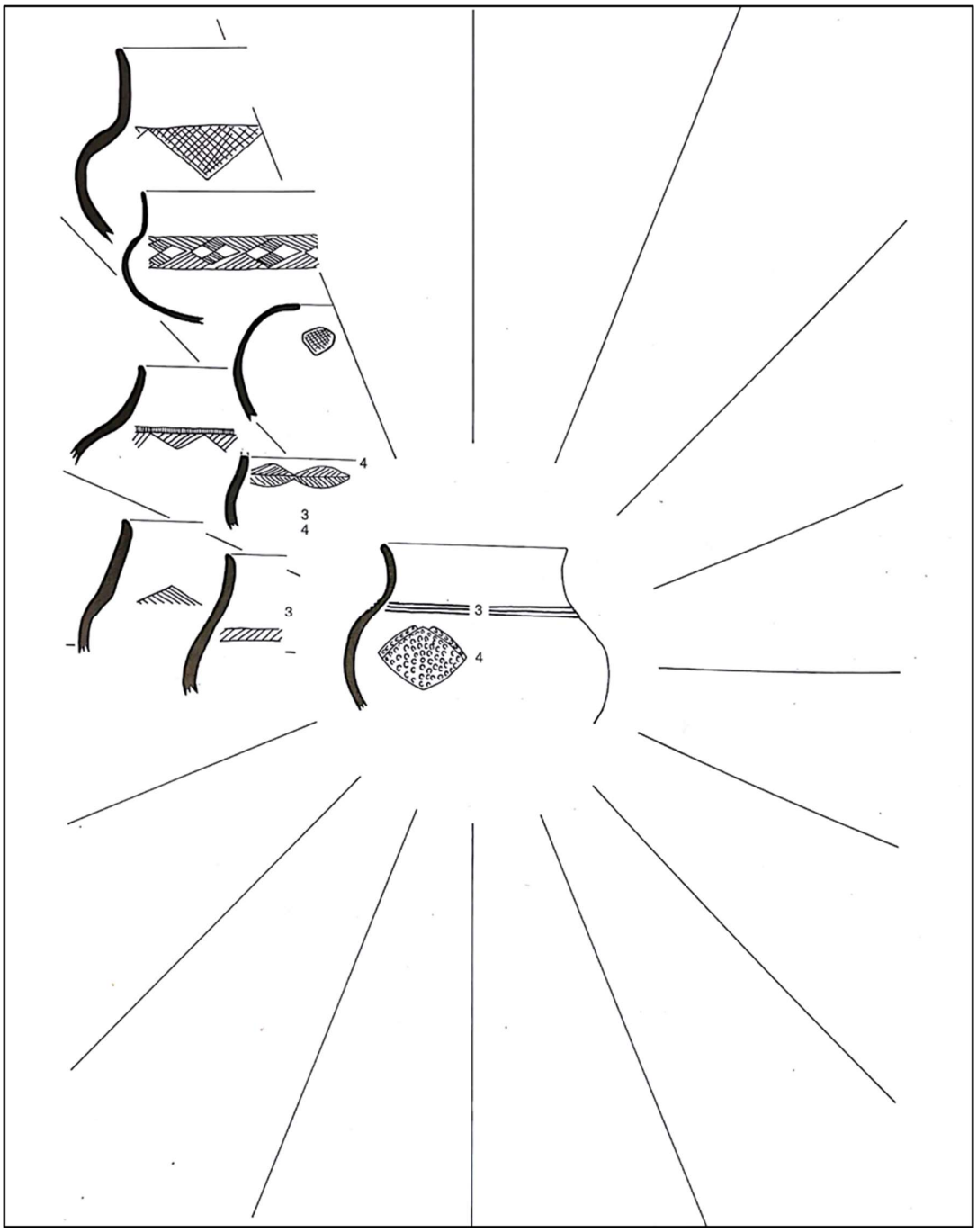
K2 facies (Huffman 2007a)

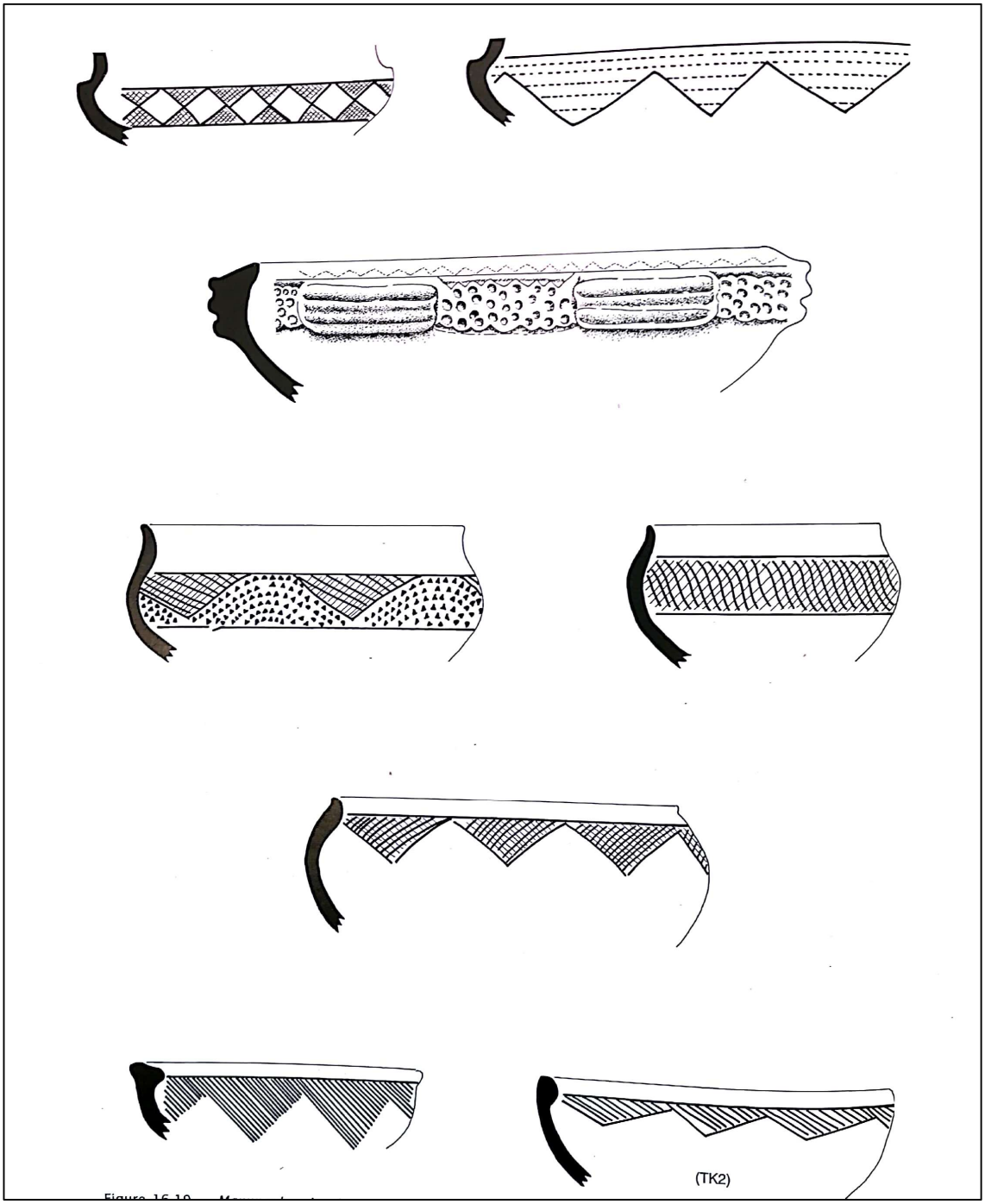


TK Facies (Huffman 2007a)

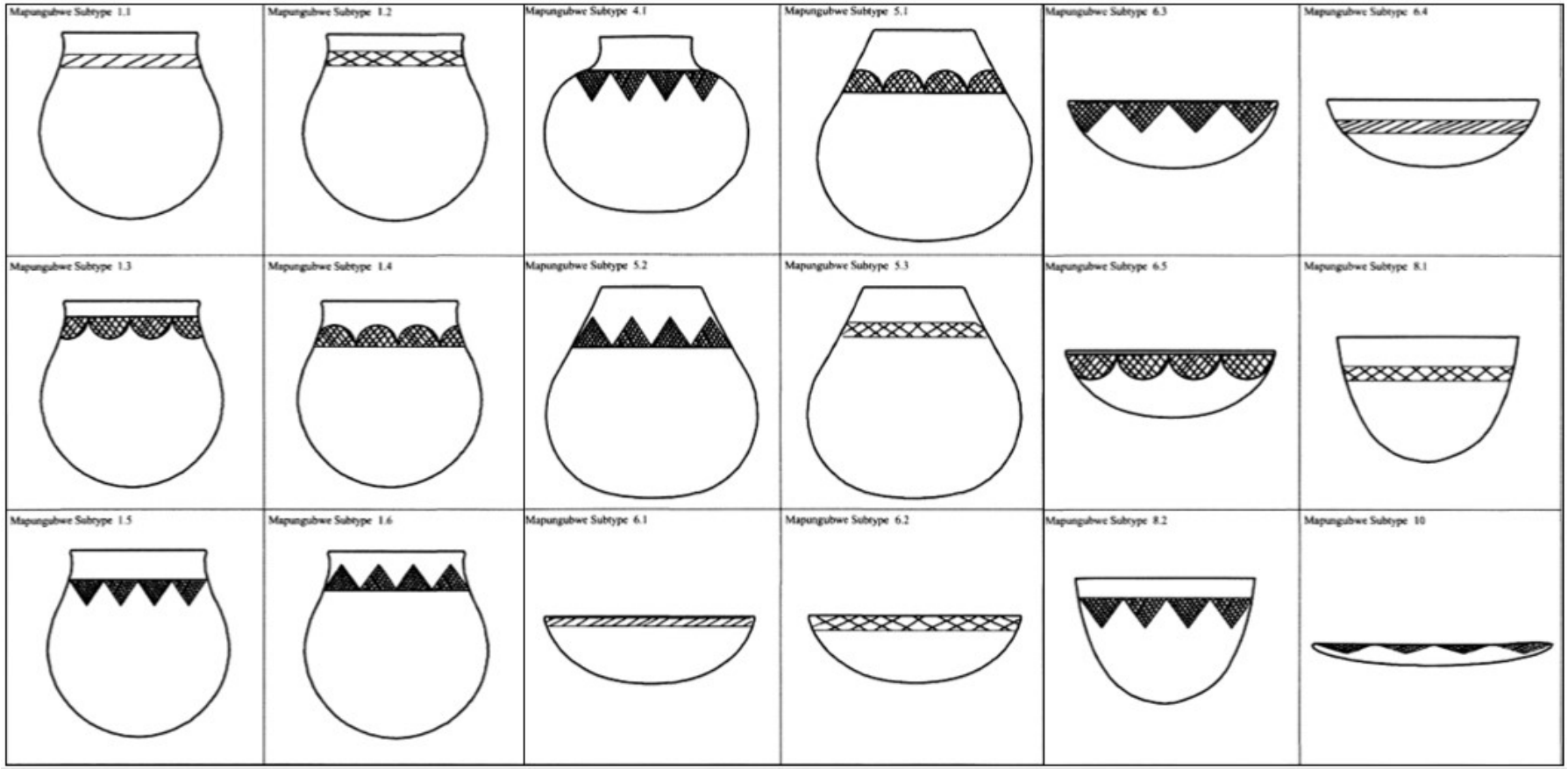


Mapungubwe facies (Huffman 2007a)

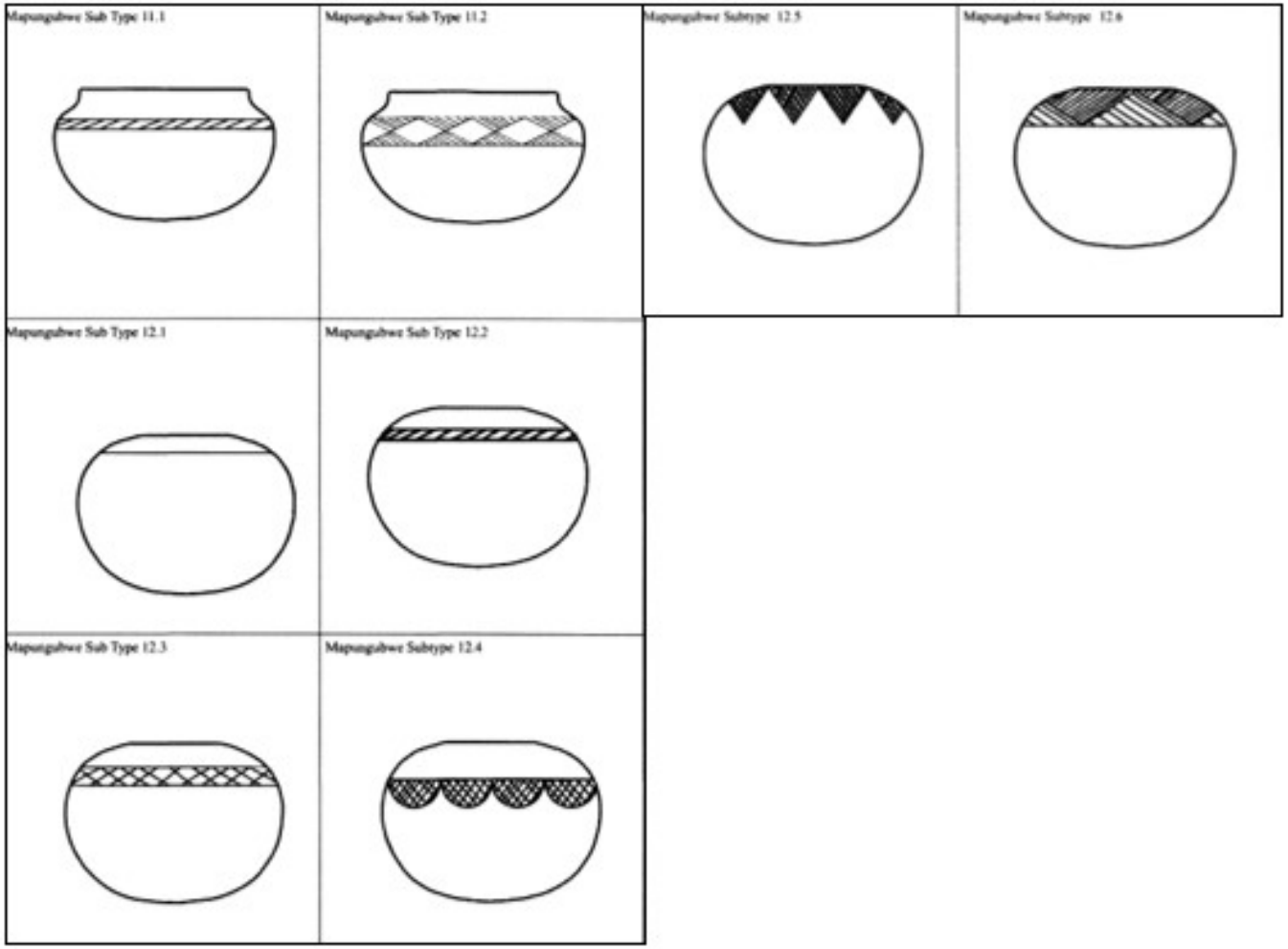



(TK2)

Mapungubwe facies (Antonities 2012, 145-147)



Mapungubwe facies (Antonities 2012, 149-150)



Appendix D: Examples of K2-Indo Pacific (A), East Coast Indo Pacific (B-E) and Mapungubwe Oblate Glass Beads (F-J). Adapted from Wood (2011; 83).

Appendix E: Faunal Remains recovered from Mtanye. Data compiled by Robert Nymashusho for Scholfield *et al*., forthcoming.

Western Pot Test Pit

Non-Identifiable Fragments		
Attribute	Layer 1	Total
Enamel Fragments		
Skull Fragments	6	6
Rib Fragments	4	4
Bone Flakes	10	10
Vertebral Fragments		
Miscellaneous Skeletal Parts		
Total Unidentifiable	20	20
Identifiable Species		
Species	Layer 1	Total
Ovis/Capra/Sheep/Goat	1	1
Sylivicapra grimmia/ Common duiker	1	1
Bovidae I	1	1
Bovidae II	6	6
Bovidae III	1	1
Total Identifiable	10	10

Mtanye Hill Terrace Test Pit

Non-Identifiable Fragments				
Attribute	Layer 1	Layer 3	Layer 5	Total
Enamel Fragments		2		2
Skull Fragments	1	1	2	4
Rib Fragments	1	2	3	5
Bone Flakes		1	2	3
Vertebral Fragments	1	2	1	5
Miscellaneous Skeletal Parts	3	4	7	14
Total Unidentifiable	6	12	15	33
Identifiable Species				
Species	Layer 1	Layer 3	Layer 5	Total
*Aespyceros meumpus/*Impala		2		2
*Tragelaphus strepsiceros/*Kudu	1			1
Bovidae II		4	1	5
Bovidae III	1			1
Total Identifiable	2	6	1	9

Mtanye Hill Kraal Test Pit

Non-Identifiable Fragments						
Attribute	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Total
Enamel Fragments	19		1	1	1	22
Skull Fragments	8	1		6		15
Rib Fragments	2	3	1	2	1	9
Bone Flakes	3	5	2	9	21	40
Vertebral Fragments	9	2	7	11	16	45
Miscellaneous Skeletal Parts	26	3	41	33	12	115
Total Unidentifiable	67	14	52	62	51	246
Identifiable Species						
Species	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Total
Aves/Bird	1		2	1		4
Ovis/Capra/Sheep/Goat	2					2
Stigmochelys pardallis/Tortoise		3				3
Aspatharia sp./ Freshwater mussel	3	4	2	10	1	20
Bos taraus/ Cattle					2	2
Microfauna	10		3		7	20
Syncerus caffer/Buffalo		1				1
Aespyceros meumpus/Impala	1		2			3
Tragelaphus strepsiceros/Kudu		2				2
Sylivicapra grimmia/ Common duiker	3	3	1			7
Bovidae I		1	4	1	4	10
Bovidae II	10	17	6	7	8	48
Bovidae III	4	7	9	19	10	49
Bovidae IV			1	2		4
Total Identifiable	34	38	30	41	32	175

Site B Test Pit

Non-Identifiable Fragments										
Attribute	Layer 1	Layer 2	Layer 3	Layer 4	Layer 6	Layer 7	Layer 8	Layer 10	Layer 11	Total
Enamel Fragments	7	2								9
Skull Fragments	8	5				1				14
Rib Fragments	8	7		2		1	1	1		20
Bone Flakes	15	9	1	4	1	2	2	4		38
Vertebral Fragments	14	10	1	3	1	7	2	3	1	42
Miscellaneous Skeletal Parts	22	18	2	8	3	4	3	4	1	65
Total Unidentifiable	74	51	4	17	5	15	8	12	2	188
Identifiable Species										
Species	Layer 1	Layer 2	Layer 3	Layer 4	Layer 6	Layer 7	Layer 8	Layer 10	Layer 11	Total
Aves/Bird					1					1
Ovis/Capra/Sheep/Goat	2			1		3				6
Oseotragus oreotragus/ Klipspringer	1									1
Stigmochelys pardallis/Tortoise	1		2							3
Connochaetes/Wildebeest	2									2
Aspatharia sp./ Freshwater mussel	2			3						5
Bos taraus/ Cattle	3									3
Microfauna	12	3			7					22

Syncerus caffer/Buffalo				1						1
Aespyceros meumpus/Impala	1									1
Tragelaphus strepsiceros/Kudu	3									3
Sylivicapra grimmia/ Common duiker			2							2
Bovidae I	1	4		1			1			7
Bovidae II	8	3	1	3	1	8	2	5	2	33
Bovidae III	25	16	1	4	1		6			53
Bovidae IV	4	1		2		1				8
Total Identifiable	65	27	6	15	10	12	9	5	2	151

Appendix F: Guide to slag identification. Adapted form Bandama (2013)