Foragers in the middle Limpopo Valley: trade, place-making, and social complexity

Tim Forssman

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To my children, India and Bodhi, and my wife, Kath

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Chapter 1: Interactions, frameworks and complexity

A great amount of research has been dedicated to understanding past forager-farmer relations in southern Africa. From these studies, a wide mix of responses to farmer interactions have been observed in different social contexts. In KwaZulu-Natal's Thukela Basin, South Africa, for example, settlement shifts in response to farmers arriving in the area led to the occupation of more mountainous areas not suitable for agricultural (Mazel 1989). Similarly, in the Great Fish River region of the Eastern Cape, foragers retired further into mountainous regions to avoid or temper interactions with farmers (S. Hall 1994). In south-eastern Botswana, settlement mobility allowed foragers to interact with farmers at certain times but then remove themselves from contact situations during others (Sadr 2002). In South Africa's Madikwe region, North-West Province, some foragers came to live amongst farmers, possibly through marriage, but continued producing stone tools while living in the fixed farmer settlement (S. Hall 2000). Forager activity and behaviour patterns across the subcontinent shifted in many other ways, with some assisting in mining activities (Denbow 1999), ritual practices (Schoeman 2006) and craft production (Wadley 1996). However, it was in the middle Limpopo valley (Figure 1.1) that a unique set of forager-farmer interactions took place, allowing foragers to access part of the farmer market economy and acquire social status.

In the valley, trade, centralisation, ritual control and the appearance of polities played a major role in the establishment of state-level society (Huffman 2009, 2012). From possibly as early as AD 350, pioneer or transitory farmer communities appeared (Hall & Smith 2000), but only around 900 AD did large

Figure 1.1: The southern African region with key areas indicated as well as the middle Limpopo Valley. a, *approximate area demarcating central southern Africa;* b, *approximate area demarcating the Kalahari Desert; 1, Dobe-Nyae Nyae area; 2, Tsodilo Hills and the Okavango Delta; 3, Makgadikgadi Pans; 4, Matopo National Park; 5, approximate location of Sofala; 6, middle Limpopo Valley; 7, Magaliesberg; 8, Thukela Basin and KwaZulu-Natal; 9, Great Fish River and Eastern Cape; and 10, Western Cape. The arrow along Mozambique's coastline indicates the trade winds.*

numbers of Zhizo-using farmers settle the valley (Huffman 2009). This settlement appears linked to east coast international trade since at the time a large elephant population resided in the valley and their ivory was a valuable trade commodity (Forssman et al. 2014). Trade resulted in the appearance of exotic goods including glass beads, coastal shell and cloth (Huffman 2009; Wilmsen 2009). During this early Zhizo trading period, what Renfrew (1984) called early state modules with nodal settlements that controlled local power, appeared in central southern Africa. This continued into the following phase when Leopard's Kopje producers settled the valley at approximately 1000 AD. They took control of local trade networks and established political dominance (Huffman 2000). Over the course of the following *c*. 200 years, socio-political developments led to the establishment of Mapungubwe, arguably southern Africa's first state-level society (Huffman 2015a). Here, the chief physically separated himself from the surrounding population and resided on a hilltop settlement surrounded by elite groups. Immense wealth was controlled through Mapungubwe, craft specialisation occurred, and ritual authority was held by the chief (Huffman 2009; Meyer 1998). Mapungubwe's influence declined around 1300 AD (Prinsloo et al. 2011) when political control shifted to Great Zimbabwe (Huffman 2009).

Forager communities were present from before the appearance of farmers and during the phases leading to the Mapungubwe state (e.g. van Doornum 2005). Not only did they witness these developments but participated in them by contributing to local economies. And yet, foragers are seldom thought of as contributors to the appearance of complexity in southern Africa. More often, they are abstracted from socio-political and historical entanglements (Denbow 2017). Generally, they are considered to have been present but not to have supported socio-political change or taken part in the associated developments. This may be the case in other parts of southern Africa, but not the middle Limpopo Valley. Here they were active agents within the broader system. Studying the forager sequence in this area provides insights into forager adaptability and access patterns as well as the ways in which foragers empowered themselves within the local socio-political landscape.

The role foragers played in engineering southern African cultural and social landscapes often lacks significant discussion. Instead, archaeologists have tended to focus on ecological adaptations (Parkington 1980, 2001; Sealy 2006), settlement and landscape utilisation patterns (Barham 1992; S. Hall 1994; Mazel 1989; Mitchell 1996, 2003a; Mitchell et al. 2011; Wadley 1987, 1992), shifts in material culture and lifeways (Denbow 1999; Denbow & Wilmsen 1986; Gronenborn 2004; Hobart 2004; Mitchell 2003a; Sadr 2003), and rock art (Challis 2012; Dowson 1994; Eastwood & Eastwood 2006; Eastwood & Smith 2005; S. Hall 1994; Jolly 1996; Lewis-Williams 1980, 1981, 1982; Lewis-Williams & Challis 2012; Smith & Ouzman 2004), amongst other topics (see Mitchell 2002a). The value of these studies cannot be understated. They have been crucial to our understanding of southern African forager lifeways, interactions and social change. While much has been learnt, and no doubt more of southern Africa's forager heritage will be uncovered if this direction is maintained, foragers also played crucial roles in the development of local socio-political networks and mercantile economies (see Denbow 2017), especially in the middle Limpopo Valley. If we neglect acknowledging their contributions to social change in southern Africa, extant communities are denied access to their ancestral heritage and earlier perceptions of foragers are perpetuated.

Foragers were involved in social change and development. They were not passive in their interactions but adapted as well as contributed to cultural transformations. The social changes that occurred in the valley had a deep impact on forager communities. That they witnessed and contributed to these processes, all the while maintaining their own lifeways, attests to their adaptability, resilience and the value farmers placed on their indigenous knowledge systems. It also implicates them in important social, political and economic processes occurring in southern Africa at this time. The role that foragers played is seldom acknowledged and yet it demonstrates their contributions to social and economic growth. The tendency to view foragers as passive agents in social interactions for these

reasons is incorrect and further disenfranchises extant communities from their ancestral heritage. Showing their involvement in important socio-political systems relies on several fundamentally transformative social features. These are foragers' involvement in: local trade markets, wealth accumulation, specialisation of craft production, and the appearance of nodal places and centres on the landscape. To understand what these features imply in relation to social complexity, a more detailed archaeological background is necessary.

An archaeological context for foragers in the middle Limpopo Valley

One of the aims of this book is to bring together a series of research projects that have been conducted independently of one another, but which together help us gain a far richer understanding of forager social patterns, cultural change and landscape representations. Over the coming chapters this will be explored in great detail. The outline provided here, however, offers a basic overview of the forager sequence in order to lay a foundation for its reconstruction in the coming pages. This review is presented along with the local farmer record for it provides a cultural backdrop for much that occurred in the valley even in forager society. Framing this sequence following ethnic or subsistence-based modes of identity advances an essentialistic structuring of past identities. To avoid this, even if only in a thinly veiled manner, chronological phases are used.

What is of interest are the centuries leading up to contact with farmers. Most importantly, they reflect forager lifeways just before they were disrupted, changed, or enlivened by the arrival of incoming groups. The pre-contact sequence offers a perspective of forager lifeways across the region and develops a sense of behaviour patterns, economic systems, settlement habits, and, if ethnography is relied upon, social value systems. Of course, stretching well before the onset of contact between foragers, herders and farmers, is the complete Later Stone Age sequence. In the middle Limpopo Valley, this extends back to between at least 11,075 and 10,632 BC based on the dated assemblage from Balerno Main Shelter (van Doornum 2008). How relatable behaviour patterns during the early Holocene phase is to those occurring immediately before contact with incoming groups is not known, nor can it be examined at present since these lower levels at Balerno Main, as well as Tshisiku Shelter first occupied between 5712 and 5318 BC, have not been studied in detail (van Doornum 2007, 2008). Therefore, van Doornum (2005) considers the period dating about a millennium before the arrival of farmers, 1220 BC, as a control, and there is no reason why this should be challenged. It marks the beginning of Phase 1 (Chapter 3).

By at least the beginning of the third century AD, possibly herder but definitely farmer communities arrived in central southern Africa (Huffman 2007: 123 & 135). They brought with them very different settlement patterns, subsistence habits, and material culture to that of the incumbent forager community. However, the exact appearance of farmers is difficult to place. Complicating the matter is the local appearance of Bambata ceramics (*c.* AD 200-555; Huffman 2005). Huffman (1994, 2005, 2007) argued that the facies was produced by farmers and he placed it in the Benfica ceramic branch. However, others have contended that Bambata ceramics were produced by pastoralists or semi-sedentary foragers (e.g. Denbow 1984; Reid et al. 1998). Moreover, the facies' chronology spans periods predating the arrival of farmers (Sadr 2008a: see the Appendix). For these reasons, Bambata cannot reliably be used to indicate a farmer settlement especially when it has only been recovered from Later Stone Age contexts in the valley (Hall & Smith 2000). It is only when Happy Rest ceramics appear (AD 450-750; Huffman 2007: 127), along with the nearby appearance of Silver Leaves in Zimbabwe (AD 280-450; Huffman 2007: 123), that a farmer presence can reliably be inferred (Huffman 2009). However, no associated homesteads have been identified in the valley. Only at rainmaking sites have Happy Rest ceramics been recovered, but this may nonetheless indicate that farmers had indeed settled the valley (Huffman 2009). At first, this may have been in small pioneer groups or while in transit (Hall & Smith 2000). Using AD 100 as the earliest period before the onset of contact is, for these reasons, a conservative benchmark, and the interface between Phases 1 and 2 (Chapter 3).

While the timing of the first farmers settling the valley is to some extent unclear, by AD 900 they had settled the area in large numbers. These first farmers produced what are called Zhizo ceramics and its appearance coincides with the local arrival of exotic trade wealth (Huffman 2000, 2009). The impact trade had on their economy and environment is uncertain. Many have suggested that alternate sources of wealth, such as cattle (*Bos taurus*), played as an important role in society (Denbow 1984; Kuper 1982; Pikirayi 2001: 87). Locally sourced trade goods and access to these resources also became important and multiple regions containing exchangeable resources were exploited by the eighth century AD. Many of these items were used to acquire goods coming from the east coast of Africa (Huffman 2000). With the settlement of the middle Limpopo Valley, much of this became centralised or controlled through this very connected landscape (Chapter 2). It also may partly be what attracted Leopard's Kopje-users into the region around 1000 AD (Huffman 2000: 20), marking the end of what is considered here as Phase 3 (Chapter 4).

The fourth and final phase includes the most significant social shifts that would occur in the valley. Appearing in the valley around 1000 AD was a branch of the Leopard's Kopje Tradition, the K2 facies. K2 users formed a ranked and kin-based society with a political centre at Bambandyanalo (also referred to as K2; Huffman 2009). The resident chief lived around the central cattle kraal in a settlement pattern termed by Kuper (1982) and identified by Huffman (1990) as the Central Cattle Pattern. By AD 1060, Bambandyanalo's court midden, an indicator of political activity (Huffman 1982, 1986a, 2000), had grown significantly demonstrating the settlement's growing regional importance. In the twelfth century AD, this enormous midden engulfed a portion of the central kraal and instead of moving the midden, the cattle were relocated to outside the settlement. This emphasises the newly developed importance placed on socio-political structures as opposed to cattle wealth (Calabrese 2000a). This same pattern was adopted at Mapungubwe when it was settled around 1220 AD. Here, there is no evidence of a kraal near the court located at the base of the hill, emphasising economic and political shifts (Huffman 2009: 43). The settlement also does not follow the Central Cattle Pattern. Other important developments from K2 to Mapungubwe were: the physical separation of the leader from the surrounding population; elite spaces with some demarcated by stone walling; noble residences surrounding the hill; gold items associated with burials; the control of ritual activities such as rainmaking; and increased wealth accumulation from international trade (Huffman 2009, 2012, 2015a, 2015b). Given the context of these features and Mapungubwe's chronology, Huffman (e.g. 1982, 1986a, 1986b, 2000, 2015a, 2015b) concluded that it was here that both state-level society and the Zimbabwe culture developed, from where it was imported to Great Zimbabwe. Its decline at AD 1300 marks the end of Phase 4 (Chapter 5).

Phases 1 to 4 are characterised by several important shifts. These all played a role in local social tapestries and the way foragers were able to intertwine themselves into this fabric. The appearance and centralisation of local and international trade played a major role in the development of elite groups and social complexity. Unlike most places in the world, foragers participated in this and were part of the distribution network if we consider their access to wealth items, such as glass beads, indicative of their ability to acquire and accumulate wealth (Forssman 2017). The establishment of local and nearby polities was also important, and no doubt played a role in the influence of authorities and the flow of power and wealth. Foragers, in proximity to these centres, likely interacted more regularly and perhaps had differential access patterns to goods and social status (Hall & Smith 2000). Similar peer-places appear on the forager landscape but instead of emphasising political control they emphasise traditional knowledge systems and practices. Having a massive bearing on local foragers was the development of state-level society within the farmer community. Stratified social networks and hierarchies no doubt subjected foragers to this form of social ordering. Where in this arrangement they were placed seems to vary across the landscape, but they certainly were accommodated. Social stratification, among the other features, led to the eventual establishment of Mapungubwe, at which trade centralisation, ritual control, elite spaces and political authority all occurred. But, it precipitated a lengthy series of

interactions with foragers. Their role in farmer society, and more generally on the social landscape, contributed to the penultimate settlement of the hilltop palace. Moreover, it appears to have led to the rise of complexity in forager society as well.

Interactions, trade and access networks

Forager-farmer interactions are inferred from cultural material. Items such as ceramics, glass beads, livestock remains and metal in forager contexts are generally thought to indicate trade, exchange or other relations with farmers (Figure 1.2). This relies on two important assumptions. First, that foragers were not producing any of these items themselves and that material remains can reliably indicate cultural groups. While still possible, evidence suggesting foragers were producing their own ceramics or herding livestock in the valley is so far absent. Glass beads, also, came from southeast Asia (Robertshaw *et al.* 2010) and while foragers may have been involved in this trade, they did not advocate it, obtain comparably more beads than farmers, or incorporate beads into their society to the extent that farmers did. Therefore, in the valley, concluding that farmer-associated items including exotic trade goods did in fact come from farmers is highly reasonable. Second, emphasis is placed on our ability to observe these exchanged products in the

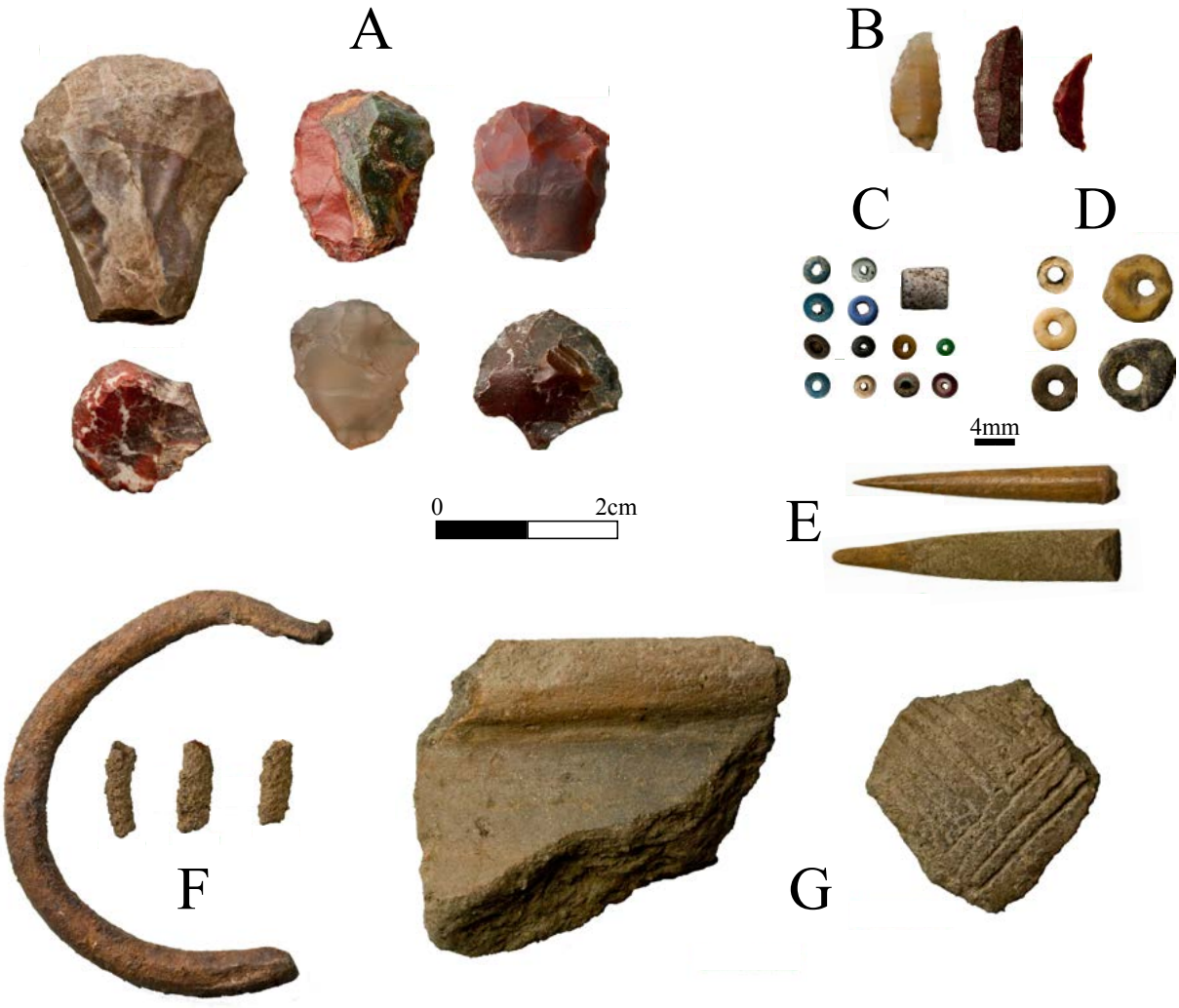

Figure 1.2: Some examples of items possibly associated with trade as well as trade items themselves. From Dzombo Shelter: A, scrapers; B, backed tools; and E, worked bone tools; from João Shelter: C, glass beads; D, ostrich eggshell beads (complete); F, metal fragments (probably copper ornaments); and G (right), ceramic; and from Kambaku Camp: G (left), ceramic.

archaeological record. Subsistence goods, for example, generally do not preserve archaeologically and the ceramics that appear in forager contexts may have been transport vessels as opposed to the intended trade good (e.g. Korsman & Plug 1994). Therefore, caution is advised when determining the scope of forager-farmer interactions based solely on observable trade wealth. Instead, what is found should be considered a minimum indicator of trade.

Various farmer goods appear in forager contexts and sometimes in large numbers. Those with the greatest impact were probably glass beads. For example, Hall and Smith (2000) recovered evidence from Little Muck Shelter suggesting that before contact, *c.* 350 AD, foragers used the site purely as an occupation camp. Vestiges of their activities include an assemblage with various formal stone tools as well as bone tools, faunal remains from a broad subsistence base, and manufacturing debris from shell bead production possibly for small-scale trade or personal use. From the local appearance of farmers, the use of Little Muck began to change. Hall and Smith (2000) suggested it came to serve as a workshop based on a proliferation of stone scrapers used to produce trade-related items from the first centuries AD until about 900 AD, when the site became an intensive production base. Goods being manufactured at the site were thought to have primarily been animal hides, but a use-wear study suggested wooden and bone items might also have been manufactured (Forssman *et al.* 2018). These were probably traded for consumables delivered in earthenware pots, or for the pots themselves, but also for glass beads. Those living at the site were multi-craft producers and the level of craft production perhaps signals specialisation (Chapter 6).

Not only did trade impact craft production activities, but also resource exploitation intensity. At Dzombo Shelter, a shift in the production of backed stone tools corresponding with the arrival of farmers in the region was investigated to observe whether this reflected a change in behaviour patterns (Forssman 2015). Damage on the tools consistent with impact-related activities, such as those that form during hunting, were found to increase at the same time. These findings suggest that foragers using the site began hunting more regularly or intensively after they came into contact with farmers. The occurrence of earthenware ceramics and glass beads at the site, and later metal, suggest this may have been for trade. Therefore, the arrival of farmers in the middle Limpopo Valley both changed and increased trade demands, and this impacted the behaviour patterns of local foragers.

At present, very little has been written of the forager involvement in trade networks despite the strong archaeological evidence demonstrating exchange with farmers (see Denbow 2017). What might the presence of these items in forager contexts indicate? Does it show that certain foragers acted as local merchants? Could the regular appearance of these goods and their accumulation in some contexts suggests that foragers, through trade, accumulated wealth and developed social status? How might foragers have perceived this trade from their own perspectives? The appearance of items such as glass beads, metal implements and ceramics at forager sites indicate that they had access to these resources through exchange, labour arrangements or other means. The relationship between foragers and farmers, thus, brought trade wealth into the forager cultural repertoire and it also possibly stimulated change within their society, even creating hierarchies. Evidence from the valley offers suitable data to answer the questions listed above and provides perspectives on these issues that are not always possible to infer from other regions. In most cases, it also indicates landscape wide patterns that are seldom congruent with one another.

Place-making

Spaces and places can be framed in several ways. An approach preferred here is Manuel Castells (1972) *spaces of flow* (described in Chapter 6). In its barest state, *space* is temporally variable and socially constructed. Multiple *flows* can occur in a single space which is contingent on its use by the occupants, the role of exchangers (circuits of information flow, e.g. rock art), the site's orientation within a broader socially created landscape, and the influence of authorities. How these features intersect determines to a large extent the filling of

space with culturally meaningful items, symbols and functions. One can examine these relationships by interpreting sites on a single landscape as subject to interconnective networks and social patterns that are reflected spatially and within spaces. Space, therefore, is itself an item of cultural material.

In the middle Limpopo Valley, forager spaces and places have been well-studied. Initially, though, there was an emphasis on large shelters with smaller, less impressive sites being ignored (Forssman 2010, 2014a). However, this has changed and now a wider range of sites have been studied (see Forssman 2013, 2014a for examples not listed here). This includes Balerno Main, a very large north-facing shelter in a stand-alone sandstone exposure in a widespread sandstone belt. The site is at least 3km from any known farmer settlement (van Doornum 2008). Little Muck, while also north-facing but smaller, is situated along a ridge near to a seasonal river not far from a large farmer settlement, Leokwe Hill (Hall & Smith 2000). Nearby are several rain-control sites (EH Hill, M3S Hill and Ratho Kroonkop) that contain possible evidence of a forager presence in this otherwise farmer-associated ritual space (Schoeman 2009). Much like Little Muck, Dzombo has a similar social and environmental context but a notably different sequence (Forssman 2014b). A few hundred meters away is João Shelter, which contains a sheltered and open-air homestead component (Forssman 2016a). From Dzombo, it is on the opposite side of a large farmer settlement called Mmamagwa. Isolated like Balerno Main, are Balerno Shelters 2 and 3, but both are small with limited internal space and situated very near to one another (van Doornum 2000, 2005, 2014). Tshisiku is a mid-sized shelter that is not far from the large farmer settlement of Pont Drift (van Doornum 2007). Lastly, west of Tshisiku and south from Dzombo and João is Euphorbia Kop, a multi-tiered (based on hillside terraces) K2-period (AD 1000 to 1220) farmer settlement with strong evidence of a forager presence (Seiler 2016). This variety of settlement contexts demonstrates various cultural consistencies and discontinuities expressed spatially as well as chronologically. The evidence suggests several contested spaces, peer-places and topographies of power existed within forager constructions of the landscape as it did in farmer society.

The implications of the forager's social landscape are far-reaching. First, it indicates site-based strata. Each site had its role and these related to one another, as will be shown. Sequential changes are often reflected regionally suggesting broader social patterns responsible for altering site functions and positions within larger networks. These networks comprise various forms of exchangers that operate as a circuitry (Castells 1972). Communication and value systems, for example, are transferred along exchangers and influence activities, decision making, economies, and the nodality or peripherality of sites. All of these change episodically; hence the notion of flows (Castells 1972, 2000; Forssman & Louw 2018). Second, evidence suggests sites may have been ranked. Over time, change at certain sites suggests smaller groups used them and that they fell out of favour. Those groups possessed fewer trade items than those using sites like Little Muck and Dzombo. These two sites, and more emphatically the former, became centres of trade with large reserves of wealth being acquired and accumulated at these shelters. While these sites appear to exhibit shifting responses, reactions and preferences during the first millennium AD and beyond, Balerno Main expresses general continuity. Thus, place-making and how these spaces relate to one another was based on connective elements of the landscape. The changes in places, access to wealth, craft specialisation and landscape patterning leads to a certain inevitable question: did foragers develop complex society?

Complexity in forager society

Forager complexity is almost absent from discussions in southern Africa where complexity is typically reserved for farmer society. In other parts of the world, discussions around forager complexity are fairly advanced. One issue, among others, that is picked on by many authors is well-established and long-distance trade networks (e.g. Headland & Reid 1989). These systems help dispel the notion that foragers were isolates because of their involvement within them. They instead imply inter-group trade and exchange through forager interactions with neighbouring people. Moreover, identified among

forager groups are complex settlement systems, well-developed economies and wealth accumulation, cultivation of domestic stock, delayed-return economies, animal husbandry, and hierarchal or ranked band structures (Guenther 1996; S. Hall 1994; Headland & Reid 1989; Kusimba 2005; Lombard *et al.* 2020; Plug *et al.* 2003; Sadr 2003). In many contexts, a combination of these features are found that exist along a spectrum of development; in some instances, practices such as animal husbandry, for example, might be limited (Hobart 2004) whereas in other cases, or environmental conditions, this is far more developed (Tanaka 1976; Wiessner 1977). In addition, foragers varied greatly across regions and over time (Sadr *et al.* 2003; Wadley 2000). Where it has been discussed, complexity is a historical process and not an essentialised concept (Kusimba 2005). For this reason, it need not conform to farmer complexity in the valley, but rather a developmental process within forager society.

Importantly, why has it scarcely been spoken about in a southern African context (but see Kusimba 2005)? Considering that research in this part of the world has been diverse and represents a diaspora of ideas, methodologies and theoretical perspectives, the absence of complexity in most discussions is a noticeable omission. One could speculate why this might be so. From the first encounters with Bushmen, colonial settlers described them with absolute disdain; as aberrations of humanity, wretched specimens, or vermin. They were persecuted, imprisoned and murdered after providing little or any provocation (see Forssman 2019; Francis 2009). Other than this, the general perception was that southern African foragers were incapable of escaping their very lowly station. They were vagabonds that did not possess the ability to become affluent, develop their society and enhance their status. They were all but totally devoid of culture. This perception, tragically, is not moot in modern society (Francis 2009). These views have shaped perspectives of past foragers and perhaps led to a reluctance to consider complexity within their society.

The Kalahari Debate has seen a rehearsal of some of these early colonial perceptions. Namely, the essentialisation of Bushmen and the notion of stasis within their society (Sylvain 2015). The latter view perpetuates in archaeological studies, notably with the view that Bushman culture existed as far back as 44,000 years at Border Cave, South Africa (d'Errico *et al.* 2012; and see Pargeter *et al.* 2016). Despite the lack of any resolution in the Kalahari Debate, which was all to do with the application of ethnography to understand Bushman identities now and before colonial contact (Kurtz 1994), archaeologists continue liberally using ethnography to interpret past lifeways, learning very little new in the process (Sadr 2002). This led Parkington (1984) to call, at a very early stage, for scholars to 'de-!Kung' Later Stone Age archaeology. Rather than rehearsing modern information again and again in different iterations, a call was also made to use archaeology as an ethnography of the past (Jerardino 2001). This would circumvent the colonially-derived ethnographic record collected following mostly only western perspectives and categorisations of people (Parkington 1984; Sylvain 2015; Wilmsen 1983). Despite reservations, ethnography plays an important role in our construction of the past (Pearce 2012).

Is there a reluctance to think beyond ethnography? Our reliance on ethnographic information is self-evident with many studies maximising its value (see Pearce 2012). But, has it become a trap? Comments by Parkington (1984), Jerardino (2001) and Sadr (2002) certainly provide that impression and there is clear evidence that archaeologists are accentuating its applicability outside of the field of rock art (for an Iron Age example see Lane's 2004 comments). Perhaps, the problem resides in the fear of moving away from ethnography and becoming stranded in doldrums absent of meaning. Through ethnography greater insights into intangible cultural heritage can be obtained (Laudan 2004) even if this leads to an over-reading of archaeological residues (Mitchell 2003a). It may be better to view ethnography as a part of the picture, but not as a cultural delimiter. In other words, ethnographic compendiums are singular examples of cultural entities recorded at a specific time and in a specific context. It is not the singular possibility of a forager history or culture. It fits within a greater expanse of cultural groupings and traits which vary temporally and spatially. The assumption that ethnography applies across regions,

people and time presents an ahistoric and anti-landscape perspective of forager pasts. Ethnography is not a codex; it is context specific and a part of cultural fluctuations (Wiessner 1977). Moving beyond it, but being guided by certain principles, enrichens our view of foragers when combined with empirical data. It also helps acknowledge a more complex archaeological sequence that included multiple cultural trajectories (Kusimba 2005: 353). Focusing on forager histories creates a more dynamic reading of the past than bounded ethnographies are capable of doing.

The notion that complexity developed within forager society is grounded in archaeological data. The presence of trade wealth, wealth accumulation and peer-places are examples of a forager community exhibiting certain elements that are typical of stratified societies who have developed social complexity. One other matter that need not rely on social complexity *within* forager society is that forager communities were part of a landscape that hosted the appearance of state-level society. They were part of social networks on the landscape, socio-political developments and merchant economies. They were part of the development towards social complexity through their contributions to these systems. That they have seen absolutely no airtime in discussions around this matter further shows how they have been disarticulated with important social developments in southern African histories. An important aim of this book is to address this discord: what has been attributed to middle Limpopo Valley foragers versus the influential role that they seem to have played.

Goals

Several goals are envisioned here. Two, however, are prominent and from these all others stem. The first is to generate a single output that brings together several unrelated and yet overlapping research projects. The initial work by Walker (1994) in eastern Botswana was not followed-up with any research until S. Hall and his team (Hall & Smith 2000) began working in northern South Africa in the late 1990s. This led to van Doornum's masters (2000) and eventual doctoral study (2005). Later, the author received his masters in the same region (Forssman 2010), followed by his doctoral degree from work in eastern Botswana (Forssman 2014a). From these research programs and others, a range of studies have been published (Brunton *et al.* 2013; Forssman 2010, 2014b, 2015, 2016a, 2016b, 2017; Forssman at al. 2018; Murray 2016; Seiler 2016; van Doornum 2007, 2008, 2014; van Zyl 2019). Interest in the region's Later Stone Age is once again peaking with a series of new projects starting. However, the variety of studies are largely disjointed or not concerned with landscape patterns. The local sequence is known, therefore, through several study sites that are largely spoken of as islands. Since these projects, for the most part, articulate poorly, and considering the uprising of interest in the region, producing a synthesis of the results so far collected seems highly topical.

Bringing this research together is important because of the unusual set of social relations and socio-political developments in the middle Limpopo Valley. These heavily impacted social relations unlike anywhere else in southern Africa. No-where else did foragers witness and partake in state formation developments. Their participatory role in these processes gave them access to local economies, wealth and possibly status. Generally, foragers are not viewed as active agents within large-scale socio-political advances. However, they traded with farmers, produced goods that were used to acquire exotic commodities, and provided services for farmers, implicating them in farmer economies. In doing this, a flexible framework for the forager archaeology of the region is outlined.

The second goal is to redress how contact between foragers and farmers is perceived. Generally, foragers are not considered to have possessed agency within the social landscapes they share with farmers or Europeans. Instead, their histories are relegated from discussions to do with socio-political and economic developments in more complex social environments. Rather than being active, they are seen as passive role players who exist, more generally, on the outskirts of society or whose roles are

mediated by others. This could not be more apparent than in the middle Limpopo Valley where after decades of research the role of foragers in society at large has been almost entirely neglected other than those focusing solely on forager sequences. Framing this landscape has been done using social and economic categories that do not blend. Instead, the aim here is to de-partition these constructions and view the landscape as a dynamic social network with cross pollinating identities, merging economies, cultural borrowings, and competing or incongruent value systems.

Chapter outline

Chapter 2 begins by describing the local context of the study area. The environment and topography are presented along with the contexts and descriptions for each of the study sites. With this, the excavation methods, stratigraphy and chronology of each is provided. The chapter lays a foundation for the forthcoming data chapters in order to contextualise the excavation results. The data chapters are composed of two broad sections. Each opens by providing the archaeological background for the appropriate phase: Phases 1 and 2 in Chapter 3, Phase 3 in Chapter 4 and Phase 4 in Chapter 5. This is then followed by a results section which also discusses key patterns and site-specific details. These discussions depend on the data but include trade or exchange practices, craft goods, settlement types and site status. Chapter 6 then provides a more general discussion relating the finds from the valley to three key concepts. It discusses trade, exchange and mercantilism, socio-spatial constructions and place-making, and complexity. The first two topics provide the basis for considering social complexity in forager society. The chapter concludes by contextualising these discussions within a broader central southern African framework. Lastly, Chapter 7 provides an overview of the sequence and conclusions drawn from the discussion in Chapter 6 before presenting topics and themes that may be worth considering in on-going studies in the valley and beyond.

Chapter 2: Forager contexts in the middle Limpopo Valley

The middle Limpopo Valley falls within what is referred to here as central southern Africa. Via several networks, various zones within this region were and still are connected. This can be seen archaeologically with glass beads from the Indian Ocean trade network appearing at inland sites, ceramic facies appearing in various locations, and the movement of trade goods such as salt from specific regions to the coast (e.g. Chirikure 2014; Denbow 2017; Denbow *et al.* 2008, 2015; Huffman 2015a; Klehm 2017). Importantly, the success of trade relied heavily on the hinterland (Antonites 2012; Chirikure 2014; Prestholdt 2004). To support international trade, locally sourced goods were needed. These moved up and down exchange lines dissecting the landscape and connecting regions (Chirikure 2014). Access to goods, social pressure (see Kopytoff 1999), and controlling trade, as well as local landscape-based features such as access to resources and cultivatable lands, very likely stimulated widescale movements of people settling in new locations (Pwiti 1996), such as the arrival of Zhizo-users in the middle Limpopo Valley *c.* 900 AD (Calabrese 2007). Social developments in all parts of this region were dependent and related to what was occurring on other landscapes. These regions were not detached; they were interconnected, socially heterogenous landscapes with competing and complimentary places. For now, though, only the middle Limpopo Valley is discussed.

Regional and environmental context

The middle Limpopo Valley includes regions in three countries (Figure 2.1). The Limpopo River separates South Africa from Botswana and Zimbabwe in the north, which themselves are separated by the Shashe River and the Tuli Circle. Geologically, separating the northern (Zimbabwe Craton) from the southern (Kaapvaal Craton) zones is the Limpopo Mobile Belt (R. Mason 1973). The belt zone includes the Limpopo River and its floodplain bounded by a Clarens Sandstone Formation that has resulted in a broken landscape rich with shelters and micro-habitats (Bordy & Catuneanu 2002; Gerrard 1988). South of this and extending to the Soutpansberg is a relatively flat but undulating landscape

Figure 2.1: The middle Limpopo Valley and the region's broader social landscape showing key sites and those mentioned in the text.

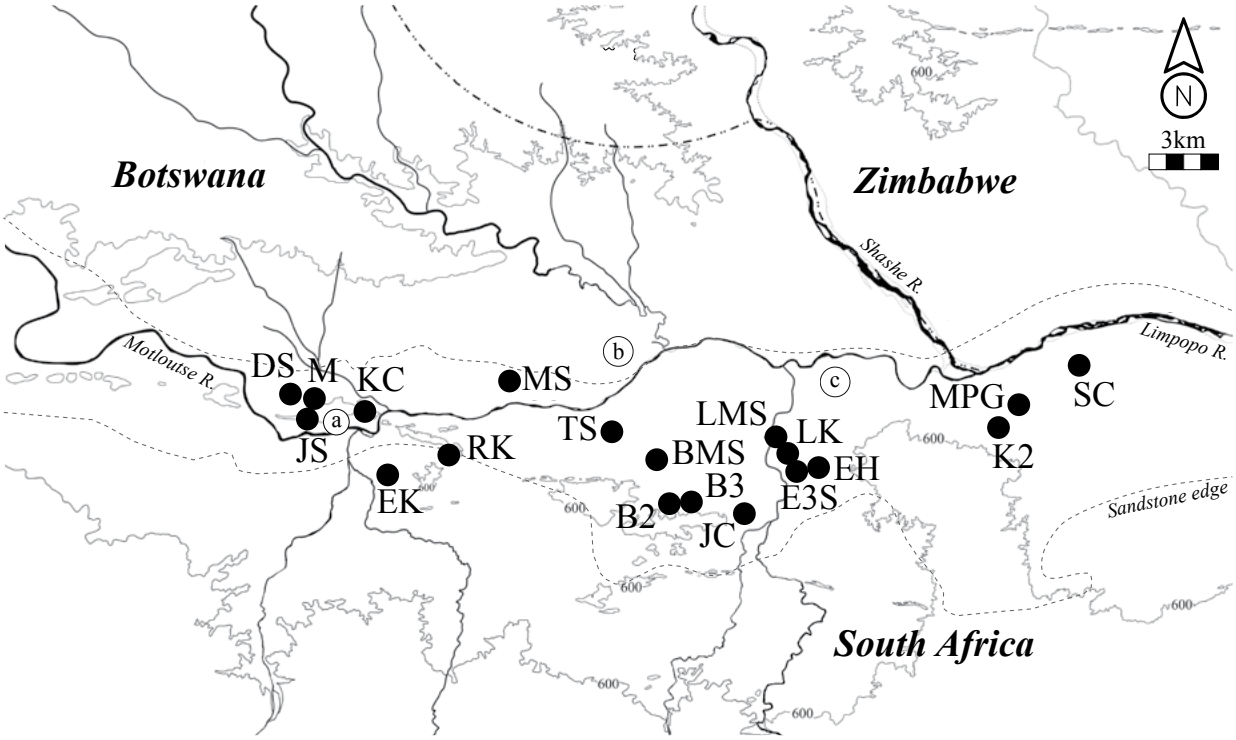

Figure 2.2: The middle Limpopo Valley and sites mentioned in the text. The 600m contour and the approximate northern and southern edge of the sandstone belt are demarcated. B2, Balerno Shelter 2; B3, Balerno Shelter 3; BMS, Balerno Main Shelter; DS, Dzombo Shelter; E3S, E3S Hill; EH, EH Hill; EK, Euphorbia Kop; JC, JC Hill; JS, João Shelter; K2, Bambandyanalo; KC, Kambaku Camp; LK, Leokwe Hill; LMS, Little Muck Shelter; M, Mmamagwa; MPG, Mapungubwe; MS, Mafunyane Shelter (Tuli Lodge); RK, Ratho Kop; SC, Schroda; and TS, Tshisiku Shelter. Letters marked in circles are vleis at the Limpopo-Motloutse (a), Limpopo-Pitsani (b) and Limpopo-Kolope (c) Rivers' confluences.

with few drainage lines (Figure 2.2) (Le Baron *et al.* 2011). It is not known to what extent natural borders served as cultural boundaries. While the cultural remains found in all countries possess large overlaps, whether these material similarities indicate cultural continuity is not clear. The only known exception are Taukome-users who restricted themselves to areas west of the Motloutse River after leaving the middle Limpopo Valley around 1000 AD (more on this in Chapter 4) (Huffman 2015b). For the forager sequence, however, using cultural diversity to indicate group identities has been attempted elsewhere in southern Africa (Mazel 1989), although strongly argued against due to a lack of stylistic markers (Barham 1992).

The landscape has several notable topographical features. The waterways are perhaps most important. Other than the two rivers that mark the modern national boundaries, the other major water networks include the Motloutse (Botswana) and Kolope Rivers (South Africa). There are, however, many other non-perennial rivers, streams and water courses. Most of these provided valuable resources such as cultivatable land, animal and plant life, and of course water, which was usually diggable in the dry season (Walker 1994). Additionally, in several locations, wetlands occur (Figure 2.2). Importantly, one exists upstream of the Limpopo and Shashe Rivers' confluence which only forms when the latter floods (Huffman 2009). While this is the largest wetland, others exist as well, such as the ones around the Limpopo River's confluence with the Motloutse and Pitsani Rivers. These areas possess clay and silt rich soils enriched with phosphorous and nitrogen (Huffman 2008; Smith *et al.* 2007), ideal for cultivation (Denbow 1984; Smith *et al.* 2007). Farmers, from the beginning of their settlement in the valley, took advantage of these areas by cultivating fields and hunting resident elephants (Du Piesanie

2008; Huffman 2009). Ecologically, though, the entire landscape offered suitable habitats for human exploitation.

The landscape forms part of southern Africa's savannah biome (Scott & Lee-Thorp 2004). Locally, winters are cool (range from 22°C to 4°C) and dry whereas summers are wet and characterised by high temperatures (>32°C) (Hanisch 1981a; Voigt 1983). Rainfall increases from August, but it is annually variable and ranges between 120 and 600mm per annum (J. Smith 2005: 38); although the average is between 300 and 400mm (Mucina & Rutherford 2010: 482-483). This erratic rainfall is partly caused by a rain shadow cast over the region by the Soutpansberg to the south (Hanisch 1981a). The vegetation is dominated by mopane trees (*Colophuspermum mopane*), which thrive in low altitude, hot environments and require little rainfall (Mucina & Rutherford 2010: 482-484; Van Wyk & Van Wyk 2007). Mopane trees provide sustained nutritional value through the wet and dry season (Wellington 1955: 299), as do the local sweet grass species (van Oudtshoorn 1992: 37). Only in rocky environments or in the hills and along the rivers does this vegetation type break. Succulents and fruit-bearing species are common in the sandstone belt and *koppies* and riparian forests with large nyala berries (*Xanthocercis zambesiaca*) and fever trees (*Acacia xanthoploea*) are found along water courses (Eastwood & Eastwood 2006: 19; Götze *et al.* 2008). Many of these species could be relied on by human occupants and they provided resources throughout the year.

The ecological diversity, sustained nutrition and water availability in major course ways also supported a large animal population. Early travellers like Harris (1986; reprint from 1840), Elton (1872), Selous (1907, 1908) and Dornan (1917) all noted the large number and diversity of animals in the region. This included a wide range of antelope, carnivores and a large population of pachyderms (see Forssman 2014a: 34 for a list of species). The large wildlife population and range of huntable, trappable and collectable meat packages were ideal for human consumption. Faunal assemblages from both forager (Forssman 2014a; van Doornum 2005) and farmer (Raath 2014; Voigt & Plug 1981) sites attest to the broad range of consumed meat packages. Additionally, the wildlife population provided other non-consumable resources such as hide for clothing, bone for tools and tradable goods which included feathers, shell and horn. Today, animal populations have been heavily reduced through land degradation, commercial farming, infrastructure development and sport hunting (J. Smith 2005: 69). The existence of large areas reserved for conservation is currently helping maintain some degree of diversity, but human encroachment continues to threaten wildlife populations.

Studies have shown that over the past 2000 years, climatic shifts would have likely resulted in fluctuations in most of the biotic features on the landscape. Tyson and Lindesay (1992) studied marine shell from coastal and inland sites, stratified remains of marine micro-organisms (foraminifera) and oxygen isotopes of cave speleothems to generate a palaeoclimatic model for the extended region. More recently, studies have been conducted on stalagmites from Makapansgat Cave, 210km south of the middle Limpopo Valley (e.g. Holmgren *et al.* 2001; Lee-Thorp *et al.* 2001), pollen (Scott *et al.* 2003) and nitrogen isotopes from faunal remains recovered at local farmer settlements (J. Smith 2005; Smith *et al.* 2007). J. Smith's (2005) study is in some ways the most appropriate since it was conducted within the valley on sites dating between AD 880 and 1645. From Table 2.1, the additional detail J. Smith's (2005) results were able to shed on climatic histories over Tyson and Lindesay's (1992) results are clear. Most importantly, the Little Ice Age was reported to begin around 1300 AD (Tyson & Lindesay 1992) and Huffman (1986a, 2009) thought it was this that led to the abandonment of Mapungubwe. However, J. Smith (2005) found climatic deterioration to begin only around 1475 AD, sometime after the capital's decline (Prinsloo *et al.* 2011). What both Tyson and Lindesay's (1992) and Smith's (2005) studies show, however, were regular shifts in the local climatic sequence which certainly had some influence over the human populations.

Table 2.1: A comparison of the two primary climatic sources used in the valley, Tyson and Lindesay (1992) and J. Smith (2005) (from Forssman 2014: 36).

Tyson & Lindesay (1992)	Period (AD)	Smith (2005)
Cool and dry	100	
	200	
Warm and wet	250	
	600	
Variably cool and dry	880	Rainfall 350 to 450 mm; variability; comparable to modern conditions
	900	
Medieval warm epoch: generally warm and dry	900	
	1010	General increase in rainfall only felt by AD 1190 = 450 to 500 mm
	1290	
	1300	
Little Ice Age: cool and dry except for a warming period form AD 1500 to 1675	1310	Rainfall seems to be consistently above 500 mm
	1415	
	1475	Marked decrease in rainfall to 350 to 450 mm; comparable to AD 900
	1685	
	1850	
Ameliorating post-Little Ice Age conditions	1850	
	Present	

Middle Limpopo Valley's Later Stone Age sites

Research into the forager sequence of the middle Limpopo Valley began later than on many other southern African landscapes. In the 1960s, a series of shelters were excavated in western Zimbabwe, including Mpato and Dombozanga, but no cultural sequence was established (e.g. Cooke 1960; Cooke & Simons 1969; Robinson 1964 and see Thorp 2010: 114). Sometime after this, Walker (1994) excavated a small shelter in eastern Botswana called Tuli Lodge (re-excavated as Mafunyane; Forssman 2014a) in order to examine inter-site variability across four regions in the country. Then, in the late 1990s, Hall and his team began excavating sites in northern South Africa (Hall & Smith 2000; van Doornum 2000, 2005, 2007, 2008, 2014), and from 2009 several largescale, landscape-based studies were launched in South Africa and Botswana, followed by a range of linked studies (Forssman 2010, 2013a, 2013b, 2013c, 2014a, 2014b, 2015, 2016a, 2016b, 2017; Murray 2016; Seiler 2016; van Zyl 2019). Others have investigated forager indexes from farmer perspectives, including Schoeman's (2006) work at rain-control sites at which knapped stones were found and considered to indicate a forager presence (see Brunton *et al.* 2013). Despite the clear overlap between these different research programs, many of these studies are largely disjointed. Integrating their findings into a pan-regional framework has, until now, not been fully achieved.

To bring these separate research programs together, several study sites were identified. These were selected based on a set of criteria including cultural and stratigraphic sequences, site locations and contexts, spatial information, and chronology. Regarding the latter, the study sites needed to be occupied from between 1220 BC and AD 1300 (Phases 1 to 4) in order to capture the phases prior to farmer contact until the decline of Mapungubwe. Some sites were occupied for limited periods within this range. Following these controls, Balerno Main, Tshisiku, Balerno 2 and 3, Little Muck, Dzombo, Mafunyane, João and Euphorbia were selected. These sites best encapsulate the central topics in this study: forager change, interactions, social developments, economic participation, and place-making.

Figure 2.3: A view of Balerno Main Shelter looking south (A; ceiling is 6m high) and east across the inside of the shelter (B) (photographs courtesy of Iris Guillemard).

Balerno Main Shelter

Balerno Main is the largest site to have been excavated in the middle Limpopo Valley. It has a 23m opening and is 5m deep with a ceiling 6m above the floor level (Figure 2.3). Shelters of this size are rare in the area. The site is composed of two zones: an internal area as well as an outside open space that could have been used by the shelter's inhabitants (Figure 2.4). On the shelter's back walls are painted images, including of a giraffe, and engravings of U-shape designs as well as a rhinoceros. Outside to the east are more engravings of antelope tracks and grooves. The shelter also contains evidence of a farmer occupation between AD 1600 and 1800 in the form of daga flooring and hut remains and a thick dung crust. This final use of the site, however, was long after it was abandoned by foragers, *c.* 1300 AD (van Doornum 2008: 250-254). It was the site's isolation that van Doornum (2005, 2008) thought was significant.

Excavations took place in two areas (see Figure 2.4). A 2x2m square was excavated beyond the dripline and four 1x1m squares were excavated in the western portion of the shelter (O13 & P13 – P15). However, only the shelter excavations have been analysed and dated. Therefore, interpreting spatial patterns, such as the distribution of activities, may include significant gaps. Only a limited area of the large shelter has been studied and given that aggregation sites are highly zoned, for example, following gender or activity areas (e.g. Wadley 1987; van Doornum 2008), other portions of the shelter might reveal artefacts expressing different activity and consumption habits. Nonetheless, the very large assemblage that has been studied reveals a detailed sequence following various chronological and stratigraphic divisions.

The shelter trench revealed a series of clearly visible stratigraphic units between the surface and bedrock approximately 1.15m below the datum (+15cm from the original surface in P13). These were identified based on differences in colour, texture and dampness (Figures 2.5 & 2.6) (van Doornum 2008: 254-257). Chronologically, DAF (P13), the lowermost strata, was dated to 11,040±90 BP (11,102 – 10,772 BC calibrated; PTA-8904), which is the earliest date for any Later Stone Age assemblage in the valley (Tables 2.2 & 2.3; all dates recalibrated using OxCal 4.3 and the ShCal13 calibration curve). In ABR (P13), a date

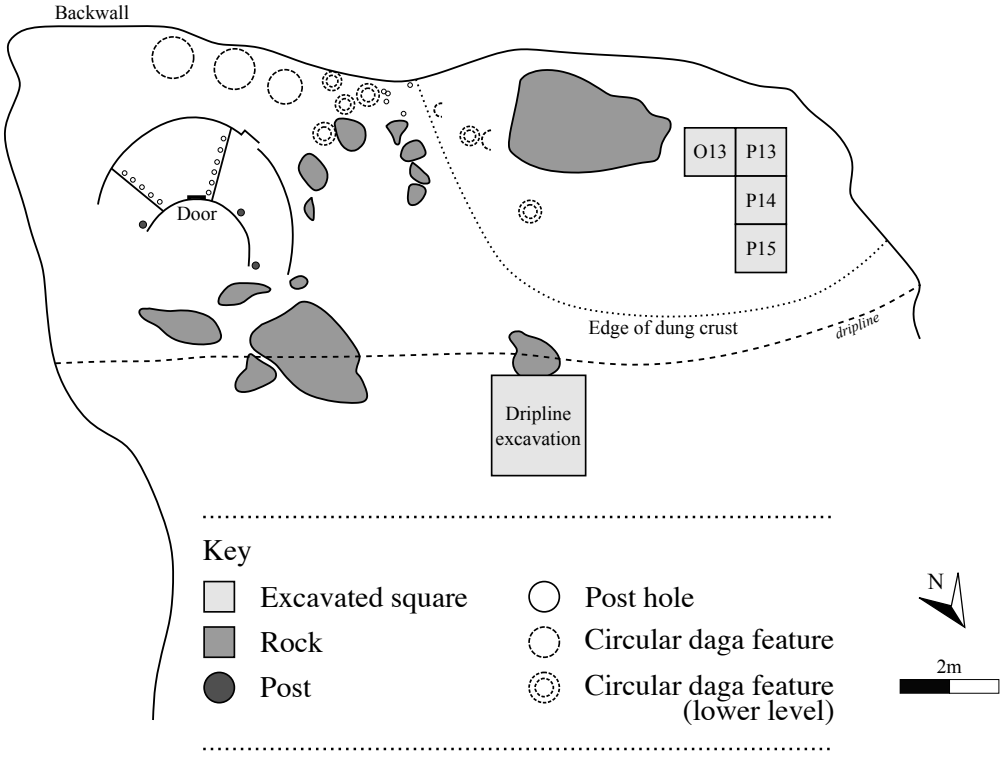

Figure 2.4: Balerno Main Shelter's excavated trenches and site features (adapted from van Doornum 2005: 66).

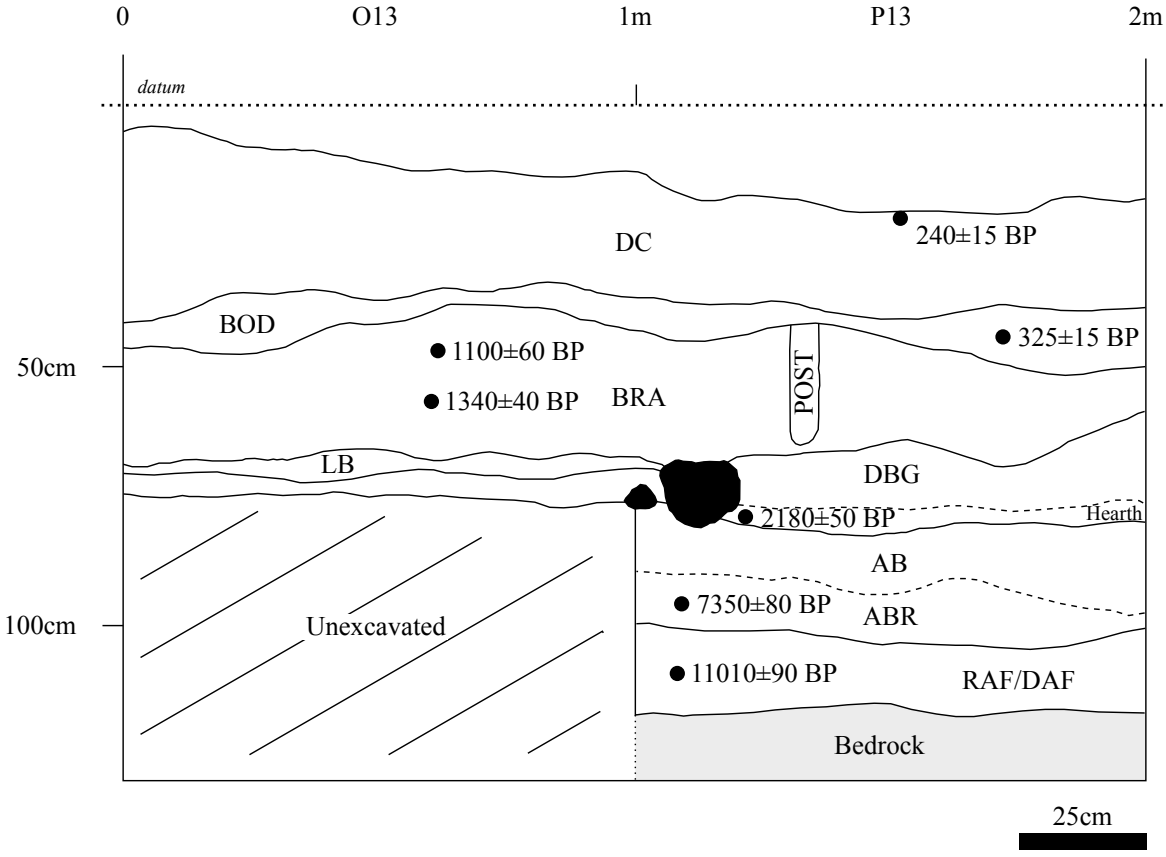

Figure 2.5: Southern wall profile of Squares O13 and P13 with chronology (adapted from van Doornum 2005: 67).

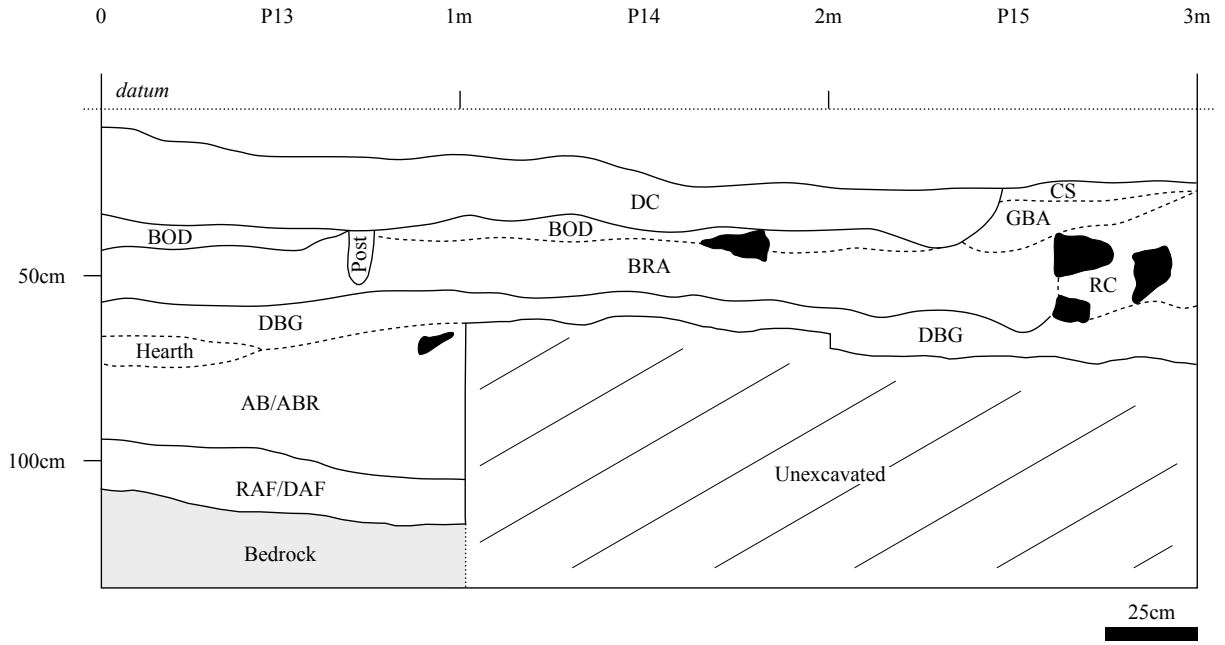

Figure 2.6: Western wall profile of Squares P13 to P15 (adapted from van Doornum 2005: 68).

of 7350±80 BP (6368 – 6023 BC calibrated; PTA-8591) was obtained, followed by a hiatus until DBG (P13), dated to 2180±50 BP (358 – 273 BC & 262 – 59 BC calibrated; PTA8609). Phase 1 is represented by the DBG 75+, DBG 70-75 and DBG 65-70 levels. A radiocarbon date in BRA 55-60 (1340±40 BP; AD 651 – 785 & AD 805 – 857 calibrated; PTA-8603), which includes LB and DBG 55-60, suggests that this level as well as the lower DBG 60-65 and upper BRA 50-55 all date to Phase 2. Phase 3 is represented by BRA 45-50 (1100±60 BP; AD 877 – 1151 calibrated; PTA 8614), which overlaps with the following Phase 4 in BRA. BRA was excavated as a single unit, at first, until 45cm below datum when 5cm spits were followed.

Tshisiku Shelter

Tshisiku contains the longest unbroken occupation sequence of all the excavated sites in the valley. Importantly, this includes an occupation during the lengthy mid-Holocene hiatus at Balerno Main, approximately 6km southeast. Tshisiku, for this period, is the only known occupied site in the valley. Like Balerno Main, it was also used in more recent centuries indicated by three modern but deteriorated grain bins inside the shelter (Figure 2.7). It is from these that the shelter gets its name; tshisiku is grain bin in TshiVenda. Unlike Balerno Main, which is in a standalone *koppie*, Tshisiku eroded into the side of a sandstone outcrop. The bowl-shaped shelter has limited space, even though it is substantially sized (length = 14m; depth = 5m and ceiling height = 4.5m), owing partly to the fact that it has no open-air usable area. Rather, the site is perched at the top of a steep talus slope leading up from the low-lying floor level. Along this slope are a range of artefact types that likely originated from inside the shelter but eroded out and downwards (van Doornum 2007: 18-19). On the backwall are a series of rock markings, such as grooves and cup-marks, as well as a faded painting of an animal outline (Eastwood & Blundell 1999).

Excavations were limited to the south-eastern portion of the shelter. Here, a 1x2m trench was excavated to bedrock, which was approximately 80cm below datum at its greatest depth. Because only one small area of the shelter was excavated, not much can be said about spatial patterning and it might also not reflect all of the changes in the sequence. Although, it still represents a fairly complete even if limited cultural record.

Table 2.2: Site chronologies and stratigraphic units of the sites discussed in the text (light grey text indicates relative chronology).

		Balerno Main	Tshisiku	Little Muck	Balerno 2	Balerno 3	Dzombo	João	Mafunyane	Kambaku
AD	1800	Seventeenth century farmers	Venda farmers					European period use?		
	1600		Hiatus				Khami (Surface; Spits 1-3)			Khami (Spit 3)
	1400	Hiatus								
	1300									
	1200	K2 / MPG (BRA)	K2 / MPG (Surface; Spits 1-2)	K2 / MPG (PGA 2)	K2 / MPG (Surface)	K2 / MPG (Surface)	MPG (Spit 4)	MPG?	K2 / MPG (Surface; Spits 1-2)	
	1100						K2 (Spits 5-10)	K2 (PBS)		
	1000									
	900	Zhizo (BRA 45-50)	Zhizo	Zhizo (PGA 3)	Zhizo (Surface)	Zhizo (OB 0-5)	Zhizo (Spits 11-13)	Zhizo?	Zhizo (Spits 3-6)	
	800	Early contact (BRA 50-60; LB; DBG 55-65)	Early contact (Spit 3)	Early contact (ARB)	Early contact (GB 0-10)	Early contact (AG2 - GB2)	Early contact (Spits 14-18)		Early contact? (Spit 7)	
	600				Early contact/ Late precontact (GB 10-15)					
	350									
	200									
	100									
BC	0	Late precontact (DBG 65-75)	Late precontact (Spit 4)	Precontact (ARB 2)	Late precontact (OB 0-35)	Late precontact (DR5 - AG3)	Late precontact (Spit 19)			
	200									
	400						Late precontact / early precontact (Spits 20-27)			
	600									
	1220	Hiatus	Early precontact (Spits 5-14)							
	↘									
	6000	Early precontact (DAF)								
	8000									
	10,000						*Bedrock not reached*			
	11,000									

Table 2.3: Radiocarbon dates for forager sites in the valley: Balerno Main, Tshisiku Shelter and Balerno 2, van Doornum 2005; Dzombo, João and Mafunyane, Forssman 2014a; and Euphorbia, Seiler 2016. All dates recalibrated using OxCal 4.3 and the ShCal13 calibration curve. Where ostrich eggshell was dated, 180 years was deducted from the mean and a deviation of 120 years was added following Vogel et al. *(2001). Dates with less than 5% are not show. Species are provided where they are known.*

Site	Sample number	Stratigraphic position	Material dated	Radiocarbon range (BP)	Calibrated range
Balerno Main Shelter	PTA-7972	SF	Charcoal	240±35	AD 1721 - 1810 (61.2%) AD 1631 - 1701 (31.8%)
	PTA-8604	O13 DC/BRA interface	Charcoal	325±15	AD 1508 - 1582 (58.2%) AD 1621 - 1649 (37.2%)
	PTA-8614	P13 BRA 45-50	Charcoal	1100±60	AD 877 - 1151 (95.4%)
	PTA-8603	P13 BRA 55-60	Charcoal	1340±40	AD 651 - 785 (96.6%) AD 805 - 857 (8.8%)
	PTA-8609	P13 DBG Hearth	Charcoal	2180±50	262 - 59 BC (71.9%) 358 - 273 BC (23.5%)
	PTA-8591	P13 ABR	Ostrich eggshell	7350±80	6435 - 6014 BC (95.4%)
	PTA-8639	P13 DAF	Ostrich eggshell	11,040±90	11,075 - 10,632 BC (95.4%)
Tshisiku Shelter	PTA-8729	D2 Spit 2: FG 5-10	Ostrich eggshell	3130±70	1439 - 892 BC (94.1%)
	PTA-8907	D3 Spit 2: FG 5-10	Ostrich eggshell	4390±70	3105 - 2469 BC (94.4%)
	PTA-8666	D2 Spit 3: FG 10-15	Ostrich eggshell	2380±50	543 BC - AD 59 (94.2%)
	PTA-8654	D2 Spit 4: FG 15-20	Ostrich eggshell	2960±60	1303 - 759 BC (94.8%)
	PTA-8652	D2 Spit 8: FG 30-35	Ostrich eggshell	5440±60	4341 - 3895 BC (88.8%) 3881 - 3800 BC (6.6%)
	PTA-8709	D2 Spit 11: GS 7.5-12.5	Ostrich eggshell	6750±60	5712 - 5318 BC (95.4%)
Balerno Shelter 2	PTA-7995	G7 GB2	Charcoal	1650±50	AD 341 - 581 (95.4%)
	PTA-7997	G8 AG2	Charcoal	1920±45	AD 30 - 236 (95.4%)
	PTA-7994	G7 AG3	Charcoal	2250±40	387 - 197 BC (91.3%)
	PTA-7996	G7 DR4	Charcoal	2270±50	399 - 197 BC (92%)
Dzombo Shelter	OxA-27136	Spit 4: GS	Charcoal (*C. mopane*)	190±26	AD 1666 - 1815 (68.9%) AD 1833 - 1892 (17.2%) AD 1923 or after (9.2%)
	BETA-342860	Spit 7: CGS	Charcoal	40±30	AD 1878 - 1933 (53%) AD 1810 - 1839 (33.8%)
	OxA-27139	Spit 8: CGS	Charcoal (*C. mopane*)	114±26	AD 1807 or after (82.6%) AD 1697 - 1726 (12.8%)
	OxA-27138	Spit 9: GA	Charcoal (*C. mopane*)	982±28	AD 1027 - 1162 (95.4%)
	OxA-27137	Spit 19: GBS3	Charcoal (*C. mopane*)	2165±30	211 - 60 BC (84.7%) 351 - 301 BC (10%)
Mafunyane Shelter	Beta-339425	Spit 2; AS	Charcoal	1120±30	AD 950 - 1023 (64.6%) AD 893 - 940 (30.8%)
	Beta-339426	Spit 7; SAS	Charcoal	900±30	AD 1146 - 1235 (86.8%)
João Shelter	OxA-27140	Square C: Spit 3	Charcoal (*C. imberbe*)	139±27	AD 1804 - present (76.8%) AD 1689 - 1728 (18.6%)
	OxA-27141	Square B: Spit 3	Charoal (*S. lancea*)	147±27	AD 1803 - present (73.8%) AD 1683 - 1730 (21.6%)
	OxA-27142	Square B: Spit 6	Charcoal (*C. imberbe*)	201±28	AD 1718 - 1814 (55.5%) AD 1658 - 1712 (23.5%) AD 1836 - 1890 (10.4%) AD 1924 - present (6%)
	OxA-27143	Square B: Spit 8	Charcoal (*C. mopane*)	170±26	AD 1796 - 1898 (40.6%) AD 1672 - 1745 (32.3%) AD 1903 - present (18.9%
Euphorbia Kop	17472	Spit 4	Charcoal	996±19 BP	AD 1029 - 1149 (95.4%)
	17473	Spit 7	Charcoal	1063±27 BP	AD 985 – 1048 (84.3%) AD 1085 – 1135 (11.1%)

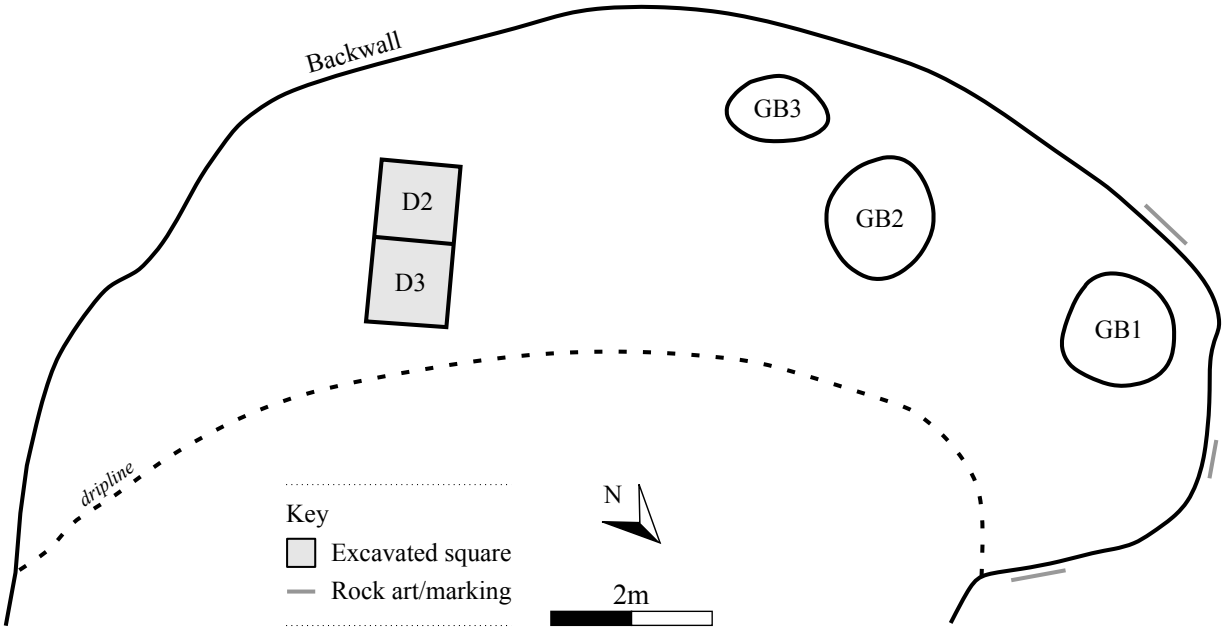

Figure 2.7: Tshisiku Shelter's excavated trench and site features (adapted from van Doornum 2005: 53).

Seven distinct stratigraphic units were identified (Figure 2.8; although, not all are shown in this profile) (see van Doornum 2007 for details listed below). Six dates were obtained from ostrich eggshell and spanned the mid- to late Holocene (180 years was deducted from the mean date to account for the carbon deficiency in ostrich eggshell following Vogel *et al.* 2001). Obtained in GS 7.5-12.5, at least 15cm above bedrock, is a date of 5440±60 BP (5712 – 5318 BC calibrated; PTA-8709), which is beyond the scope of this study. In Square D2, FG 15-20 (Spit 4) a date of 2960±60 BP (PTA-8654) was obtained and calibrates to 1303 to 759 BC and in the unit above (FG 10-15; Spit 3), a date of 2380±50 BP (PTA-8666) returned a

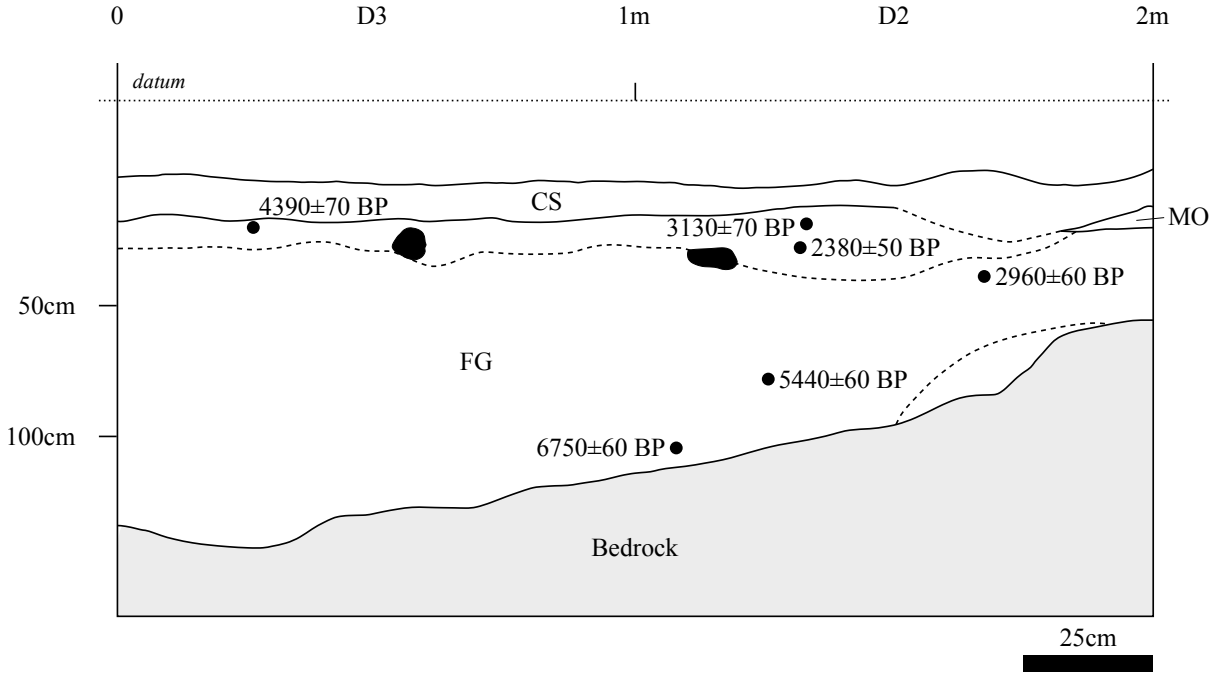

Figure 2.8: Southeast wall profile of Squares D2 and D3 with chronology (adapted from van Doornum 2005: 54).

calibrated date of 543 BC to AD 59. Both dates fall largely within Phase 1. Above this, however, the dates are significantly older. In Square D3's FG 5-10 (Spit 2), the calibrated range is between 3105 and 2469 BC (4390±70; PTA-8907) whereas in the same unit and spit in Square 2 the date calibrates to 1439 to 892 BC (3130±70; PTA-8729). These dates are at least between 840 and 350 years older than those directly below. Van Doornum (2007: 22) dismissed this issue on the grounds that the dates taken from the ostrich eggshell may be older than their use (see Vogel *et al.* 2001), or that the samples from the upper layers contained older ostrich eggshell. While the dates may be problematic, one cannot be certain to what extent until further work is completed at the site and charcoal samples are retrieved and dated.

Balerno Shelters 2 and 3

Situated less than 50m apart are Balerno 2 and 3. They are little over 3km south-southeast of Balerno Main and are similarly in an isolated context. The shelters are fairly similar in form. Balerno 2, excavated for van Doornum's (2005) doctoral study and not published elsewhere, is a small shelter. It has an opening of about 12m with a depth of less than 5m and a ceiling about 3m at the opening which narrows towards the back of the shelter (Figure 2.9) (van Doornum 2005: 76-77). Balerno 3 is larger with an opening of 28m and a similar depth at 5m, although the ceiling is somewhat higher (over 4m) before it declines towards the rear of the shelter. While Balerno 3 appears larger, most of the shelter has a gently sloped overhang creating less usable space than in Balerno 2. The sheltered portion containing the excavated squares has an opening of about 16m (Figure 2.10) (van Doornum 2014). Both shelters contain a variety of painted animals and accouterments, including warthog in Balerno 3, and rock marking such as grooves, grinding hollows, gaming boards and cupules.

Excavations at Balerno 2 were limited. A single 1x2m trench was excavated along the dripline on the outer side of a series of rock collapses. On these rocks are grooves, grinding hollows, gaming boards and

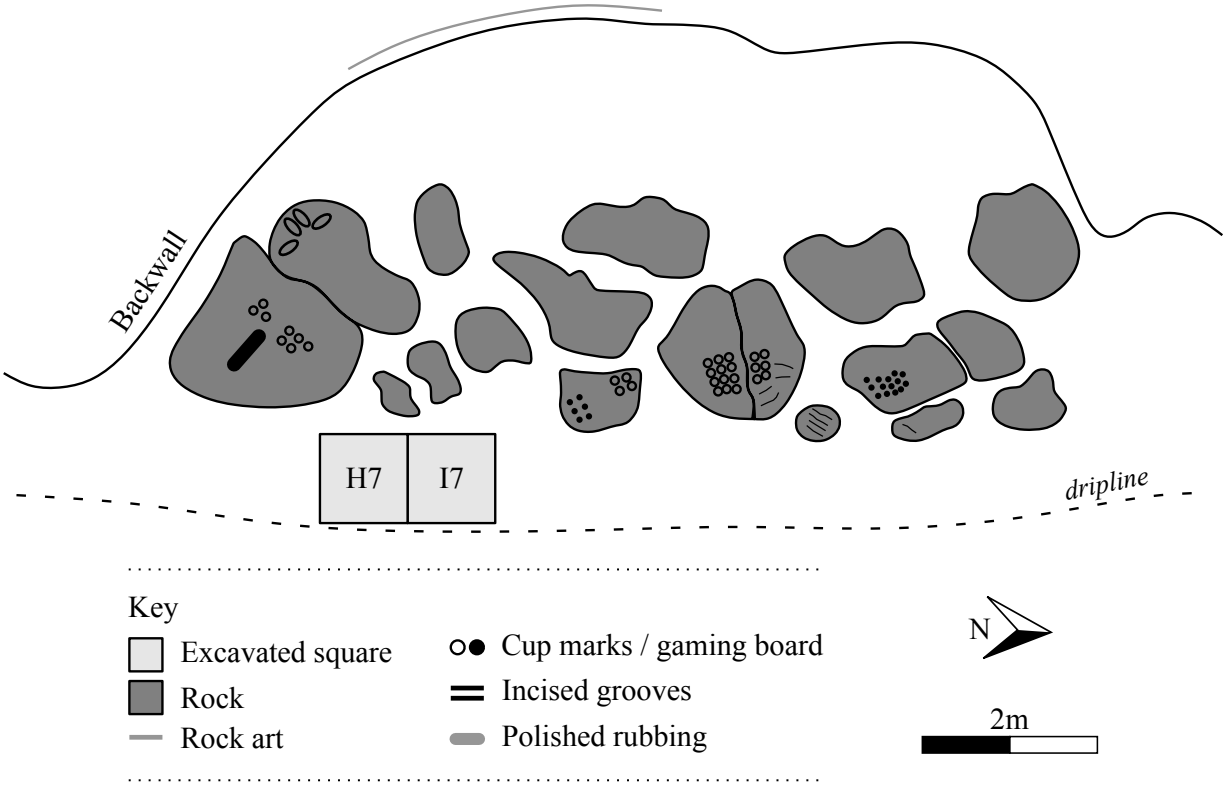

Figure 2.9: Balerno Shelter 2's excavated trench and site features (adapted from van Doornum 2005: 79).

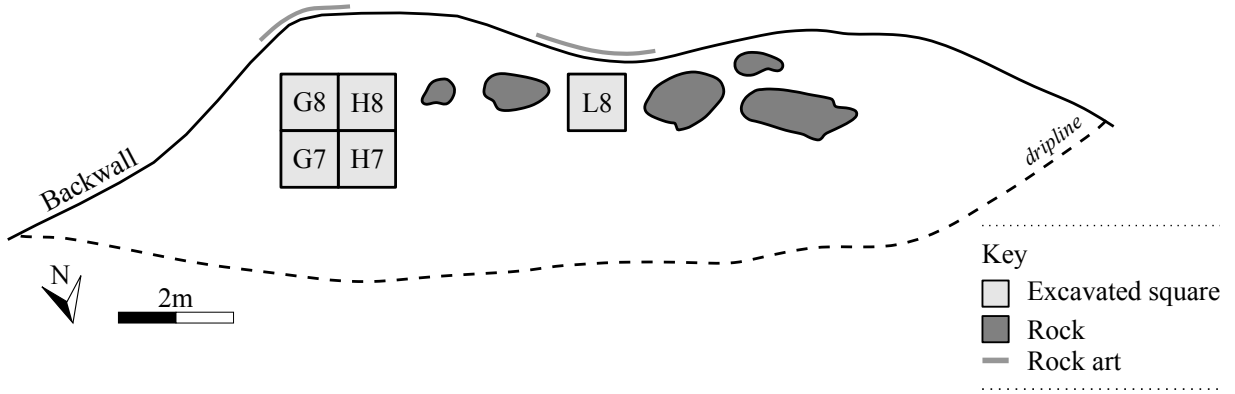

Figure 2.10: Balerno Shelter 3's excavated trenches and site features (adapted from van Doornum 2000: 16).

cupules. Stratigraphic layers were followed and, where too large, these were excavated in 5cm spits. Both squares were excavated to bedrock, which was around 20cm in Square H7 and 55cm in I7. Only two stratigraphic units were recorded, and neither was dated due to an insufficient sample of charcoal or ostrich eggshell. However, using relative dating a chronological sequence was established. The surface dates to the late first millennium and early second millennium AD (Phases 3 & 4) whereas the upper two spits (GB 0-5 & 5-10) date to the early and mid-first millennium AD (Phase 2). The remaining GB and OB units below this are not thought to date beyond the first millennium BC (Phase 1) (van Doornum 2005). Therefore, the entire site's occupation appears to fall between Phases 1 and 4.

A larger area was excavated at Balerno 3. A 1x1m square was established in the centre of the site and a 2x4m trench (four 1x1m squares) in the eastern portion but only three squares were excavated (G7, G8 & H7). All squares were placed behind the dripline. Several stratigraphic units were identified, and these were excavated in 5cm spits (Figure 2.11). From these, four radiocarbon dates were taken all from unidentified charcoal specimens. Phase 2 is represented between G7 GB (Spit 2), where a date of 1650±50 BP (PTA-7995) was obtained and calibrates to AD 341 to 581, and G8 AG (Spit 2), dated to 1920±45 BP (PTA-7997) and calibrates to AD 30 to 236. Above this, in GB (Spit 1), and on the surface is Phases 3 and 4, whereas below in AG (Spit 3) and DR is Phase 1 (van Doornum 2014). As with Balerno 2, the shelter's entire occupation appears to span only Phases 1 to 4.

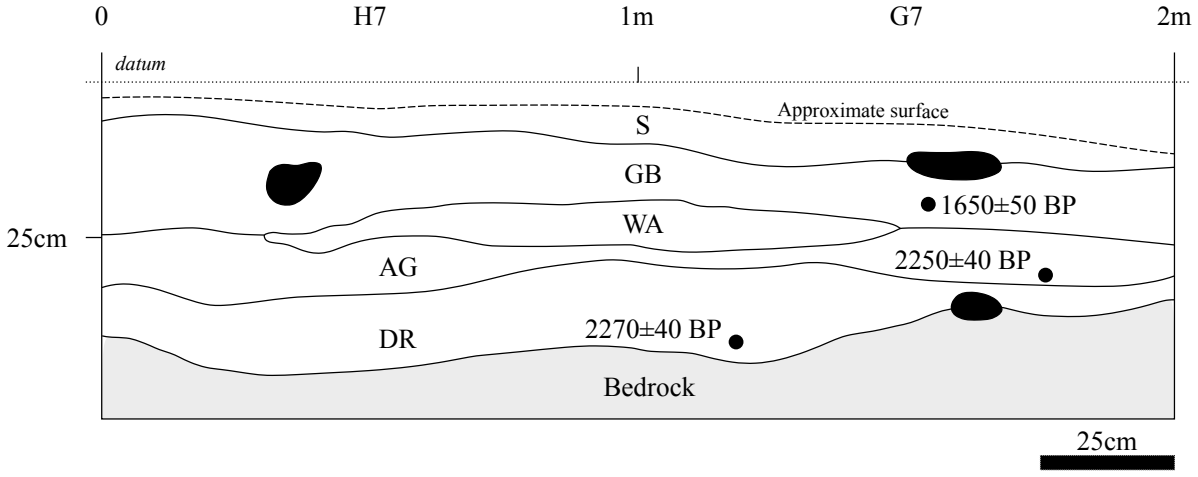

Figure 2.11: Balerno Shelter 3's north wall profile of the Squares H7 and G7 with chronology (adapted from van Doornum 2000: 19).

Little Muck Shelter

Little Muck is potentially the most significant site on the landscape. No other site offers similar insights into forager social patterns from the last centuries BC onwards. Unfortunately, most of the data has not been published. In Hall and Smith's (2000) seminal paper on the site very little useable data was presented; the authors discuss findings from unpublished excavation results. The artefact assemblage is also incomplete at present. Not all of the boxes are accounted for and the assemblage was being transported when a serious vehicle accident took place. Despite all of this, there are some fascinating finds available for research, and this has been the focus of past and on-going work (e.g. Bradfield *et al.* 2019; Forssman *et al.* 2018; van Doornum 2000; van Zyl 2019). At present, though, it is not possible to offer data pertaining to the site's occupation outside of these small studies on particular artefact sets, mostly in the stone and bone tool inventory. Nonetheless, the site offers exceptional details on trade and exchange in the valley.

The shelter is located along the northern side of an east-west running sandstone ridge. On the southern side of the ridge runs the Kolope River. The shelter space is somewhat constrained with an opening of approximately 6m and a depth of around 4m (Figure 2.12). However, the ceiling rises up steeply and is only shallow in the back recess (<2m). In front of the shelter is a large open living area. Approximately 40m north of the site, on a large area of exposed bedrock, is a series of grinding hollows, gaming boards and cupules. Nearby the shelter are several farmer settlements including Leokwe Hill (1.5km southeast). The hilltop settlement was occupied by farmers from the Zhizo period until the decline of Mapungubwe and then again much later (Calabrese 2000a). The nearby farmer settlements, and the developing social landscape, were pivotal in the way Little Muck was used.

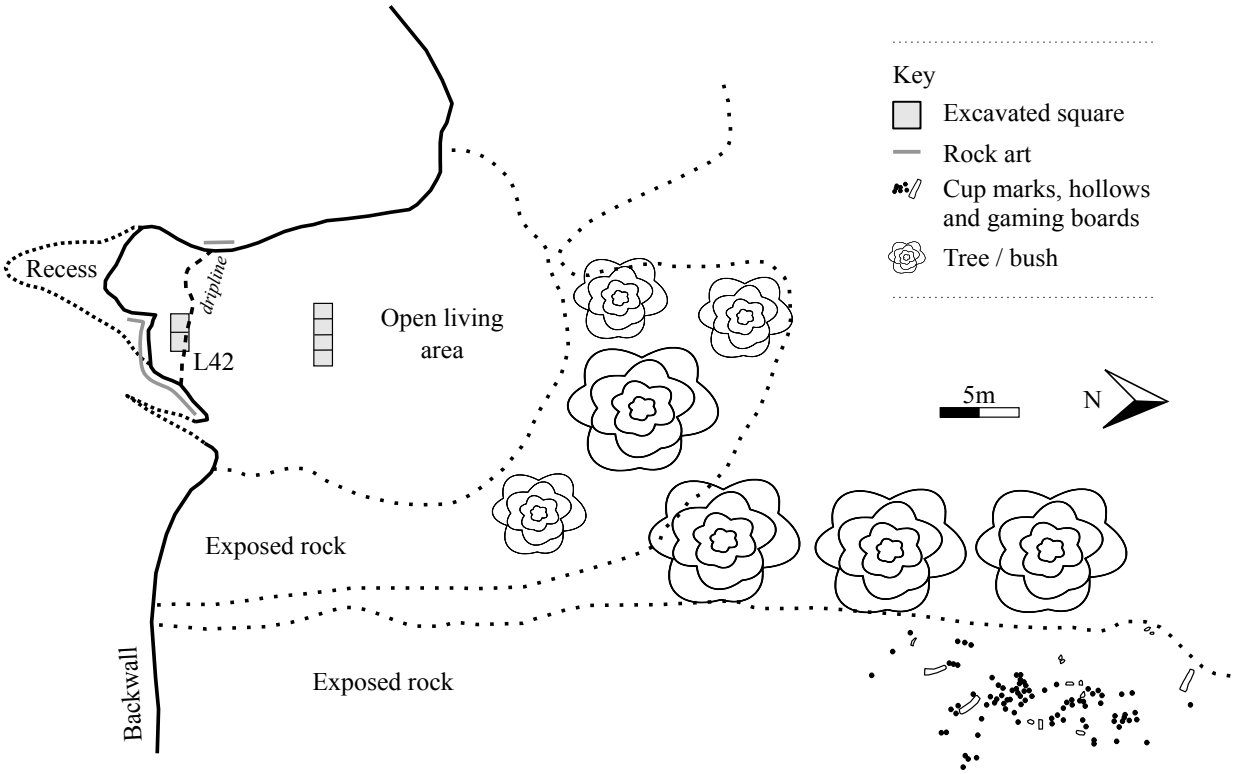

Figure 2.12: Little Muck Shelter's excavated trenches and site features (adapted from Hall & Smith 2000: 24).

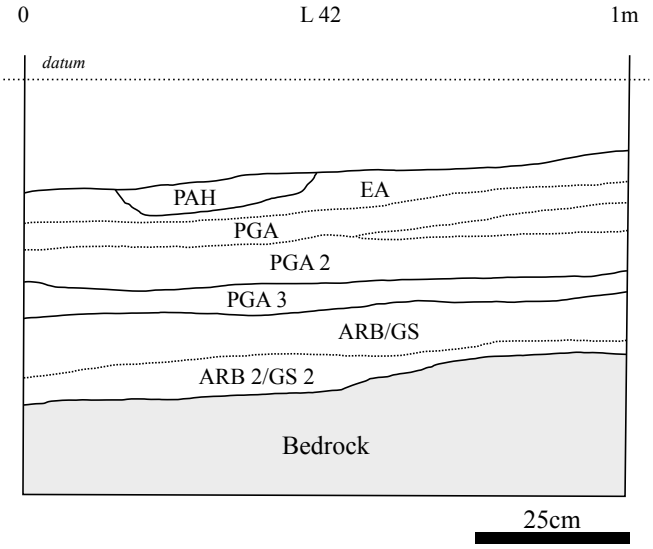

Figure 2.13: South wall of Square L42 (adapted from Hall & Smith 2000: 35).

Excavations were focussed in both the internal and external portions of the site (Hall & Smith 2000). A 1x2m trench (two 1x1m squares) was excavated inside the shelter and a 1x4m trench in the open (four 1x1m squares). The external excavation was intended to capture the second millennium AD farmer use of the site identified by the surface finds as well as the rock markings on the nearby exposed bedrock. The finds from this area have not been studied. Of the squares inside the shelter, only one (L42) has been examined in detail (Forssman *et al.* 2018; van Doornum 2000).

In L42, seven stratigraphic units were identified (Figure 2.13). These all corresponded fairly well with diagnostic chronological markers. The lowest unit above bedrock, ARB 2 (ARB 2/GS 2), contained no ceramics at all. This led Hall and Smith (2000) to suggest that it dated to before the appearance of farmers (Phase 1). At face value this is problematic because it could be due to foragers avoiding contact or not trading with farmers during this phase. However, in ARB (ARB/GS), Bambata/Happy Rest ceramics appear. Both ceramic facies date to the early to mid-first millennium AD (Phase 2). They are also the earliest ceramic traditions to appear in the valley. Their presence in ARB, therefore, suggests that lower layers predate the arrival of farmers or ceramic users, concurring with Hall and Smith's (2000) expectation for ARB 2. Overlying ARB is PGA 3, which is the most distinctive layer and probably the most significant in terms of its cultural residues. It contains Zhizo ceramics suggesting a date of AD 900 to 1000 (Phase 3). Above this are Leopard's Kopje layers (PGA 2, PGA, EA and PAH) based on associated ceramic sherds which date between AD 1000 and 1300 (Phase 4). While there are no absolute dates for the site, the chronology makes sense and follows the correct order with no reported discrepancies.

Dzombo Shelter

Dzombo has many parallels with Little Muck. It is near a large farmer hilltop settlement, Mmamagwa, occupied during the Zhizo phase until the decline of Mapungubwe and then again much later (G. Hall 2003). Surrounding the site are a number of homesteads; some closely associated with Mmamagwa and others set further away. Of further interest is a small overhang (height = 1.2m) behind Dzombo that contains rock art consistent with what Eastwood and Smith (2005) have identified as Khoekhoe art. It consists of two damaged finger-painted T-shape designs that might resemble loin clothes painted on the shelter's ceiling (Figure 2.14). Dzombo's occupants were part of this diverse social fabric spatially as well as socially. Environmentally there are also numerous parallels with Little Muck. Dzombo is near to non-perennial rivers, the Motloutse River to the south (1.8km), and the Limpopo River to the southeast (3.2km), and it is also surrounded by mopaneveld. However, unlike Little Muck, the shelter is in a free-standing *koppie*, and far smaller with a narrow opening around 9m wide and a depth of 7m. Although the ceiling is approximately 2m at the opening, it decreases in height rapidly towards the rear of the shelter, cramping the available space (Figure 2.15) (Forssman 2014a, 2014b).

As with Little Muck, excavations exploited both the internal and external areas. In the front living area, a 1x2m trench was excavated (two 1x1m squares) to bedrock approximately 90cm below datum.

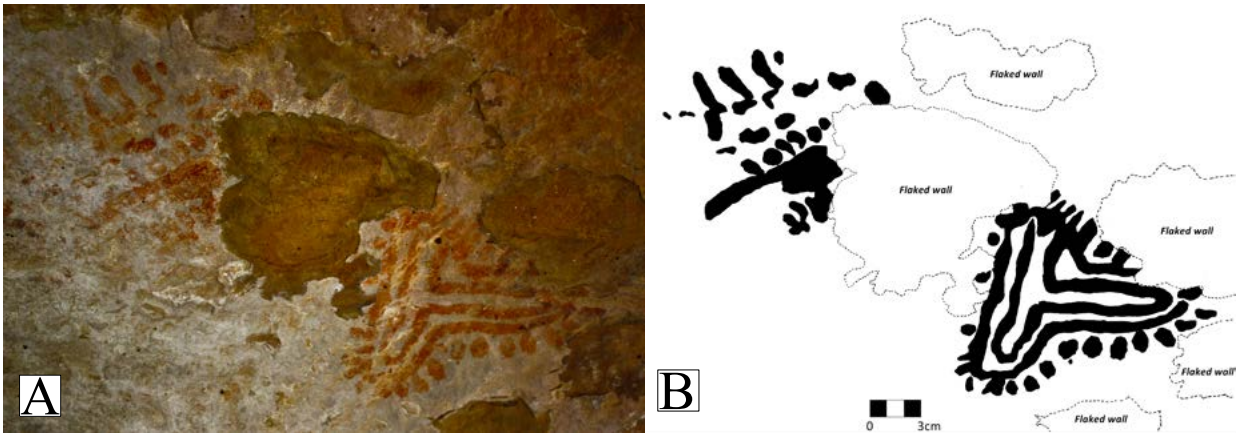

Figure 2.14: A photograph (A) and redrawing (B) of the finger-painted artwork behind Dzombo Shelter.

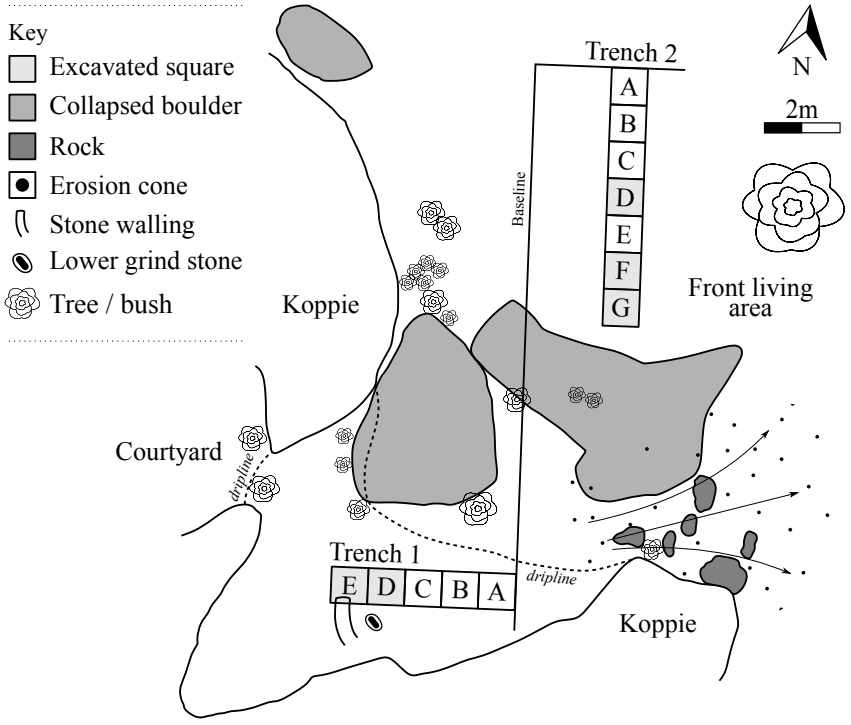

Figure 2.15: Dzombo Shelter's excavated trenches and site features.

From 21cm below datum, however, artefacts frequencies declined and nearly disappeared altogether until 63cm where they increased until the base of the trench (Forssman 2014a: 89). Due to this area being below a large drop-off from the shelter, stratigraphically it could not be matched to the internal excavation. It was also not dated. Therefore, establishing contemporaneity was not possible. Inside the shelter, though, a 1x2m trench (two 1x1m squares) revealed a series of stratigraphic levels some of which contained charcoal samples that were radiocarbon dated.

Nine separate stratigraphic units were identified. Not all of these are represented in the side profile because some were isolated units within the deposit (Figure 2.16). Four primary layers were identified and from these five dates were obtained. However, three of these dates, each from the upper spits, all date to within the last 400 years, making them highly unreliable (Table 2.3). They also bring into question the chronology of the assemblage from these levels. It is possible that there has been some disturbance here as well. It is unfortunate since, had the dates been reliable, it would represent the only

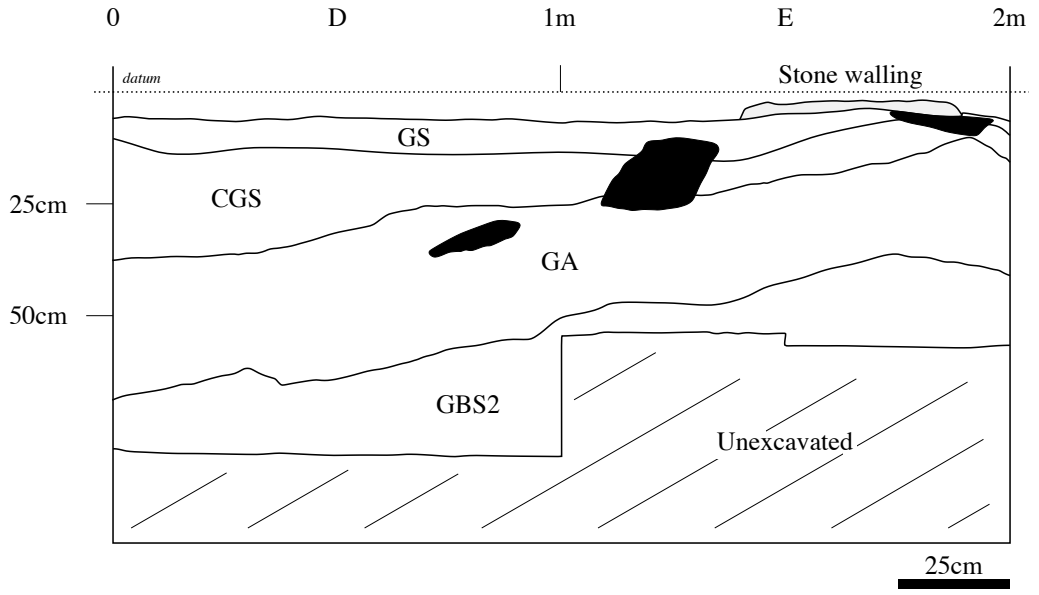

Figure 2.16: South wall profile of Squares D and E in Trench 1 (shelter trench).

known shelter assemblage post-dating the decline of Mapungubwe. Two other dates appear reliable. In Unit CGS2 (Spit 9), a date of 982±28 BP (OxA-27138) was obtained and calibrates to AD 1027 to 1162, at the end of the Zhizo period (Phase 3) and the start of the Leopard's Kopje phase (Phase 4). The other date is from the lower levels of the trench (Spit 19), Unit GBS3, and dated to 2165±30 BP, with calibrations of 211 to 60 BC (84.7%) and 351 to 301 BC (10%); both ranges are within Phase 1. It is expected that, although without an absolute date, Phase 2 occurs between these levels. Unfortunately, the radiocarbon dates and the cultural sequence do not offer a neat match and reconciling them is somewhat problematic.

Mafunyane Shelter

Upon excavating Mafunyane, the edge of an old trench was uncovered. Further investigations found the site to be Walker's (1994) Tuli Lodge. Property owners were unaware of the previous excavations and the only paper on the shelter was not clear on the site's location. Re-excavating the site was nonetheless beneficial since no radiocarbon dates were obtained previously and the excavated assemblage's location is not certain. In addition, the site revealed a very interesting archaeological sequence. Walker (1994) identified 14,379 stone tools, 67 ostrich eggshell beads, 64 ceramic sherds, 21 pieces of worked bone, 16 metal implements, six glass beads, tortoise and ostrich eggshell bowl fragments, a pipe and crucible, and a large number of metal prills. On the shelter's walls are a series of paintings including a giraffe, what appears to be a sable or roan antelope, an unidentified antelope and a procession of humans of which two appear to be female. Grooves (N=41) and cupules (N=9) were also found in various locations within the shelter in fairly large numbers. Walker (1994: 10) ultimately concluded that the site was 'clearly a major living site' that 'was probably seasonally occupied, but it was later used by metalworking people to smelt copper'. These finds are remarkable given the context of the site. It is very shallow (±2m) with little protection, limited space and a small floor area (Figure 2.17). Outside the shelter is a large open space with a high density of stone tools. Walker (1994) suspected that given the small space provided by the shelter, this open area may have been heavily utilised. However, it is a mobile context with a shallow sandy deposit that is prone to artefact movement. Studying the outdoor use of the site would for this reason be hugely problematic. Not far to the west of the shelter is a small seasonal stream and beyond this is a farmer homestead that appears to be occupied between AD 1450 and the 1820s based on the presence of Khami ceramics (Forssman 2014a: 217).

Due to the shelter's limited space, only a single 1x1m square could be excavated behind the dripline (Square C). One quadrant (Quadrant C) partially overlapped Walker's (1994) trench and so it was not excavated deeper than the upper unconsolidated surface stratum, PBS. Other than this layer, two more were identified: AS and SAS (Figure 2.18). Both were grey and appeared to consist mostly of ash. All that separated them in appearance was the inclusion of rocks and pebbles in SAS. Bedrock was reached approximately 20cm below surface.

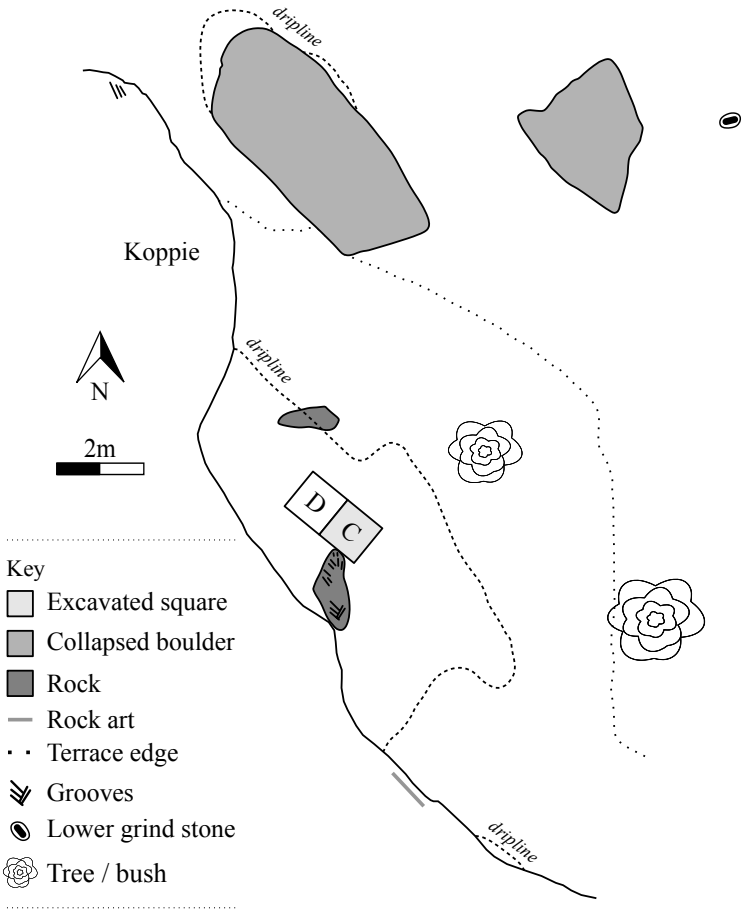

Figure 2.17: Mafunyane Shelter's excavated portion and site features.

Two radiocarbon samples were obtained; however, they were inverted. The older date is from Spit 2 (AS) with a mean of 1120±30 BP (BETA-339425) and calibrates to AD 950 to 1023 (64.6%) and AD 893 to 940 (30.8%). The younger sample is from Spit 7 (SAS) and has a mean of 900±30 BP (BETA-339426) and calibrates to AD 1146 to 1235 (86.8%). The inverted results are hard to dismiss. Beta Analytic found no evidence to suggest the samples were contaminated. The charcoal samples were also not identified and so it cannot be determined whether they are a result of 'old wood' (Kennett *et al.* 2002). The inversion might also relate to bioturbation; perhaps one or both of the samples moved post-depositionally. However, some evidence does indicate that the deposit is intact. From the basal level Walker (1994) identified Bambata ceramics, which predates the arrival of metal in the region and in these levels no metal was found. Above this, metal is fairly frequent. Had mixing occurred one would imagine the overlying metal-bearing layers would mix with the lower metal-absent layers. In Spits 2

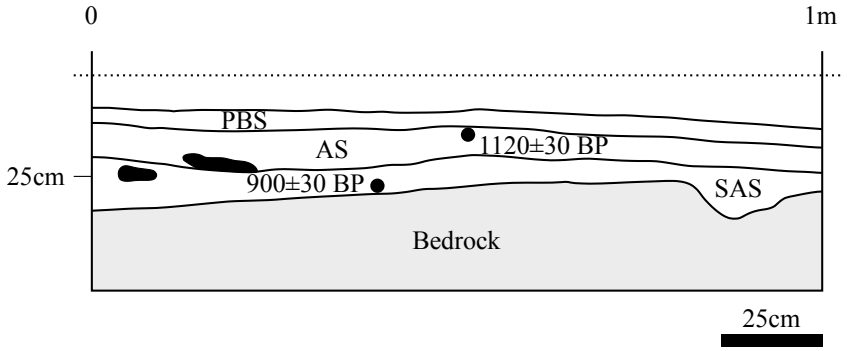

Figure 2.18: North wall profile of Square C with chronology.

and 3, ceramics that appear to be from the K2 facies were identified in both the recent excavations and Walker's (1994). Once again, one would expect this not to be contained in only the uppermost units but rather spread throughout the deposit had mixing occurred. Therefore, it seems most likely that at least one of the charcoal samples moved since deposition.

João Shelter

João is 1.2km southeast of Dzombo and in largely the same social and environmental context. However, it is part of the Mmamagwa complex. In fact, the ascent to the Mmamagwa hilltop site is 300m north-west of the shelter. João itself is a multi-component site with two distinct zones: a rock shelter and a homestead immediately outside (Figure 2.19). The shelter is fairly long (14m) but shallow (2.5m) with a steeply rising ceiling. Inside is a curved dry-packed stone wall and painted in red ochre on the backwall is a procession of what may be kudu. Outside are a series of cultural features typically associated with farmer villages. At least four grain bin foundations were identified, two possible human burials (based on packed rock), a midden, kraal and another walled-off enclosure. The two site locations appear to have been occupied in tandem (Forssman 2016a).

To assess contemporaneity, both the internal and external components of the site were excavated (Forssman 2014a). Inside the shelter, three 1x1m squares were excavated (Trench 1) and a fourth immediately outside the dripline (Trench 3). Trench 1 was excavated to a maximum depth of 51cm,

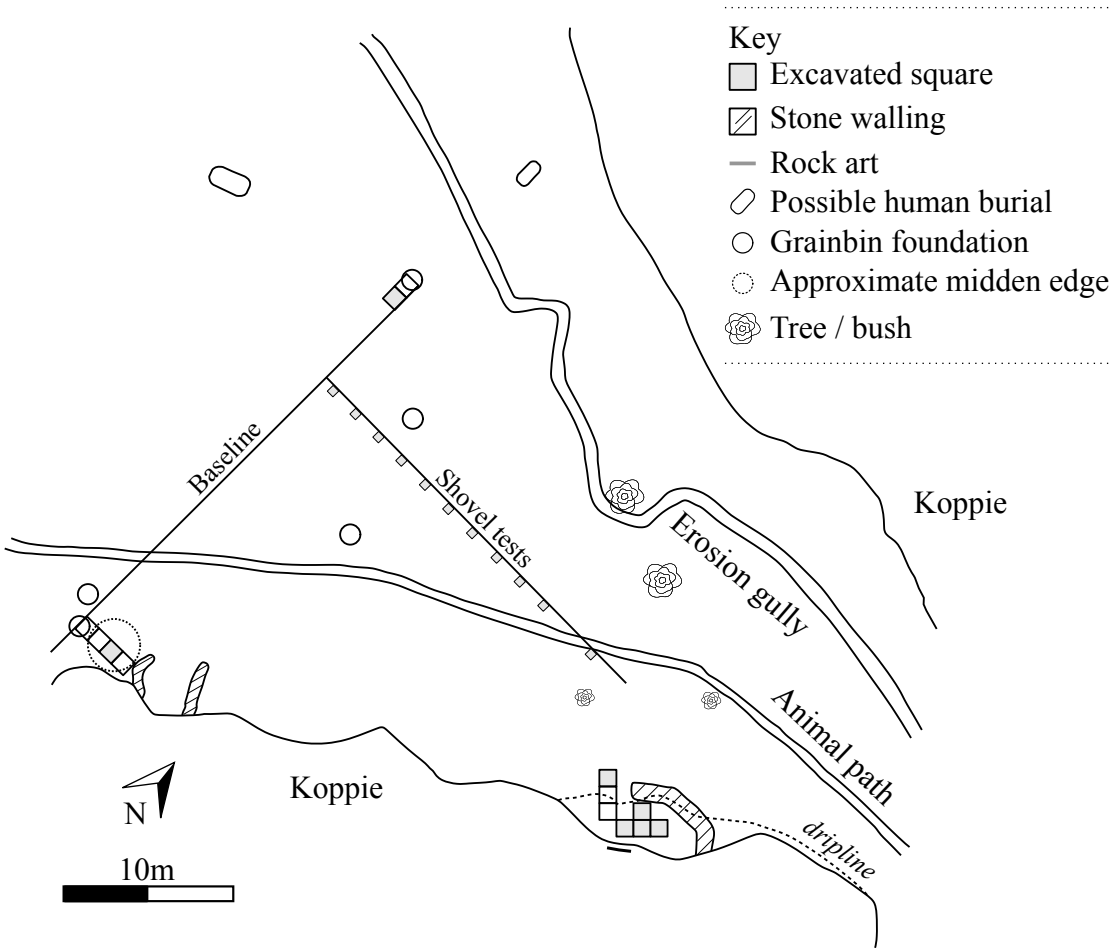

Figure 2.19: João Shelter's excavated trenches and site features (Trench 1, inside the shelter; Trench 2, north-east grain bin foundation; Trench 3, projecting from the shelter; and Trench 4, southeast grain bin foundation and midden).

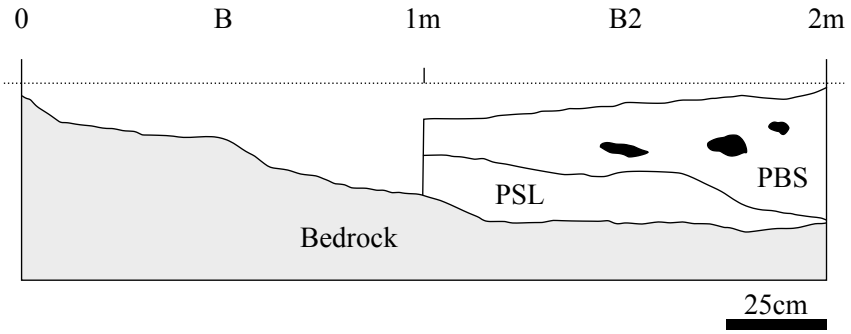

Figure 2.20: West wall profile of Square B2 and the excavated portion of B1 in Trench 1 inside the shelter.

but Trench 3 reached only about 9cm below surface before bedrock was reached. In Trench 1, only two main units were identified: PBS and PSL (Figure 2.20). In the homestead area, Trench 2 was excavated alongside a grain bin foundation inside the residential area (depth = 30cm) and Trench 4 inside the midden adjacent to the walled-off enclosure (depth = 35cm). In each a single stratigraphic unit was recorded; BS in Trench 2 and GBS in Trench 4 composed largely of ash.

Absolute and relative dating was used to establish a chronological sequence for the site. Four charcoal samples were submitted and all date to the last 400 years (Table 2.3). Of the glass beads, a large sample may be European-period beads, corresponding with the radiocarbon dates. In addition to these, some European items were found in the upper units, such as nineteenth century or later glass, a button and safety pin. A mid-late second millennium AD occupation of the site is fairly clear. The extent of the site's use and its function is not known but is unsurprising given that Mmamagwa is nearby and was occupied in historic times. It is, however, the earlier occupation that is of interest. Toutswe, K2, TK2 and Mapungubwe ceramics and K2 Indo-pacific and Mapungubwe glass beads suggest an early second millennium AD occupation of both the shelter and homestead. However, Mapungubwe items are poorly represented and K2-period finds, which include Toutswe, dominate. Therefore, the earlier occupation of the site seems most likely to have been during the K2-period (Phase 3) (Forssman 2014a, 2016a).

Euphorbia Kop

Seiler (2016) conducted work in the Limpopo and Motloutse Rivers' confluence area hoping to establish whether there was cultural continuity between the areas studied to the east in South Africa (Forssman 2010, 2013a; van Doornum 2005) and to the north in Botswana (Forssman 2014a). His study aimed to better understand early second millennium AD settlement patterns and specifically whether foragers took-up occupancy in farmer settlements. To test this, Seiler (2016) excavated Euphorbia. A ceramic analysis of surface material indicated a K2-period occupation, which overlaps with João's occupation, and the *koppie's* settlement is fairly consistent with local farmer settlements. Kraals, middens, grain bin foundations and hut floors are all present. However, there is evidence suggesting elite groups or members with higher status in the community resided at higher terraces on the *koppie*. In the lowermost portion of the site, at the base of the *koppie*, is a widespread distribution of forager artefacts across the site as well as in a nearby shelter (Figure 2.21).

Four trenches were excavated. Trench A was in the shelter where forager residues at the site were identified (1x1m square). Trench B was located in the open away from the kraal where a large surface collection of stone tools was noted (1x1m square). Trench C was placed on the edge of the kraal where glass beads were found as well as a large ceramic assemblage (1x2m square). Lastly, Trench D was placed in a lower terrace where a hut floor was noted (1x1.5m square). No stratigraphic change was noted in Trenches B and D other than a hut floor in Trench D. Trench A, however, contained three units: FG1,

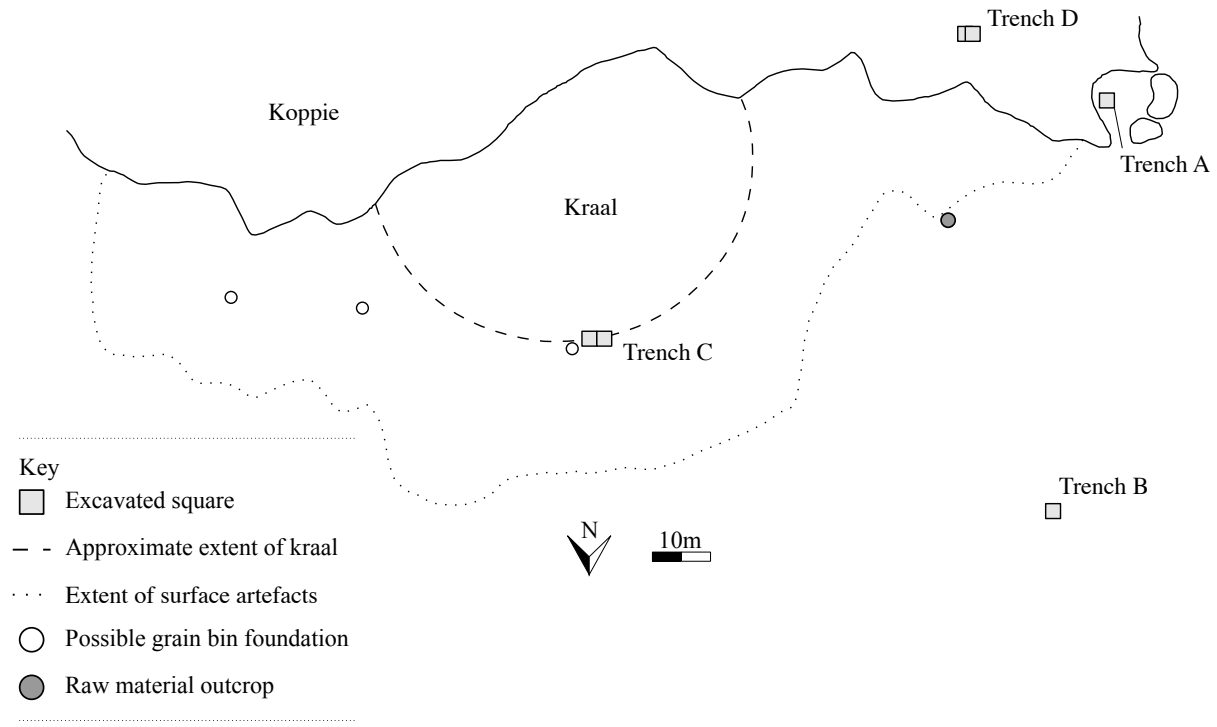

Figure 2.21: Euphorbia Kop's excavated trenches and site features (adapted from Seiler 2016: 112).

CG1 and DB1. Trench C contained several units. GA1 represents the kraal unit but this overlies HC1, which for the most part contained very few finds. Truncating these units was RG1. At the base, as with Trench A, was DB1. Within GA1 was a similar but slightly different unit distinguished by its hardness and inclusions (GA2) but is likely the same (Figure 2.22) (Seiler 2016).

Two radiocarbon dates confirmed an early second millennium date. Both were from Trench 3 and from Spits 4 and 7. The majority of the assemblage was between these spits, and so it is expected that the dates would be associated with the primary occupation phase. In Spit 4, a date of 996±19 BP (017472) was obtained and calibrates to AD 1029 to 1149 (95.4%). The second date was from Spit 7 with a mean

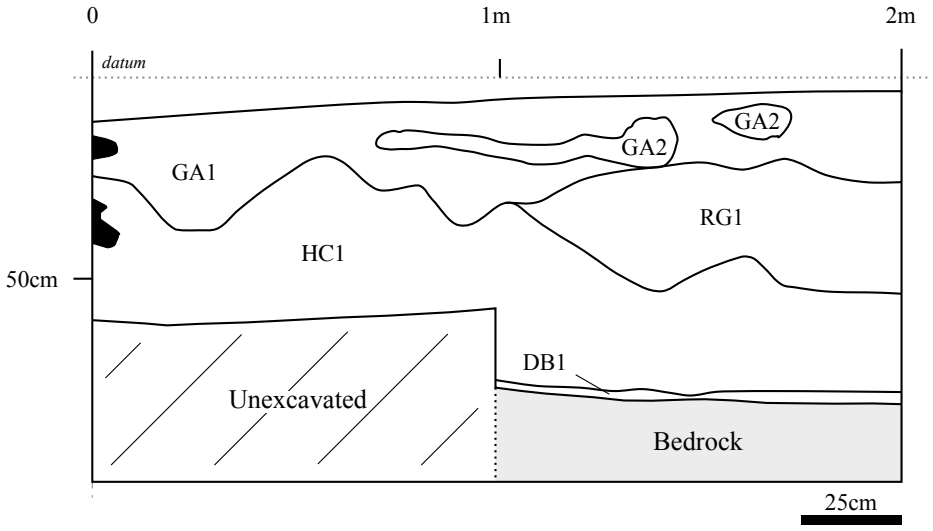

Figure 2.22: North wall profile of Square C (adapted from Seiler 2016: 115).

of 1063±27 BP (017473) and calibrates to AD 985 to 1048 (84.3%) and AD 1085 to 1135 (11.1%). The K2 ceramic and glass bead assemblage from Trenches A, C and D confirm this chronology (Seiler 2016). Therefore, the site was occupied during the K2 period (Phase 3).

Comparing the study sites

The study sites are from a range of social contexts and contain a mosaic of changes and responses. Some of these relate to contact with farmers but most relate to internal decision making among forager residents and their own mechanisms of change. What is interesting is the overlapping chronologies of most of these sites but different archaeological assemblages. This suggests that the nature of change was not homogenously expressed. Foragers were able to elect responses to suit other changing factors on the landscape, including in their own social networks. These shifts are expressed temporally between Phases 1 to 4. Initially, change related to forager internal shifts (Phase 1) but thereafter it was contact with possibly herders, farmers and even other forager groups that drove change within society (Phases 2 to 4), although these are informed by forager skills, knowledge and decision making.

Chapter 3: Continuities and discontinuities across the contact divide

Contact with farmers fundamentally changed forager lifeways. They went from a more traditional way of living to a hybridised system that included new opportunities in the form of domestic goods, trade wealth and participation in developing socio-political systems (Wilmsen 1989). Seeing how foragers operated prior to the arrival of new groups and what changed is crucial to understanding the foundations of forager interactions. Moreover, it is essential in observing what, actually, changed. For example, it provides a baseline to observe how tool preferences shifted, what changed in settlement patterns and spatial alignments, and whether technology changed with the appearance of new cultural material. Viewing these phases together provides a basis to examine the shifts that began at the onset of contact, which laid a foundation for ensuing social relations and change to come. Having said this, pin-pointing the interface between 'pre-contact' and 'contact' foragers, for several reasons, is problematic.

Finding a contact divide, firstly, relies on essentialist views of past cultures. For contact to exist, it is assumed, bounded groups culturally incongruent with one another met at some point in the past. When foragers, herders and farmers first encountered one another, this may have been the case, but across southern Africa cultural fluidity seems to have occurred (e.g. Sadr 2008), blurring ethnic categories (e.g. Challis 2012; Sylvain 2015; Wilmsen 2009). These, in turn, resulted in various continuities and discontinuities in material culture from before to after groups came into contact with one another (e.g. Bradfield *et al.* 2009; Forssman *et al.* 2010; Van der Ryst 2006; Walker 1995). Using strict ethnic categories to frame this period when the boundary between people was semi-permeable may project a false sense of separation (Green & Perlman 1985) and rely on racial categorisations of people (Wilmsen 1983). Framing the terms – forager, herder or farmer – as socio-political groupings (Gordon 1992: 6; Schrire 1980) does not effectively move away from essentialising local communities and their lifeways. Nonetheless, nomenclature stripped of cultural associations and attachments is not available and using them for the sake of continuity but acknowledging their inherent problem is the only way to reasonably move forward at this stage. Second, the contact boundary is poorly known chronologically and spatially. To be specific about precisely when foragers met incoming communities, group identity, shared spaces and chronology must be considered. In other words, did different communities occupy the same space at the same time?

Generally, contact refers to foragers meeting other groups. It does not normally include intra-forager group contact. Ethnographically, Bushman groups were notably different from one another and this was marked by 'material aspects of their society and culture' (Barnard 2007: 96). Cultural material such as metal arrowheads, for example, varied in style between groups (Wiessner 1983). Archaeologically, this is less easily distinguished. Mazel (1989) attempted to use differences in scraper morphology in the Thukela Basin to mark distinct cultural identities and he identified at least three groups. Barham (1992), however, challenged the use of stone as a stylistic marker because of challenges associated with working the stone as well as a tool's lifecycle; archaeologists do not see the finished product but the used product most of the time. Another example is the distribution of stone tanged arrowheads confined mostly to the upper Orange River Basin (Bradfield & Sadr 2011). These stone tools, which are thought to date to the last 2000 years (Mitchell 1999), are particularly unique and finely crafted, possibly making them valued items (Wiessner 1983). Despite all of this, it is not clear whether differences in these tool types served as identity markers, possibly separating language groups, or were purely the result of producer skillsets or local opportunities. For these and many other reasons, identifying forager-forager relations in the archaeological record is particularly difficult as is inferring the influence these relationships had on forager lifeways (but see Stewart et al. 2020). It is only when culturally disparate communities met that doing so becomes clearer.

The first arriving group that foragers may have encountered were Khoekhoe herders (Eastwood & Smith 2005; A. Smith 2008). Identifying a herder presence is tricky (Sadr 2008a, 2015). Smith and Ouzman (2004) argued that the finger-painted, mostly geometric rock art found across southern Africa was a herder tradition. While their conclusions have not passed without scrutiny (e.g. see comments in Smith & Ouzman 2004; see also Sadr 2008a: 191), it does help explain a stylistically different rock art sequence present on the landscape. This tradition is also present in the middle Limpopo Valley (for example in the shelter behind Dzombo) (Eastwood & Smith 2005). Other than this, an obviously herder presence has not been identified at any excavated site. Had herders occupied the landscape for long enough to leave traceable evidence, it would predictably be identified considering the number of surveys and excavations now conducted in the area (e.g. Forssman 2014a; Huffman 2011; Seiler 2016; van Doornum 2005). In other areas of southern Africa, differences between forager and herder assemblages have been noted and are fairly clear; for example, Swartkops and Doornfontein Industries in the Northern Cape have marked differences in terms of tool preferences, ceramic types and settlement locations (see Beaumont *et al.* 1995; Mitchell 2002b: 14). No such distinction is evident in the middle Limpopo Valley; the Later Stone Age sequence exhibits no major deviation from forager technologies (see Sadr 2015). It is only the rock art that may mark a herder presence, but that alone is insufficient evidence indicating their residency on the landscape. Therefore, there is no empirical evidence suggesting a need to disentangle buried forager and herder sequences in the valley (e.g. Sadr 2008a). However, the possibility that foragers and herders met in the valley exists and the cultural sequence of the latter may yet be identified.

Identifying the beginning of contact with farmers is also not straightforward. As described in Chapter 1, two ceramic facies appear in the valley but of them only Happy Rest confidently indicates a farmer presence (the other is Bambata). Huffman (2007: 219) noted the occurrence of this facies on at least three rain-control sites, including Mapungubwe (Huffman 2007) and Leokwe (Calabrese 2000a). That it exists in rain-control contexts is significant because while no homesteads with Happy Rest ceramics have been identified, rain-control sites only occur in areas that are permanently occupied. It may be that the homesteads were established in the floodplain zone for agricultural purposes or that they are in buried contexts and not visible on the surface (Hall & Smith 2000). Interestingly, Happy Rest ceramics have also been identified at Little Muck (Hall & Smith 2000) and possibly Balerno Main (van Doornum 2005: 149). While it is very likely farmers were in the valley, their occupation of the surrounding areas is far more visible. Southern Zimbabwe was settled after AD 200 (Huffman 2007: 123) and to the south around the Soutpansberg farmers established homesteads from *c.* 450 AD with possible hiatuses (Vogel 2000: 53). Whether it was contact with neighbouring groups or pioneer settlers in the valley, from this period onwards, foragers came to share the landscape that they once occupied with only other forager communities.

Mixing economies: 1220 BC to AD 900

Foragers, possibly herders, and farmers all began interacting with one another in the middle Limpopo Valley between 1220 BC and AD 900. More specifically, this began around 100 AD. Prior to this, hunting and gathering was the only subsistence economy in the valley and local trade between forager groups probably took place. On the other side of the contact divide, new subsistence economies appeared in the valley. Herding, agriculture and an entirely new worldview was introduced for the first time. New trade opportunities arose which would in time lead to international trade through Africa's east coast (Chapter 4). Comparing these phases highlight the continuities and discontinuities across this boundary.

Continuity and stasis

Balerno Main's assemblage is particularly large and diverse (Tables 3.1 & 3.2). In Phase 1 levels (DBG 75+ to 65-70), stone tools are abundant (N=4912) and occur at their highest density (33.41/L). Most are made from chalcedony (59.67%) with a far smaller percentage made using quartz (18.36%). However, in

Table 3.1: Stone tool data from Phases 1 and 2 at each occupied site. Some data from Little Muck Shelter do not exist (from van Doornum 2000, 2005; Forssman 2014a).

Stone tool details	Balerno Main				Tshisiku				Balerno 2				Balerno 3				Little Muck				Dzombo				Mafunyane	
	Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 2	
	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.
Volume (L)	147		716		85		106		410		320		443		393		40		45		24		177		5.20	
Stone tools	4912	33.41	16990	23.73	1224	14.40	1424	13.43	604	1.47	3349	10.47	6081	13.73	9341	23.77	775	19.38	2468	54.84	60	2.49	1019	5.76	64	12.31
Chalcedony	2931	19.94	10861	15.17	723	8.51	762	7.19	306	0.75	1684	5.26	3178	7.17	5540	14.10	321	8.03	1224	27.20	24	1.00	425	2.40	20	3.85
Chalcedony %	59.67		63.93		59.07		53.51		51		50.28		52.26		59.31		41.42		49.59		40.00		41.71		31.25	
Quartz	902	6.14	2513	3.51	222	2.61	291	2.75	150	0.37	805	2.52	2240	5.06	2557	6.51	262	6.55	675	15.00	21	0.87	317	1.79	21	4.04
Quartz %	18.36		14.79		18.14		20.44		25		24.04		36.84		27.37		33.81		27.35		35.00		31.11		32.81	
Small flaking debris	1454	9.89	5178.80	7.23	312	3.67	422	3.98	0	0.00	0	0.00	650	1.47	930	2.37	-	-	-	-	12	0.50	141	0.79	4	0.85
Cores	101	0.69	446	0.62	47	0.55	46	0.43	20	0.05	164	0.51	89	0.20	229	0.58	50	1.25	143	3.18	3	0.12	17	0.10	2	0.38
Core %	2.06		2.63		3.84		3.23		3		4.90		1.46		2.45		6.45		5.79		5.00		1.67		3.13	
Formal tools (FT)	215	1.46	764	1.07	44	0.52	55	0.52	15	0.04	96	0.30	25	0.06	128	0.33	48	1.20	152	3.38	1	0.04	39	0.22	2	0.38
FT %	4.38		4.50		3.59		3.86		2		2.87		0.41		1.37		6.19		6.16		1.67		3.83		3.13	
Chalcedony	201	1.37	724	1.01	37	0.44	53	0.50	15	0.04	91	0.28	24	0.05	118	0.30	43	1.08	145	3.22	1	0.04	27	0.15	2	0.38
Chalcedony FT %	93.49		94.76		84.09		96.36		100		94.79		96.00		92.19		89.58		95.39		100		69.23		100	
Quartz	8	0.05	29	0.04	6	0.07	2	0.02	0	0.00	3	0.01	0	0.00	2	0.01	4	0.10	6	0.13	0	0.00	9	0.05	0	0.00
Quartz FT %	3.72		3.80		13.64		3.64		0		3.13		0.00		1.56		8.33		3.95		0.00		23.08		0.00	
Scrapers	114	0.78	524	0.73	32	0.38	53	0.50	9	0.02	65	0.20	16	0.04	105	0.27	32	0.80	142	3.16	0	0.00	18	0.10	2	0.38
Scraper %	2.32		3.08		2.61		3.72		1		1.94		0.26		1.12		4.13		5.75		0.00		1.77		3.13	
Backed tools	40	0.27	118	0.16	15	0.18	10	0.09	2	0.00	6	0.02	2	0.00	3	0.01	1	0.03	18	0.40	1	0.04	14	0.08	0	0.00
Backed %	0.81		0.69		1.23		0.70		0		0.18		0.03		0.03		0.13		0.73		1.67		1.37		0.00	

Table 3.2: Non-lithic artefacts from Phases 1 and 2 at each occupied site. Little Muck is not included because these data are not available (from van Doornum 2000, 2005; Forssman 2014a).

Artefact details	Balerno Main				Tshisiku				Balerno 2				Balerno 3				Dzombo				Mafunyane	
	Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 1		Phase 2		Phase 2	
	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.
Volume (L)	147		716		85		106		410		320		443		393		24.05		176.96		176.96	
Ceramics	0	0.00	21	0.03	0	0.00	5	0.05	0	0.00	17	0.05	0	0.00	6	0.02	0	0.00	3	0.02	0	0.00
Shell beads	206	1.40	787	1.10	19	0.22	29	0.27	13	0.03	81	0.25	25	0.06	53	0.13	3	0.12	16	0.09	0	0.00
Complete shell beads	68	0.46	275	0.38	17	0.2	23	0.22	7	0.02	25	0.08	12	0.03	33	0.08	3	0.12	12	0.07	0	0.00
%	33.01		34.94		89.47		79.31		53.85		30.86		48		62.26		100		75		0.00	
Incomplete shell beads	138	0.94	512	0.72	2	0.02	4	0.04	6	0.01	53	0.17	13	0.03	20	0.05	0	0.00	3	0.02	0	0.00
%	66.99		65.06		10.53		13.79		46.15		65.43		52		37.74		0.00		18.75		0.00	
Glass beads	0	0.00	0	0.00	0	0.00	2	0.02	0	0.00	3	0.01	0	0.00	0	0.00	0	0.00	1	0.01	0	0.00
Metal	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Other ornamentation	0	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Worked bone	7	0.05	5	0.01	10	0.12	6	0.06	0	0.00	0	0.00	2	0.00	13	0.03	0	0.00	1	0.01	0	0.00
Ochre (g)	195.69	1.33	393.7	0.55	18.81	0.22	27.16	0.26	2.40	0.01	89.49	0.28	48.90	0.11	170.9	0.43	0	0.00	0	0.00	0	0.00
Fauna (g)	1041.84	7.09	2709.87	3.78	699.62	8.23	1190.18	11.23	303.08	0.74	926.8	2.90	377.49	0.85	1246.76	3.17	43.29	1.8	648.17	3.66	14.77	0.08

the formal tool category (N=215), chalcedony dominates (93.49%) over quartz (3.72%) by some distance. Formal tools are mostly scrapers (N=114), followed by backed tools (N=40) but also miscellaneously retouched pieces (N=35), adzes (N=16), backed flakes (N=5), borers (N=5) and a plane. Evidence of tool manufacturing is also clear with a large amount of small flaking debris (1454.2g) and cores (N=101; 0.69/L). Other than stone material, complete (N=68; 0.46/L) and incomplete (N=138; 0.94/L) beads are frequent and at a higher density here than in any other phase (Table 3.2). While not regular finds, worked bone (N=7; 0.05/L) and ochre (1.33g/L) are higher in Phase 1 than anywhere else by some margin. Lastly, the faunal assemblage (1041.84g) is more abundant in Phase 1 (7.09g/L) than elsewhere but mostly represented by small animals that are easily procured and suitable for individual consumption, such as tortoises (van Doornum 2008: 264-265). Van Doornum (2005: 167) interpreted these finds as indicating a range of activities, including hide, wood and bone working, gift giving (*hxaro*), basketry, and feasting.

From Phases 1 to 2, most artefact categories decline in density (van Doornum 2005: 167, 2008). Notably, this includes stone tools (from 33.41 to 23.73/L), ochre (from 1.33 to 0.55/L), fauna (from 7.09 to 3.78g/L), and formal tools (from 1.46 to 1.07/L). Quartz frequencies also decline (from 18.36% to 14.79%), whereas chalcedony increases (from 59.67% to 63.93%). This suggests a preference for finer-grained materials during Phase 2 over more readily available quartz. The densities of most other categories, such as chalcedony (1.01/L) and quartz (0.04/L) formal tools, scrapers (0.73/L), and complete (0.38/L) and incomplete (0.72/L) organic beads remain fairly constant. The only increase is in ceramics (0.03/L) but this can be ignored since ceramics had not appeared on the landscape in Phase 1. That most figures decline, somewhat, is not necessarily significant in terms of re-interpreting the site's use.

To interpret the role Balerno Main played in local forager society, van Doornum (2005) relied on historic materialism; she used archaeological finds to signal social features recorded in modern !Kung society. Bushman communities in the Kalahari region alternated their annual settlement cycle between phases of aggregating and dispersing. Aggregation was considered a public phase when multiple bands gathered at a camp and performed marriage ceremonies, exchanged gifts (*hxaro*), went on hunting expeditions and feasted, among other activities. Dispersal was the private phase when bands separated and limited their activities. During aggregation, a large number of artefacts, waste and debris accumulated at the site, whereas this was far more reduced and restricted at dispersal camps (cf. Wadley 1987).

Wadley (1986) argued that both aggregation and dispersal phases could be identified archaeologically based on a site's cultural assemblage and spatial layout. At Jubilee Shelter in the Magaliesberg, Wadley (1989: 44-46) recorded the presence of stone tool production in the shelter, a variety of formal tools but notably backed tools (possibly hunting implements), complete and incomplete beads, worked shell, personal ornamentation, quartz crystals and other ritual items, and in some instances in abundance. She also used seasonal fruit remains to show that Jubilee was occupied during winter, suggesting seasonal occupation, and the faunal record to indicate broad-based subsistence exploitation for, probably, a larger population using the site. During the summer months it appears the population dispersed into the surrounding areas and occupied sites such as Cave James, where a far more restrained assemblage was retrieved (Wadley 1986, 1987). Using similar signifiers, van Doornum (2005, 2008) argued that Balerno Main was a local aggregation site where as others, such as Balerno 2 and 3, were dispersal camps.

The term aggregation should be unpacked. Accompanying it are various hermeneutics adopted from ethnographic studies. However, it is not clear that these would have persisted in the past. Mitchell (2003a), for example, focussed on the use of *hxaro* to explain certain artefact types identified at archaeological sites. *Hxaro* was recorded among the Ju/'hoansi and was a reciprocal gift giving system that fostered social networks and alliances (Wiessner 1977). *Hxaro* partners created a social system of support and connectedness; it was central to the development of relations between different groups (Wiessner 1977, 1982). These networks were highly important such that Mazel (1989) argued *hxaro* in

the Thukela Basin underpinned social alliances. However, only ostrich eggshell beads were recorded as *hxaro* items and so it is not clear whether other crafts are reliable indicators, such as worked bone and backed tools (unless for hunting) or subsistence remains (Figure 3.1) (Mitchell 2003a).

More concerningly, while *hxaro* is widely applied to explain archaeological occurrences, it was not as widely practiced (Mitchell 2003a); although, exchange of some kind was. The Nharo in western Botswana had a different set of exchange rules referred to as *//ai* that involved sharing access to water and other resources through granting permission from one group to another (Barnard 1992). But, neither the /Gwi, G//ana and Kua groups of the central Kalahari Desert (Kent 1993) or !Xo in southern Botswana (Barnard 1992) practiced *hxaro* but had other forms of exchange networks (Kent 1993). The /Xam practiced some form of gift exchange but how similar it was to *hxaro* is not clear (cf. Mitchell 2003a). In the /Xam system, Schapera (1930) noted a great range of exchange items, some not recorded as *hxaro* goods, but others may have been. These included skin clothing, skin bags, skins, horns, wooden vessels, dishes, spoons, iron, metal vessels, iron knives, spearheads, glass beads, ivory, ostrich feathers, tobacco, cannabis and millet. Some of these, including honey, foods, poisons, medicine and plants are highly perishable and would not normally preserve well in an archaeological context.

Whether through *hxaro* or another trade system, there is ample archaeological evidence for forager-based exchange networks. Denbow (1984, 2017) discussed the prospect of foragers transporting goods across vast regions of the Kalahari. This included stone materials as well as hunted game. Wadley (1987) suggested that Bambata ware at Jubilee dating to around 2000 BP indicated long-distance trade networks leading to their appearance at the site, well south of its original source. Kaplan and Mitchell (2012) found vervet monkey (*Chlorocebus aethiops*) and blue duiker (*Philantomba monticola*) remains at ‘Muela in Lesotho, an area where these species are not known to have occurred. They suggested this indicated exchange with groups living in the KwaZulu-Natal or Eastern Cape Provinces in South Africa more than 80km away. Identifying a far greater trade link was Stewart et al. (2020) who examined strontium isotopes in ostrich eggshell samples from Melikane and Sehonghong, in the Lesotho highlands, that showed a connection with areas more than 300km away. What is more, these trade networks existed ±33,000 BP. Exchange and trade was an important feature in forager society since at least the late Middle Stone Age and, more recently, during periods of aggregation.

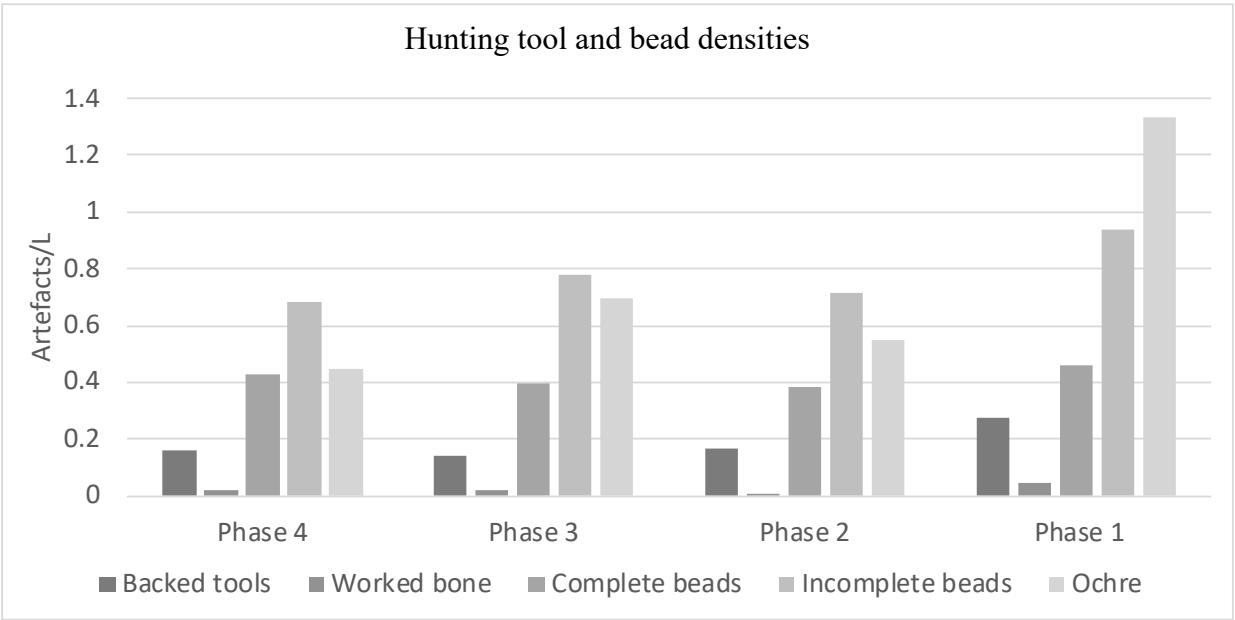

Figure 3.1: Hunting tool (backed tool and worked bone) and ostrich eggshell bead (complete and incomplete) densities at Balerno Main (data from van Doornum 2008).

For the sake of not assuming ethnographic cultural features were present some 2000 years ago, or more (e.g. d'Errico *et al*. 2012), there appears to be strong evidence indicating gathering occurred at Balerno Main. At gathering sites, aggregation features whether in part or whole, may be found and these could in some instances also reflect certain features of Bushman intangible cultural heritage. In this phrasing, the meanings associated with aggregation are not taken for granted and can rather be built into the gathering construct of a site on situational and empirical evidence.

At Balerno Main, nothing indicates marriage or feasting but hunting implements are present along with beads and manufacturing remains. These might suggest *hxaro* or another form of exchange. The range of artefacts present at the site could also suggest that craft production for the purpose of exchange took place. And, while the faunal assemblage's density is higher during Phase 1, it mostly includes collectable meat packages. Ethnographic aggregation sites are usually accompanied by larger meat reserves and feasting (Wadley 1986, 1989). The size of the site's internal area (c. 86.25m^2) and the open space in front, however, certainly favour the settlement of larger groups and are thought to be an important feature of aggregation sites (e.g. Barham 1992; Wadley 1989, 1992). Of importance, though, is that Phases 1 and 2 appear to express the same site-use patterns. Little change of any significance is noted despite the social environment shifting from Phases 1 to 2. Van Doornum (2008) felt that the persistence of these values may have been because the site was at least 3km from any nearby farmer settlement. Given the general continuity between the phases, this seems unlikely. Gathering at Balerno Main, in a fairly equitable manner, continued across the contact divide regardless of a farmer presence. This indicates little to no disruption of forager lifeways at the shelter.

Continuity was also noted at Tshisiku, despite a generally declining density of artefacts (Figure 3.2). Although Phase 1 densities are lower than during any pre-dating occupation, some artefact densities are still high. According to van Doornum (2007: 42), formal tools (0.52/L), colouring material (0.22g/L) and organic remains (shell and bone), while in low densities, exist in higher volumes than at Little Muck (although no comparative data exists). Chalcedony (59.07%; 8.51/L) dominates the assemblage, followed by quartz (18.14%; 2.61/L), which appears to be consistent with Balerno Main. However, quartz formal tools (N=6; 13.64%) represent far more of the total formal tool assemblage (N=44) at Tshisiku than

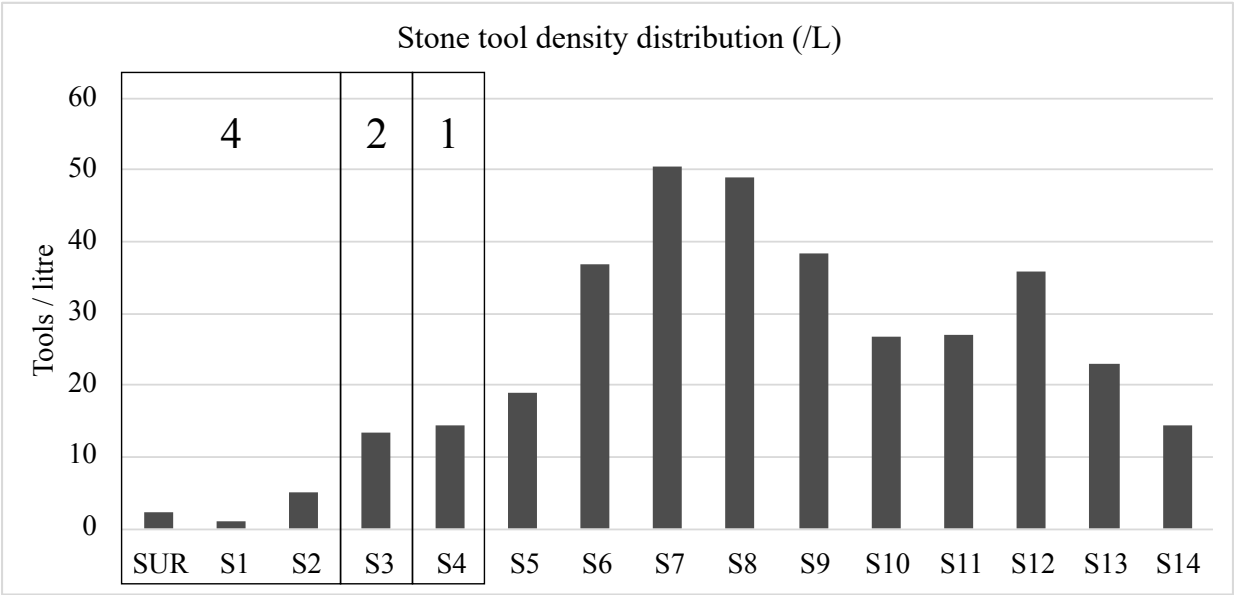

Figure 3.2: Artefact distribution at Tshisiku Shelter from its initial occupation, c. 5500 BC, until AD 1300 (phases indicated in the inset squares).

during the same phase at Balerno Main (3.72%). This may reflect local resource exploitation patterns or expedience. Possibly supporting this is the emphasis on collectable faunal resources (e.g. tortoise and fish) and small meat packages (e.g. suid and bovids I, II and III) that were probably easily sourced from nearby. Lastly, complete (0.2/L) and incomplete (0.02/L) ostrich eggshell beads occur infrequently. Van Doornum (2005; 2007: 42) argued that based on these finds – namely the limited assemblage and faunal record – the site was probably used by small family groups during this period. She drew from the ethnographic record and specifically dispersal-type sites, but it may also be that irregular occupation by small possibly kin-related groups took place.

Phase 2 is represented by an increase in artefact densities from Spit 4 in some categories, although it is still part of a general decreasing trend from the earlier occupation phases. Stone tool (from 14.40 to 13.43/L) densities decline but formal tool frequencies remain consistent (0.52/L). The use of chalcedony drops slightly (from 59.07 to 53.51%) whereas quartz increases (from 18.14 to 20.44%). Despite this increase, quartz formal tool numbers drop massively (N=2; from 13.64 to 3.64%) and chalcedony tools become more dominant (N=53; from 84.09 to 96.36%). Stone scrapers become more frequent (from 0.38 to 0.5/L) whereas backed tools (from 0.18 to 0.09/L) and worked bone (from 0.12 to 0.06/L), both of which may be associated with hunting, decline. Colouring material increases slightly (from 0.22 to 0.26g/L) as does finished (from 0.2 to 0.22/L) and unfinished (from 0.02 to 0.04/L) ostrich eggshell beads. Pottery (N=5) and glass beads (N=2) also appear for the first time. Also increasing in density is the faunal assemblage (from 8.23 to 11.23g/L), which is still dominated by easily snared and trapped animals. This suggests a similar subsistence habit despite shifts in the social landscape. The increase in artefact types and in particular the fauna indicates a larger population were using the shelter during this phase.

Reading much into these patterns should only be done cautiously since they are all captured within two spits. If reliable, the assemblages from Phases 1 and 2 seem to reflect use by a small population. While some evidence suggests an increase in the number of people at the site in Phase 2, the use of the site is not noticeably altered. During both phases, small and collectable meat packages dominate, little evidence for bead production exists, and a limited set of activities took place. However, there are also certain changes that may indicate slight alterations to lifeways. The greater emphasis on scrapers, for example, at a time when farmer-associated items began appearing in the sequence may indicate craft production (excluding bead manufacture) for trade purposes (Forssman *et al.* 2018). It is possible that to a limited extent, trade or exchange was taking place from Tshisiku.

Shifting patterns

At Little Muck and Dzombo, shifts in tool production and preferences reflect changing behaviour patterns and the appearance of new economic opportunities. Hall and Smith (2000) argued that during Little Muck's Phase 1 (ARB 2), the shelter was used as a residential camp. Artefact frequencies are low in most categories, including shell and faunal remains. Stone tools (19.38/L) are not infrequent but have a lower density than in the overlying units. Chalcedony stone (N=321; 8.03/L; 41.42%) and formal tool categories (89.58%) dominate, followed by quartz (N=262; 6.55/L; 33.81%) with far fewer formal tools (8.33%). Stone scrapers (N=32; 0.8/L) far outnumber backed tools (N=1; 0.0.3/L) and cores occur relatively often (N=50; 1.25/L). Worked bone (N=15; 0.38/L) and colouring material (N=101.2g; 2.53g/L) figures are low. In comparison, Little Muck's stone tool frequencies are well below Balerno Main's (33.41/L) while only slightly more than Tshisiku's (14.4/L). However, what is interesting is the very high formal tool (1.2/L) and core (1.25/L) densities, which are nearly as high as Balerno Main's formal tools (1.46/L) but exceed its core densities (0.69/L). Those using Little Muck were producing almost as many formal tools as at a gathering site (small flaking debris data for Little Muck is not available; see van Doornum 2000).

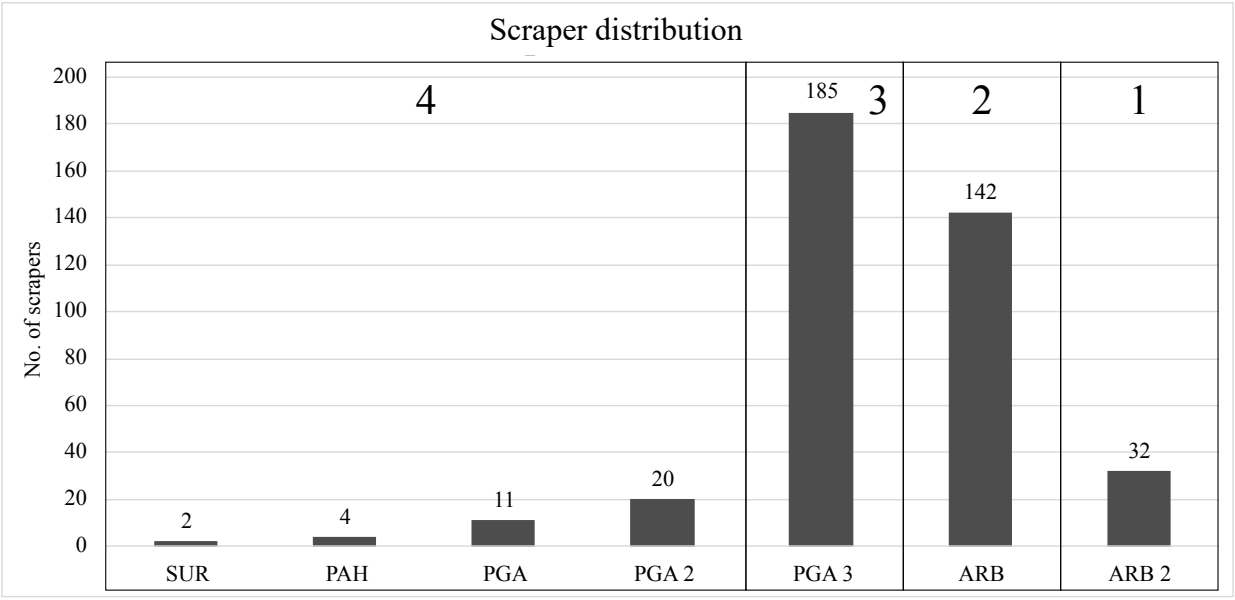

Figure 3.3: Numeric data of Little Muck Shelter's scrapers per stratum (phases indicated in the inset squares).

This emphasis on tool production might indicate that activity levels were fairly high at Little Muck despite it being a residential camp with fewer occupants than Balerno Main.

In Phase 2, a change occurred. Increases in stone tools (from 19.38 to 54.84/L), formal tools (from 1.2 to 3.38/L), cores (from 1.25 to 3.18/L), worked bone (from 0.38 to 0.42/L) and colouring material (from 2.53 to 8.36g/L), along with an increase in bone food waste (Hall & Smith 2000: 34; van Doornum 2000), seem to reflect something else occurring at the site beyond the requirements of personal consumption. The most noticeable increase is in stone scrapers (Figure 3.3). From ARB 2, the 32 scrapers (0.8/L) increase to 142 in ARB (3.16/L). Hall and Smith (2000) suggested this might be linked to an increase in hide-production since scrapers are typically associated with hide working (Deacon & Deacon 1980; Walker 1995). But, inferring activity from tool types, whether stone or bone tools, is problematic. It is debated whether tool morphology and technology relate to function or reduction techniques and blank morphology (e.g. Barham 1992; Dibble 1987: 109; Dibble & Bar-Yosef 1995; Hiscock 2015). If it does, stone tool categories might rather capture a phase in the tool's lifespan instead of an intended shape and size. Alternatively, if due to blank morphology and the affect the shape of flaked stone has on the outcome of a tool's design, then typological categories may be dependent on the production process and technology used. Even so, the unique and massive scraper assemblage from Little Muck indicates a different set or intensification of activities occurring at the site relative to other forager camps.

Clues indicating activity patterns were identified by examining wear traces on stone tools. Polish (Figure 3.4), edge damage (Figure 3.5) and rounding (Figure 3.6) may form as a result of specific activity types. In ARB 2 (Phase 1), most scrapers did not possess any form of use-wear (N=11; 34.38%), but this increases per artefact to just under half of the assemblage in ARB (Phase 2; N=67; 47.18%) (Table 3.3). Therefore, not only is there a significant increase in a preference for scrapers, but they also appear to be used more intensively or regularly resulting in use-wear. What is also interesting is the type of use-wear (Table 3.4). Several forms are consistent with working rigid materials. Greasy, dull, pitted and bright pitted polish (see Rots & Williamson 2006), for example, are associated with wet and dry wood, working wood with abrasives, and charcoal (Binneman & Deacon 1986; Rots 2005). Also consistent with damage from working a rigid surface is stepped flaking and damage along the working edge (Shea & Klenck

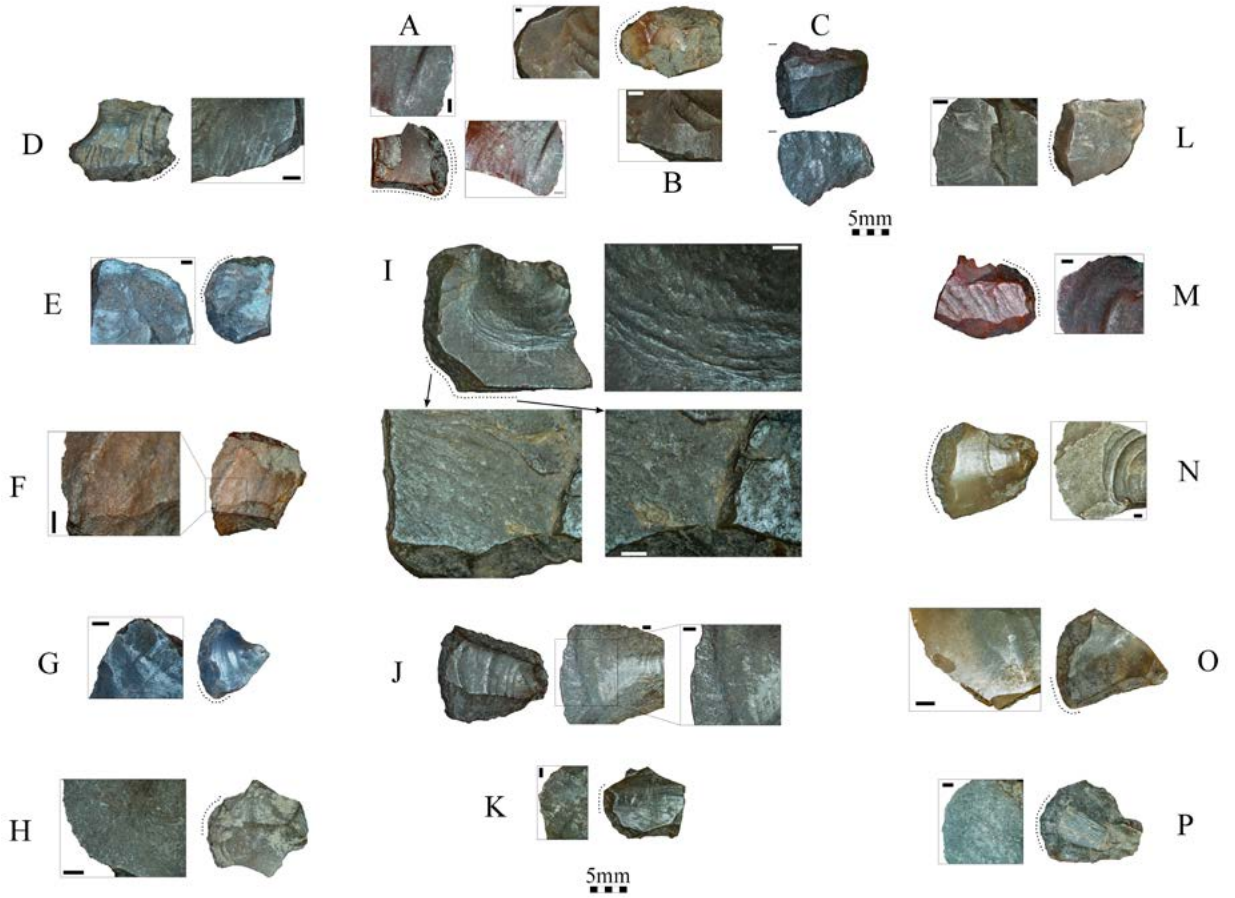

Figure 3.4: Scrapers with polish from Little Muck Shelter used possibly in wood-working or hide preparation activities (insert scale=1 mm). Polish types: greasy (A, G, I, K, N & O), dull (B, D, E, I, L, M, N & P), pitted (G, H, J, M & P), bright pitted (C) and matted (F) (from Forssman et al. *2018: 297).*

1993). Hide or flesh tend to form a matted polish around the working edge and takes longer to form (Rots 2005; Shea & Klenck 1993). At Little Muck, in Phase 1 (ARB 2), five specimens (0.11/L) exhibited use-wear comparable to wear patterns associated with working rigid materials (total use-wear N=11), whereas in Phase 2 (ARB) this increased to 34 (0.76/L; total use-wear N=67). It also indicates that from Phase 1, rigid materials were already being worked and this pattern increased into Phase 2, significantly (Forssman *et al*. 2018).

Table 3.3: Little Muck Shelter use-wear types per stratum (from Forssman et al. *2018: 294).*

Stratigraphy	Total scrapers	Use-wear: present	Use-wear: absent	Percent present	Percent absent
SUR	2	1	1	50	50
PAH	4	0	4	0	100
PGA	11	3	8	27.27	72.73
PGA 2	20	4	16	20	80
PGA 3	185	109	76	58.92	41.08
ARB	142	67	75	47.18	52.82
ARB 2	32	11	21	34.38	65.63
Totals	396	195	201	49.24	50.76

No scrapers exhibited comparable use-wear patterns associated with hide or flesh working. However, this does not exclude the possibility that hide-working still took place in either phase. Ethnographic observations noted the use of scrapers in hide-working activities (e.g. Deacon & Deacon 1980), and this was

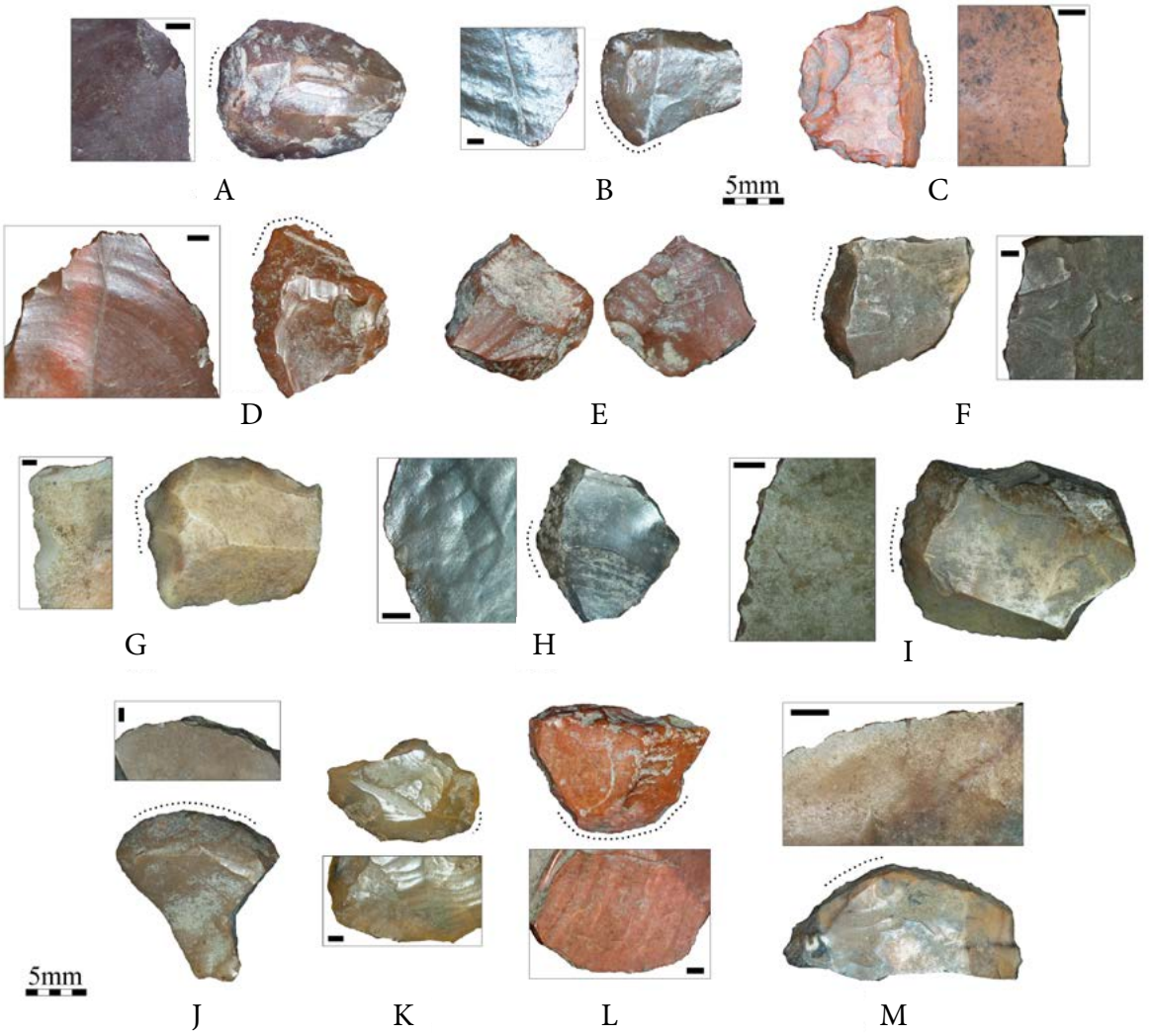

Figure 3.5: Scrapers with edge damage from Little Muck Shelter (insert scale=1 mm). Damage types: edge damage (A-C & F-M), stepped flaking (E, G, J & K), post-depositional damage (D & I) and stress fractures (L) (from Forssman et al. *2018: 298).*

more than likely also happening at Little Muck. Hide is also pliable and it takes longer for use-wear to form than it would from working a hard material. Any secondary use of a rigid material may also delete or obscure hide-working traces (Forssman *et al.* 2018). Although the study is on-going, use-wear analysis of bone tools has revealed an increasing emphasis on hide-working from the early first millennium AD (Antonites *et al.* 2016). This might suggest that craft production at Little Muck not only included a variety of craft types but also a range of tools used to produce them.

The very high density of scrapers and the increasing evidence of their use in craft production was beyond the requirements of the resident group. During this period, although increasing, tool, faunal and shell densities are still fairly low (Hall & Smith 2000). This indicates that a fairly limited number of people used the shelter. It is unlikely that craft production at the levels recorded at Little Muck were for their own purposes. Instead, the shift was linked to trade or exchange patterns. Goods may have been produced to trade as *hxaro* gifts, although no evidence of bead production was recorded at Little Muck and stone hunting tools are in low frequencies (Hall & Smith 2000); it is conceivable that some

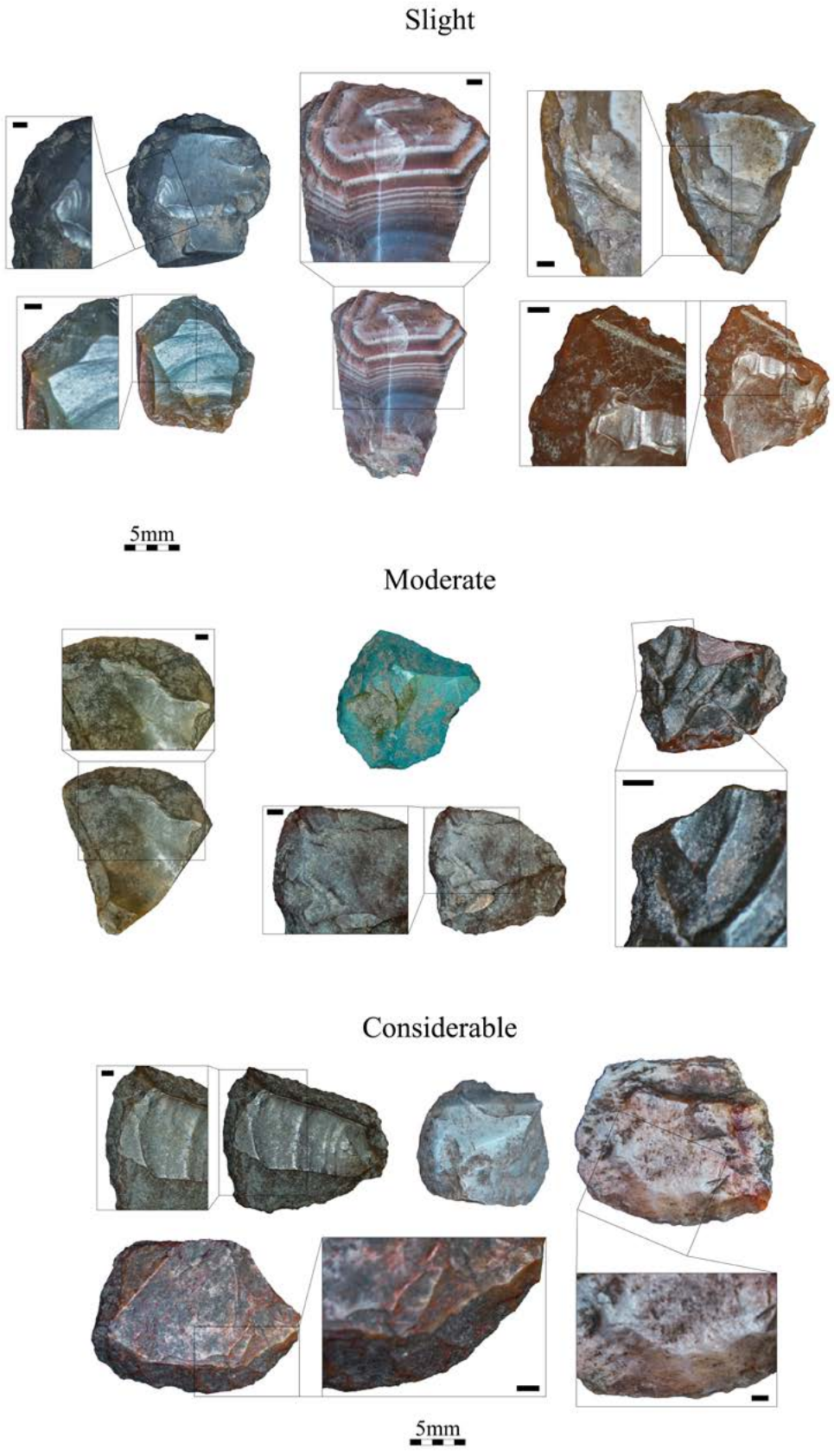

Figure 3.6: Rounding on scraper edges from Little Muck Shelter (insert scale=1 mm) (from Forssman et al. *2018: 295).*

Table 3.4: Use-wear data from Little Muck Shelter. Counts refer to each count of use-wear and not each tool; some tools possess more than one type of use-wear. MF=macro-fractures. (from Forssman et al. *2018: 296).*

Use-wear type	Stratigraphic layer	SUR	PAH	PGA	PGA 2	PGA 3	ARB	ARB 2	Totals
	Total scrapers/stratum	2	4	11	20	185	142	32	396
Rounding	Level 1: slight	1	0	1	1	48	27	2	80
	Level 2: moderate	0	0	2	0	37	16	3	58
	Level 3: considerable	0	0	0	0	3	2	3	8
	Total: rounded	1	0	3	1	88	45	8	146
	Rounded tools/total tools	0.5	0	0.27	0.05	0.48	0.32	0.25	0.37
Polish	Greasy - wet wood	0	0	0	0	6	2	0	8
	Dull - dried wood	0	0	0	0	13	11	2	26
	Pitted - abrasive added	0	0	0	0	4	2	0	6
	Bright pitted - charcoal	0	0	0	0	2	0	1	3
	Matted - hide and flesh	0	0	0	0	2	0	0	2
	Inconclusive	0	0	0	0	2	1	2	5
	Total: polish	0	0	0	0	29	16	5	50
	Polish tools/total tools	0	0	0	0	0.16	0.11	0.16	0.13
	Location: edge area	0	0	0	0	22	13	2	37
	Location: inner edge	0	0	0	0	11	6	2	19
	Location: inner surface	0	0	0	0	6	2	3	11
	Location: opposite retouch	0	0	0	0	2	0	1	3
	Location: restricted, elevated	0	0	0	0	0	0	2	2
	Surface: ventral	0	0	0	0	20	11	3	34
	Surface: dorsal	0	0	0	0	2	1	1	4
Edge damage	Damage: edge	0	0	1	3	45	14	2	65
	Damage: stepped flaking	0	0	0	0	25	10	1	36
	Damage: adjacent edge	0	0	0	0	2	6	0	8
	Striations: inwards	0	0	0	0	0	1	0	1
	Edge damage: post-dep.	0	0	1	0	18	16	1	36
	Stress fractures	0	0	0	0	1	1	0	2
	Basal damage	0	0	0	0	0	1	0	1
	Unknown	0	0	0	0	1	0	0	1
	Total	0	0	1	3	74	33	3	114
	Edge damage/total tools	0	0	0.09	0.15	0.4	0.23	0.09	0.29
MF	Notch	0	0	0	0	2	0	0	2
	Impact burination	0	0	0	0	1	0	0	1
	Total	0	0	0	0	3	0	0	3

of the worked bones were used for hunting as well as craft production (Antonites *et al.* 2016) and could have been trade goods themselves (e.g. Wadley 1987). The increase in ostrich eggshell densities, Hall and Smith (2000) suggested, might also have been for the purpose of trade since there is no evidence of its use or manufacture in the shelter. Hide, wood and bone crafts, shell raw materials, and bone hunting composites might all have formed part of the trade economy (see Sadr 1997). Showing trade or exchange between forager groups is particularly difficult, as noted (see Mitchell 2003a), because groups did not produce distinctively different cultural items (but see Stewart et al. 2020). Trade with farmers is far easier to observe because of the appearance of new cultural material in forager sites. This happened at Little Muck from the beginning of the first millennium AD with the appearance of Happy Rest ceramics and corresponds with the increase in scrapers. The vessels may also have acted as

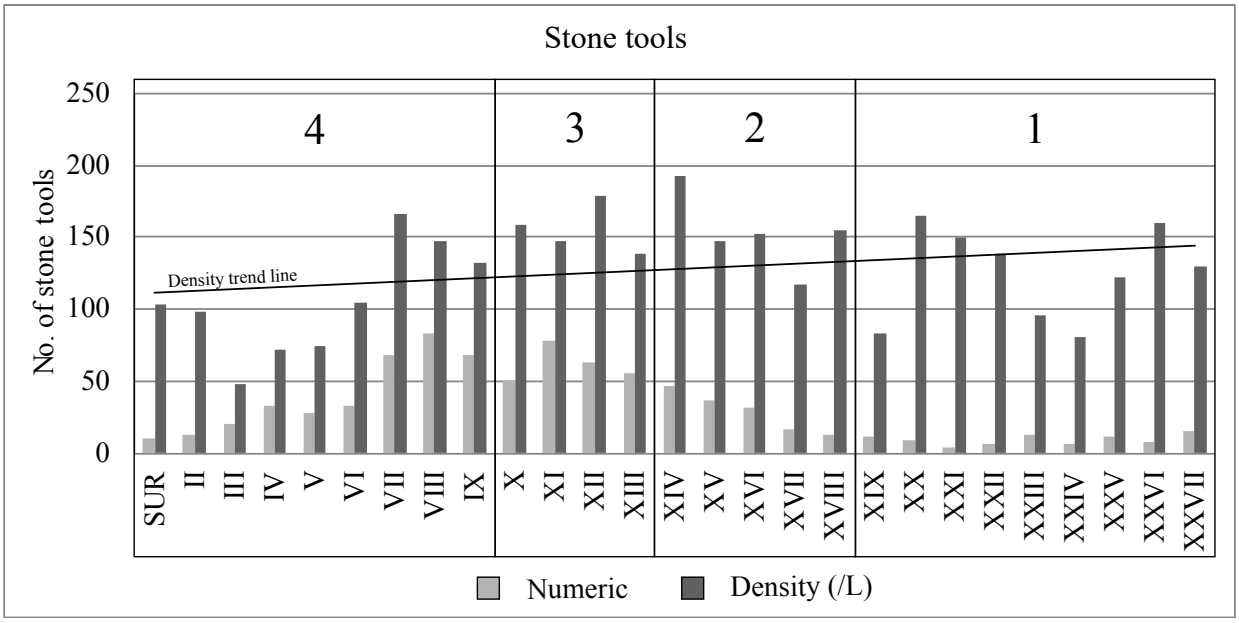

Figure 3.7: The numeric and volumetric distribution of stone tools at Dzombo Shelter, with a trend line for artefact density.

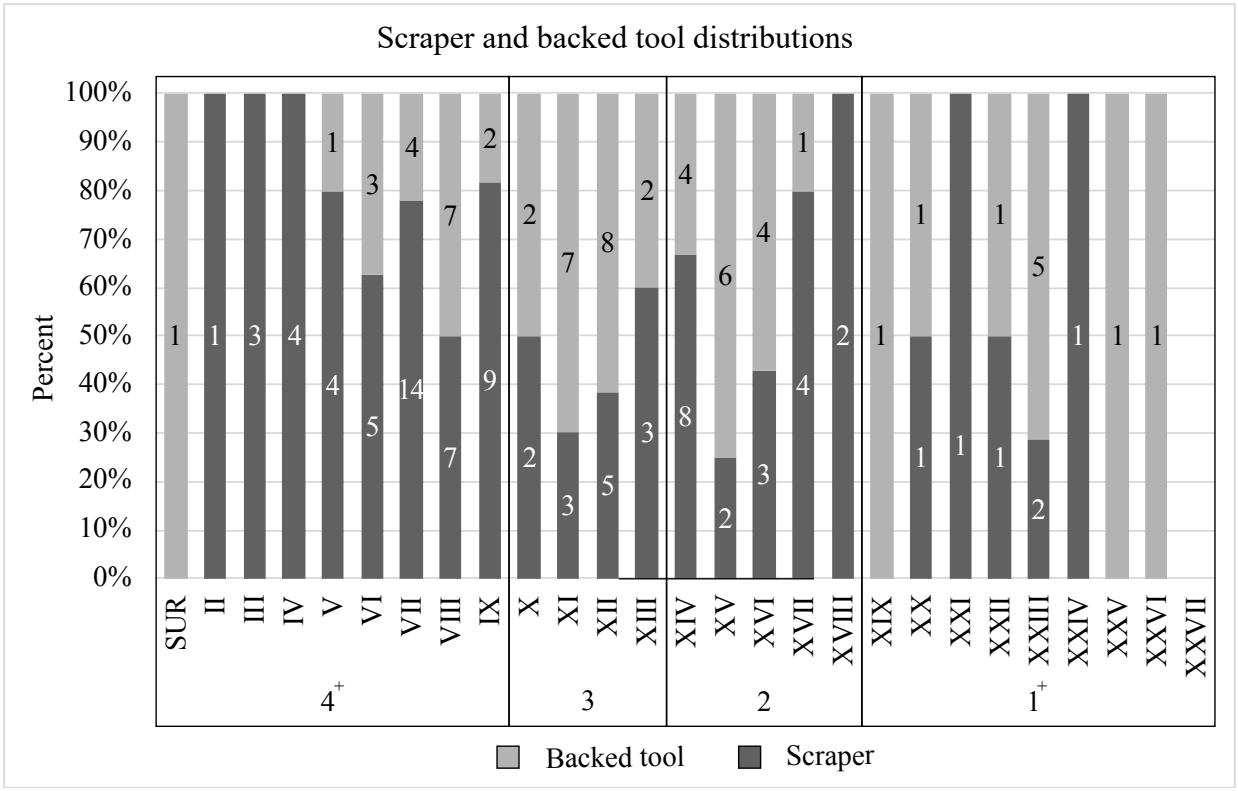

Figure 3.8: Alternating scraper and backed tool dominance at Dzombo Shelter. Numbers refer to numeric data for each tool type (+ denotes additional chronological phases: Phase 4 includes post-AD 1300 levels and Phase 1 includes lower undated levels).

receptacles for exchanged products such as milk, sorghum or millet (see Sadr 1997). Either way, trade and exchange appear to have been the driving factor behind the tool and site use changes at Little Muck.

Despite being in a similar social and environmental context, Dzombo has a somewhat different sequence to Little Muck. Here, stone tool densities increase from Phases 1 to 2 (from 2.49 to 5.76/L; Figure 3.7)

Table 3.5: DIFs from Dzombo Shelter per type and spit (from Forssman 2015: 271).

Spit	Step term.	UF SO >6 mm	UF SO <6 mm	Impact burination	Totals	Litres	Impact fractures	Impact fractures/L	Total backed tools	Backed tools/L
SUR					0	18.85	0	0	1	0.05
II					0	20.41	0	0	1	0.05
III					0	62.4	0	0	0	0
IV					0	66.95	0	0	0	0
V				2	2	79.82	2	0.33	1	0.01
VI			1	1	2	59.15	2	0.44	3	0.05
VII	1	1		2	4	74.36	4	0.70	5	0.07
VIII	1	1		1	3	73.06	3	0.53	5	0.07
IX					0	60.97	0	0	1	0.02
X				1	1	36.79	1	0.35	2	0.05
XI	2		3	1	6	51.61	6	1.51	5	0.10
XII			1	3	4	50.7	4	1.03	8	0.16
XIII				1	1	62.92	1	0.21	2	0.03
XIV				3	3	37.7	3	1.03	3	0.08
XV	1		1	2	4	43.55	4	1.19	5	0.11
XVI	1		1	3	5	39.78	5	1.63	5	0.13
XVII					0	29.25	0	0	0	0
XVIII			1		1	26.65	1	0.49	2	0.08
XIX					0	24.05	0	0	1	0.04
XX					0	14.95	0	0	0	0
XXI					0	11.05	0	0	0	0
XXII					0	13	0	0	0	0
XXIII		1			1	18.2	1	0.71	4	0.22
XXIV					0	21.45	0	0	0	0
XXV					0	13.65	0	0	1	0.07
XXVI				1	1	14.95	1	0.87	1	0.07
XXVII					0	18.2	0	0	0	0
Totals	6	3	8	21	38	1044.38	38	0.47	56	0.05

as do formal tools (from 0.04 to 0.22/L). Within the formal category, what is interesting, however, is the relationship between scrapers and backed tools, which alternate in numeric dominance. In Phase 1 and earlier, backed tools (N=10) are more frequent than scrapers (N=6), but during Phase 2 scrapers (N=19) become slightly more frequent (backed tools N=15), and during Phase 3 (discussed in the next chapter) backed tools (N=19) once again (scrapers N=13; Figure 3.8; figures in Table 3.1 for Phase 1 do not include pre-Phase 1 levels). Regarding backed tools, from the pre-Phase 2 levels backed tool densities increase significantly whereas this is not the case for scrapers until after AD 1000 when they dominate (Forssman 2014a, 2014b, 2015). The growing emphasis on backed tools, therefore, seems to reflect a shift in behaviour patterns.

To explain this shifting pattern, backed tools were examined for diagnostic impact fractures (DIFs) (see Forssman 2015). Impact events include hunting, striking artefacts with another item, and trampling (cf. Lombard 2005). Experiments involving hunting simulations, where a projectile is shot or thrust into a carcass, were able to reproduce diagnostic fracture types on an artefact's impact edge regardless

of tool morphology (Cowan 1986; Fisher *et al.* 1984; Lombard 2005; Odell & Shea 1988; Pargeter 2011). Possible DIFs include: unifacial or bifacial spin-off fractures (cone or other fractures types originating from another fracture such as a snap); step terminating bending fractures (a bending initiation that rotates around the face of the tool to eventually run parallel with the edge), and impact burinations (burin-resembling fracture along the edge of an artefact; Lombard 2005: 1). Some suggest notches (semi-circle concavities along the edge of a tool) may relate to hunting and damage inflicted by twine used in hafting (Lombard & Pargeter 2008; Yaroshevich *et al.* 2010), but it is not strictly a DIF.

Impact-related fractures were found on 38 (55.1%) of the 56 backed tools (Table 3.5). These include 21 impact burinations, 11 unifacial spin-off fractures and six step terminating fractures as well as seven notches (Forssman 2015: 270). Their distribution is of importance. In the pre-Phase 2 levels (below Spit 18), two of the 10 backed tools were found to have DIFs (20%). This increases in Phase 2, where of the 18 backed tools 13 contain DIFs (72.22%; 0.07/L). Not only does the production and frequency of backed tools increase from pre-Phase 2 periods into the first millennium AD, but so do the odds of impact fractures forming on them (Table 3.6) along with a significant increase in trace wear on scrapers (Forssman et al. 2018: 292-293). The behaviour associated with the formation of these fractures is emphasised from the beginning of the first millennium AD onwards.

Several other features help determine what formed these fractures. It is improbable that it is a result of tool production because of the location of the fractures; all occur at the tip of the backed tools. Trampling is also not a likely explanation. There is unlikely to be much traffic through the shelter and if there was, once again, the formation of fractures along only the tips of the artefacts is too specific. The substrate is also unsuitable to trampling damage since it is soft and, in areas, ashy. Hunting damage, however, would form at the tip of a projectile insert. But, if hunting had increased, one would expect there to be a shift in the faunal assemblage. And yet, the fauna changes very little over this period. Before Phase 2, collectable and snared wild resources dominate. There is a slight increase in faunal remains from Spit 18, but this corresponds with an increase in all other artefact categories and probably reflects an increased population living at the site. In terms of meat packages, little changes moving into Phase 2. Mammalian species become more common and diverse and fish appear regularly. No domesticates, however, were found in Phase 2 or before (Forssman 2014a, 2014b). If hunting increased from the first millennium AD, it seems not to have clearly affected the faunal range at the site.

While faunal densities remain fairly constant, farmer items begin appearing. Ceramics first appear in Spit 18 and gradually increase in numbers, but nevertheless remain low until after AD 1000 (N=42). It is not known whether it was the ceramics or their contents that were the desired trade item. From pre-Phase 2 levels, complete shell beads were found (N=3) but this increases to 12 in Phase 2 along with three incomplete shell beads as well as a glass bead and a single worked bone tool. It appears that, potentially at a low-level, trade and exchange began between foragers and farmers after AD 100. This explains the lack of change in the faunal record; the hunted goods were not intended for delivery and consumption at Dzombo but local farmer settlements. What may have been traded is not known but

Table 3.6: The distribution of DIFs between the phases at Dzombo Shelter (from Forssman 2015: 273).

Phase	Total macro-fractures	Impact fractures	% of total	Impact fractures/L	Inc. notches	% of total	Impact fractures/L
4	23	11	47.83	0.02	15	65.22	0.03
3	22	12	54.55	0.06	16	72.73	0.08
2	18	13	72.22	0.07	15	83.33	0.08
1	6	2	33.33	0.01	2	33.33	0.01

could have included animal hide, meat packages, ostrich feathers or worked bone. Whereas at Little Muck, craft production was emphasised, it was hunting at Dzombo. At each site these changes were for the purpose of exchanging goods with farmers.

Other sites

Also occupied during Phases 1 and 2 were Balerno 2 (van Doornum 2005) and 3 (van Doornum 2014), and, during Phase 2, Mafunyane (Forssman 2014a, 2016b). Of the two smaller Balerno sites, it is Balerno 3 that has a larger archaeological assemblage (van Doornum 2000, 2014). In Phase 1, stone tool densities (13.73/L) are nearly as high as Tshisiku (14.4/L) but higher than Dzombo (2.49/L) and Balerno 2 (1.47/L). Chalcedony was favoured at both Balerno 2 (51%) and 3 (52.26%) but at Balerno 3 quartz (36.84%) is more represented than at Balerno 2 (25%). In Phase 2, Balerno 3's quartz (27.37%) frequencies decline to levels more similar to Balerno 2 (24.04%). Formal tool densities are low during Phase 1 (from 0.04/L & 0.06/L, respectively) but increase in Phase 2 (from 0.3/L & 0.33/L, respectively). Chalcedony formal tools dominate at both sites and in each phase by over 90%. Scrapers and backed tools appear in low numbers at Balerno 2 (N=9 & 2, respectively) and 3 (N=16 & 2, respectively) but the disparity between them at each site changes remarkably in Phase 2. This is more so at Balerno 3 where there are 105 scrapers to three backed tools, while at Balerno 2 it is 65 to six, respectively (van Doornum 2005, 2014). These figures are intriguing and might reflect changing behaviour patterns, like at Little Muck and Dzombo, and these might also be linked to farmer contact.

Although van Doornum (2005, 2008) suggested that Balerno Main lacked farmer-associated items because it represented a traditional phase of forager lifeways, which she linked to its isolation, at Balerno 2 and 3, which are equally isolated, there are clear indicators of social contact. At Balerno 2, ceramics appear in Phase 2 (N=17; 0.05/L), as do glass beads (N=3), and there is a large increase in the number of incomplete (from N=6 to 53) and complete (from N=7 to 25) shell beads (van Doornum 2005). These shifts are not nearly as exaggerated at Balerno 3. Ceramics also appear (N=6) but in lower densities (0.02/L) whereas there are no glass beads. Both complete (from N=12 to 33) and incomplete (from N=13 to 20) shell beads increase slightly. Numerically there appears to be a large difference but the density of complete beads is the same at each site in Phase 2 (0.08/L) whereas for incomplete beads it is far higher at Balerno 2 (0.17/L) than 3 (0.05/L). At Balerno 3, though, there is worked bone in both Phases 1 (N=2; <0.01/L) and 2 (N=13; 0.03/L) (van Doornum 2014). Similar faunal densities at Balerno 2 and 3 in Phases 1 (0.74 & 0.85g/L, respectively) and 2 (2.9 & 3.17g/L, respectively) were recorded. The fauna from Balerno 3 has not been analysed, but from Balerno 2 similar small to medium meat packages and collectables found at other sites were identified (van Doornum 2005: 133). These differences are striking given the proximity of the two sites.

Balerno 2 and 3 are approximately 50m apart and are found in the same ridge (Figure 3.9). It is highly doubtful that foragers living at each site were unaware of the other and did not take advantage of its space. It might even be fair to combine the two sites and treat them as a single occupation complex even though there are subtle differences; these might reflect spatial patterning. At Balerno 2, there seems to be a greater density of trade or exchange goods from farmer sources. However, at Balerno 3 a much greater density of stone scrapers occurred. It may be that Balerno 3 acted as a processing area where bead manufacturing took place as well as the production of goods which required scraper tools. At Balerno 2, the wealth from trade seems to have been curated and a limited set of production activities took place, notably that of shell beads to a greater extent than at Balerno 3. Nonetheless, the two sites appear to be part of the same settlement cycle with each storing different aspects of forager behaviour patterns and economy.

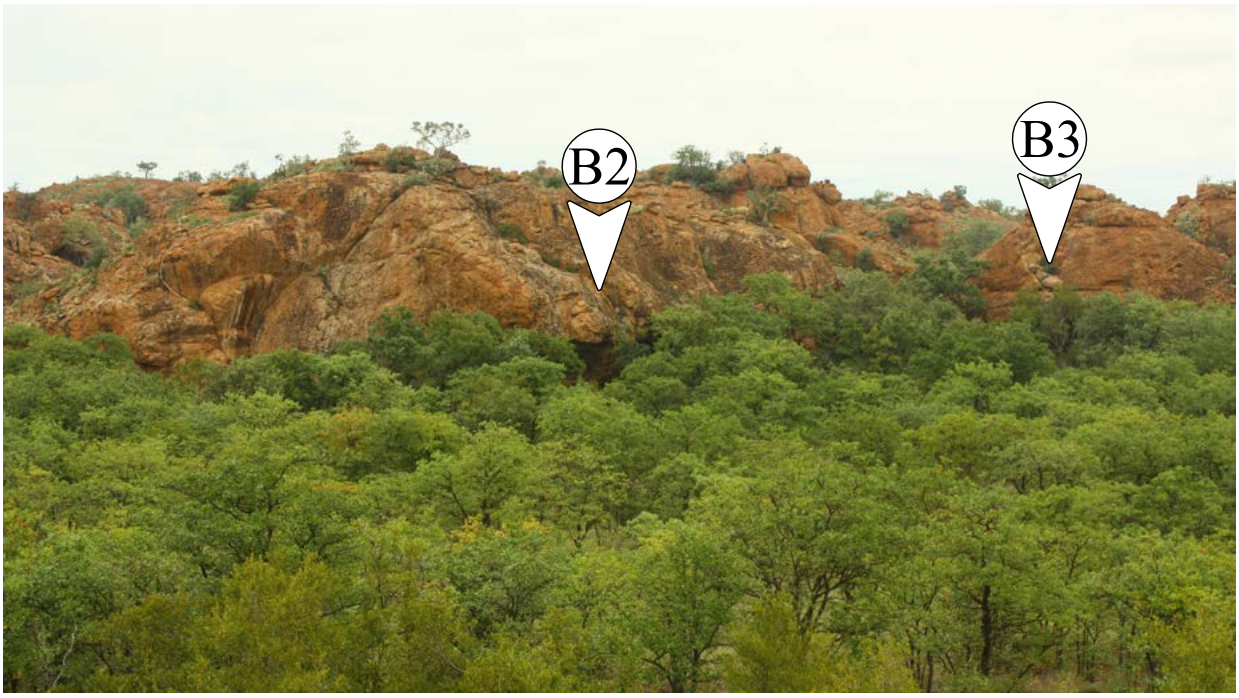

Figure 3.9: The proximity of Balerno Shelters 2 and 3.

Mafunyane contains a particularly unique archaeological sequence despite its fairly limited space (Figure 3.10). In Phase 2, stone tools are abundant (12.13/L) but lower than Balerno Main (33.41/L) and Little Muck (19.38/L). Whereas chalcedony usually dominates the assemblage well above quartz, at Mafunyane the figures are similar (31.25% and 32.81%, respectively). Few small flaking debris (4.42g; 0.85g/L) and cores (N=2; 0.38/L) were recorded, probably indicating manufacturing did not take place inside the shelter, and only two stone scrapers were found (0.38/L) (Forssman 2016b). Outside, however, a large surface scatter was identified and Walker (1994) suggested it was here that manufacturing or other activities may have taken place. He also recorded Bambata ware at the base of his trench, placing the lower units of the site in the early first millennium AD (Phase 2). While the stone tool density is already high in the basal units, in the succeeding phase the density of most artefact categories spike. What is of particular interest, though, is the farmer-associated artefacts that were recovered from the site from this succeeding period (Phase 3, Chapter 4). However, it is worthwhile pointing out before presenting these data that Mafunyane appears to have been used as a domestic camp at first with a fairly limited archaeological assemblage (barring the stone tools).

Change at the onset of contact

Foragers used the landscape in different ways. Some shelters were gathering sites, or ethnographically recorded aggregation camps, whereas others were satellite or smaller sites such as dispersal camps. However, the settlement record was more complex and began to change during Phase 1 when forager visibility becomes increasingly more apparent on the landscape. Soon after, around 100 AD, foragers began interacting with incoming groups, driving a range of responses. Of specific interest is the general increase in artefact densities at all sites except Balerno Main. This very well may reflect landscape use patterns (Hall & Smith 2000; Moore 1985); with farmers occupying open spaces and cultivating tracts of land, foragers may have been concentrating their activities in the 'free' space shelters offered (e.g. S. Hall 1994). The spaces between foragers and farmers would still have been small and this would not have stopped interactions. These new social landscapes resulted in a more disparate archaeological sequence

than before. Trade encouraged craftsmanship at Little Muck and an emphasis on hunting at Dzombo, whereas contact left few visible traces at Balerno Main and even Tshisiku. Balerno 2 and 3 exhibit slightly different archaeological sequences from one another despite their proximity and Mafunyane appears to be a small occupation site. Forager responses are clearly marked in terms of the way space was used and places were constructed, signalled by the way foragers filled these sites with different material culture sequences. These changes reflect elective responses; foragers did not all change in a single homogenous shift. Instead, those living at different sites, and possibly moving between them, varied their responses. These reactions reflect forager agency, autonomy, resilience, and cultural malleability; they adjusted their skills to take advantage of new economic and social environments. In the following century, the intensification of contact with farmers, the contested and shared nature of space, and the further development of forager activities and access would be rooted in these early phases of interaction.

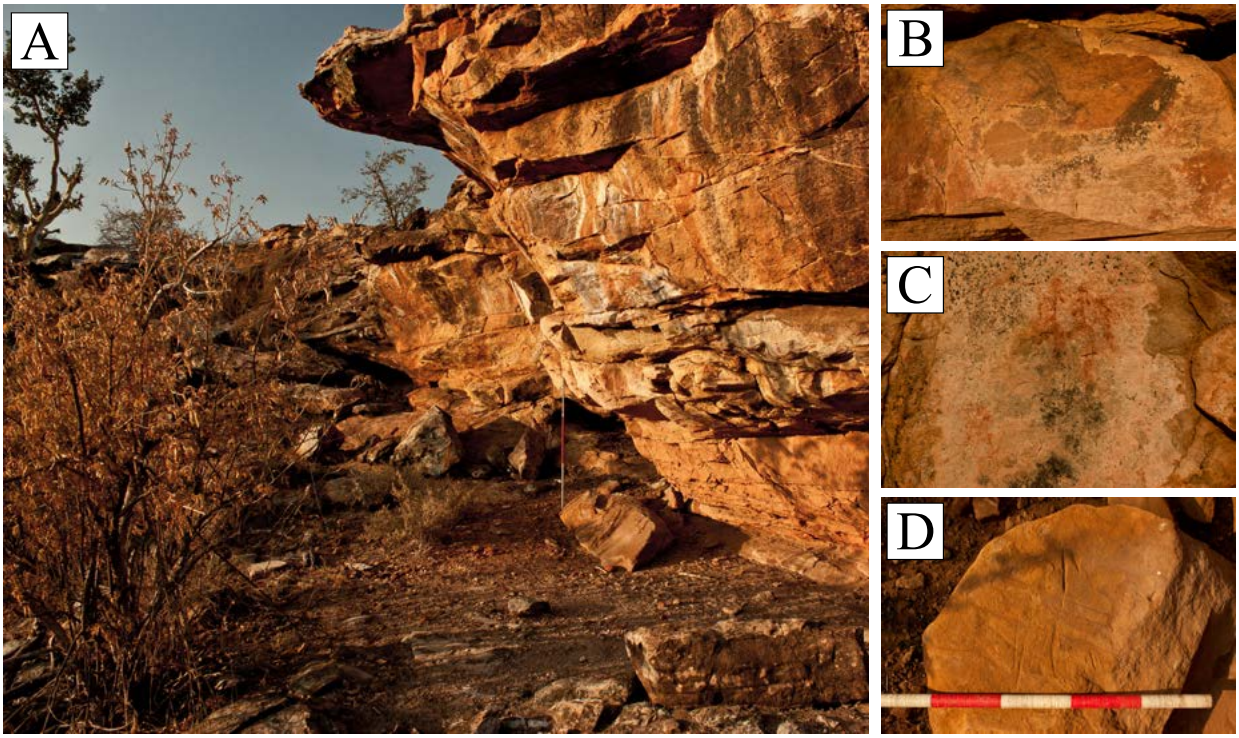

Figure 3.10: Mafunyane Shelter offers very little protection (A) and yet it has a considerable assemblage, rock art (B & C) and other rock markings (D).

Chapter 4: Early socio-political change

From AD 900, the impact of contact intensified. Around this time, Zhizo ceramic-using farmer communities settled the valley in large numbers. They cultivated fields, possessed livestock herds, hunted elephant for ivory and possibly other game for trade items, established villages and a centre at Schroda, and participated in long-distance trade through Africa's east coast. The Zhizo settlement was very much enmeshed within the broader social mosaic and tethered to changes within social processes occurring across the region. Linkages and connectivity, as Chirikure (2014) put it, stimulated transformations within and between societies. Importantly, it was during this time that early state modules appear, which Renfrew (1984) defined as autonomous central places with reciprocal trade arrangements. It was also in such situations that peer-polities existed with variable influence over their socio-political landscapes (Renfrew & Cherry 1986). Forager interactions with farmers is contextualised within a much broader framework than before; large-scale social, political and economic developments were occurring throughout central southern Africa and foragers, through contact with Zhizo-users, were participants in this network.

Zhizo migrations and international trade

Zhizo ceramics first appeared in southwestern Zimbabwe before the eighth century AD (Huffman 1974; Robinson 1985). Originally Robinson (1966) suggested the Zhizo facies was part of the Leopard's Kopje Tradition (described in Chapter 5), but Huffman (1974) argued that it was in fact part of the Gokomere Tradition. Although Robinson (1985) eventually accepted this, he divided the Zhizo facies into Zhizo (a), a 'pure' Gokomere line, and Zhizo (b), which shares elements with the Leopard's Kopje Tradition (cf. Calabrese 2000a: 186). As a whole the facies possesses stylistic variability, but certain decorative features are characteristic, namely comb-stamped and/or incised bands on the lower rim or central neck made using strung glass and shell beads or wound metal bangles (Figure 4.1) (Calabrese 2007: 185; Denbow 1983: 188; Hanisch 1980: 156; Huffman 1974: 96, 2007: 145). Sharing large stylistic similarities with Zhizo (84%) is Botswana's Taukome facies, which appears soon after AD 700 (Denbow 1983: 87). This led Denbow (1983), like Huffman (1974), to conclude that the facies originated in Zimbabwe and was brought with incoming groups to Botswana (Figure 4.2). Therefore, based on current data it appears that Taukome and Zhizo are the same facies, with the term Taukome used to refer only to Botswana sites.

The appearance of the Zhizo facies in Botswana also coincides with the appearance of exotic trade wealth in southern Africa. The earliest dated glass beads in southern Africa were found at Chibuene near modern day Vilanculos, Mozambique, during the site's earlier occupation (AD 600 – 900). Of the 2851 beads found at the site, 1042 are from the Zhizo series (Sinclair *et al.* 2012). These are chopped drawn beads, which are mostly translucent to opaque and coloured dark blue or yellow (Wood 2000: 79, 2011: 73). More recently, Wood *et al.* (2012) described the Chibuene series as exhibiting similar features to the Zhizo series but predating it by about a century. The only other sites at which Chibuene series beads have been identified are Kaitshàa, on the Makgadikgadi Pans (Denbow *et al.* 2015), and Nqoma, in the northwestern region of Botswana (Wilmsen 2009). Both sites also contained shell species from the Indian Ocean (Denbow *et al.* 2015; Wilmsen 2009). A cache of 279 glass beads was also found at Leopard's Kopje Main Kraal, Zimbabwe, and dates to the Zhizo layers from AD 675 to 890 (Huffman 1974: 75). That glass beads have been found at these sites shows connectivity between the east African coast and southern Africa's interior after the mid-first millennium AD (Chirikure 2014; Robertshaw *et al.* 2010). Generally, however, glass beads only appear at interior sites from the eighth century AD onwards (Wood 2000, 2012).

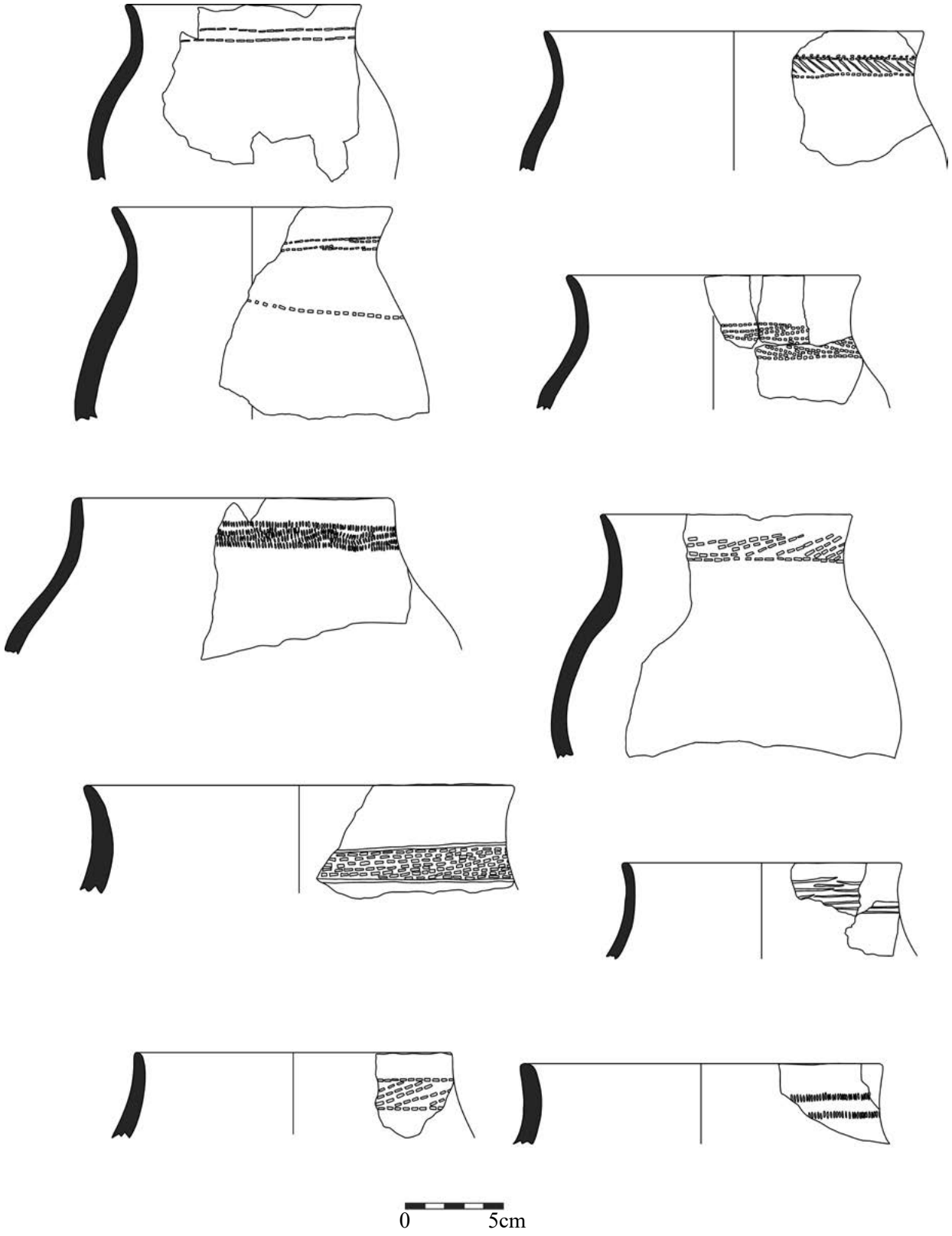

Figure 4.1: Examples of Zhizo ceramics from Schroda (from Forssman & Antonites in press).

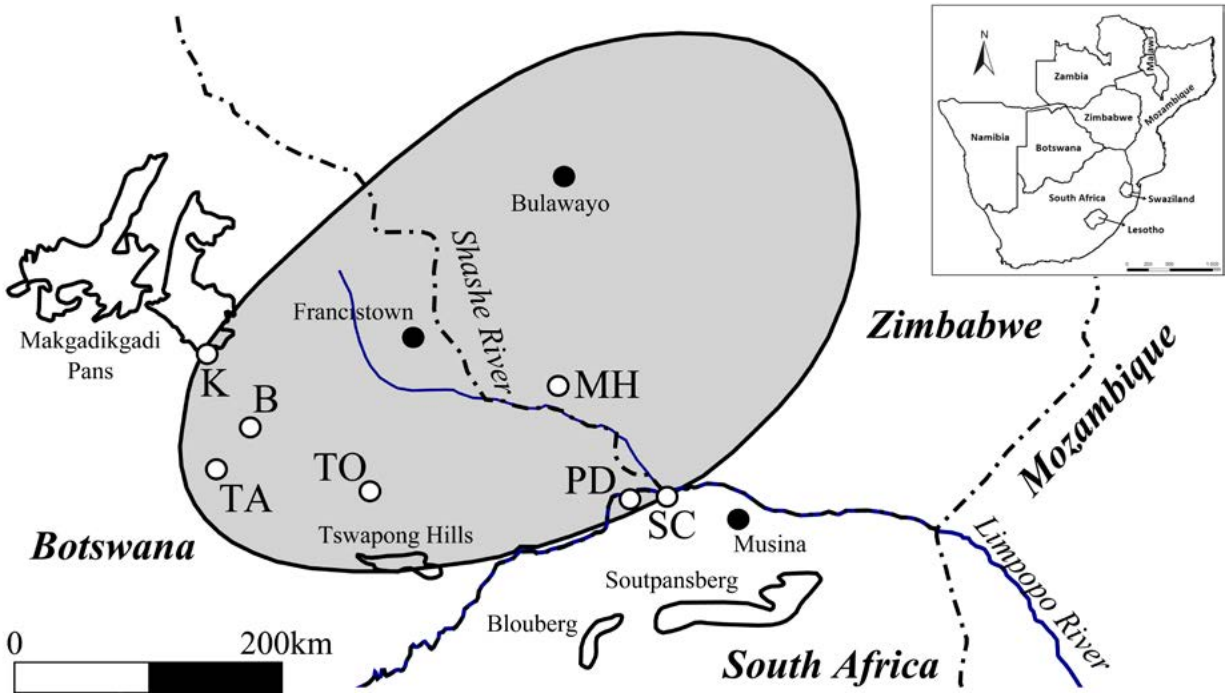

Figure 4.2: The distribution of the Zhizo facies, which includes Taukome, and some sites mentioned in the text: B, Bosutswe; K, Kaitshàa; MH, Mapela Hill; PD, Pont Drift; SC, Schroda; TA, Taukome; and TO, Toutswe (adapted from Huffman 2007: 143).

While Zhizo groups were engaged in trade at this time, the impact this had on their economy and environment is uncertain. Migrating from Zimbabwe to Botswana was during a time when locally available resources and traditional value systems were important power bases despite international trade (e.g. Chirikure 2014; Pwiti 1996). For example, cattle were a source of wealth, a status symbol, and used to maintain social relations or alliances through systems of patronage (Denbow 1984; Kuper 1982). As such, Huffman (1984) suggested that moving to Botswana may have been to access better grazing grounds. Because cattle were central to local and economic social hierarchies (Pikirayi 2001: 87), a shift in settlement patterns to support cattle population growth is not unlikely. It was this growth and the monopolisation of cattle wealth that Denbow (1990) argued led to the eventual appearance of local chiefdoms or central places and not trade wealth, which at this early stage was not yet centralised (Denbow *et al.* 2015).

Other resource bases also likely played a role. For example, settling in eastern Botswana led Zhizo groups into areas that possessed tradable goods. At Kaitshàa large amounts of glass beads were found that were likely acquired by trading salt extracted from the Makgadikgadi Pans (Denbow *et al.* 2015). The same has been argued for Sowa Pan from the eighth century AD (Matshetshe 2001). Southwest from here in the Tswapong Hills, a number of Zhizo-period settlements exhibiting evidence of intense metal-smelting and production have also been suggested to have played a role in the trading economy (Klehm 2013: 35). Elsewhere in the Kalahari Desert, mined materials such as specularite, hematite and mica in the Okavango Delta fringes around 800 AD (Denbow *et al.* 2008; Robbins *et al.* 1998) and copper at Thakadu (Huffman *et al.* 1995) were also linked to international trade. In Zimbabwe, Sinclair (1987) and Swan (1994) both showed a re-orientation of settlement patterns from AD 600 that became increasingly linked to goldfields. Therefore, multiple regions containing exchangeable resources were being exploited by the eighth century AD and these were used to acquire goods coming from the east coast of Africa. Together these disparate regions offered various mercantile goods but remained largely disconnected from one another.

Moving into the middle Limpopo Valley

The acquisition and control of cattle and trade wealth and the increased competition for resources likely created 'social pressures' (Kopytoff 1999). Communities were pushed or elected to settle new territories where they would be able to maintain their lifeways and possibly advance their social, political and economic standing. These shifts may have precipitated groups moving into the middle Limpopo Valley, who either came from Botswana (Calabrese 2007) or Zimbabwe (Huffman 2009). In both cases, the motivation was probably the same. Settling the valley also connected the different resource regions through a centrally linked mercantile system, which played a significant role in the appearance of the Mapungubwe state (Huffman 2000, 2015a). What attracted the initial settlement was likely a combination of ecological, economic and social features that were present in the valley. Understanding how these features contributed to the region's settlement has bearing on the nature of social interactions and the appearance of state-level society.

Trade was possibly the driving factor that motivated farmers to settle the valley (Huffman 2009). Not only in terms of the tradable resources but also other opportunities related to local and international exchange networks. Huffman (2000) noted that the local elephant population in the valley played a major role in attracting farmers. Their ivory (along with other goods) was used as a trade commodity to acquire exotic wealth coming from the east coast trade network. However, it was not clear whether the local elephant population was large enough to support large-scale trade. Based on modern elephant densities, which are on average 0.61 elephants per square kilometre and at their most 1.22, it is predicted that in an area 100km around the confluence of the Limpopo and Shashe Rivers (31,416km^2) between 19,164 and 36,527 elephants were present. Since only elephants above the age of nine possess tusks and that each individual only has 1.9 tusks (all males and 98% of females), 17,668 and 35,338 tusks were present in the valley. Based on the average tusk weight of 7.4kg recorded in 2004 and 12kg recorded in 1970 there may have been between 131 and 424 tons of ivory locally available. Obtaining these tusks could be done through actively hunting elephants or collecting them from deceased individuals. The latter may account for between 2.7 and 8.8 tons of ivory based on natural elephant mortality rates. However, these figures should be seen as a minimum since they are based on current density data likely heavily reduced because of modern interferences (Table 4.1) (Forssman *et al.* 2014).

It therefore seems that a large tonnage of ivory was locally available, but was this enough to supply the east coast trade network? From AD 1512 to 1515, Portuguese traders exported 69 tons of ivory from Beira, which is 17,250kg per annum (Spinage 1973). However, the area this was sourced from is unknown and the ivory may have come from a wide region (Ntumi *et al.* 2009). The traded total is nonetheless well below the estimated tonnage from the middle Limpopo Valley, despite it being a minimum. Drawing on more recent trade figures, in 1855, 90 tons of ivory was extracted from the former Transvaal region, which covered approximately 288,000km^2 (compared to 31,416km^2 used to calculate the elephant population in the middle Limpopo Valley). This amounts to 3.2kg of ivory per square kilometre, which is below the 4.2 to 8.4kg of ivory found in the middle Limpopo Valley. Unfortunately, these comparisons are only partially useful for several reasons. First, no records predating the mid-first millennium AD exist and so the full volume of ivory leaving the middle Limpopo Valley is not known (Plug 2000). Even with extensive isotope work, estimating the actual tonnage of traded ivory from the Zhizo period is probably not possible. Second, Zhizo users did not have rifles and instead relied on more dangerous and less-effective traditional hunting techniques (such as pits, poisoned arrows or spears; e.g. Jackson *et al.* 2008). Lastly, they also did not have wheeled transport, presumably lengthening the time it took to transport ivory to the coast. It is doubtful that Zhizo users could maintain the same standards of hunting success and carriage rate as during the historic period. Thus, the amount of ivory in the valley presumably was enough to sustain trade in the late first millennium AD.

Table 4.1: Elephant population dynamics, mortality rate and tusk tonnage. All figures rounded up; SR: sex ratio; M: mortality; and Car.: number of carcasses (from Forssman et al. *2014: 80).*

Age	0		1-9		10-19		20-29		30-44		45-60	
Sex	SR	M	SR	M	SR	M	SR	M	SR	M	SR	M
F	0.117	0.06	0.117	0.01	0.162	0.02	0.062	0.01	0.048	0.03	0.015	0.05
M	0.114	0.06	0.114	0.01	0.109	0.02	0.053	0.01	0.033	0.03	0.009	0.05

SR: sex ratio; M; mortality

Elephant density: 0.61/km²

Age	0		1-9		10-19		20-29		30-44		45-60	
Sex	No.	Exp.	No.	Exp.	No.	Exp.	No.	Exp.	No.	Exp.	No.	Exp.
F	2242	135	2242	22	3105	62	1188	12	920	28	287	14
M	2185	131	2185	22	2089	42	1016	10	632	19	172	9
Total	4427	266	4427	44	5193	104	2204	22	1552	47	460	23

Age	> 9	
Sex	No.	Exp.
F	5390	114
M	3909	80
Total	9300	194

Total tusk bearing elephants (> 9 years): 9300
Total number of tusks (1.9/elephant): 17669
Total weight of tusks (average 7.4kg): 131458
Total carcasses of tusk bearing elephant (> 9 years): 194
Total number of tusks on carcasses (1.9/elephant): 369
Total weight of tusks on carcasses (average 7.4kg): 2742

Elephant density: 1.22/km²

Age	0		1-9		10-19		20-29		30-44		45-60	
Sex	No.	Exp.	No.	Exp.	No.	Exp.	No.	Exp.	No.	Exp.	No.	Exp.
F	4484	269	4484	45	6209	124	2376	24	1840	55	575	29
M	4369	262	4369	44	4178	84	2031	20	1265	38	345	17
Total	8854	531	8854	89	10387	208	4408	44	3105	93	920	46

Age	> 9	
Sex	No.	Exp.
F	10780	227
M	7819	159
Total	18599	386

Total tusk bearing elephants (> 9 years): 18599
Total number of tusks (1.9/elephant): 35338
Total weight of tusks (average 7.4kg): 262916
Total carcasses of tusk bearing elephant (> 9 years): 386
Total number of tusks on carcasses (1.9/elephant): 734
Total weight of tusks on carcasses (average 7.4kg): 5461

Also linked to trade are the local river networks (Figure 4.3). Rivers created linkages between different regions, whether acting as navigation guides or even transportation tools. These corridors connected resource bases as well as nodal points to one another. The Limpopo, Motloutse, Shashe and Umzingwani Rivers connected the valley to Africa's east coast, northern South Africa, east-central and southern Botswana, the Makgadikgadi Pans, and all of southern Zimbabwe. In turn, they linked settlements in these areas, including Bosutswe, Toutswe, Kaitshàa (Botswana), Schroda and Pont Drift (South Africa) and Mapela Hill (Zimbabwe), amongst smaller villages. Connecting the sites and resource regions likely played a crucial

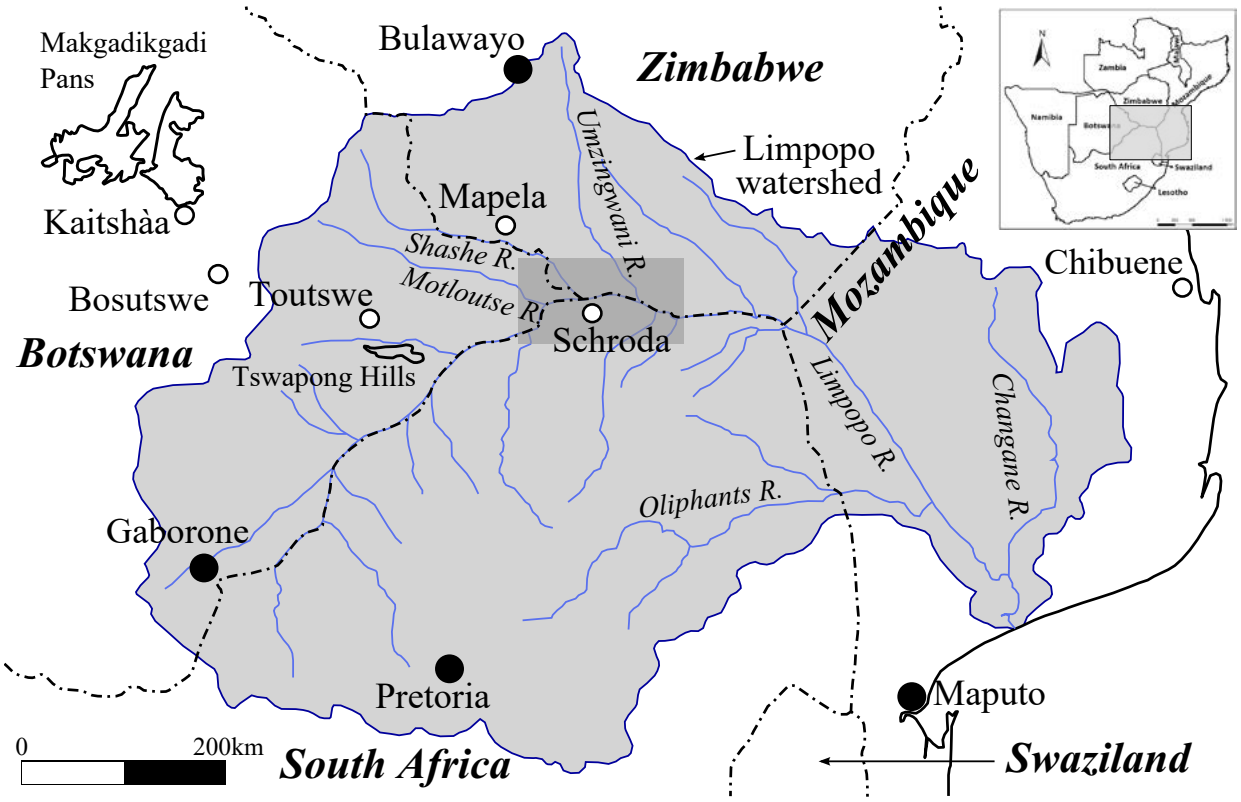

Figure 4.3: Waterways in the Limpopo River basin connecting regions of Botswana, South Africa and Zimbabwe. Various prominent sites are also marked (note the location of Chibuene). The dark grey zone indicates the middle Limpopo Valley.

role in the rise of social complexity within the valley. For example, the appearance and development of Bosutswe, from AD 700, was driven by local resources and power bases (Denbow *et al.* 2008, 2015; Klehm 2013). This included local trade such as ivory, rhinoceros horn, various metals including gold, specularite, salt, and even slaves (Denbow *et al.* 2015). All of these goods were in demand by the international market. Accessing the coastline was either by using river networks or local trade systems. The former, like so many other major watercourses, passed through the middle Limpopo Valley. The linkages that connecting rivers created ensured that trade destined for the coast from much of the interior would pass through the valley region facilitating the centralisation and control of the market economy. Land links also played an important role (Chirikure 2014; Denbow *et al.* 2015) but the networking made possible via river routes and connections was hugely advantageous to the local market economy. These waterways therefore very possibly influenced the decision to settle the valley and advance social, political and economic status.

At least at first, trade was a volatile power base. It had to pass through the hinterland where local communities likely influenced the flow and spread of trade goods (Prestholdt 2004). These areas were able to control the market, limit the movement of goods, and became important merchants with higher status (see Chirikure *et al.* 2014). Some goods such as imported ceramics are found frequently along the coast but not often in the interior (cf. Chirikure 2014). Chirikure (2014: 705) suggested this may have been because exotic goods needed to enter a pre-existing cultural logic. Those that were not able to make this cultural cross-over were not favoured by local communities, making trade an unreliable power base. For this reason, other resources probably also played a role (Pwiti 1996), including land, livestock and wildlife (Chirikure 2014). It is also unrealistic to expect only one factor to have influenced settlement and social dynamics at a time when the market economy was disparate, mostly disconnected, and still

forming (Denbow *et al.* 2015). Trade no doubt played an important role in settling the valley, but there are other factors that potentially contributed to the valley's occupation.

The region's agricultural potential and biomass, for example, surely played a role. In the valley, several factors combined to promote high concentrations of primary production, creating an environment distinctly suitable for human settlement (see Huffman 2000; Manyanga 2006; Smith *et al.* 2007). This includes optimal temperatures, suitable rainfall and water catchment areas (Smith *et al.* 2007), highly nutritious soils (Alexander 1984; J. Smith 2005: 51-58), a relatively flat terrain (Hanisch 1981a) and the deposition of clays and extensive alluvial deposits (Alexander 1984; Denbow 1984; Manyanga 2006). Rainfall between AD 880 and *c.* 1010 also appears to be similar to present conditions with precipitation levels averaging between 300 and 400mm per annum. However, variable rainfall episodes with low (under 350mm) and high (over 500mm) periods of precipitation were also recorded (Smith *et al.* 2007). Huffman (2007, 2008) argued that these conditions were, nevertheless, not conducive to crop cultivation. Instead, trade networks were used to acquire crops for subsistence purposes. This may be possible but relying on trade to sustain the nutritional requirements of an entire community appears risky. It may be that people were cultivating low-yield fields or even practicing horticulture during this time.

Various coping mechanisms support agricultural enterprises when at risk of low rainfall levels. The local *vleis* in the valley (Figure 2.2) appear to have been cropped (Mashimbye 2013: 35). These ecological niches also provided good grazing grounds for livestock (cf. J. Smith 2005: 51-52) and hunting opportunities, specifically of elephant (cf. Huffman 2000). Floodplains along major river systems, such as the Limpopo, Majale, Motloutse and Shashe, also provided cultivatable and often waterlogged areas (e.g. Manyanga 2006; Scoones 1991; Smith *et al.* 2007). Many of the known Zhizo sites also occur in proximity to these and other river systems (Du Piesanie 2008: 84). In addition, across the region a combination of clayey and sandy soils are found (Denbow 1984; J. Smith 2005: 51-58), which if used correctly can assist with farming activities because each has different moisture volume and retention levels (Simmonds 1976: 91-93, 112-117). Clay-based soils have high water holding capabilities compared to sandy soils, which promote rapid infiltration (O'Connor 1985: 5). The combination of these features provided local farmers with a number of mechanisms that improve food security during times of uncertain or changing climatic conditions.

Local biomass was also high. Large amounts of useable plant species occurred in the area (Jonsson 1998; Manyanga 2006). Along the river networks one finds, although now slightly more restricted, dense riparian forest and in the sandstone belt ecological niches (Hanisch 1981a). There are stands of nutritious grass species and a variety of plants throughout the valley (cf. J. Smith 2005: 51-52). In the sandstone belt along the Limpopo River where rock outcrops and sandstone *koppies* occur there is also delayed water filtration which creates temporary pools and *vleis* in low-lying areas (Manyanga 2006: 41). These features supported a large animal population and farmers relied heavily on them as a resource, especially during the Zhizo phase (Plug & Voigt 1985; Raath 2014: 176-181; Voigt & Plug 1981). Therefore, the area was rich in locally available wild resources in addition to the valley's agricultural potential and possessed the ability to lessen the effect of poor climatic episodes due to local coping mechanisms. This range of features made the valley a fairly attractive place to settle.

Zhizo period: AD 900 to 1000

Glimpses of the impact social relations with farmers had on forager society become ever more apparent during Phase 3. Identities overlapped spatially and infiltrated shared spaces. Contact was now unavoidable. Earlier social relations led to economic engagements, access to wealth, and possibly intangible social entanglements such as marriage or ritual incorporation (e.g. Brunton *et al.* 2013; Forssman 2017; Hall & Smith 2000; Schoeman 2006). Wealth items and their associated value would have been known by this stage and patron-client relationships might even have been established (e.g. Kent 1992; Solway & Lee 1990). As with Phase 2, a range of responses can be interpreted from the archaeological sequences.

More continuity and social maintenance

Balerno Main's sequence continues more or less in much the same way that it did in the previous phases. The only notable change is a slight decrease in the density of most categories and a few increases (Table 4.2; Figure 4.4). Stone tools decline (from 23.73 to 19.21/L), which probably explains the decline in the use of both chalcedony (from 15.17 to 11.25/L) and quartz (from 3.51 to 3.31/L). This drop might indicate a decrease in the number of occupants in the shelter. The representation of quartz also increases (from 14.79% to 17.24%), whereas chalcedony declines (from 63.93% to 58.56%), suggesting a shift in

Table 4.2: Phase 3 assemblages from the various occupation sites. Some data from Little Muck Shelter do not exist (from van Doornum 2000, 2005; Forssman 2014a).

Artefact details	Balerno Main		Little Muck		Dzombo		Mafunyane	
	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.
Volume (m3)	177		50		165.20		85.54	
Stone tools	3400	19.21	2333	46.66	918	5.56	2437	28.49
Chalcedony	1991	11.25	1189	23.78	339	2.05	868	10.15
Chalcedony %	58.56		50.96		36.93		35.62	
Quartz	586	3.31	645	12.90	278	1.68	745	8.71
Quartz %	17.24		27.65		30.28		30.57	
Small flaking debris	1580.80	8.93	-	-	134.55	0.81	258.57	3.02
Cores	81	0.46	183	3.66	21	0.13	62	0.72
Core %	2.38		7.84		2.29		2.54	
Formal tools (FT)	126	0.71	198	3.96	36	0.22	85	0.99
FT %	3.71		8.49		3.92		3.49	
Chalcedony	120	0.68	190	3.80	26	0.16	69	0.81
Chalcedony FT %	95.24		95.96		72.22		81.18	
Quartz	5	0.03	8	0.16	2	0.01	4	0.05
Quartz FT %	3.97		4.04		5.56		4.71	
Scrapers	89	0.50	185	3.70	10	0.06	47	0.55
Scraper %	70.63		93.43		27.78		55.29	
Backed tools	25	0.14	7	0.14	17	0.10	36	0.42
Backed %	19.84		3.54		47.22		42.35	
Ceramics	11	0.06	-	-	2	0.01	17	0.20
Shell beads	208	1.18	-	-	25	0.15	29	0.34
Complete shell beads	70	0.40	-	-	17	0.10	20	0.23
Backed %	33.65		-		68.00		68.97	
Incomplete shell beads	138	0.78	-	-	8	0.05	8	0.09
Backed %	66.35		-		32.00		27.59	
Glass beads	0	0.00	-	-	0	0.00	1	0.01
Metal	0	0.00	10	0.19	0	0.00	5	0.06
Other ornamentation	0	0.00	0	0.00	0	0.00	0	0.00
Worked bone	3	0.02	21	0.42	0	0.00	0	0.00
Ochre (g)	123	0.70	409	8.18	0	0.00	0	0.00
Fauna (g)	699	3.95	-	-	573	3.47	646	7.55

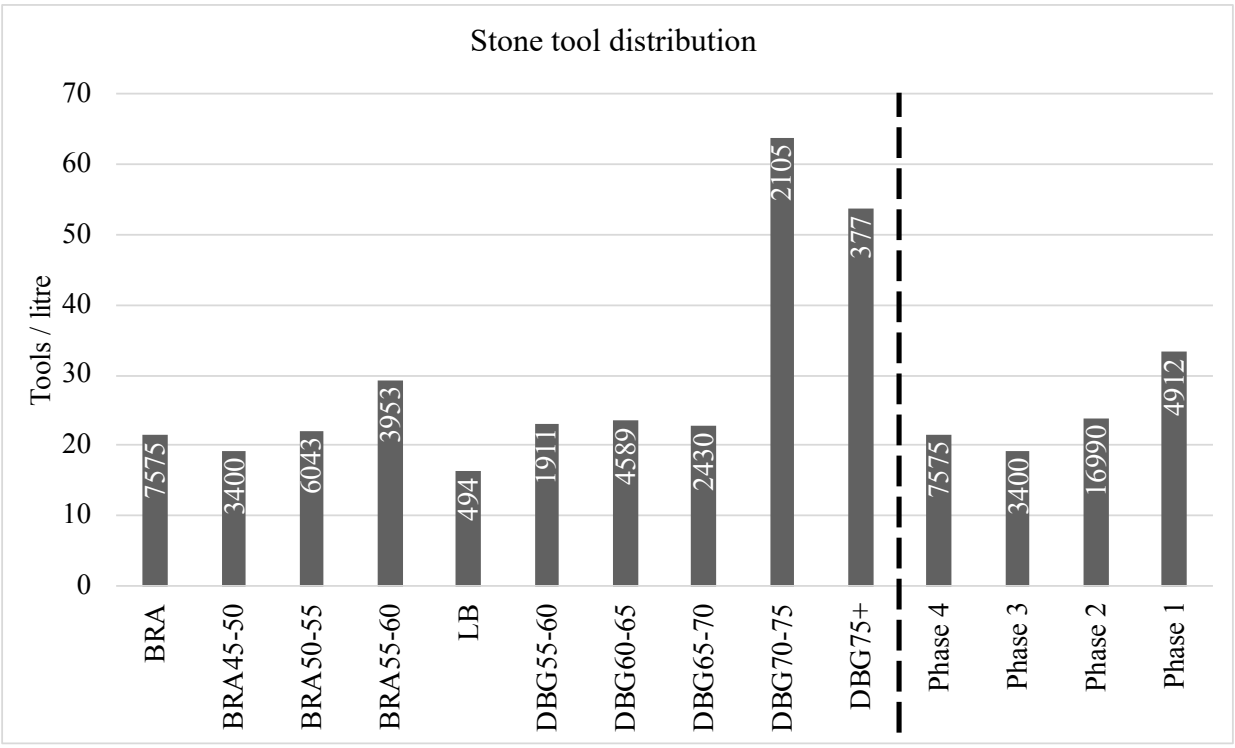

Figure 4.4: The numeric (within the bars) and volumetric (y-axis) distribution of stone tools at Balerno Main Shelter. To the left of the bar is the stratigraphic data and the phases to the right.

exploitation patterns as well (van Doornum 2008). Foragers may have become less mobile as a result of increasing access and movement restrictions leading to a growing reliance on more easily sourced materials, such as quartz (e.g. Hall & Smith 2000). Alternatively, the assemblage may have become more expedient. A decline in formal tool densities (from 4.5% to 3.71%) to their lowest figures since Phase 1 (from 1.46/L to 1.07/L to 0.71/L in Phase 3) and lower than in the succeeding Phase 4 (0.79/L) could suggest the need to produce finely craft stone tools fell away slightly in favour of expedience (van Doornum 2008). Formal tools may not have been in as much demand for various reasons, such as due to shifts in activity patterns, subsistence habits, mobility, or time constraints.

Slightly anomalous is the increase in small flaking debris (from 7.23 to 8.93/L). Typically, such debris forms during stone tool production (Andrefsky 2005: 188). If this was occurring in the site, what is unusual is the decline in cores (from 0.62 to 0.46/L) and, to a lesser extent, scrapers (from 0.73 to 0.5/L) and backed tools (from 0.16 to 0.14/L) (van Doornum 2008). One would not expect these categories to decrease if the increase in small flaking debris was indicative of an increase in on-site production. Perhaps scrapers and backed tools might decline if another tool type or expedience was favoured, but certainly not cores. Instead, this appears to reflect a shift in tool production behaviour. More than before, primary manufacturing was occurring away from the shelter, or at least not where the trench was located. Flakes or blanks were then returned to the site where they were worked for a second time and turned into formal tools. Whereas previously production was occurring at the site, it was less emphasised during Phase 3.

Other changes in the non-lithic assemblage also support the notion that foragers shifted their use of space. Both complete (from 0.38 to 0.4/L) and incomplete (from 0.72 to 0.78/L) shell beads increase, as does fauna (from 3.78 to 3.95g/L) and ochre (from 0.55 to 0.7g/L). If these increases, especially in fauna, indicate a larger population, it is hard to imagine that this would not be accompanied by an increase in

stone tools. More users mean more artefacts and waste. Rather, the finds suggest lower or comparable population numbers but a greater emphasis on certain cultural behaviours. The increases might also indicate an intensification of aggregation-associated activities: *hxaro* gift exchange, feasting and ritual activities. This is especially interesting in light of ethnographic recordings which noted that during times of societal pressure, contact with foreign groups, or forces perceived as malignant, Bushmen tended to perform more trance dances. Among the !Kung, Marshall (1969) noted that the trance dance would be performed as a response to great stress. More stressful events, such as the arrival of colonists, would also be painted (Dowson 1994; Lewis-Williams & Dowson 1989; Vinnicombe 1976) with murals frequently including ritual or shamanic features (Campbell 1986). Engagements with incoming groups or new settlers would have become part of forager social production (Dowson 1994: 333) and confronting these stressors was through traditional methods from this perspective. The increasing emphasis on aggregation-like features at Balerno Main was likely from foragers negotiating the nature of increased contact with farmers through their own traditional coping mechanisms (e.g. Mitchell 1996; Wiessner 1984).

Once again, questioning the use of aggregation is appropriate. The changes observed in the site's sequence do not present a homogenous form of aggregation. Such homogeneity is inherent in ethnography, which is not adept at accommodating or accounting for change (Kurtz 1994). Balerno Main, as a gathering site, sees various shifts in space, social structure and cultural construction. While the general function of the site changed little, the more nuanced uses and emphases on specific aspects of society did. Balerno Main's use is adaptive and socially fluid. For example, traditional practices were emphasised at the shelter during Phase 3 possibly to harmonise the social landscape. Despite the developing socio-political economy, gathering at Balerno Main continued, demonstrating forager agency, autonomy and social maintenance. At other sites, the new local economy had a profound effect on the construction of 'place'.

Crafts, hunting and trade

At Little Muck, from Phases 2 to 3, there is a massive increase in craft production. Of particular interest are the changes in the stone tool industry. While stone tools (from 54.84/L to 46.66/L) and backed tools decline (from 0.4 to 0.14/L), formal tools (from 3.38/L to 3.96/L) and scrapers increase (from 3.16 to 3.7/L). Although, despite this, there is a marginal drop in scraper dominance (from 95.39% to 93.43%) as well as backed tools (from 3.95% to 3.54%). It appears, therefore, that other tool types increase, but this includes only three burins/awls and two adzes (not present in Phases 1 and 2) (van Doornum 2000). Whether or not this represents a significant shift is not discernible based on the small sample size. If anything, it may represent an expansion of forager activities at the site.

The scraper assemblage, coupled with the use-wear analysis (Table 3.4), provides the greatest insights into the site's role during Phase 3. Hall and Smith (2000) suggested that during this time intensive hide-working took place to such an extent that the site could be viewed as a special-purpose workshop. No longer is it a residential camp with primarily domestic activities occurring on site, as it was in Phase 2. The use-wear results concurred but once again suggested a variety of crafts were being produced (Forssman *et al.* 2018). Of the 185 scrapers in Phase 3 (72% of total scraper assemblage N=396), 109 possessed some form of use-wear (58.92%), representing an increase from Phase 2 of use-wear per scraper by nearly half (47.18%). Importantly, this increase represents a significant change from Phase 1 into Phases 2 and 3 combined. The overwhelming use-wear evidence also indicates that rigid materials were worked (N=65; 35.14%) but two scrapers possessed polish consistent with experimental results in which hide or flesh was cut (Forssman *et al.* 2018); however, others may still have been used to prepare hides but evidence for this is no longer visible. The results neatly show that craft production increased significantly, while the material types from which crafts were produced remained the same.

It cannot be said what exactly was being produced but only what was being used to make the crafts (scrapers working mostly rigid materials). There are several candidates though. Worked bone or bone tools are one. Bone was used to manufacture a wide variety of tools, ornaments and implements throughout southern Africa (e.g. Bradfield 2015; Davison 1976; Plug 2012; Shaw & van Warmelo 1974). Tools fashioned from bone were also used in very specific tasks or were fashioned from specific animals. For example, Goodwin (1945: 439) noted that Bushmen used barbed arrows only for hunting gemsbok (*Oryx gazelle*) while robust arrows with stone inserts were used for springbok (*Antidorcas marsupialis*). Bone arrows exclusively used for fishing (Plug 2012; Stow 1905: 92) or capturing birds (Clark 1959) have also been recorded. The materials used across the region also varied with specific animals being preferred over others, such as ostrich (*Struthio camelus*) in South Africa's Western Cape or gemsbok and giraffe (*Giraffa camelopardalis*) in the Northern Cape, as well as in Botswana and Namibia (Bradfield *et al.* 2019). Both foragers and farmers relied on bone tool technology and at some sites large assemblages have been retrieved (e.g. Antonites *et al.* 2016; Hanisch 2002; R. J. Mason 1981; Voigt 1983; Wadley 1987). As hunting implements, worked bone may also have been a forager *hxaro* item with associated values (Wiessner 2002; but see Mitchell 2003a). However, trade or exchange practices might have also included farmers (e.g. Antonites *et al.* 2016; Bradfield 2015; Sadr 2002). Demonstrating this is difficult. It relies on showing the source of the material, that it was curated for trade, and producer identities (forager or farmer) using technological or production technique traits still observable on the tool itself (e.g. Antonites *et al.* 2016; Mitchell 2003a).

Bradfield *et al.* (2019) attempted to do this by examining bone tools from the forager sites of Goergap, Jubilee and Little Muck and the farmer sites of Broederstroom, De Hoop, K2, Mapungubwe, Pont Drift and Schroda. To establish potential linkages, manufacturing technology and technique and bone source material (using ZooMS, collagen peptide markers; see Buckley *et al.* 2009) were examined. At Broederstroom and De Hoop a wider variety of wild taxa was recorded in the worked bone assemblage than in the unmodified faunal remains. Cattle was also used at De Hoop, Mapungubwe and Schroda, as expected (see Voigt 1983). Zebra (*Equus quagga*), rhinoceros (White = *Ceratotherium simum* and Black = *Diceros bicornis*), roan (*Hippotragus equinus*) and sable (*H. niger*) were also identified in forager contexts such as Little Muck and all have ethnographic associations among Bushmen, notably with shamanism and rain making (Ouzman 1995, 1996), as well as in farmer communities (e.g. Boeyens & Van der Ryst 2014). However, due to the sample size being too small, the study was not able to show definitively that foragers produced tools found in farmer settlements, despite the widely held notion that bone tools were traded and exchanged (Bradfield *et al.* 2019). Needless-to-say, the large number of scrapers possessing evidence of working rigid material and the substantial worked bone assemblage might indicate that trade with farmer groups as well as other forager communities occurred.

A variety of other crafts were being produced in the valley during Phase 3. In the Zhizo levels at Schroda, at TSR5, a hut feature in Unit 2F, Layer 8, contained evidence of ivory production as well as worked bone, hippopotamus remains (*Hippopotamus* amphibious) and metal slag. These indicate a craftsmen area, or hut, but the excavated trench was 27x3m and may have incorporated multiple areas into one including domestic or household activities (Hanisch 1981b; Raath 2014: 299). Ivory was also part of the production economy. As discussed, ivory was used to acquire exotic wealth from the east African coastline. Acquiring ivory was either by scavenging from carcasses or active hunting. Whether ivory was sent to the coast as complete tusks or processed raw materials is not known but evidence for ivory working at Schroda and elsewhere (see Calabrese 2007) suggests at least some was being processed for trade as well as for local use. In this ivory chain of operations, foragers could fit in at several levels: tracking, poison production, hunting, butchery, meat and carcass processing, transportation, and craft production. Ivory, as a rigid material, would predictably leave similar traces on production tools as bone and wood might. However, while Hall and Smith (2000) do not report any ivory found at Little Muck, the faunal assemblage has not

been studied and the excavations have only been reported from a single square. Foragers might also have worked ivory or butchered elephant carcasses where they were killed or found and returned to camp with their toolkit intact. One cannot exclude ivory working as a possibility for Little Muck craft production given its emphasis in the greater region until further testing has taken place. Even if ivory was worked, it is expected that other products were also manufactured at the site.

Also related to craft production are activities at Mafunyane. From Phase 2, most artefact categories increase in density (Figure 4.5). Stone tools become notably more frequent (from 12.31 to 28.49/L), which is contrary to most sites at which a decline in stone tools has been recorded for this period (e.g. van Doornum 2005, 2007, 2014). Mafunyane's Phase 3 levels, in fact, possess the highest density of stone tools of all the excavated sites. Whether this relates to occupation or activity intensity cannot be said until a geoarchaeological assessment of the site is performed or an improved chronology within the deposit is achieved. Chalcedony increases slightly (from 31.25% to 35.62%) and quartz is utilised less (from 32.81% to 30.57%). Formal tools, which are numerous (N=85; 3.49%), more than double in density from Phase 2 (from 0.38 to 0.99/L), and this includes almost exclusively scrapers (N=47; 55.29%; 0.55/L) and backed tools (N=36; 42.35%; 0.42/L). Formal tools are mostly made on chalcedony (N=69; 81.18%) and quartz frequencies are low (N=4; 4.71%). Appearing for the first time are also ceramics (N=17; 0.2/L), shell beads (N=29; 0.34/L), and a glass bead (0.01/L). Complete shell beads (N=20; 68.97%; 0.23/L) also outnumber incomplete preforms (N=8; 27.59%; 0.09/L) during this phase. Lastly, the faunal assemblage increases substantially (from 2.84 to 7.55g/L) (Forssman 2014a). Combined, these increases indicate that a larger group of people used and occupied the site, and this may have included the unstudied open area in front of the shelter.

Of interest are the remains associated with metal working. Five metal implements were located in Phase 3 (0.06/L). This was accompanied by 91g of metal prills (17.5g/L). Prills and slag were probably transported to Mafunyane where it would have been smithed into various items or ornaments. Walker (1994) felt that his metal finds were copper and those excavated in 2013 appear consistent with copper finds reported by Miller (2001, 2002) (see Forssman 2016b). A portable X-ray Fluorescence (pXRF) analysis on three samples confirmed this. Two were copper alloys (C194HiCU and C197HiCu) and all had relatively high copper

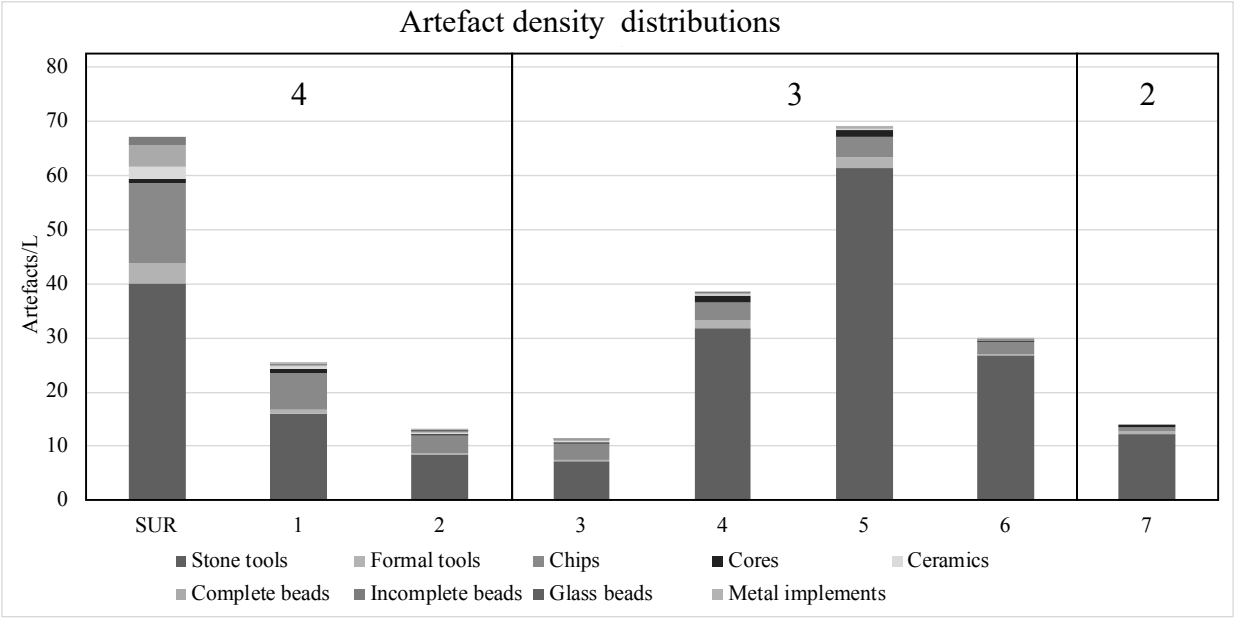

Figure 4.5: The vertical distribution density of finds from Mafunyane Shelter.

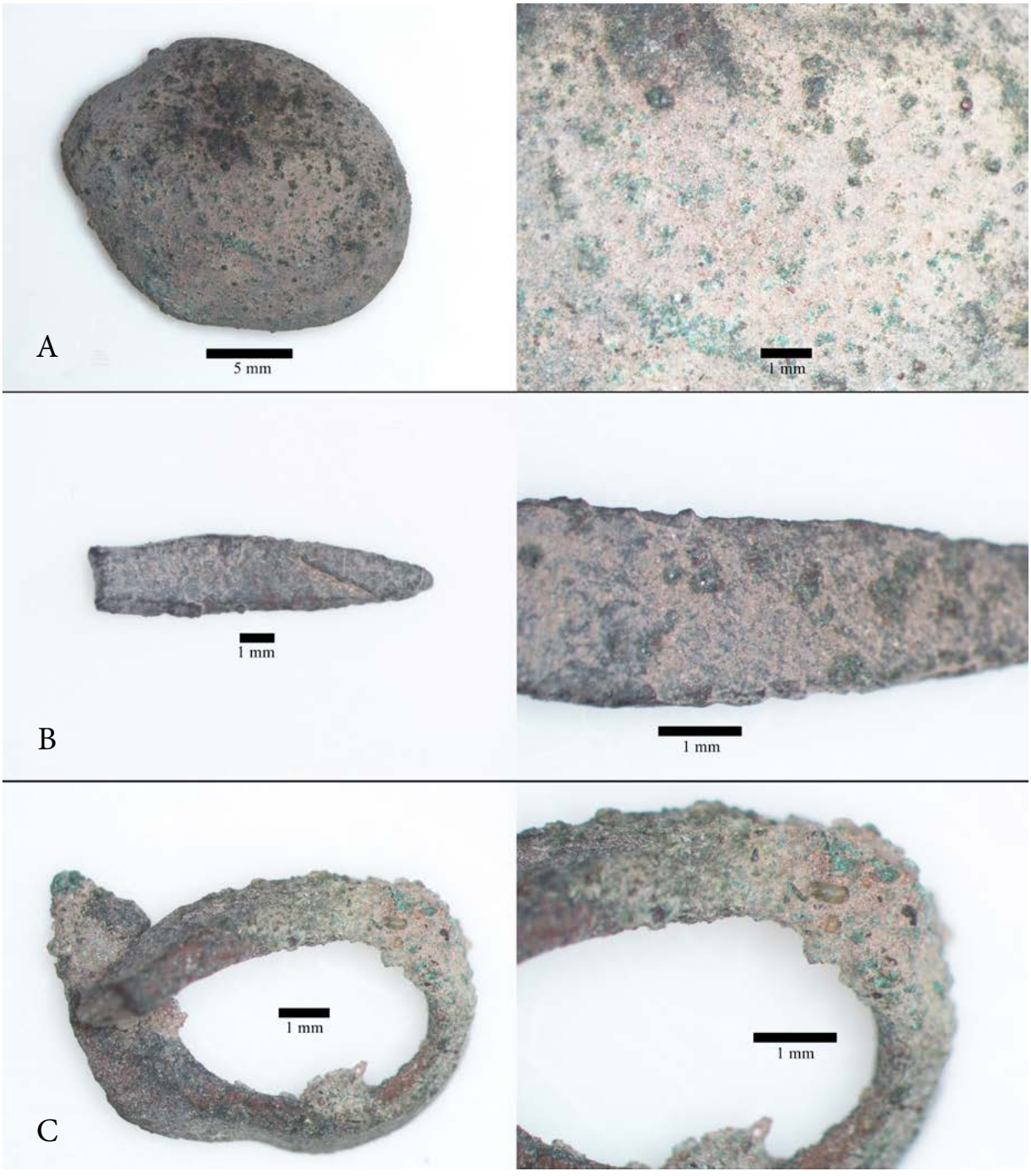

Figure 4.6: Three metal samples were examined using XRF (A – C). In each image, the right photograph is a magnified portion of the sample. Note the cuprous green and red patination on each specimen (scale=1mm) (from Forssman 2016b: 15).

components (>98.8%; Figure 4.6). In addition, two slag pieces were found in Spits 3 and 4 and in Spit 4 a tuyère fragment was identified. These, along with the crucible Walker (1994) recovered, were likely used in metal smithing activities. The deposit, which contains three distinct stratigraphic units (PBS, AS and SAS), is also ashy (also see Walker 1994) and was probably so as a result of regular fires inside the shelter. The shelter also has a series of grooves and cupules on a boulder (Figure 4.7) that may have been involved in sharpening, grinding or pounding activities (Forssman 2016b). Other than the metal-related remains,

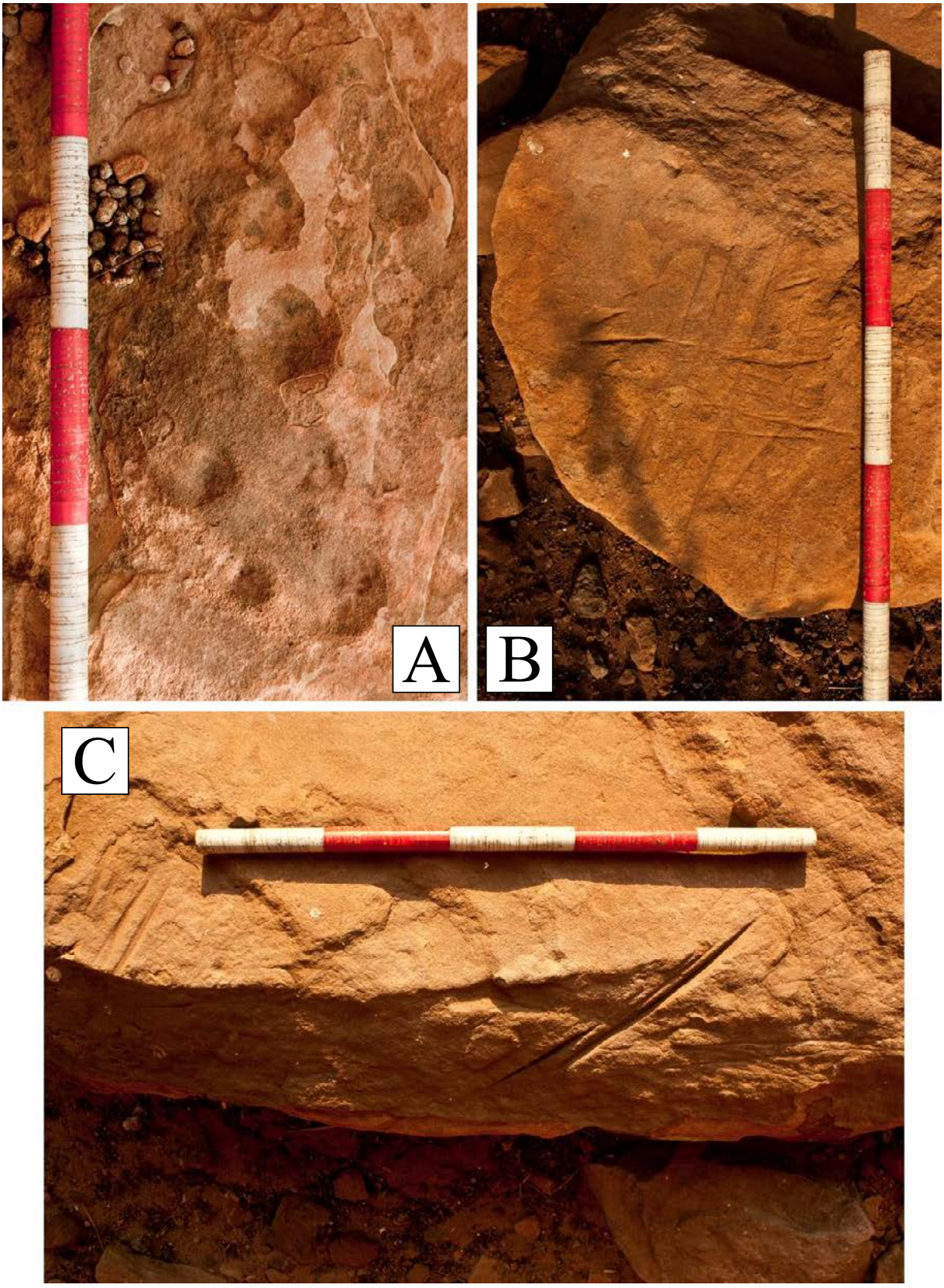

Figure 4.7: Cupules (A) and grooves (B & C) found inside Mafunyane Shelter in proximity to the metal-working activities. Other grooves were found outside the shelter (see Figure 2.17) (from Forssman 2014a: 332).

there is no clear evidence of a farmer presence at the site. Some ceramics occur, but these are found in many forager-occupied shelters, and no domestic faunal remains or farmer-associated residential features were identified. It appears, then, that farmers used the shelter for the purpose of working metal, likely copper, and for no other reason. While they did so, foragers were present.

Might this association indicate that foragers were part of metal working practices in the shelter? The evidence of a forager presence at the site is indisputable. The stone tools, for example, are like all assemblages found in shelters and are unanimously associated with forager communities. A farmer presence is less straightforward but evident. The intermixing of forager- and farmer-associated materials suggests that both used the site concurrently. There is no reason to doubt that the site was used at the same time by different communities. Convoluted arguments and explanations are possible – maybe they alternated their use, or one used it less than the other – but the simple explanation is that the space was shared. The large build-up of material indicates as much; each community and especially foragers must have spent a fair amount of time at the site to generate the recorded density of remains. It is also hard to imagine that the two groups were in the site at the same time and not involved with one another. Foragers were, very likely, part of metal-working activities. Moreover, foragers were possibly participating in yet another sector of farmer society, economy and spirituality.

Metal as a craft item plays a prominent role in Africa. In the context of status and kinship, copper and iron are linked with fertility and transformation (e.g. Childs 1991a; Childs & Killick 1993; cf. Reid & MacLean 1995) among farmer societies in sub-Saharan Africa (e.g. Chirikure 2007; De Maret 1985, 1994; Herbert 1984, 1993, 1996; Sassoon 1983). Its smelting is associated with male dominance and control over female gestation (Calabrese 2000b: 101). In central Africa, this is the prerogative of the king (De Maret 1985, 1994) and elites are known to have been buried from the end of the first millennium to the eighteenth-century AD with metalworking tools (De Maret 1985; Fagan 1969). In Venda, less than 80km east of the Limpopo and Shashe Rivers' confluence, it was prohibited for metallurgists to produce copper goods for anyone but royalty (Stayt 1931: 62). While these data are sourced from ethnographic studies and are attested archaeologically, certain distinctions are not clear, such as whether elites were metallurgists or metal implements became symbols of elite status (e.g. Calabrese 2000b; Chirikure 2007; De Maret 1985). Metallurgical activities, nonetheless, all contain economic, political and social features (e.g. Childs 1991a, 1991b; Childs & Killick 1993; De Maret 1985; Herbert 1984, 1993; Sassoon 1983). The presence of metal at Mafunyane reflects a deep-seated social logic. Whereas at the very least it indicates the extension of farmer practices into forager spaces, it also reflects the elite's oversight bringing foragers and their places into their realm (e.g. Calabrese 2000b, 2007).

Dzombo shows similar trends to Little Muck (Forssman 2014a, 2014b). Overall, the stone tool frequency declines (from 5.76 to 5.56/L), the dominance of chalcedony lessens (from 41.71% to 36.93%) and the representation of quartz drops minimally (from 31.11% to 30.28%). Small flaking debris (from 0.79 to 0.81g/L) and cores increase (from 0.1 to 0.72/L), which might indicate more time spent at the shelter producing stone tools than before, like at Balerno Main. This, perhaps, reflects increased domesticity at the site although the formal tool density does not change (0.22/L). These are mostly made from chalcedony (from 69.23% to 72.22%) with far fewer from quartz than before (from 23.08% to 5.56%) (Forssman 2014a). These results indicate increased tool production on site, and perhaps more time spent at the camp as well.

Hunting largely continued throughout Phase 3. Backed tools increase (N=17; 0.1/L) and become more frequent than scrapers (N=10; 0.06/L) (Figure 4.8). However, this is accompanied by a slight decline in DIFs. Of the 17 backed tools, 22 macro-fractures were recorded but 12 artefacts contained impact-related damage (0.06/L). This is below figures recorded in Phase 2 (0.07/L) suggesting a slight decrease in hunting intensity (Forssman 2015). Supporting this is a corresponding decline in trade items (Tables 3.5 & 3.6). Recovered from Phase 2 levels were ceramics (N=2; 0.02/L), shell beads (N=10; 0.06/L), bone

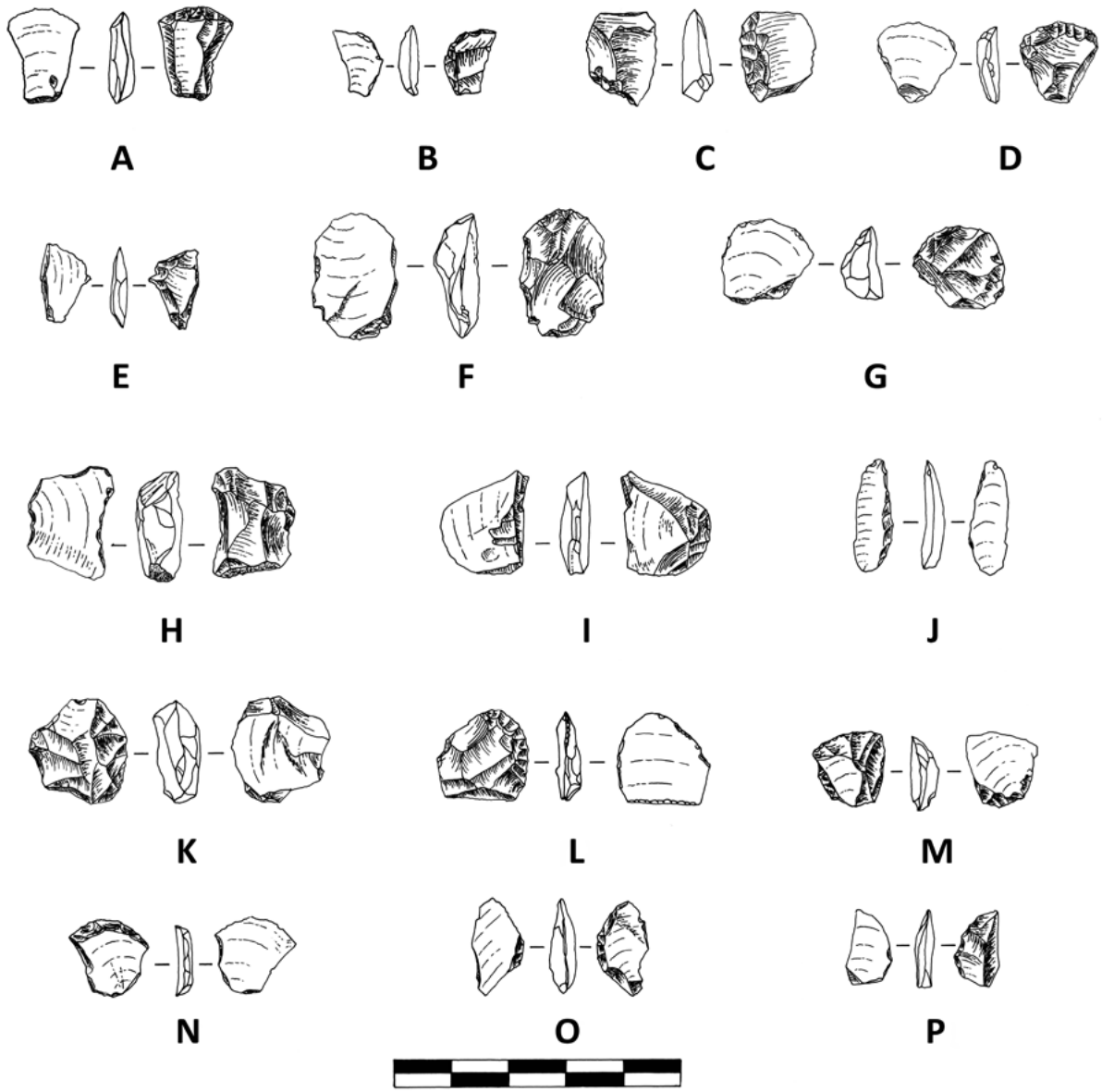

Figure 4.8: Formal tools from Dzombo Shelter: A, D, M & N, small end scraper; B, incomplete segment; C & L, small side scraper; E, miscellaneous backed piece (MBP); F, medium end scraper; G, broken small end scraper; H, adze; I, broken small side scrapers; J, backed bladelet; K, medium side scraper; and O & P, segment (from Forssman 2014a: 161).

beads (N=17; 0.03/L), and a glass bead and worked bone (0.01/L). Into Phase 3, ceramics decline (N=3; 0.01/L) and the only other artefact types, which also increases, are shell (N=16; 0.09/L) and bone (N=9; 0.04/L) beads (most categories are at their highest in Phase 4, discussed in Chapter 5). It may appear as though the decline in hunting intensity was as a result of decreasing trade. Although, the faunal record also declines (from 3.67 to 3.47g/L) (Forssman 2014a). This, accompanied with fewer stone tools, might indicate that a smaller population was using the site, which resulted in fewer cultural remains. The forager group appear to have used the site for domestic and residential activities but also hunting. Exactly why the site's population declined is not clear, but it is perhaps linked to a general declining trend in forager visibility across the landscape as recorded at most other sites.

Hunting played an important role in forager social networks. It was not purely an economic activity. This was primarily to do with sharing meat which reinforced social harmony (Dewar *et al.* 2006: 1266).

Hunting also permeated Bushman metaphors, further emphasising its prominent role (e.g. Biesele 1993; Lee 1979; Solomon 1992) and features regularly in rock art (e.g. McGranaghan & Challis 2016). Much is often written about the transfer of farmer value systems to foragers, but what of forager value systems in the opposite direction? Hunting very well might be one such example where it was used as a means to harmonise social relations occurring in the region. Through providing game products to farmers, and receiving goods in return, such as was the case at Dzombo, foragers may have perceived this exchange within their own cultural logic. In this sense, there was quite possibly a duality to these trade or exchange agreements. To foragers, it fulfilled a harmonising element and promoted the maintenance of cordial social relations, and that is not to assume that such interactions were not so but rather that these actions simply filled a cultural framework within forager society. They also appeased economic exchanges and growth targeted by farmer communities and especially elite groups.

The extent to which foragers provided hunting services is not known, but wild game has been identified at a number of farmer settlements and elite sites. At Schroda, the presence of a wide variety of dangerous wild fauna, including lion (*Felis leo*), leopard (*Panthera pardus*), buffalo (*Cincera caffre*), black and white rhinoceros, elephant (*Loxodonta africana*) and hippopotamus, may indicate advanced hunting strategies (Plug 2000; Raath 2014: 198). Smaller and more easily obtained animals were also identified (for an extensive list see Raath 2014: 175-180). Most wild game in the Zhizo levels at Schroda, nonetheless, are sheep/goat (*Ovis aries* and *Capra hircus*; 36.2%), followed by small gathered/snared animals (18.6%) and cattle (17.2%). Very large mammals are present but in low numbers (NISP=22; 0.6%). The Zhizo levels at Pont Drift differ. Here, small gathered/snared animals dominate (46.3%), followed by wild bovids and suids (22.8%) and then sheep/goat (15.5%). At both sites, wild resources are important food items, but at Pont Drift they are exploited far more regularly. Although not many faunal assemblages from Zhizo villages have been reported, those that have been studied reflect a greater emphasis on wild game than during the following phase (Voigt 1980: 44). While this might provide foragers more opportunities to use their skills and hunting ability within these networks and for various purposes, it cannot be said what portion of the wild fauna at these sites was acquired from them or obtained through farmer hunting practices.

Interactions with farmers brought a range of opportunities to foragers, who exploited these in different ways. At Little Muck and possibly Mafunyane it involved craft production, whereas at Dzombo it included hunting. In each case, their activities provided them with access to trade wealth, prestige items, and possibly other social resources including eminence within society (more on this in Chapter 6). However, elsewhere, the general trend across the region during this time is a decline in the density of forager changes at most sites, such as at Tshisiku (van Doornum 2007), Balerno 2 (van Doornum 2005) and 3 (van Doornum 2014; for Balerno 2 and 3 Phases 3 and 4 cannot be separated spatially). These shifts quite possibly relate to shifts in forager settlement patterns resulting from changing social relations, population dynamics and resource accessibility, which includes economically important items.

Shifting spaces and places

Shifts in site roles are not straightforward in the valley. It appears to be complex and less binary; living temporarily near to and then away from farmers (e.g. Hall & Smith 2000; Sadr 2002) or an aggregation-dispersal model (e.g. van Doornum 2008; Wadley 1987) appears too limited. Balerno 2 and 3, for example, are both isolated, like Balerno Main, and Tshisiku is near to a major famer settlement (Pont Drift) similar to Dzombo's and Little Muck's social contexts. And yet, these sites all possess different archaeological sequences. A range of responses occurred across the landscape. These were tethered to forager decision making, local demands, social pressure, cultural logics and value systems. The spectrum of reactions was not orchestrated, co-ordinated or dictated, but rather elective and idiosyncratic. However, entering the second millennium AD brought an entirely new set of social interactions, socio-political engagements, and economic activities that ultimately, and almost entirely, disrupted foragers lifeways and identities.

Chapter 5: Foragers during and after state formation

The arrival of Leopard's Kopje farmers in the valley, *c.* 1000 AD, jolted the valley's social fabric with a new set of interactions and fast-tracked the processes of state formation. Haas (1982: 172) defined a state as 'a stratified society in which a governing body exercises control over the production or procurement of basic resources, and thus necessarily exercises coercive power over the remainder of the population'. This definition, which Connah (2015: 7) relied on in *African Civilisation*, is unhelpfully vague: how many strata are needed and what is coercive power? Others, such as Marcus and Feinman (1998: 6), offered checklists with items that need to be 'ticked-off' for an entity to be a state. Baines and Yoffee (1998: 254) described a state as also being stratified but in which 'rank and status are only partly determined through kinship'. Huffman (2015a: 18) noted that the influence of a state-level society needs to extend over a large region and beyond only kinship ties. Authority need also be centralised around a court system that is several levels above a village court or authority. In Huffman's (2015a) model, a state should represent a multi-tiered hierarchy with, possibly, a central capital. Renfrew (1984: 94) also noted that states have central places, or peer-polities in Renfrew and Cherry (1986), which are the focus of trade exchange. He also described early state modules as autonomous central places with reciprocal trade arrangements. These transformations took place in the valley but were precipitated by, among other features, various forms of interactions, the control of trade, and shifts in settlement patterns.

Farmer interactions in the valley: Leopard's Kopje, Zhizo and Leokwe

Zhizo-using groups had only been occupying the valley for around 100 years when a branch of the Leopard's Kopje Tradition, K2-users, arrived. It was previously thought that this forced Zhizo-users from the region (Denbow 1983: 213; Huffman 1978, 1996). Supporting these ideas was the disappearance of the Zhizo facies locally and a massive increase in associated settlements west of the Motloutse River in Botswana (Denbow 1982, 1983: 213, 1986; Huffman 1978, 1996; and see Chapter 4). Many of these settlements are substantially sized and in defensive positions on hilltops, such as Bosutswe, Shoshong and Toutswe (Huffman 1986a). They also functioned as political centres and were for this reason important and powerful places (Denbow 1986). That such centres were in defensive locations was thought to be the result of possible hostilities emanating from K2-users in the middle Limpopo Valley. However, Calabrese (2000a) argued that interactions were far more complex than just displacement.

From his work at Leokwe Hill, Calabrese (2007) showed that not all Zhizo-users abandoned the valley. He excavated four areas (A – D) and all dated between *c.* 1000 AD and 1250. In Area A, on the hilltop (more on this below), he found only K2 ceramics. In the lower portions of the site, notably Area B, he identified Zhizo-like pottery, indicating that at least some Zhizo-users did not leave the valley. Of particular interest was that these ceramics incorporated K2-decorative features. Previously, Robinson (1966) found that in south-western Zimbabwe, at sites such as Leopard's Kopje, Mawala Hill, Norfolk Road and Rennydene Farm, certain vessels appeared to contain a combination of K2 and Zhizo styles. For example, jars with upturned arcades (typically K2) had comb-stamped infills (typically Zhizo) on the neck and shoulder. Other sites that included this hybrid facies, which Robinson (1966) called Zhizo (b), were Mapungubwe (Schofield 1937) in South Africa and Bosutswe (Calabrese 2000a), Lose (Kiyaga-Mulindwa 1990), Taukome (Denbow 1982) and Thatswane (Calabrese 2007) in Botswana. The regular occurrence and clear stylistic similarity of these assemblages led Calabrese (2000a, 2007) to propose a new ceramic facies he called Leokwe (Figure 5.1). This new facies formed as a result of K2-Zhizo interactions in which Zhizo-users incorporated decorative motifs and styles from K2-producers into their own tradition but not the other way around; K2-producers never adopted Zhizo styles. What is more, both groups are represented at Leokwe Hill sharing the same space but in distinct areas.

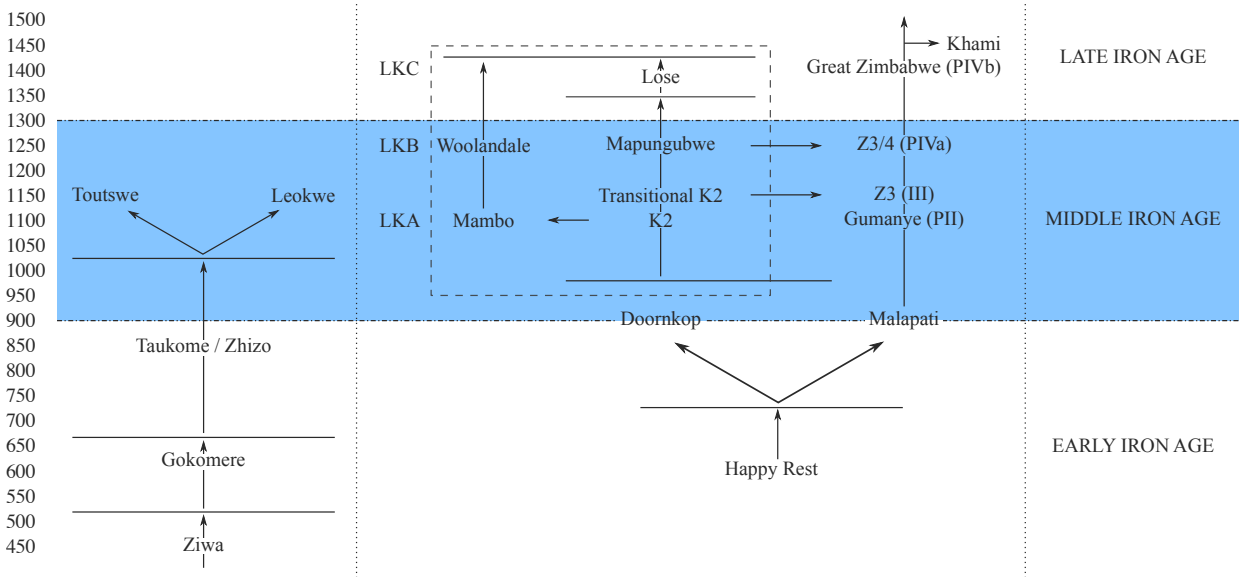

Figure 5.1: The ceramic relationships in the middle Limpopo Valley. Also note ceramic facies discussed in previous chapters (adapted from Huffman 2015b: 72).

The K2-occupied hilltop summit at Leokwe Hill was defensively located, elevated from the surrounding valley floor, and had fairly limited and controllable access (Figure 5.2). Absent from the hilltop settlement is evidence for a cattle kraal. It has, however, the greatest proportion of glass (33%) and ostrich eggshell beads (62%) of all the excavated areas. The occurrence of K2 ceramics in the hilltop area and Leokwe ceramics in the lower portion of the site associated with a cattle kraal led Calabrese (2000a: 202, 2007) to conclude that the site was composed of Leokwe commoner and K2 elite spaces. Excavations on Greefswald at several sites followed a similar social orientation. At Main Rest Camp, the associated residential zones (see Huffman 2014: Figure 8) conformed to the Central Cattle Pattern (described below). However, additional and large cattle kraals were recorded, suggesting an emphasis on herding. The site is also located some way from the Limpopo River floodplain but still near to water sources. This same pattern has been noted at four other sites in the vicinity (Huffman 2014). Castle Rock, for example, is exclusively a cattle outpost. Low index cattle remains further suggest that those living at the site occupied a low status within local society (e.g. Stayt 1931). In all of these spaces, Leokwe ceramics were identified. As such, social interactions between K2- and Zhizo-users led to stratified hierarchies.

Herding was not the only activity performed by Leokwe-using communities. It seems that crafts were also important. At the Greefswald sites that Huffman (2014) excavated, in Areas AB223 and 224, evidence for ivory manufacture, copper-working and garden-roller production were identified. All of these items represent important trade goods in the local economy and symbolic items associated with status and royalty. And yet those living at Main Rest Camp received little in return. Of the 281 beads from Area AB223, only two were glass (Huffman 2014), while similarly at Leokwe Hill four of the 261 were glass (Calabrese 2007). Huffman (2014: 122) suggested that more exotic goods such as glass beads would have been found in Leokwe-users possession had they possessed status. This is an interesting insight in light of the glass bead and trade assemblages recovered from forager contexts.

Other services Leokwe-users provided included ritual specialisation. In the Leokwe levels at Schroda, over 400 figurine fragments were recorded (Hanisch 1981b, 2002). Their presence explicitly indicates initiation occurring in the settlement. It seems that at Schroda, Leokwe-users were responsible for running the initiation school, which likely included members from both Leokwe and K2 groups (Huffman 2014). Rain-control is another ritual activity that included Leokwe specialists. Schroda was previously a

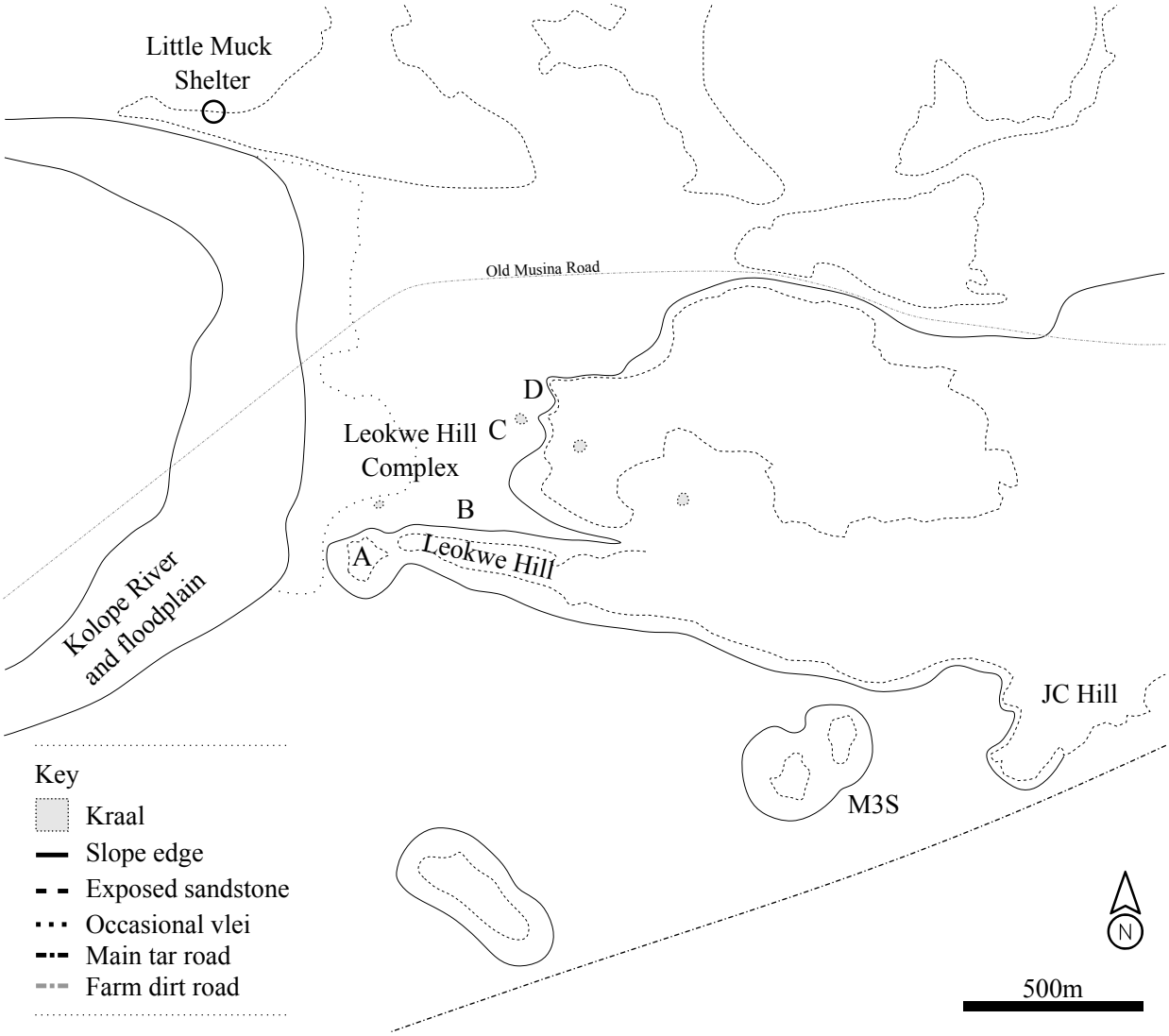

Figure 5.2: Leokwe Hill and its broader context. Zones marked A to D are those excavated by Calabrese (2007). M3H and JC Hill are rain-control sites excavated by Schoeman (2009) (adapted from Calabrese 2007: 119).

rain-control site and at the hill a Leokwe midden was excavated. This suggests that Leokwe-using ritual practitioners were involved in rain rituals during the Leopard's Kopje period (Huffman 2014). Further ritualistic alliances were established through marriage arrangements. At least eight Leopard's Kopje sites (K2 = 7 & TK2 = 1) contain Leokwe ceramics whereas only a single Leokwe site contained a K2 vessel. When marrying, a woman would move with household items including pots to her new residence. This appears to indicate that marriage of Leokwe-using women to K2-using men was practiced and less so the other way around (Calabrese 2000a; Huffman 2014). Women married up, in other words.

The social landscape was divided along ethnic lines. K2-using communities tended prime agricultural areas and controlled trade wealth and Leokwe-users contributed to the local economy by providing craft goods, tending cattle stock and also engaging in ritual activities (Huffman 2014), among possibly other roles. Some of these roles, were, at a time, the responsibility of local foragers. Moreover, the status of Leokwe-users in local society began hierarchal relations within valley farmer society. This was one of the key stages of socio-political developments that led to state formation. Several other core developments were also required.

The appearance of state-level society

K2 groups formed a ranked and kin-based society with their political centre at Bambandyanalo (Huffman 2009). The resident chief lived around the central cattle kraal in a settlement pattern known as the Central Cattle Pattern (Figure 5.3) (Huffman 1990). In the centre of the settlement was a cattle kraal surrounded by a male zone. Here, men and high-ranking officials would have been buried sometimes with various grave goods. The household zone surrounded this area and was associated with married women. It was here where most domestic activity took place. The location of huts was arranged following a left-right orientation according to seniority and a front-back dimension with the latter

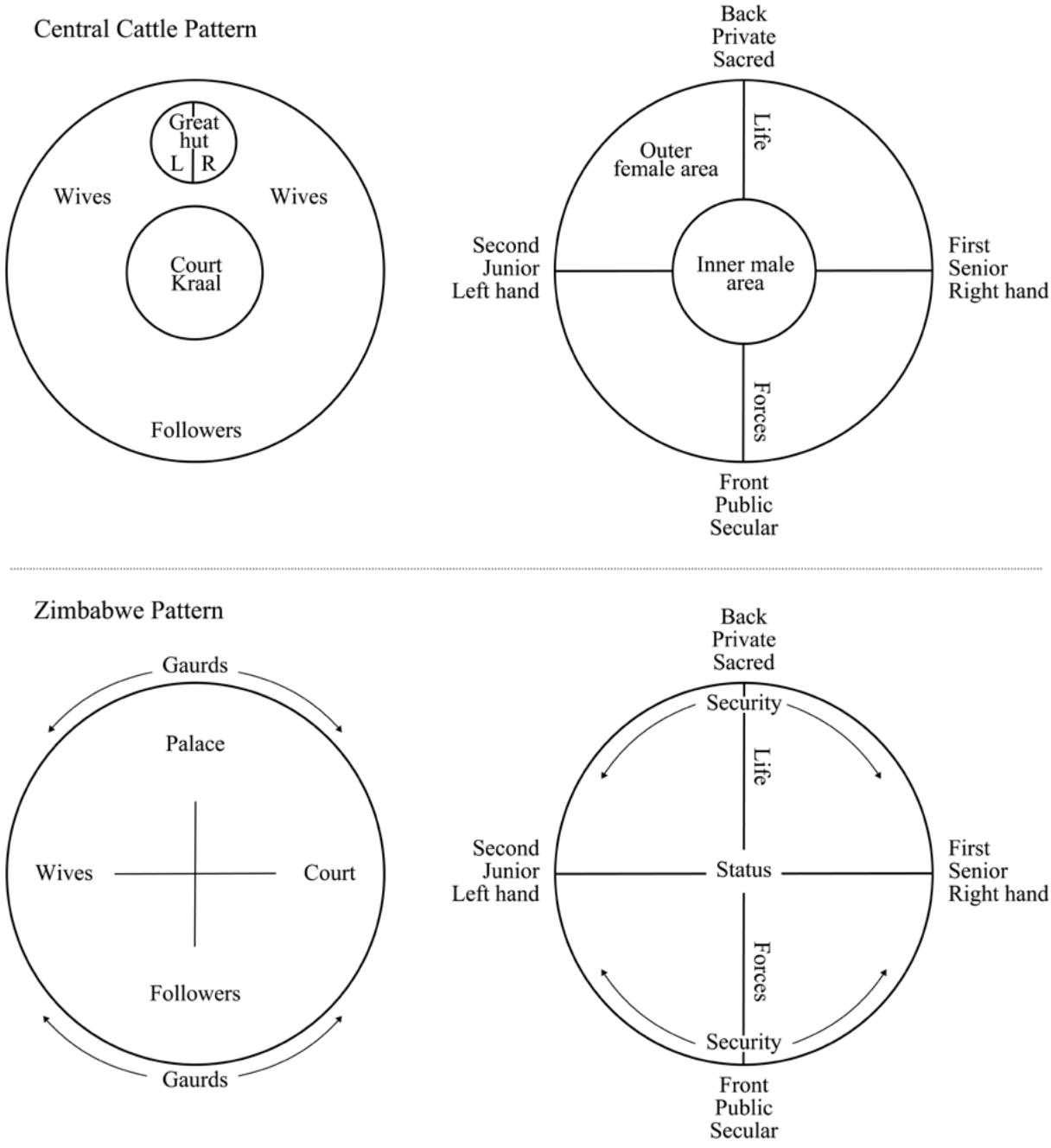

Figure 5.3: Huffman's (2001: 15-16) diagram demonstrating the Central Cattle Pattern (above) and the Zimbabwe culture (below) residential structures.

associated with ritual activity. The headman's hut was typically at the rear of the settlement with huts on either side of it around the central area (see Huffman 1990, 2001, 2012; Kuper 1982). This model has not gone without debate (e.g. Badenhorst 2009; Denbow 1999: 113; Denbow *et al.* 2008; S. Hall 1986; Lane 1994, 1998; Mitchell & Whitelaw 2005: 223-224), but Huffman (e.g. 2001, 2010) has provided strong supporting archaeological and ethnographic data and the model serves as a useful framework from which to understand residential patterns.

Whether one is in favour of the Central Cattle Pattern as a residential model or not, most would agree that there is a clear shift in village structures at central places beginning sometime during the K2 period. These shifts most likely represent changes in farmer ideology and social organisation (Huffman 2012) as opposed to a shift in herding strategies (cf. Denbow *et al.* 2007; but see Huffman's 2009: 57 response). Huffman (1996) called this the Zimbabwe Pattern and it is only found at elite settlements. Sites following this structure required five components: a palace, court, wives' and followers' residential areas, and a place for the guards (Huffman 2009). Leaders now deemed sacred remained aloof in a private palace above their followers. It may also have been behind and east of the public arena. The court would be near the palace and surrounding this would be residents. Elite spaces were demarcated often with stone walling. To protect the settlement from physical and supernatural threats, guard stations and medicine would be placed in strategic areas around the site. Cattle and their kraals were no longer inside elite settlements (Denbow *et al.* 2008: 476; Huffman 1996, 2009). As with the Central Cattle Pattern, the Zimbabwe Pattern is associated with a particular worldview. Specifically, the pattern is aligned with communities that possessed class-distinction and sacred leadership (Huffman 2001, 2009).

The shift from Central Cattle to Zimbabwe Pattern begins early in the second millennium AD. By AD 1060, Bambandyanalo was the political centre in the valley indicated by the presence of a very large court midden alongside the central kraal. The size of a court's midden can be used to determine political activity since payments were disposed of here once a court ruling was made (Huffman 1982, 1986b, 2000). Its growth at Bambandyanalo indicates increased and intense political activity at the site, and by the twelfth century AD this enormous midden came to engulf the central kraal (Huffman 2000). Instead of moving the midden, the cattle were relocated to an area outside of the settlement, demonstrating the newly developed importance placed on socio-political structures as opposed to cattle wealth (Calabrese 2000a). This same pattern was exported to Mapungubwe when it was settled around 1220 AD. Here, no evidence at all exists of a kraal located near the court at the base of the hill (Figure 5.4), emphasising economic and political shifts (Huffman 2009: 43). Therefore, the settlement never followed the Central Cattle Pattern. Huffman (e.g. 1982, 1986a, 1986b, 2000, 2015b) concluded that it was here that both state-level society and the Zimbabwe culture first developed, from where it was imported to Great Zimbabwe (but see Chirikure *et al.* 2012 and Huffman's 2015b reply).

Whereas the role of trade during the Zhizo period is debatable (e.g. Denbow *et al.* 2015; Forssman & Antonites in press; Wood 2012), in the second millennium AD it played a major role in the establishment of Mapungubwe and the Zimbabwe culture (Garlake 1973; Huffman 2000, 2001, 2009; Sinclair *et al.* 2012). Cattle and other local resources during this time could not have supported such socio-political growth (Huffman 2000) and east coast trade wealth supplanted traditional exchange products (Calabrese 2007: i). Yet, local commodities such as metals, cattle and skins were still important items; these were used to trade towards the 'centre', according to Denbow (1990), with east coast wealth disseminating outwards into other regions of the interior. Local commodities were vital, hence the importance of linkages between different regions in part provided by the rivers. At Bambandyanalo, the importance of local goods is attested by the discoveries of finished and unfinished ivory products and excessive numbers of hunting implements surpassing local requirements (Calabrese 2000a). This is even more evident in Mapungubwe's glass bead and specialist tool assemblages as well as the presence of craft production activities at the site (see Meyer 1998). The amassment of both local and foreign trade

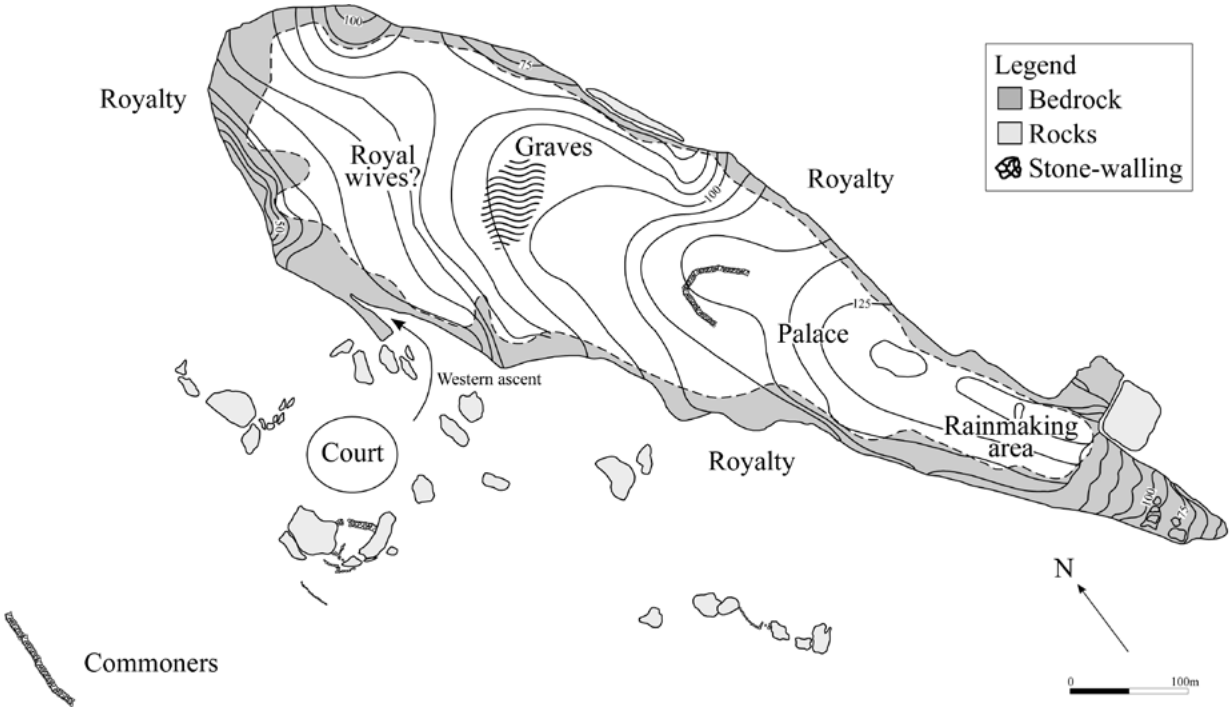

Figure 5.4: A map of Mapungubwe showing the hilltop occupation and court location. Surrounding the site were various high-ranking members of the Mapungubwe state, possibly royalty (adapted from Eloff 1978: Figure 3 and Huffman 2000: 21).

goods exceeded the normal accumulation of such wealth, and the control of this by some individuals placed them in positions of power (Huffman 1982: 143). The acquisition, distribution and control of glass beads and other exotic trade items came to play a central role in the maintenance of power and the establishment of the Mapungubwe state (Antonites 2014; Huffman 2000, 2009: 45). It also contributed to a deeply complex social landscape in the central southern African region.

The sequence of events highlighted above provides a neat linear progression to state-formation. Not all agree that Mapungubwe was the only political centre. Others have suggested that during this time there were multiple, semi-autonomous, autochthonous and competing political centres (Garlake 1978; Kim & Kusimba 2008; Moffett & Chirikure 2016; but see Huffman 2015a, 2015b), despite Mapungubwe's power reaching an area of about 30,000 km^2 (Huffman 1986a: 321, 326). Some have argued using Shona ethnography that centralisation did not occur (Bhila 1982; Mudenge 1974; Moffett & Chirikure 2016; Robertshaw 2019). From this perspective, the region had a series of interacting peer-polities (Chirikure *et al.* 2013, 2014, 2016; Denbow *et al.* 2008; van Waarden 2011). Wealth was accumulated through cattle (Garlake 1978) and agriculture (Pikirayi 2001) as well as trade wealth (Denbow *et al.* 2015; Klehm 2017), although gold and imported goods likely were not as important (Robertshaw 2019). Wealth-in-people and wealth-in-knowledge, including access to ancestors and ritual, was another means of prestige or wealth accumulation (Moffett & Chirikure 2016: 339). The regions participating in widespread trade networks, from the Zhizo period until after Mapungubwe, likely enlisted, sourced, produced and controlled a range of goods and wealth items that were dependent on local opportunities, access patterns and value systems (e.g. Chirikure 2014; Denbow *et al.* 2015; Moffett & Chirikure 2016).

Not only are archaeologists seeing the landscape as more politically complex, others have argued that Mapungubwe was not the first state-level society. Rather, it was at Mapela Hill that the earliest appearance of the Zimbabwe Pattern occurred. Chirikure *et al.* (2014) presented the site as a multi-component occupation spanning *c.* 1055 to after 1317 AD. In other words, Mapela was occupied during most of the Leopard's Kopje period; from the early K2 period until at least the decline of Mapungubwe.

Based on stone-walling, elite spaces, ceramic sequences, Bayesian chronology and site size, Chirikure *et al.* (2014: 12) concluded that 'everything that makes up the Zimbabwe culture at Mapungubwe appeared earlier at Mapela, making Mapela one of the most important sites with secure evidence of the evolution of the Zimbabwe culture' and that 'Mapungubwe therefore exhibits cultural practices that were already on the landscape, showing continuity in tradition through interaction, copying, and other means'. Huffman (2015a, 2015b) responded to these claims by ultimately arguing the evidence was not sufficient to confidently show a pre-Mapungubwe Zimbabwe Pattern. He argued quite strongly that on present evidence, an interpretation of stratigraphy, ceramics, Bayesian chronology, and space at Mapela, the site was likely a Woolandale settlement. Without more data from Mapela it is not possible to be certain that it was the region's first settlement following the Zimbabwe Pattern, but at this stage it seems unlikely. Moreover, Mapungubwe and its landscape appears far more suited to host the rise of social complexity.

By AD 1300, Mapungubwe's influence had dissipated. What happened after this is not particularly clear. From seven radiocarbon dates, Eloff and Meyer dated the end of the Mapungubwe phase at AD 1290 (Meyer 1998; Vogel 2000: 53). At this point the site was abandoned (Huffman 1996, 2009). Several reasons why have been suggested. Declining rainfall is one (Huffman 1996; Vogel 1995) but J. Smith (2005) has now shown that rainfall was consistently above 500mm per annum soon after AD 1300, which is good for the region (see also Smith *et al.* 2007). Huffman (2009) has also suggested that a natural disaster caused the site's abandonment, in particular an earthquake, but this has not been fully investigated yet. However, more recent attempts at tightening the site's chronology has brought into question the hill's abandonment. Three dates from fibres inside of gold helix anklets were obtained in 2009 and extended the occupation into the fourteenth century AD (Woodborne *et al.* 2009). Further work on Song (AD 1127 – 1279) and Yuan (AD 1279 – 1368) or early Ming (AD 1368 – 1644) dynasty celadon found on Mapungubwe Hill also indicated an occupation post-dating the initial radiocarbon range by possibly two centuries, somewhere in the mid-second millennium AD (Prinsloo *et al.* 2005). These late dates indicate continued occupation of the site and rather a decline of socio-political power (Prinsloo *et al.* 2011). Instead, a loss of place occurred in the valley; previously it occupied a high-status position, but after AD 1300 its influence, authority and control of important resources diminished.

Leopard's Kopje contact: AD 1000 to 1300

The social entanglement in the middle Limpopo Valley became, during this time, increasingly more complex. During Phases 2 and 3 foragers were interacting with farmers living nearby and who represented a somewhat homogenous social unit. Additionally, during the latter foragers were probably also seen as 'first people' who offered great value to local farmers (Hall & Smith 2000). However, in Phase 4, Zhizo users adopted this title along with many of the roles foragers were fulfilling. Foragers needed to make their own space within these new networks or risk a loss of status, access and place.

Continuity, again

Despite the socio-political developments and the complex social landscape that emerged in Phase 4, little change was recorded at Balerno Main (van Doornum 2008). This speaks generally to a degree of social maintenance, continuity in access to raw materials, and cultural autonomy. If foragers were retiring from sites like Little Muck and Dzombo to Balerno Main during different occupation cycles, it also indicates an ability to disengage from the local economy and practice a more traditional lifestyle. A general increase in all artefact categories is also interesting (Table 5.1). Stone tools increase from Phases 3 into 4 (from 19.21 to 21.58/L) and this is accompanied by an increase in formal tools as well (from 0.71 to 0.79/L). Increases in both chalcedony stone tools (from 11.25 to 13.55/L) and formal tools (from 0.68 to 0.74/L) was noted, whereas quartz tools also increase (from 3.31 to 3.65/L) but formal tools decline (from 0.03 to 0.02/L). Scrapers (from 0.5 to 0.49/L) and backed tools (from 0.14 to 0.16/L) remain largely

Table 5.1: Phase 4 stone tool and non-lithic finds from all of the occupied sites. Dash indicates no data (from van Doornum 2000, 2005; Forssman 2014a; Seiler 2016).

Artefact details	Balerno Main		Tshisiku		Little Muck		Dzombo		Mafunyane		João		Euphorbia
	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.	Vol.	No.
Volume (m3)	351		320		125		451.07		42.9		1572.71		-
Stone tools	7575	21.58	983	3.07	466	3.73	1836	4.07	457	10.65	2967	1.89	158
Chalcedony	4755	13.55	515	1.61	245	1.96	686	1.52	166	3.87	1433	0.91	45
Chalcedony %	62.77		52.39		52.58		37.36		36.32		37.76		28.48
Quartz	1282	3.65	188	0.59	121	0.97	539	1.19	114	2.66	812	0.52	111
Quartz %	16.92		19.13		25.97		29.36		24.95		27.29		70.25
Small flaking debris	2092.20	5.96	575.60	1.80	-	-	301.34	0.67	177.84	4.15	461.50	0.29	36
Cores	250	0.71	46	0.14	29	0.23	62	0.14	18	0.42	88	0.06	5
Core %	3.30		4.68		6.22		3.38		3.94		3.00		3.16
Formal tools (FT)	277	0.79	29	0.09	35	0.28	81	0.18	20	0.47	66	0.04	4
FT %	3.66		2.95		7.51		4.41		4.38		2.25		2.53
Chalcedony	261	0.74	27	0.08	31	0.25	59	0.13	19	0.44	57	0.04	4
Chalcedony FT %	94.22		93.10		88.57		72.84		95.00		86.36		100
Quartz	8	0.02	1	0.00	2	0.02	7	0.02	0	0.00	3	0.00	0
Quartz FT %	2.89		3.45		5.71		8.64		0.00		4.55		0.00
Scrapers	171	0.49	18	0.06	37	0.30	45	0.10	12	0.28	32	0.02	4
Scraper %	61.73		62.07		105.71		55.56		60.00		42.42		100
Backed tools	56	0.16	11	0.03	1	0.01	21	0.05	8	0.19	26	0.02	0
Backed %	20.22		37.93		2.86		25.93		40.00		39.39		0.00
Ceramics	13	0.04	99	0.31	-	-	37	0.08	14	0.33	1117	0.71	1992
Shell beads	390	1.11	54	0.17	-	-	41	0.09	24	0.56	87	0.06	236
Complete shell beads	151	0.43	37	0.12	-	-	23	0.05	18	0.42	77	0.05	236
Backed %	38.72		68.52		-		56.10		75.00		32.49		100
Incomplete shell beads	239	0.68	13	0.04	-	-	2	0.00	4	0.09	10	0.01	0
Backed %	61.28		24.07		-		4.88		16.67		4.22		0.00
Glass beads	0	0.00	4	0.01	-	-	16	0.04	2	0.05	150	0.10	4
Metal	0	0.00	5	0.02	6	0.05	9	0.02	9	0.21	11	0.01	0
Other ornamentation	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Worked bone	7	0.02	3	0.01	4	0.03	8	0.02	0	0.00	0	0.00	0
Ochre (g)	156	0.44	23	0.07	3	0.03	4	0.01	0	0.00	0	0.00	0
Fauna (g)	704	2.00	1442	4.51	-	-	928	2.06	185	4.31	667	0.42	342

as frequent as they were in Phase 3. Evidence of stone tool production seems to decline in the shelter. Small flaking debris decreases notably (from 8.93 to 5.96g/L) but cores increase (from 0.46 to 0.71/L). This is the inverse change from the previous phase; Phases 2 to 3 saw a decrease in cores and an increase in small flaking debris. This may reflect yet another change in production patterns. During this phase, primary production was probably occurring elsewhere – not necessarily away from the shelter – and only partially worked cores were brought into the excavated area. Here the cores were reduced further and formal tools were produced.

The non-lithic assemblage is a little more ambiguous in terms of its change. Ceramics decrease (from 0.06 to 0.04/L) even though there are now more farmers in the region as well as more residential camps (Huffman 2009). There are still no glass beads at the site. Complete shell beads, however, increase slightly (from 0.4 to 0.43/L) whereas incomplete forms decrease (from 0.78 to 0.68/L), indicating a decline in bead production inside the shelter – although it may have occurred in an unexcavated portion of the site. Also, in decline is the density of colouring material (from 0.7 to 0.44g/L) which might reflect a shift in ritual activity, but whether that relates to ritual practice or intensity is unclear. Worked bone remains the same (0.02/L) while faunal densities decline (from 3.95 to 2g/L). These changes and those in the stone tool category are only in terms of cultural material frequency. As with the previous phases, by and large the same artefacts are being produced, used and acquired. The changes do not represent a major cultural shift and are not indicative of a thorough reworking of the site's function. It appears that during this phase Balerno Main remained a gathering site.

What might these changes in frequency indicate? Several possibilities arise: a population increase or decrease or a shift in spatial patterns. The increase in stone tools likely indicates an increase in activities. What these activities were is not clear. Scrapers decline, possibly suggesting associated hide scraping and bone or wood working declined. Backed tools increase which may mean an increase in hunting except faunal remains declined. The faunal assemblage consists largely of snarable and collectable meat packages, that need not necessarily be hunted. Fish were also found between DBG 60-65 and BRA 45-50, which includes the early periods of Phase 4, AD 910 to 1020. This could reflect the impact farmers had on local meat resources and competition between wild animals and livestock (e.g. S. Hall 1994). Worked bone could be used in hunting but also in mat-making or leatherwork. Also declining were colouring materials. Ochre and specularite were used to make skin balms, ointments, and paint, and was also included in mastic ingredients (Wadley 2015). Its decline could indicate a drop in the need for any one of these products, which includes exchange and *hxaro* items, the ritual production of rock art, and the need for mastic in hunting implements (e.g. Wadley *et al.* 2009; Wadley 2015). These activities are also associated with aggregation.

It is difficult to fully understand these changes. An increase in stone tools and decrease in food waste and other artefacts on face value seems to indicate a declining population. It might also be the result of a shift in spatial patterns at the site during Phase 4. It may be that there was an increase in the population with an associated shift in spatial organisation, or simply the consolidation of production (excluding of shell beads) and processing activities in the eastern area and the deposition of food waste somewhere else. There is evidence and means for explaining the shifts in terms of both an increase and decrease in the number of people using the site.

In both cases, forager lifeways hardly seem to have changed at Balerno Main. Even if there is a decrease in the density of artefacts, the site was used in much the same way as it was since at least 1220 BC. Items typically associated with aggregation – hunting tools, beads and evidence of their production, colouring material and large faunal assemblages – were recorded in each phase including Phase 4. It suggests that even when farmers were undergoing their own social upheaval, in terms of Leopard's Kopje-Zhizo contact followed by state development, foragers were able to maintain their lifeways at Balerno Main.

This shows remarkable continuity in spite of widespread social change. During this time, foragers were also increasingly disadvantaged in economic systems obtaining far fewer prestige and wealth items than before (as will be shown), but even this disengagement from the local market did little to disrupt forager habits at Balerno Main. Interestingly, it also did not emphasise or intensify traditional lifeways at the site if the artefact frequencies accurately reflect activity patterns and intensity. One might expect this to be so if trance dances and rituals were emphasised in order to harmonise social pressure (cf. A. Smith 1997: 14), as seems to have been the case in Phase 3. In Phase 4, though, this does not seem to have occurred. Why the difference is not clear. Perhaps during Phase 4 foragers were becoming increasingly more reliant on farmer systems and worldviews than their own traditional coping mechanisms. It may also be that after nearly a millennium of interactions, emphasising harmonising behaviours was not thought necessary. Either way, life continued relatively unabated while living in the shelter.

Similarly, life continued mostly unchanged at Dzombo, except for a few activity-based alterations. Most forager traces decline, including stone tools (from 5.56 to 4.07/L), formal tools (from 0.22 to 0.18/L), small flaking debris (from 0.81 to 0.67/L), complete (from 0.1 to 0.05/L) and incomplete (from 0.05 to <0.01/L) shell beads, and fauna (from 3.47 to 2.06g/L). Worked bone is the only item typically associated with foragers that increases, but they were not present at all in Phase 3 (from 0 to 0.02/L), and cores remain relatively similar (from 0.13 to 0.14/L). Formal tools, while decreasing in density, make up a larger percentage of the overall tool assemblage than in the preceding phase (N=81; from 3.92% to 4.41%). Scrapers are also now more frequent than backed tools (N=45; from 0.06 to 0.1/L & N=21; from 0.1 to 0.05/L, respectively). Of the 21 backed tools, 11 contain fractures diagnostic with impact related events (52.38%). This represents a slight decline in the frequency of DIFs from 54.55%, but a large drop in their density (from 0.06 to 0.02/L). While the odds of DIFs forming on backed tools remains mostly consistent, overall there are fewer in the assemblage. The increase in scrapers seems to attest to their use in different activities. If anything like Little Muck, this might be related to hide-scraping, bone- or wood-working, but a use-wear study has not been performed to assess this.

Does an increase in scrapers represent a shift away from hunting? That almost as many of the backed tools in Phase 4 possess DIFs suggests that the backed tool assemblage was being used nearly as intensively as it was before, only that there were fewer tools overall. Hence, proportionately as many DIFs formed on backed tools. And yet, they decline along with almost all other forager-associated artefact categories. This seems to reflect a smaller population using the site or, possibly, shorter periods of occupation. However, despite this, hunting was being practiced as regularly as before by the site's occupants. This still seems to have been for exchange purposes since the faunal record declines further, even though hunting was still a common activity, and items associated with farmers increase: ceramics (from 0.01 to 0.08/L), glass beads (from 0 to 0.04/L) and metal implements (from 0 to 0.02/L). Only now scraper-related tasks were also being performed. It appears that during Phase 4, foragers at Dzombo broadened their own mercantile offerings by not only hunting but also producing crafts for exchange with farmers. Their reliance or use of farmer wares also increased as indicated by a greater proportion of these items at the site. It may be that a process of assimilation was underway. Dzombo's occupants were surrounded by farmers including those living at Mmamagwa and João (Figure 5.5). It seems highly probable that those using Dzombo integrated farmer material much more into their own cultural sequence than before. It is also not the only site demonstrating these shifts.

At Mafunyane, craft activities continued with little to suggest a major impact on the site's use even though change was recorded in the assemblage. Notably, stone tool frequencies drop substantially (from 28.49 to 10.65/L). While this represents a considerable decline, frequencies are still higher than at some of the other sites, such as Dzombo (4.07/L), Little Muck (3.73/L) and Tshisiku (3.07/L); although stone tool densities at Balerno Main were greater (21.58/L). Chalcedony, although still dominating the overall assemblage (N=166; 36.32%), declines in frequency (from 10.15 to 3.87/L), as does quartz (from 30.57%

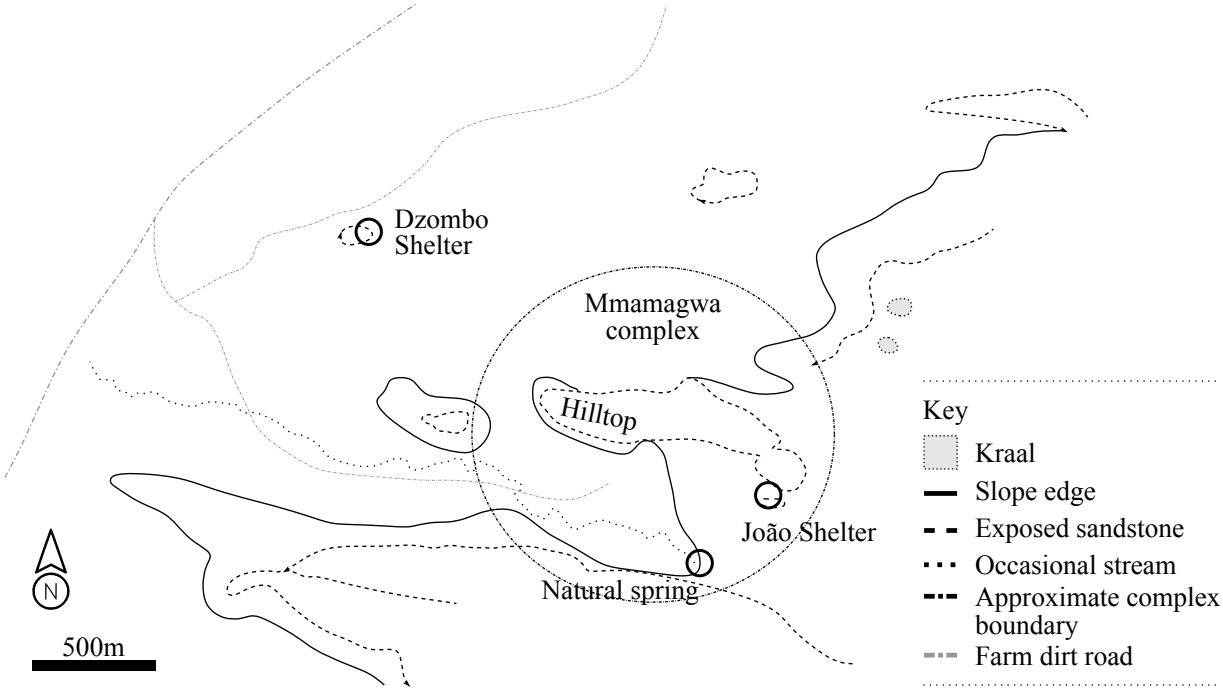

Figure 5.5: The spatial relationship between Dzombo and João Shelters and Mmamagwa.

to 24.95%; from 8.71 to 2.66/L). Formal tools drop below half of their density in Phase 3 (from 0.99 to 0.47/L), which is not as severe as the total stone tool assemblage (declines by 62.62%). A decline in cores (from 0.72 to 0.42/L) but increase in small flaking debris (from 3.02 to 4.15g/L) is probably the result of primary manufacturing occurring off site followed by working flakes or cores inside the shelter. The formal tool category (N=20) comprises only scrapers (N=12) and backed tools (N=8) but both of their densities decline from the previous phase (from 0.55 to 0.28/L and 0.42 to 0.19/L, respectively). Despite this, formal tool frequencies are still fairly high and their overall representation in the assemblage increases (from 3.49% to 4.38%) (Forssman 2014a). These shifts all indicate a decline in activities at the site.

Several increases were recorded in the non-lithic assemblage. Ceramics (from 0.2 to 0.33/L), complete shell beads (from 0.23 to 0.42/L), glass beads (from 0.01 to 0.05/L) and metal implements (from 0.06 to 0.21/L) all become more frequent. Why these increased while other forager technologies declined most likely reflects shifts in domestic patterns. None of the non-lithic artefacts reflect clear residential activities. Ceramics may, but in a forager context they might instead be trade items or vessels for transporting trade goods. Since it cannot be said whether they were used for food preparation in the shelter, they cannot be confidently used to indicate local foodways or domesticity; they may have been for water storage and used during metal production and smithing activities, for example. A decline in domestic activities is further supported by a large decrease in faunal waste (from 7.55 to 4.31g/L). Therefore, it appears that there was also declining residentiality in the shelter.

Not all artefacts declined and in particular, craft-related items either remained the same or increased. Evidence for shell bead production remains constant (0.09/L) but metal implements and prills increase. A figurine fragment was also found which is often associated with metal-working (e.g. Calabrese 2000a). The increase of densities in these categories indicates a growing emphasis on metal working at the shelter. Unless foragers were those working the metal, which has not been recorded anywhere else and cannot be confidently attested at Mafunyane, the changes may also represent the gradual appropriation of the space by farmer metal practitioners. What was once a forager shelter (Phase 2) became a shared

space (Phase 3) and now more so a place of farmers (Phase 4). However, it still fulfilled the same role as during the previous phase. As with Balerno Main and Dzombo, certain continuous trends are maintained at Mafunyane whereas other aspects of the site's use alter slightly. Elsewhere on the landscape life changed dramatically for foragers.

Discontinuities and disruptions

Discontinuities and disruptions are perhaps most evident at Little Muck. The stratigraphic layer PGA 2 (Phase 4) is associated with K2 ceramics and those above (PGA, PAH and the surface) all contain K2 and Mapungubwe sherds. In PGA 2, all metal artefacts, which include beads, copper wire, a copper chain, iron points and razors, appear for the first time. Glass beads also increase in frequency. Unfortunately, no quantitative data is available (Hall & Smith 2000: 35). Forager-associated artefacts decline massively. Stone tools decrease by 92% (from 46.66 to 3.73/L). This drop is equally represented in the formal tool (N=35; from 3.96 to 0.28/L) and core categories (N=29; from 3.66 to 0.23/L). While chalcedony is still favoured (52.58%), its density drops (from 23.78 to 1.96/L) as does quartz (from 12.9 to 0.97/L), which is also proportionately less represented than before (from 27.65% to 25.95%). Similarly, the representation of chalcedony tools decreases (from 95.96% to 88.57) whereas quartz increases slightly (from 4.04% to 5.71%). Scrapers, which were abundant in PGA 3 (Phase 3), decline at a similar rate to the total stone tool assemblage (from 3.7 to 0.3/L) as do backed tools (from 0.14 to 0.01/L) (van Doornum 2000). However, both still represent fairly similar proportions of the formal tool category but only a single backed tool was found (scrapers N=37; from 7.93% to 7.94%; backed tools N=1; from 0.3% to 0.21%). Use-wear evidence on scrapers declines to 21.62% (N=8 of 37), half of these possessing edge damage which may be from working rigid materials (Forssman *et al.* 2018). The craft economy that dominated Phases 2 and 3 appears to have thoroughly declined by Phase 4. It is very apparent that there is a large decline in Later Stone Age material.

How best should this change be viewed? Hall and Smith (2000) suggested that during Phase 4, Leopard's Kopje farmers appropriated the site for their own purposes. This was partly linked to controlling the spiritual landscape and using the site's rock art to access forager 'power' (Figure 5.6). Furthermore, this may have been linked to foragers being excluded from regional farmer economic systems. They also suggested the site became a male zone based on the *mankala* boards in front of the shelter. Huffman (2014), however, believed the site to have been a male initiation area. That is, of course, if farmers appropriated the space since forager-associated material culture continues. While farmers may have taken over the space, the smaller but still present forager assemblage might rather indicate other possibilities. Simpler explanations are a declining number of foragers using the site or more sporadic occupation episodes. As a result, all forager-artefact categories decline including fauna. The increase of farmer-associated items might still reflect a farmer use of the shelter. Although, the decline in faunal remains perhaps suggests this was not for residential purposes if the assemblage is representative.

Alternatively, relying on materiality to interpret distinct identity groups during a fluid and flexible period could be misleading. Such economic-based markers may be problematic; several decades of exchange and interaction likely blurred some of the lines between what is clearly forager and farmer in certain contexts. An increase in ceramics, glass beads and metal, for example, does not explicitly indicate a farmer presence because all were acquired by foragers through trade and exchange. Increasing and more regular contact likely led to larger volumes of farmer items entering forager assemblages. The dominant political systems in the valley also placed value on farmer lifeways and cultural material. These economies were part of the forager landscape and extended socio-political network. Foragers engaging in these systems, as they had been for decades by Phase 4, increased their reliance on these cultural items as indicated by their increasing densities at most sites from Phases 2 to 4. This was for the purpose of wealth acquisition, status as well as domesticity. Trade and the access it brought to

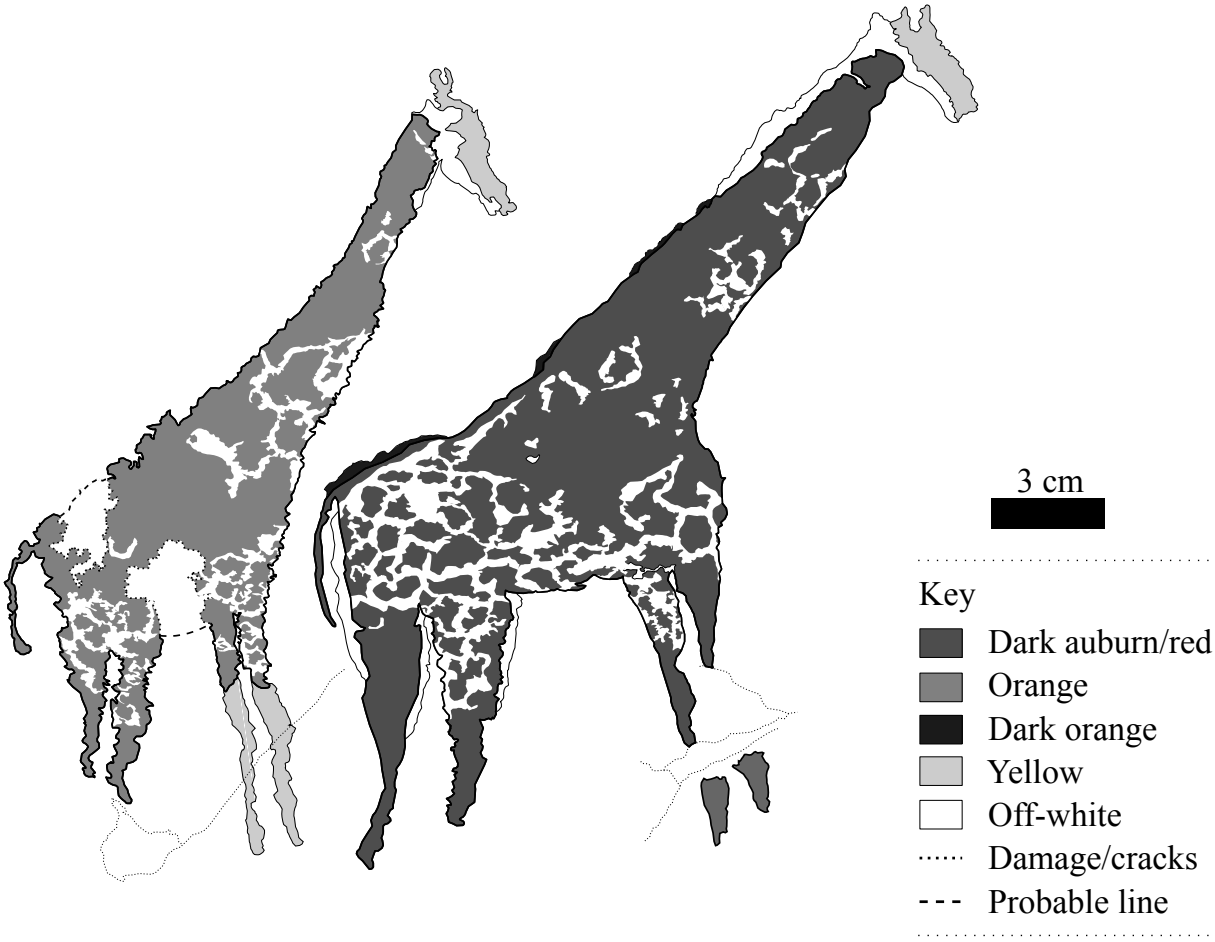

Figure 5.6: Re-drawings of two giraffe in Little Muck Shelter.

various items including subsistence remains entered foragers into a system of dependence on the goods these activities brought into their cultural network. At some point, continuing and increasing needs for farmer resources would likely swell the representation of farmer goods in some forager contexts. The co-occurrence of forager and farmer items in Little Muck, for example, during Phase 4 could quite possibly reflect an assimilation of farmer culture at a greater degree into forager society, similarly at Dzombo. If foragers did not keep up with local economic systems, they would be excluded from exchanges and lifeways. Ultimately, Hall and Smith (2000) believed this to have occurred; Leokwe farmers usurped the role foragers occupied in local society.

At Tshisiku and Balerno 2 and 3, continually declining artefact densities and inconsistent densities of trade or exchange items indicate decreasing significance placed on these sites. At Balerno 2 and 3, it is not possible to separate Phases 3 and 4 from one another and so they can only be viewed together (van Doornum 2000, 2005). Generally, at Balerno 2 artefact categories increase in density but not at Balerno 3 where there is widespread decline. Exactly what this represents, or in which period these happened, is indeterminable. Any attempt at extrapolating patterns from these data would be overstepping their limitations.

More can be said about Tshisiku (van Doornum 2007). Here, most artefact categories decline from Phases 3 to 4, including stone tools (from 13.43 to 3.07/L), formal tools (from 0.52 to 0.09/L), small flaking debris (from 3.98 to 1.8/L), cores (from 0.43 to 0.14/L), scrapers (from 0.5 to 0.06/L), backed tools (0 from.09 to 0.03/L), ochre (from 0.26 to 0.07g/L) and fauna (from 11.23 to 4.51g/L). In terms of stone

raw material representation, there is almost no change in the overall and formal tool categories in chalcedony (from 53.51% to 52.39% & 96.36% to 93.1%, respectively) and quartz (from 20.43% to 19.13% & 3.64% to 3.45%, respectively). Complete (from 0.22 to 0.12/L) shell beads decline but incomplete preforms remain constant (0.04/L). It is possible that bead production during Phase 4 increased, relative to the ratio of complete and incomplete beads in Phase 3, but that complete beads were moved away from the site. Bearing in mind that only a small area of the site has been excavated, it may also be that different spatial patterns appeared. Nonetheless, the production of beads might suggest preparation for *hxaro* or another form of exchange between foragers, or perhaps trade with farmers. In return, perhaps ceramics, which increase (from 0.05 to 0.31/L), or their contents were obtained and maybe even metal, which appears for the first time (0.02/L). However, glass bead frequencies decline (from 0.02 to 0.01/L) which probably supports the suggestion made by Hall and Smith (2000) that foragers were excluded from the local economy from this period onwards.

The presence of Later Stone Age material at Tshisiku was most prominent during a period when Balerno Main was unoccupied and long before the arrival of farmers. But, between 1220 BC and AD 1300, Tshisiku's assemblage continually declines in density (Figure 3.2). Even in Phase 2, when it does increase slightly, it still does not come near to the levels it experienced prior to 1220 BC. Whether this is related to the changing social landscape or shifts in forager site preferences is hard to say. Tshisiku and Balerno Main are under 6km apart, little more than a single hour walking and a short distance among modern Bushmen (Lee 1972). Tshisiku is also quite near to Pont Drift, less than 3km west-northwest, a site occupied by Zhizo farmers. Little Muck is less than 1.5km from Leokwe Hill, also occupied during the Zhizo period, and yet in this shelter the archaeological assemblage displays incredible growth. Not so at Tshisiku. It very well may relate to the relations between forager and farmer groups. In some instances, foragers were possibly more integrated into farmer economic systems and in others not. These differences may relate to a variety of reasons. Some possible explanations that have been discussed in other parts of southern (e.g. Bartram 1997; Guenther 1986, 1996; Hitchcock 1987, 2002; Lee 2002; Smith & Lee 1997; Sugawara 2002; van Doornum 2005) and central Africa (e.g. Grinker 1994; Musonda 1997; Townsend 2005; Turnbull 1965) include inter-group social relations, marriage arrangements, client-patron relations, forager group-based skillsets or forager access and production of primary resources. The exact nature of the relations in the valley between specific forager groups using certain sites, and avoiding others, and relating to specific farmer homesteads is a level of detail that is frustratingly out of reach. Had interpreting this from the archaeological record been possible, examining the differences at each site and how these relate to inter-connected social networks in the valley would be feasible.

Shelters became less favoured spaces, resulting in the decline of Later Stone Age material after Leopard's Kopje-producers arrived. This has been recorded at most sites including those in Botswana (Forssman 2014a); Balerno Main is the only site that sees general consistency but coupled with regular shifting frequencies (van Doornum 2008). Hall and Smith (2000: 37) noted that the absence of forager material culture in shelters post-dating AD 1270 'suggests that rock shelters, as places of social and ritual dependability, ceased to be significant'. Van Doornum (2005, 2008) suggested that during Phase 4 foragers abandoned the valley and disappeared altogether by the decline of Mapungubwe. In part, they may have, but evidence exists suggesting that some also began living in spaces beyond the dripline.

Co-residency homesteads

Three homesteads containing evidence of an overlapping forager and farmer residency have so far been excavated. Two date to the early second millennium AD; João and Euphorbia. At João, both the shelter and open-air components of the site contain notably different archaeological sequences (Table 5.2). From the shelter, 2484 (2.27/L) stone tools were recovered whereas only 483 were excavated in the homestead (1.01/L). Chalcedony is most frequent in the shelter assemblage (49.72% versus 40.99%)

while in the homestead quartz is more represented (40.99% versus 24.72%). Despite this, chalcedony dominates the formal tool category in both areas but is higher in the shelter (88.89% versus 75%). Quartz tools were only found inside the shelter and none in the homestead (N=3; 5.56%): quartzite and dolerite tools make up the difference. The formal category represents 2.17% (N=54) of the shelter assemblage and slightly higher outside (N=12; 2.48%). Both areas contain a fairly equal proportion of scrapers (N=28 & 4) and backed tools (N=23 & 3). The tools are morphologically and typologically the same as those found in other sites associated with a forager presence (Figure 5.7). Cores occur in fairly similar distribution patterns but favour the shelter slightly (0.06 versus 0.04/L), possibly indicating tool production was almost equally distributed across the site. Although small flaking debris is notably more common in the shelter than the homestead (0.34 versus 0.18g/L, respectively). This difference might be due to greater

Table 5.2: Artefact data from João Shelter separated into shelter (Trenches 1 & 3) and homestead (Trenches 2 & 4) (from Forssman 2016a: 150).

Artefact details	Trenches 1 & 3		Trenches 2 & 4		Combined	
	No.	Vol.	No.	Vol.	No.	Vol.
Stone tools	2484	2.27	483	1.01	2967	1.89
% of total	83.72		16.28			
Quartz	614	0.56	198	0.41	812	0.52
%	24.72		40.99			
Quartzite	457	0.42	61	0.13	518	0.33
%	18.40		12.63			
Chalcedony	1235	1.13	198	0.41	1433	0.91
%	49.72		40.99			
Dolerite	178	0.16	26	0.05	204	0.13
%	7.17		5.38			
Small flaking debris	376.48	0.34	85.02	0.18	461.5	0.29
% of small flaking debris	81.58		18.42			
Formal tools	54	0.05	12	0.02	66	0.04
% of assemblage	2.17		2.48			
% of formal tools	81.82		18.18			
Scrapers	28	0.03	4	0.01	32	0.02
Backed tools	23	0.02	3	0.01	26	0.02
Scrapers/backed tools	1.22		1.3			
Cores	68	0.06	20	0.04	88	0.06
% of assemblage	2.74		4.14			
% of cores	77.27		22.73			
Ceramics	111	0.10	1006	2.09	1117	0.71
% of total	9.9		90.1			
Shell beads	78	0.07	9	0.02	87	0.06
% of total	89.7		10.3			
Glass beads	132	0.12	18	0.04	150	0.10
% of total	88		12			
Fauna (g)	321.2	0.29	345.8	0.72	667	0.42
% of total	48.1		51.9			

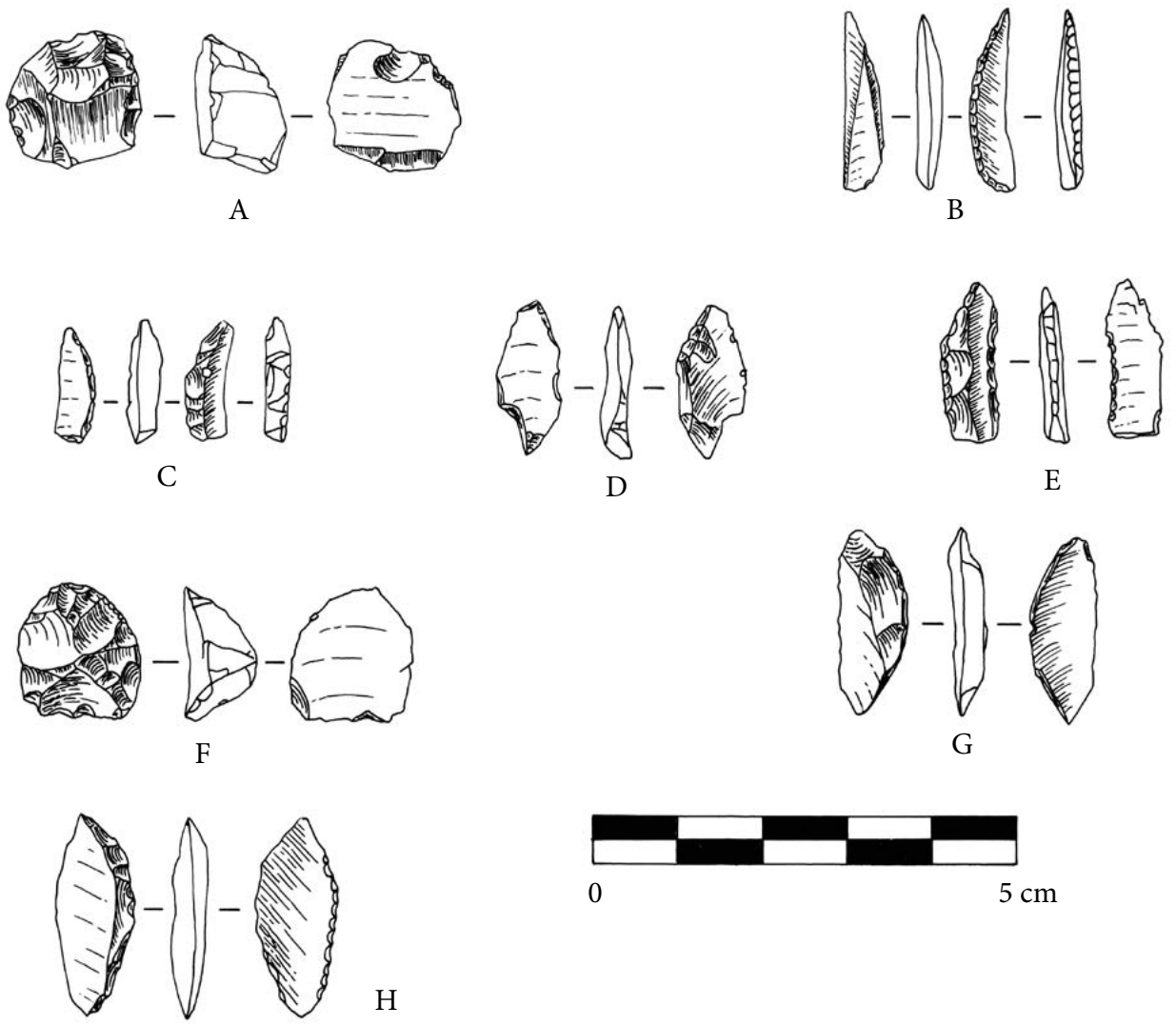

Figure 5.7: Formal tools and a core from João Shelter: A, single platform core; B, segmented backed bladelet; C & D, broken segment; E, broken backed bladelet; F, small side scraper; and G & H, segment (from Forssman 2016a: 151).

colluvial movement in the homestead area which typically removes smaller artefactual debris from the site. Therefore, the larger frequency of small flaking debris in the shelter may rather relate to localised preservation conditions. Lastly, complete shell beads (0.07 versus 0.02/L, respectively) occur at a greater density in the shelter and the only incomplete preforms were found here as well (0.01/L) (Forssman 2014a).

The artefact differences reflect different tool requirements in each area. In the shelter, stone tool-related activities dominated. These primarily revolved around scraper- and backed tool-related tasks, which could include craft production and hunting. The assemblage is not at all unlike any other assemblage found in a shelter. These are generally forager spaces. That forager material occurs at João in the same levels as the farmer material and relates chronologically to the outside homestead suggests that the shelter was primarily a forager space. In its vicinity foragers enacted their daily tasks and maintained the production of their traditional material culture. Their occupation of this zone may have been forced or elective, episodic or regular. Whichever it was, it was an area used mostly by themselves, as opposed to the outside zone.

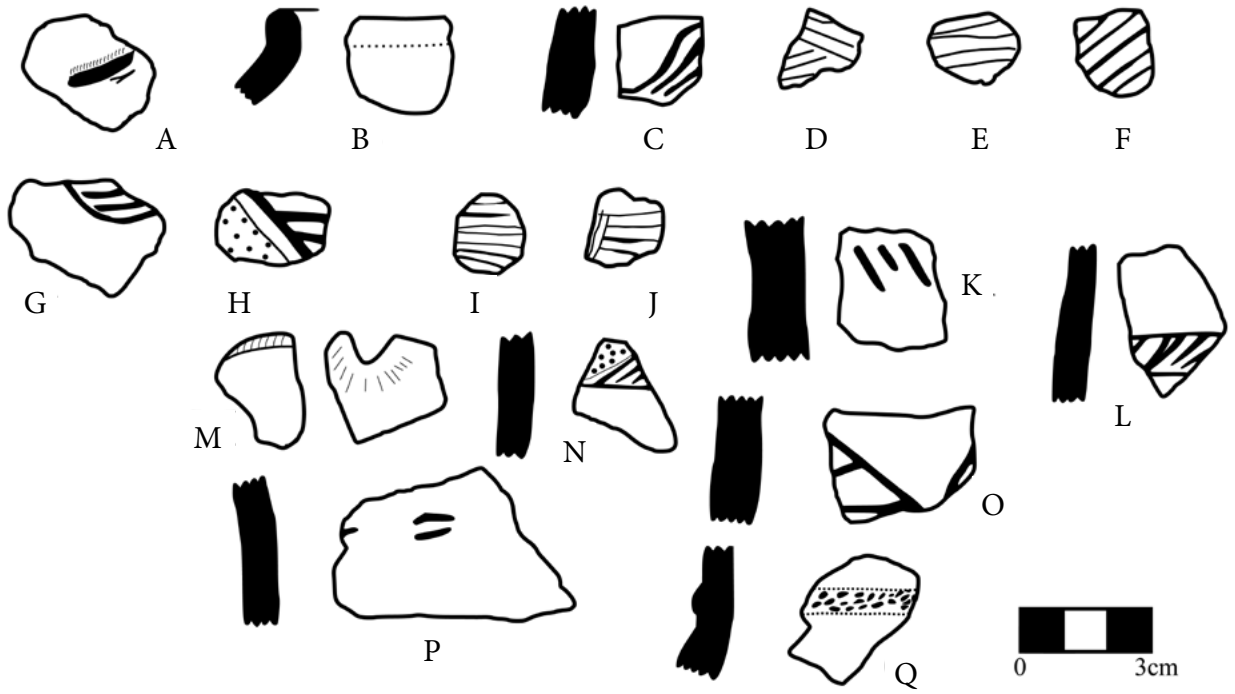

Figure 5.8: Decorated and rimmed sherds from João Shelter. From the shelter: A & F, unknown; and H, TK2; and from the homestead: B & E, unknown; C-E, I, J, M & N, TK2; K & O, K2 or TK2; L & P, K2; and Q, Toutswe (from Forssman 2016a: 151).

In the open-air homestead, far fewer tools were identified and quartz appears more regularly. This may reflect a degree of expedience with regard to tool production, even though a higher representation of formal tools was found here than in the shelter but in a lower density. Formal tools were possibly made in the shelter and brought into the settlement for tasks. The informal nature of the outside assemblage and preference for an easily worked material likely relates to the use of other and typically farmer cultural material. Ceramics are far more frequent in the homestead than the shelter (2.09 versus 0.1/L, respectively). It was also here that the majority of decorated wares were found, including K2, Transitional K2 and Toutswe ceramics (Figure 5.8). Food processing remains were also far higher in the homestead where a much larger faunal assemblage was recovered (0.72 versus 0.29g/L, respectively). In addition, found in this area were possible human burials, middens, a small-stock kraal with stone walling, and grain bin foundations. These items are all unambiguously associated with farmer settlements. It appears clear that forager and farmer identities were present in the site concurrently.

The glass bead assemblage is especially unusual. In the shelter, 132 beads were found (0.12/L) and 18 in the homestead area (0.04/L). Most of the beads have been placed into the broad Indo-pacific bead range (N=76; see Wood 2000). However, 28 are K2-period Indo-pacific beads and nine appear consistent with Mapungubwe beads including oblates. A single Zhizo-period bead was found as well as two White Hearts dating to the eighteenth and nineteenth centuries. Although the beads have not been sufficiently analysed, they do indicate both an early second millennium AD occupation, which conforms to the ceramic typology, as well as a much later use within the late second millennium AD (see Chapter 2). What makes this find unique is the sheer numbers of beads in the site. All other shelters contained far fewer: Dzombo, 18; Tshisiku, 8; Balerno 2, 5; Mafunyane, 3; Balerno 3, 1; and Balerno Main, 1 in levels post-dating Phase 4 (not discussed here). It is unlikely that João was a stop-over or transit camp used during trading episodes given that Dzombo is only *c.* 350m further away from the Mmamagwa complex; there is no need for an intermediary camp. It seems that those living at João were able to more readily acquire glass beads, but how they did so or why them and not others is unclear.

Table 5.3: The distribution of stone tool finds from Euphorbia Kop in Trenches A, B, C and D (all totals in bold) (Seiler 2016).

Stone tool details	Trench A				Trench B		Trench C				Trench D				Totals
	FG1		CG1				GA1		HC1		Upper		Lower		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Raw materials															
Quartz	15	60.00	48	71.64	13	65.00	21	44.68	5	29.41	4	57.14	2	40.00	108
Quartzite	0	0.00	0	0.00	1	5.00	2	4.26	1	5.88	1	14.29	0	0.00	5
Chalcedony	9	36.00	18	26.87	4	20.00	10	21.28	1	5.88	1	14.29	2	40.00	45
Dolerite	1	4.00	1	1.49	2	10.00	14	29.79	10	58.82	1	14.29	1	20.00	30
Stone tools															
SFD	2	8.00	12	17.91	13	65.00	8	17.02	1	5.88	0	0.00	0	0.00	36
Chunk	7	28.00	20	29.85	6	30.00	18	38.30	7	41.18	7	100.00	2	40.00	67
Flake	9	36.00	26	38.81	0	0.00	19	40.43	9	52.94	0	0.00	1	20.00	64
Broken flake	6	24.00	4	5.97	0	0.00	0	0.00	0	0.00	0	0.00	2	40.00	12
Bladelet core	0	0.00	0	0.00	0	0.00	1	2.13	0	0.00	0	0.00	0	0.00	1
Casual core	1	4.00	1	1.49	1	5.00	0	0.00	0	0.00	0	0.00	0	0.00	3
Irregular core	0	0.00	0	0.00	0	0.00	1	2.13	0	0.00	0	0.00	0	0.00	1
End scraper	0	0.00	2	2.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2
Side scraper	0	0.00	2	2.99	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2
Nodule*	9		14		279		10		3		29		2		346
Totals	34		81		299		57		20		36		7		534
Total exc. Nodules	25		67		20		47		17		7		5		188
Trench totals	92				20		64				12				

*Nodules are excluded from the analysis and so are not represented with a percentage.

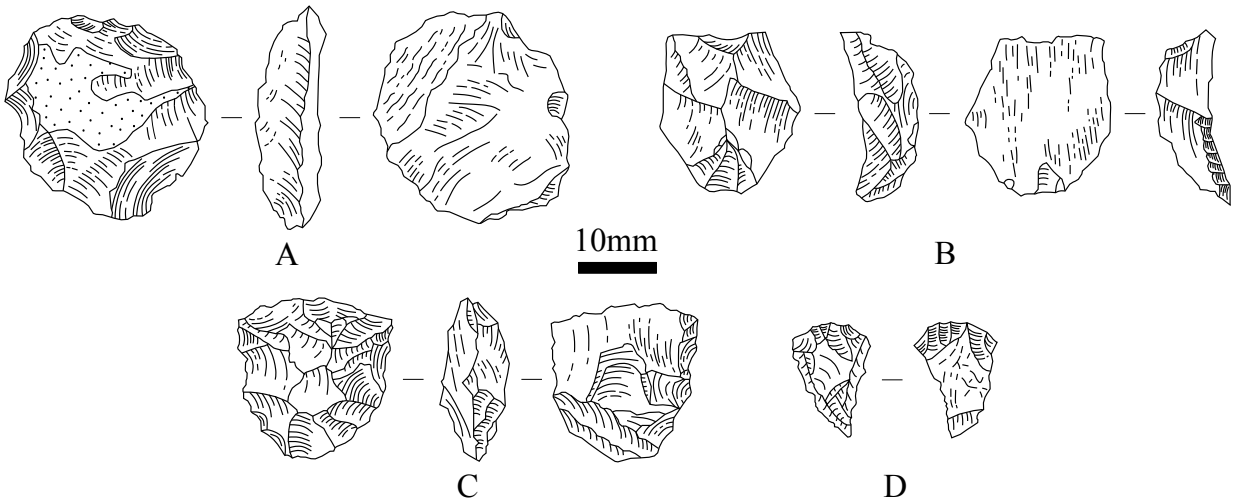

Figure 5.9: Formal tools from Euphorbia Kop from Trenches A (B-D) and C (A): A & D, end scraper; and B & C, side scrapers.

The second site, Euphorbia, contains a less discernible forager presence. A small stone tool assemblage (N=188; Table 5.3) was recovered mostly from Trench A in the shelter (N=92) but a large portion of them were retrieved from the kraal area, Trench C (N=64). Only four scrapers were recovered, all from Trench A, which represents 2.53% of the total assemblage (Seiler 2016), just below Tshisiku's formal tool ratio (2.95% in Phase 4; van Doornum 2007) but above João's (2.22% in Phase 4; Forssman 2016a). The scrapers are very similar to scrapers from other shelter sites and there is no reason to suspect that they were not produced by foragers (Figure 5.9). Evidence of on-site manufacturing was also present. Chunks (N=67; 35.64%), small flaking debris (N=36; 19.15%; raw count not grams) and five cores (2.66%) all suggest that working raw stone materials into tools took place at the site even if only to a small extent (Seiler 2016).

Given the small stone tool assemblage, it may be that foragers living at Euphorbia were not reliant on their own toolkit and had access to farmer material culture. Ceramics were fairly abundant at the site (N=1992) with most coming from the kraal area (N=1050; 52.71%), followed by Trench D on one of the terraces on the *koppie* and associated with a human burial (N=845; 42.42%), the shelter (N=29; 1.46%) and Trench B in front of the site (N=26; 1.31%; Table 5.4) (Seiler 2016). The ceramics are all clearly K2, barring perhaps one vessel which is possibly TK2 or early Mapungubwe (Figure 5.10; Vessel A). Those strongly associated with K2 are the incurvate bowl with no motifs (Vessel B), a near-intact beaker with perforated lugs (Vessel D), a highly burnished and polished handled open bowl (Vessel F), a constricted bowl with perforated lugs (Vessel G) and a necked jar with horizontal incisions along the shoulder (Vessel H). Four glass beads were also found, three of which are strongly associated with the K2 period, including two

Table 5.4: The distribution of ceramic finds at Euphorbia Kop between the trenches and stratigraphic units (from Seiler 2016).

Ceramic type	Trench A		Trench B	Trench C		Trench D		Trench D ext.	Totals
	FG1	CG1		GA1	HC1	Upper	Lower		
Plain	10	18	26	796	210	32	5	731	1828
Decoration	0	0	0	11	3	0	1	46	61
Rim	1	0	0	25	5	3	1	59	94
Decorated rim	0	0	0	0	0	0	0	7	7
Other	0	0	0	0	0	0	0	2	2
Totals	11	18	26	832	218	35	7	845	1992
Trench totals	29		26	1050		42		845	

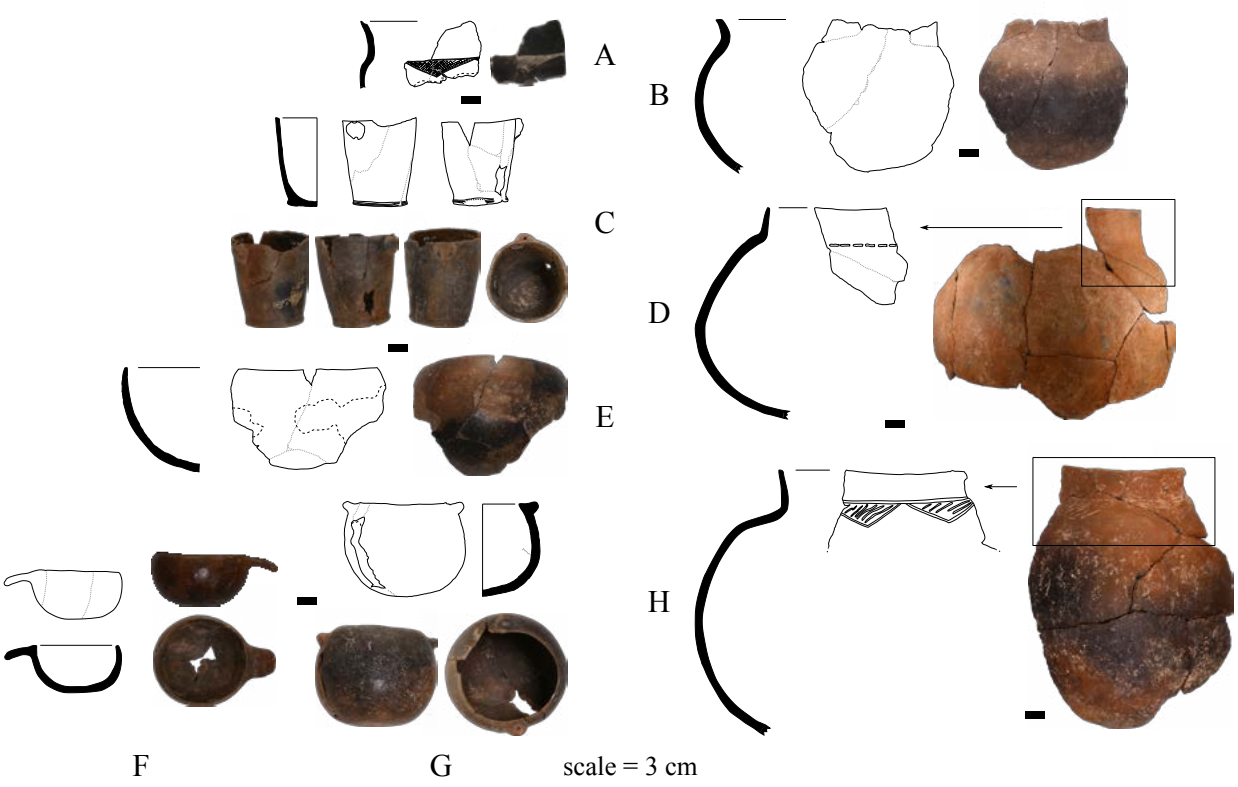

Figure 5.10: A selection of ceramics from Euphorbia Kop that are consistent with K2 and TK2 wares. Vessels C, D, F, G and H are K2, Vessles B and E may be but could also be from a later Leopard's Kopje facies, and Vessel A is either Mapungubwe of Transitional K2.

garden rollers, and three clay figurines; two on the surface near Trench C, one possibly human, and another from Trench C at the same level as one of the radiocarbon dates (Spit 4; AD 1046 – 1160). The faunal assemblage was also largely restricted to Trench C (N=329g of 342g; 0.02g/L). All other trenches, including in the shelter, contained marginal faunal densities. Seven specimens are Bovid II, one of which is a sheep/goat. Nothing of substance can be said about the faunal representation but its distribution around the kraal area may indicate this was a food processing or preparation area. That food waste was not found anywhere else in meaningful densities (<0.03 in all other trenches) might indicate that those living at the site, including those using the shelter, participated in food-related activities in the vicinity of Trench C (Seiler 2016).

At João, traces of both foragers and farmers are clear, but at Euphorbia the forager element while present is less distinct. Those at João relied heavily on their own material culture, they may even have lived more permanently in camp, and they had access to trade wealth. Foragers at Euphorbia did not produce artefacts as regularly and may have occupied the camp on a less regular basis or relied more on farmer technologies. Exotic trade wealth and other valued items were also far less frequent, but this might relate to excavation strategies and coverage; only a smaller area of Euphorbia was excavated. Both shelter spaces had different roles. Whereas at João, the shelter was more strongly associated with a forager presence, the limited space at Euphorbia restricted the range of possible activities. Not only were activities limited, but no food-related items were found suggesting subsistence practices were carried out elsewhere. Foragers at Euphorbia were far more integrated in the spatial fabric of the site, and for this reason far less distinguishable from the material culture. Each site demonstrates a similar response and shift in forager settlement patterns and decision making but show different levels of assimilation.

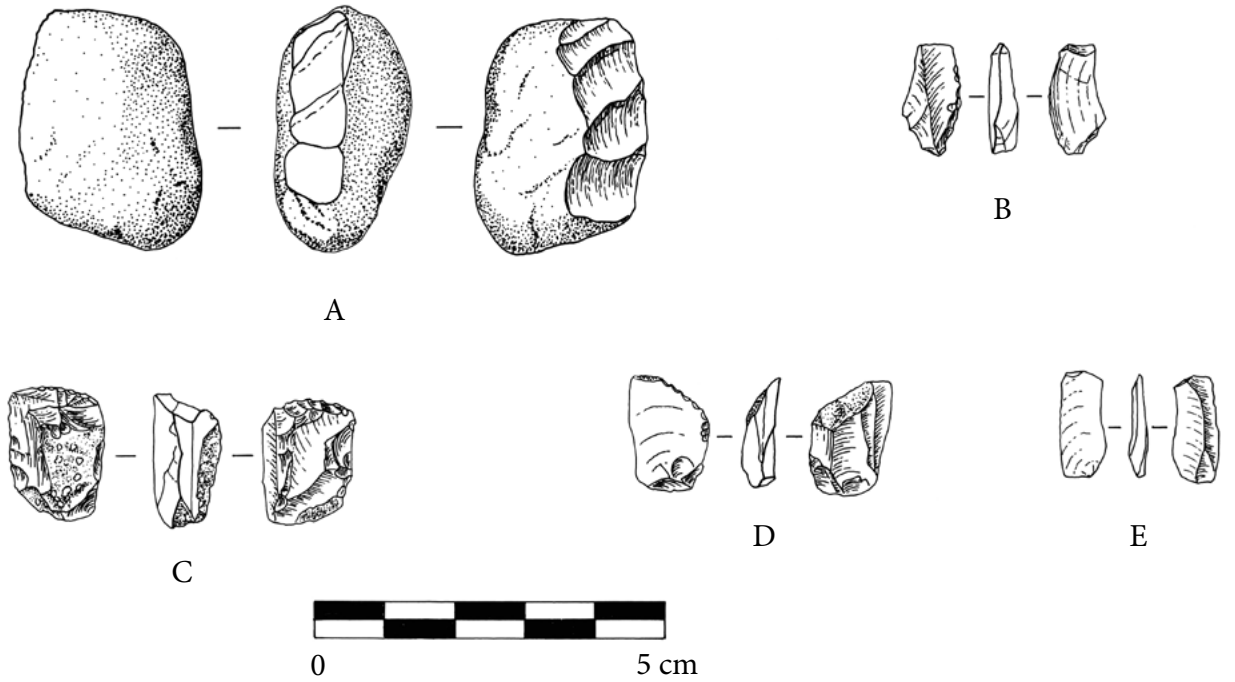

Figure 5.11: Kambaku Camp's formal tools and cores: A, preliminary flaked core; B, broken backed bladelet; C, bladelet core and small end scraper; D, segment; and E, broken bladelet (from Forssman 2016a: 155).

The final excavated homestead containing a forager presence is Kambaku, but it was occupied after the decline of Mapungubwe and is beyond the scope of this study (AD 1480 – 1650). It nonetheless serves as a useful comparison. The farmer traces in the settlement, as with Euphorbia, are clear: ceramics (1.11/L), metal implements (0.03/L) and two glass beads were found on the site which also contained grain bin foundations, kraals and middens. The forager presence, however, is less easily shown even though the cultural remains are fairly obvious. Most forager items were retrieved from a small overhang found at the southern end of the site. This draws parallels with João and Euphorbia. Two-hundred and twenty stone tools were found (0.43/L) with a density far lower than any shelter site. Chalcedony was favoured (59.55%) with quartz far less represented (26.36%). Only five formal tools were identified (0.01/L) and all were made from chalcedony. This included two end scrapers and backed tools each (one a segment) and a miscellaneous retouched piece. Three were found in the lower homestead and two in the upper kraal. The tools are very similar to those found at other shelter sites (Figure 5.11). Small flaking debris (0.02g/L) and cores (0.01/L) suggest manufacturing took place on site. Given that the stone tool assemblage is small, it is not surprising that tool production itself is also represented by a limited assemblage. Even so, there are no indications that someone other than foragers produced these tools. When Kambaku was occupied, no other site in the valley has a clear forager presence (Forssman 2016a).

What might this say about foragers after the decline of Mapungubwe? Importantly, that they continued living in the region. Some anecdotal accounts attest as much. The Eastwoods, in their rock art book *Capturing the Spoor*, spoke to informants who recalled communities in Zimbabwe trading and exchanging with Bushmen in the mid-twentieth century and their use of a hill (*Thavha-ya-Vhasarwa*; the Hill of the Bushmen) to gather around and perform rituals (Eastwood & Eastwood 2006: 190). The author was also told by a family member who owns a farm in south-western Zimbabwe that in his youth (c. 1950s) Bushmen would occasionally live on their farm while passing through the area. A few historic records also mention Bushmen in the region. Elton (1872) passed through the Shashe-Limpopo confluence on his journey to the coast looking to identify a more viable route to the Botswana Tati mining area. When in the region of the confluence he noted the presence of 'knobnuizen', which

appear to be Bushmen. They lived in abandoned kraals downstream of the confluence. Sometime after Elton's (1872) voyage, Dornan (1917) passed through the area only a few kilometres upstream in the Motloutse-Limpopo confluence area. Here he noted the occurrence of Bushmen living in fixed homesteads. It is intriguing that this is also the area where João, Euphorbia and Kambaku occur. From these accounts a Bushman presence is expected but has not been archaeologically shown. The Kambaku finds come the closest chronologically as well as contextually. That it is the only known site post-dating Mapungubwe, and corresponds with local historic records from the area, might suggest that studying forager or Bushman signatures after Mapungubwe declined and was eventually abandoned would best be done at open-air homesteads. Kambaku represents an absolute reshuffling and alteration to forager lifeways. The changes that led to this, though, were complete by *c.* 1300 AD when Mapungubwe ceased to be a state capital.

The final stages of the Later Stone Age

The most significant changes in forager history in the middle Limpopo Valley took place between Phases 1 and 4. It ended with the demise of traditional hunting and gathering lifeways, as far as can be said archaeologically, and witnessed the rise of new ways of living for local forager communities. Building-up to these socio-political developments were a range of new opportunities, which included having access to domesticates, trade wealth, new technologies and interacting with worldviews at odds with their own. Contact with farmers, and possibly herders, led to ruptures within the social fabric of forager culture and was mended, altered, and rewoven using traditional knowledge systems, coping mechanisms, and historically situated cultural logic. These nevertheless led to shifts in the orientation and organisation of their own society. Focussing on these and how they fit into more general central southern African patterns examines processes of market economy growth, access, and place-making. These contributed to an important social development that is often not considered; the appearance of complex society among forager communities.

Chapter 6: Networks of Change in the valley and beyond

Between 1220 BC and AD 1300, foragers underwent significant changes within their society. These shifts were not homogenous. Each of the investigated sites reveal different insights into the mosaic of forager reactions and responses to the changing social landscape. Many of these are idiosyncratic and driven by internal decision making and cultural logics. The variety of responses demonstrates the incongruent nature of contact. Foragers did not relate to farmers in the same way across space; it varied between sites, contexts, and time. The landscape was socially dynamic and variable and forager places and spaces were filled with appropriate cultural signifiers; in some instances, these marked gathering sites (Balerno Main), craft areas (Little Muck & Mafunyane), hunting camps (Dzombo), residential occupations (Tshisiku and Balerno 2 and 3) and mixed residency settlements (João and Euphorbia). The spectrum of change and the appearance of new social networks and systems is vast. Within this, several key developments led to the appearance of complex society among foragers; namely, trade, exchange, mercantilism, craft specialisation, and place-making.

Trade, exchange and mercantilism

Trade and exchange came to be one of the most prominent networks in the valley (e.g. Chirikure 2014; Forssman 2017). The wealth it generated led to the appearance of elite groups, social status and eventually the formation of state-level society (Huffman 2015a). Trade represents a formal arrangement that includes craft economies with specialists, centres of production and agreed upon value systems (Renfrew 1986). It is also part of a historically situated socio-political framework with interlinking value systems. Attached to these goods are cultural logics, political messages, status and value (Denbow *et al.* 2008) as well as prestige and power (Dowson 1994). These are not stripped from the product when it exchanges hands, but their meaning may become contested (Bender 1981). On the other hand, exchange is less formal. It includes barter systems, delayed reciprocal gift giving like *hxaro*, and opportunistic exchanges. Distinguishing between the two archaeologically is possible using specific artefacts, such as toolkits linked to craft production, the manufacturing of surplus stock, and systemic or regular trade at a site or between people. Where these exist, more formalised trade systems were in place but where the occasional item is found it was more likely a system of exchange. Both forms existed in valley forager society.

At first only exchange took place. Balerno Main's sequence contains a range of formal tools, including scrapers (N=114) and backed tools (N=40), and worked bone (N=7), suggesting a variety of crafts were produced. This might have included hide- and wood-working, bone tool manufacturing, and maybe basketry or matting (van Doornum 2008: 271). There is also a large incomplete bead assemblage (N=138), indicating on-site production (complete N=68) (Figure 3.1). Beads and hunting implements (backed tools and worked bone) are associated with *hxaro* gift giving (Mitchell 2003a; Wadley 1987). In addition, colouring material has also been linked to exchange (Bleek & Lloyd 1911: 283 & 377), and in Phase 1 ochre occurs at its highest levels (1.33g/L). The density of remains is also well above the local requirement, indicating excessive production of crafts and other goods (see van Doornum 2008). While showing exchange is not straight-forward (Mitchell 2003a), the overlapping trade indices in the shelter and multiple strands of evidence (ethnographic associations and trade-related production rates) seem to strongly indicate that exchange in one form or another occurred. It may have included systems such as *hxaro* but could also have been casual or direct exchange. No other site contains as clear evidence for exchange as Balerno Main.

Little Muck, according to Hall and Smith (2000), was initially used as a residential camp and van Doornum (2008: 271) noted a narrow range of activities at the shelter. At Tshisiku, low frequencies of complete beads continually decreased from Phases 1 and 2 onwards (0.22/L at their highest in Phase 2), and consistently low incomplete bead frequencies were noted (0.04/L in most phases except in Phase 1, 0.02/L). Worked bone is well represented (N=10; 0.12/L) as well as scrapers (N=32; 0.38/L) and backed tools (N=15; 0.18/L) but no other strong indicators suggest exchange. Dzombo has finished ostrich eggshell beads (N=3; 0.12/L) but no other trade-related goods.

Such dichotomy – trade-related goods at one site and few at the others – follows the aggregation-dispersal model. In the Kalahari Desert, *hxaro* goods were found at aggregation camps and not at dispersal sites where, in some instances, evidence for production occurred (Yellen 1976, 1977). In part, this supports the conclusion that groups were gathering at Balerno Main and exchanging. The disparity between Balerno Main and the other occupied shelters suggests that at least part of its role was to accommodate exchange between foragers. In this context, what is significant is that the results from Balerno Main show exchange networks existed in the valley during Phase 1; or, that is to say, before the arrival of farmer communities.

From the onset of contact, early in Phase 2, farmer-associated items begin appearing at forager sites. Little Muck (Hall & Smith 2000), Mafunyane (Walker 1994), Tshisiku (van Doornum 2007) and Dzombo (Forssman 2014b) all contained ceramics in levels dating to the early first millennium AD. It did not take very long for farmers who may or may not yet have been living in the valley to begin exchanging their items for those made or acquired by foragers (see Wood 2000). For this to happen rapidly, it was not only an existing exchange network that was needed, but also an existing production system. Forager crafts, goods, and subsistence items must all have possessed value to farmers for them to be enticed into exchange relations so soon after first meeting. In other words, the skillset and production base in forager society provided, at least at first, a foundation upon which to develop trade.

Trade with farmers seems also to have stimulated specialisation within forager society. Clark (2007; 289 citing Benco 1998) defined specialisation as 'the investment of labour and capital in the production of a particular good or service beyond what is required for domestic consumption, with surpluses providing the capital required for economic exchanges'. Standardisation of craft tools accompanies specialisation because it reduces artisanal variability (Costin & Hagstrum 1995). Division of labour also appears common where craft specialisation occurs with some communities or members of a community specialising in tasks that others do not perform, a division sometimes based on gender roles or craft function (Clark 2007: 289-290; Kent 1998). Moreover, in anthropological theory, craft specialisation is one of the features that defines complex society (Costin & Hagstrum 1995; Longacre 1999). Are any of these features present at any of the forager sites?

At Little Muck, stone scrapers follow a fairly standardised morphology. End scrapers make up 55.81% (N=221) of the total assemblage (N=396), followed by side scrapers (30.56%; N=121). The difference between these tool types is the location of the retouch relative to the bulb of percussion but both possess a single working edge (single-edge scrapers account for N=342; 86.36% of the assemblage). Of the assemblage, 365 (92.4%) are small (<20mm) scrapers. Morphological consistency aside, 55.38% of the scrapers (N=108) possessed evidence of working rigid materials like wood or bone. It seems, from this, that a highly standardised toolkit was being used primarily for working rigid materials. Hall and Smith (2000) noted that the level of production was over-and-above the requirements of the shelter's occupants. A surplus stock of trade wealth was being produced. Furthermore, while all other activities declined from Phase 2, scrapers increased significantly in Phase 3 (Forssman *et al.* 2018). If anything like the Kalahari Desert, where women were responsible for craft production (e.g. Hitchcock 2012; Lee 1979), with the intensification of craft activities at Little Muck, women may have become empowered in

local society and the market economy. While an interesting prospect, it requires further examination. Whomever might have produced the tools, these activities were concentrated at Little Muck and nowhere else in the valley. Little Muck was therefore a production centre. Based on the standardisation of tools, the regularity of the crafter's toolkit, and the surplus stock being produced at a single site, it appears that foragers at Little Muck became craft specialists.

The only other site with strong evidence for trade is Dzombo. From the beginning of contact, Dzombo became a hunting camp. The hunting tools are highly standardised backed tools with the only difference being the arch of the hafted side of the tool (straight or curved). Evidence of hunting is also abundant with over half the assemblage exhibiting DIFs positioned at the tip of the tools. Consistency in the faunal record but an incline in farmer items links hunting to trade with nearby farmers. This pattern persists through the first millennium AD and changes in Phase 4 when scrapers became more frequent (N=45 versus 21). However, backed tools were still frequent and possessed proportionately as many DIFs as they did in Phases 2 (0.0.7/bucket) and 3 (0.06/bucket) where they dominated the formal assemblage. This indicates a broadening of the production base at the site that now included crafted goods in addition to hunted items. Rather than specialising exclusively on wildlife products they became generalist merchants offering a greater variety of goods. By doing so, foragers at Dzombo were able to make space for themselves in a farmer-dominated landscape. This allowed them to maintain access to the economy, and even increase it, but also continue with their lifeways. It seems to have worked until the decline of Mapungubwe, *c.* 1300 AD. Nonetheless, the emphasis on hunting with a standardised toolkit and the production of surplus stock indicates specialist hunters occupied the site, albeit that there is a greater emphasis on domesticity here than at Little Muck, until *c*. 1000 AD when the market economy expanded.

Trade relations and the impact of trade varied across the landscape. Little Muck and Dzombo shared similar environmental and social contexts but crafts were the main focus at Little Muck while it was hunting at Dzombo with the possible addition of crafts after AD 1000. Mafunyane also exhibits an active craft industry but it includes farmers in the production of metal wares. At Balerno Main, despite the burgeoning trade economy occurring around the site, no real change was recorded. Instead, continuity in site use and function is attested by an almost unchanging archaeological sequence over the course of Phases 1 to 4. Balerno 2 and 3, nearby, exhibit some evidence of trade but interestingly this is different at each site even though they are about 50m apart. Higher densities of ceramics, glass beads and complete and incomplete ostrich eggshell beads were recorded for Balerno 2 whereas scrapers, worked bone and ochre were more frequent at Balerno 3. Tshisiku, at first, contains evidence of trade in the form of scrapers, completed ostrich eggshell beads, worked bone and ochre, which then all decline rapidly in Phase 3, indicating a shift in the site's role in forager society. Trade, exchange and forager involvement in the local economy varied between the sites quite substantially.

While densities varied, trade goods appear fairly regularly at all of the sites (see Chapters 3 to 5). Obtaining farmer-associated goods became systemic as opposed to opportunistic. But, were intangible associations attached to these items also being passed on between foragers and farmers? In farmer society, glass beads and metal symbolised wealth, status and elite groups (e.g. Antonites 2014; Calabrese 2000a, 2000b). Chirikure *et al.* (2013) even stated that only elites were able to acquire glass beads (but see Huffman 2015a: 85). And yet, foragers possessed them as well and at sites like João (Forssman 2016a), Little Muck (Hall & Smith 2000) and Dzombo (Forssman 2014b) in fairly large numbers. Foragers would have been acutely aware of an item's value given that they were supplying the local market with crafts and other goods in return. Had they not been aware of the importance and symbolic associations attached to certain items they would likely become unsuccessful merchants and traders. Clearly, though, this did not happen. Instead, foragers contributed significantly to the local market by providing craft items and wildlife products and likely other items as well. In return, they not only received ceramic vessels and, possibly, subsistence goods but also prestige and wealth items such as glass beads and metal. Metal may

have served a practical role in forager society, but the importance of glass beads is purely intangible. Evidently, trade did not impoverish all foragers.

Despite their participation in trade, foragers were able to remove themselves from contact situations. Specifically, this was during their settlement of Balerno Main. Although there is evidence that trade between foragers continued, very few remains indicate trade with farmers. In Phases 2 and 3, only 22 ceramic sherds were identified even though trade at Little Muck and Dzombo proliferated during this same period. It appears that while at the shelter foragers disengaged from the local market economy. There are several possible reasons why this was so and some of these may have operated in tandem. First, forager involvement and contributions were not sufficient enough to collapse the market if they chose not to engage, such as when living at Balerno Main. Second, foragers were probably valued members of the broader community and respected by farmers. Their traditional knowledge systems provided a unique insight into the natural world and the extraction of resources from the environment. Their various skills, which included hunting, craft production, healing and the ritualistic control of the landscape were likely highly valued as they were in many other parts of southern Africa (e.g. Dowson 1994; Guenther 1977; S. Hall 2000). Forager autonomy may therefore be linked to their unique skillset, which benefitted farmers and the market economy.

Third, trade may have been seasonal. The trade winds which brought merchants along the coast to Sofala facilitated one directional movement for half of the year until the winds blew in the opposite direction (Risso 1995: 4 & 45). In addition, activities might have been governed by seasons. Elephants, for example, are highly mobile and when their numbers dwindled locally foragers may not have been needed (Forssman *et al.* 2014). This seasonal client-patron pattern may have applied to other roles as well, including agriculture and herding labour, as well as rain-control. During the off season, foragers may have avoided farmers or returned to a 'traditional' lifestyle. However, the process of acquiring resources, manufacturing goods, transporting them to a central location and to the coast while returning with goods could only have been a massive operation. One would expect enterprise throughout the year in order to sustain trade and establish wealth, elite groups and eventually state-level society. It may be unlikely that trade-related activities were seasonal even if actual trade was. Nonetheless, since the full scope of local trade dynamics is not known, it cannot be said whether activities included year-round duties.

During Phase 4, forager access to trade wealth was interrupted. When Leopard's Kopje ceramics appeared, farmer social interactions led to the appearance of Leokwe ceramics. Huffman (2014) suggested that Leokwe-using farmers fulfilled a lower status which included, among other roles, craftsmen, herding and rituality. Hall and Smith (2000) suspected this to have been the case and argued these shifts pushed Little Muck's foragers out of the local economy. Foragers seemingly lost access to the market economy and became disempowered within the local socio-political landscape. Except at Dzombo, where they expanded their production base in order to maintain some foothold in the local market. Despite this, the landscape trend between most of the shelters is fairly consistent: a decline in activities and a loss of wealth and place.

Making and ranking place

There are several ways of framing cultural landscapes and their constructions. One particularly useful approach is Castells' (1972, 2000) *space of flow* network (see Forssman & Louw 2018). He saw space as 'a material product, in relationship with other material products – including people – who engage in (historically) determined social relationships that provide space with a form, a function, and a social meaning' (Castells 1972: 152). His framework examined the manner through which places are created, how they related to neighbouring places, what their orientation along lines of communication was,

and ultimately how they became central, nodal or peripheral spaces. Above all, this changes over time, hence the notion of flow (Castells 1972). Tangible and intangible features signal elements of spatial construction. Analysing the ensemble of cultural heritage makes it possible to examine place-making processes.

Castells (1972, 2000) examined space through three lenses (see Forssman & Louw 2018). The *circuit of exchanges* refers to network platforms that connect places. These are infrastructural connective tissues that can be in the form of telecommunication lines, postal services, or pathways between villages. Wallerstein (1974a, 1974b, 1974c, 1974d) and Appadurai (1990) viewed connective fluidity as world-systems or 'scapes', respectively. All systems capture the daily, regulated and programmable sequences of events that occur between people across time and space. *Nodes or hubs* relate to the orientation of places relative to one another. These are indicated by centrality, communication features (linkages), and tangible and intangible construction. Nodes are central places linked to larger networks (Castells 2000: 443). On the other end of the scale are satellite or special purposes places. Understanding this is dependent on understanding larger, landscape-wide social, cultural, economic and political systems. Therefore, multiple sites need to be considered and, importantly, how they relate to one another needs to be clear. In this sense, space serves as a connection between social actions and interactions (Hamanşah 2014). Local geographies play a role in these constructions, which Canepa (2009: 57-78, 2014) called 'topographies of power' (e.g. Deacon 1986, 1988; Parkington *et al.* 2019; van Schalkwyk 2015). As such, considering the important linkages rivers created in connecting central southern African regions, the influence of topographies is very clear in the context of the middle Limpopo Valley (e.g. Chirikure 2014). Finally, Castells (2000: 445) also considered *the influence of people in positions of power.* These can be seen as informational elites or managers who arrange the way space is constructed. In this way, they root culture, history, experiences and decision-making into a place (e.g. site), imbuing it with meaning and importance (Dean & Millar 2005: 14). It is the elite or managers that are responsible for embedding cultural codes within spatial confines (Castells 2000: 446). Castells' (1972) framework suits a peer-place model, which refers to competing places jointly orientated along a network (Renfrew 1996). Those involved in this network are part of a system of exchangers and a shared, although possibly contested, value system (Castells 1972). More simply, it refers to the contemporaneous occupation and nodality of several important places or sites.

At Balerno Main, various aggregation-associated activities took place. As discussed above, that they occurred here and not at other sites supports the conclusion that Balerno Main was a kind-of aggregation or gathering site at which *hxaro* may have taken place or another form of trade. Other aggregation features are less clearly seen. Feasting and worked bone (see Wadley 1986), for example, are poorly represented and ochre is only common in Phase 1. It appears that aggregation activities ebb and flow over time with some being emphasised when others were understated. This might reflect phases of social stress or change. In such instances, aggregation-like activities such as the trance dance, rock painting and *hxaro* gift exchange, were intensified to promote social harmony (Smith *et al.* 1997). The decline of most artefact categories entering Phase 3, but increase in possible *hxaro* items, could reflect this pattern. Space was constructed around both gender division and formalised behaviour by members of the society (e.g. Barham 1992: 45; Wadley 1992: 52). Their input influenced the spatial layout and use of the site and cultural logics dictated the roles that were played within the space, such as gender divisions of labour, gift production and rituality (Wadley 1987). The site was nodal. Different forager groups gathered at Balerno Main as a central point on the landscape, and this did not change from Phase 1 through to Phase 4.

If following an aggregation-dispersal model, Little Muck and Dzombo would both be considered the latter (e.g. van Doornum 2008: 274). But, neither fit the mould comfortably. Each are satellite sites to contemporaneous large-scale farmer settlements. From Phase 2, to these and possibly others they

provided trade wealth in the form of crafted goods and wild produce. The shelters formed part of the trade circuitry of the landscape and was tethered to this network spatially through their proximity to the settlements as well as the river networks along which trade and information flowed (see Chirikure 2014). The latter relates to economic and shared values associated with goods that dictate the trade economy. All involved, including foragers, would need to have this knowledge in order to participate in the market economy (also discussed earlier). The sites also represented nodal points on the landscape. Not only because of their proximity with large farmer settlements but because of their extensive trade assemblages, most notably at Little Muck. As part of a connected landscape, these sites acted as trade centres for foragers. Trade networks were, according to Huffman (2009), controlled by the elites. Therefore, the context of trade bases was managed by people in positions of authority and these systems were adhered to by the network's participants. At both sites, this would have been the resident foragers. They were part of the trade network's strata.

In this context, Little Muck's final occupation phase is interesting even if difficult to interpret. Hall and Smith (2000) suggested that the sudden drop of all artefact categories indicated foragers vacated the space. Instead, K2-users appropriated the shelter based on ceramics and metal in the assemblage and the nearby *mankala* gaming boards (Figure 6.1). However, forager artefacts do not disappear in their entirety and are present in small numbers. Rather than appropriation of the space the finds could rather signal a process of acculturation or assimilation (Denbow 2017; Forssman 2014a). This may mark the gradual abandonment of Later Stone Age technologies in favour of a farmer material culture. Foragers may have keyed into farmer society through labour or trade as well as inter-marriage. These levels at the shelter are immensely interesting but poorly understood. Future work geared towards understanding these final stages of the shelter's occupation might clarify this aspect of the site's history.

Figure 6.1: Mankala gaming boards and grooves in front of Little Muck Shelter.

At the same time, and perhaps supporting the notion of acculturation at Little Muck in an abstract way, is the occupation of João and Euphorbia. Both sites are in proximity to the Limpopo as well as the Motloutse Rivers. João contains a large glass bead assemblage (N=150, although the dates for the entire assemblage are not known), which is unusual for a forager-occupied site, but indicates that the occupants were involved in the local trade network. The site is tethered to Mmamagwa, which is only a few metres away (Figure 5.5) (Forssman 2016a). It may be that João represented a branch of the larger settlement and that to understand the full ramifications of foragers living in the homestead and trading with farmers the entire site complex must be investigated. Euphorbia is similar. It is attached to a large *koppie* that has a multi-tiered settlement structure. Seiler's (2016) excavations were focussed around the lower tier, which in a farmer worldview is

occupied by lower status people (Calabrese 2000a). However, terraces at multiple levels indicate that the larger settlement reflects a complex social structure. If this is the case, it may be possible to place foragers into this social structure and infer their status within the settlement. Nonetheless, both sites, and then later Kambaku, represent entirely new forager settlement patterns and a new construction of the cultural landscape. From one filled with shelter sites, after AD 1000 these diminished, and homestead occupations appeared. These are fixed places on the landscape that resulted in different lifestyles, subsistence decisions, social interactions and hierarchal orientations (e.g. Forssman 2016a; S. Hall 2000). More so, foragers living in these sites, although persisting with elements of their techno-complex, were part of a farmer ideology, spatial structure and social organisation. Foragers were not dictating the space. In this sense, authority must have been governed and managed by resident farmers. Foragers fitted into place-making that was not constructed by themselves. The only shelter site that can confidently be said to have been occupied after *c.* 1200 AD was Balerno Main and it may have also been the only space that foragers had social and cultural control over place-making.

Mafunyane is somewhat enigmatic. It has a very unusual archaeological sequence for a shelter, but it is also potentially problematic. The occurrence of metals in the site is of special interest since they are not commonly associated with forager communities (Miller *et al.* 1998). Metals are associated with elite groups and metal production, especially, is thought to have fallen under the purview of the elites, who may even have been metal specialists (Calabrese 2000b). That metal occurs alongside a very high density of forager stone tools directly implicates their presence during metal producing activities in the shelter. Metals are also not locally available and would need to have been brought in from somewhere else. Significant networks are needed in order to organise this trade item. Those occupying the site, or producing metal in the shelter, would need to be included in this network and included under an elite person or community that managed on site manufacturing. The reserves of metal at the site might indicate it was a sorting station where trade goods arrived and were worked or traded from. The shelter is situated in the proximity of the Limpopo River and well-oriented in the local economic circuitry. Mafunyane therefore displays several place-making features and likely operated as a specialist metal-production site that included foragers.

Finally, Balerno 2 and 3 and Tshisiku show variable artefact density patterns. In Phase 2, pioneer farmer communities occupying the valley (see Hall & Smith 2000) were likely sufficient enough to disrupt forager activity patterns forcing them to concentrate their activities at shelters. As a result, at all shelters there is an increase in the density of archaeological remains. Balerno 2 and 3 were possibly used during periods when Balerno Main was not in use following an aggregation-dispersal dichotomy (van Doornum 2008). Artefact densities remain similar until around 900 AD when Zhizo-users appeared (Phase 3). During this phase, artefact categories decline in density at the three sites until they were eventually abandoned altogether in Phase 4. Had foragers been mobile, as it seems, the lack of interconnectivity between Balerno 2 and 3 and neighbouring sites may have rendered them unsuitable for habitation, or regular occupation. Not being connected to the market economy and the socio-political landscape over the course of state development may have led to social, political and economic exclusion. Those using these sites, therefore, did so less often or spent shorter periods of time at the shelters. Balerno Main, also in a secluded context, was continually used as nodal place.

Tshisiku, however, was not as isolated. It was near to Pont Drift, a large farmer settlement, and in a similar context to Little Muck. Its decline cannot be relative to access and connectivity alone. Other factors must have played a role including forager agency and decision making. At all three sites, a competitive element must have been introduced with foragers vying for access to trade wealth, farmer economies and access to sites in better suited contexts, such as Little Muck and Dzombo. The decisions foragers took in order to cope with new farmer-orientated opportunities likely resulted in these shifts in site roles. Balerno 2 and 3 and Tshisiku, like other sites, were shifting places and exhibit several flows during their occupation.

Place-making played an important role in the way foragers occupied the landscape. The selection of sites and their orientation to one another was important. If an ethnographic or peer-place approach is taken this remains true. In the former, aggregation sites had certain requirements and were surrounded by dispersal camps. As an aggregation camp, Balerno Main was the local gathering site that foragers occupying various other camps during the dispersal phase used. A peer-place approach, which is favoured, relates the role of the site and its ensemble of cultural material to an interconnected social, political and economic landscape. Sites were constructions of this spatial layout as much as they were from the decisions taken by their occupants. Peer-places and access to wealth through specialised activities are features usually associated with social complexity.

Complex society

Conversations around social complexity in southern Africa, for the most part, have not included foragers. Certainly not in the middle Limpopo Valley. However, the outright rejection that hunting and gathering communities developed complex society is baseless. Colonial perceptions viewed foragers as simple and cultureless people (Forssman 2019). They were seen as primitive and unable to develop complex societies without the assistance of foreign groups (see examples in Delius & Schoeman 2010). Colonists considered them to be culturally, materially and socially poor and unable to elevate themselves from a hunting and gathering existence (see Adhikari 2010; Bregin 2000; Gordon 1992; Voss 1987). Even Bleek and Lloyd when compiling their compendium of the /Xam language, a vital resource for archaeologists and particularly those studying rock art, considered their informants (/Xam prisoners) examples of an earlier stage of human evolution (cf. Bank 2006). Some of these views have taken decades to dispel (Wright & Weintroub 2014), but others are not yet moot and continue to influence the way past forager society is envisioned (Francis 2009). It may be that not considering complexity among foragers has its roots in these early opinions. More so, they might also be present in the Kalahari Debate; foragers as affluent hunter-gatherers or the underclass. The debate also envisaged change in forager society as being brought upon not by internal agents but etic forces. Either from twentieth century European contact, as the traditionalists argued, or contact with farmers over the last 1500 years, the revisionist's perspective (Kurtz 1994). Foragers are not given the impetus or ability to change their own society and develop social complexity. Rather, they are relegated to an outsider's role with little influence over social change.

Around the world and in many different contexts, forager complexity has been considered. This, for example, includes Australia (Pate 2006), North (Arnold 1992, 1995, 1996; Prentiss & Kuijt 2004; White 2013) and South America (Marquet *et al*. 2012), Europe (Hood 1993; Mellars 1985) and the Mediterranean (Henry 1981, 1989; Olszewski 1991). That it happened among some foragers and not others in these areas is not refuted (Keeley 1988). By default, one should not anticipate that it could not have happened in southern Africa. Growing evidence in other parts of the sub-continent are beginning to support the notion that some forager communities did develop complexity. In the Northern Cape Province, for example, kite sites for mass slaughters or wild animal herding suggest fixed spaces on the landscape with highly structured social systems (Lombard *et al*. 2020). Jerardino (1996: i) also showed the complex forager society developed along the west coast of South Africa. At Elands Bay Cave, shifts in the sequence especially after *c.* 400 BC signal 'variable socio-economic configurations' largely stimulated by contact with herders. Assimilation, avoidance, co-operative behaviour, delayed-return, conflict and ritual intensification are examples of some of the possible shifts. The possibility that complexity arose on other southern African landscapes is certainly viable.

In the middle Limpopo Valley, were there similar developmental processes in forager society? Is the end result 'socially complex' foragers? It is fairly clear that the spectrum of change in the valley began prior to the arrival or farmers but intensified from the first millennium AD. The nature of change and responses

to new socio-political and economic opportunities weaves through the landscape into a mixed and uneven set of developments. These were stimulated by idiosyncratic and diachronic social interactions. Even though a number of sites have been excavated and in various contexts (including what are perceive as similar contexts) a neat archaeological signature threading through all of these sites does not exist. Instead, foragers seem to have brought a degree of agency to these social interactions responding in ways that suited their context and, one could imagine, skillset and preferences. The inconsistent change and lack of pattern indicates unequal or incongruent access to resources, status, skills, specialisation and mercantile goods, among other things. Viewing foragers as passive is not supported archaeologically as evidenced by the assortment of responses to farmer interactions. But, viewing this in a scalar manner provides strong motivation for complex developments within local forager society. In particular, this is to do with trade and exchange, craft specialisation, wealth accumulation, place-making, and status.

Complexity can be viewed in two forms: as something that took place within forager society and something that took place in society at large. It is generally accepted that the appearance of state-level society took place in the valley (Huffman 2015a). Farmers underwent various social processes, which have been empirically shown, that resulted in a complex society. While undergoing these processes, foragers were present on the landscape and participated in local social networks and systems. They contributed trade wealth to the local economy, assisted in acquiring local and international trade goods, participated in ritual practices, resided in farmer settlements in areas specific to certain social strata (Euphorbia's terracing), and may also have inter-married into society. Many of these social features are also key indicators for state-level society (Huffman 2009, 2015a). Therefore, that foragers were part of these systems indicates that they too were part of the appearance of complex society within the valley, in a more general sense.

Showing that social complexity also appeared in forager communities requires more attention to detail. Change, alone, does not simply mean 'complexity'. It is thought important to consider the trajectory of social shifts in order to argue in favour of complexity. Phase 1 is therefore important to consider in the context of changes occurring in Phases 2 to 4. Certain features are also indicative of social complexity. These include the nature of trade and its extent, craft specialisation, the accumulation of wealth and prestige items, ritual importance, and ranked social groups and places. These have all been discussed at length, but it is worthwhile reviewing key aspects related to each feature in order to demonstrate the appearance of social complexity in forager society.

Trade and the related social features might in fact have been the most significant driver of change in forager society. From the various excavations, and in varying degrees, it is clear that foragers had access to trade wealth. Locally, glass beads indicated social status (Antonites 2014) and their appearance in forager contexts demonstrates forager access to this socially valued item and, with it, certain value systems. Foragers with glass beads, in the context of the valley and the importance local communities placed on these items, would have themselves obtained the associated status (Chirikure *et al.* 2013). Their involvement in the trade of glass beads furthermore places them within an international trading network. No longer are they only part of local trade arrangements, but now they are also contributing and extracting wealth from a global value system to which they are connected. In order to do so, as well as obtain other items, they of course needed to trade goods into the system. They did this at Dzombo by obtaining wildlife products, possibly at Mafunyane through metal work, and likely also by providing ritual assistance at rain-control sites (e.g. Schoeman 2006). But it was at Little Muck that significant social change linked to trade can be observed. Here, the extensive assemblage associated with craft production is over and above the needs of the inhabitants. It also seems to be mostly focussed on the production of specifically wood or bone items but possibly hide as well (Forssman *et al.* 2018). Lastly, trade-associated items increase in density at a time when all other artefact types decline (similarly at Dzombo), suggesting an emphasis on the trade economy. Being the only site of its kind and with such

high artefact densities indicates that Little Muck was also a trade centre. These factors all suggest that craft specialisation arose at Little Muck (see the earlier discussion). The appearance of specialised skills is important in the context of social complexity.

Assessing the appearance of inequalities in forager society can be done in two ways. First, access to trade wealth and its accumulation is unevenly represented at the various sites. Little Muck and Dzombo both possess large trade-related assemblages and are each associated with important farmer settlements. Mafunyane, less so in terms of diversity, but the large copper reserves at the site are non-local and needed to be transferred into the valley. These are without doubt trade items. João and Euphorbia were both integrated settlements with multiple identities all participating in trade and various other enterprises together. They were also fixed places that may represent increased sedentism on behalf of foragers. Balerno 2 possesses a range of trade items after Phase 2, but along with Balerno 3 and Tshisiku witnessed a gradual decline in artefact densities leading eventually to the sites' abandonments. This is also at a time when Little Muck, Dzombo and Mafunyane demonstrate affluence. Therefore, there appears to be a link to the loss of place at Balerno 2 and 3 and Tshisiku and the rise of prominence at other sites. Balerno Main's role remains fairly consistent even though there is an increase in use during Phase 3, which might link to social pressure and increased rituality. Second, and based on this, it appears that sites and those occupying them formed their own ranked system, which included ranked space, based on their access to social systems, wealth and status. Orientation on the social landscape and connectivity between people and places appears to have played a major role in how these strata formed.

Combined, these various strands of evidence signal the appearance of social complexity among valley foragers. Specifically, forager access to wealth, status, and powerful places mark this transition. This may have been contextual since after the decline of Mapungubwe it does not appear to be imported elsewhere like the Zimbabwe culture among farmers which shifted to Great Zimbabwe (Huffman 2009). Rather, foragers took advantage of the opportunities that were available to them, when they were, and then returned to either more traditional lifeways or assimilated into farmer society. Both possibilities are highly likely. Historic texts quite often mention foragers as shifting between hunting and gathering and herding depending on access to livestock (Parkington 1984; Schrire 1980). Similarly, in the Kalahari Desert, Bushmen at times possessed livestock and altered their mobility patterns and subsistence habits to include animal husbandry and even agriculture (Guenther 1986; Headland & Reid 1989; Lee 1976: 409; Tanaka 1976: 100; Wiessner 1977: xx). Shifting their subsistence economy was not uncommon and has been recorded in multiple parts of southern Africa. In the middle Limpopo Valley, foragers may just as easily have transitioned back into earlier habits or new ones if they persisted in living with farmers. The nature of their society was very much about flexibility (e.g. Lee 1976). They were predictably able to ebb and flow within and out of social complexity as with other aspects of their society.

Ignoring forager roles perpetuates the exclusionary practices that continually force forager histories to the edge of consideration when it comes to understanding important socio-political developments. In the middle Limpopo Valley, evidence implicating foragers in broader society undergoing processes leading to state formation and contributing to these systems is clear. The appearance of local economies allowed them to specialise in crafts, provide goods into the market and accumulate wealth also shifting in site preferences and developing ranked space. All of these signifiers indicate that middle Limpopo Valley foragers became socially complex between AD 100 and 1220, before the rise of Mapungubwe.

Social relations across central southern Africa

Changes in the middle Limpopo Valley reflect an archaeological sequence that is not captured on many other landscapes in southern Africa. Resident foragers witnessed, partook and contributed to the appearance of state-level society and all that was associated with these transformations (discussed

in Chapter 5). Corresponding changes, although, were not independent of social, cultural and political landscapes that surrounded it; the valley was not a cultural island. It was tethered to neighbouring regions and part of far broader socio-political and economic landscapes. Understanding shifts from Phases 2 to 4, including the initial settlement of the valley, could not be done without considering broader social regions (see Chapters 4 & 5). Changes in the valley and the role of foragers within larger systems is contextually anchored to extended interconnected networks.

The central southern African landscape is composed of several disparate zones that have seen considerable archaeological attention (Figures 1.1 & 2.1). In the north-west is the Okavango Delta wetlands and Boteti River. To the west, beyond the !Kung areas of Dobe and Nyae Nyae, the Kalahari Desert becomes the Namib Desert; a stony, dune-dominated landscape (Thomas & Shaw 1991). South of the delta is the central Kalahari region which, like the !Kung landscape, has seen considerable anthropological research (Barnard 1992; Silberbauer 1981). North of the middle Limpopo Valley and east of the delta zone, the Kalahari Desert gives way to a bushveld savannah biome, which includes the Matopo Hills in Zimbabwe and areas even further west (Denbow 2017). South of the middle Limpopo Valley is the Soutpansberg and Blouberg, which contains some of the region's earliest farmer settlements (Voigt & Plug 1984). Continuing west into Mozambique, the landscape transforms into a coastal environment with sandy soils and tropical coastal vegetation (Ekblom 2004). Within and between all of these zones, which seemingly fall into only a few broad categories, there is great heterogeneity providing a range of resources and opportunities.

The central southern African landscape possesses several environmental boundaries. The most significant is perhaps the Kalahari Desert. This vast thirstland covers most of Botswana, excluding the eastern rim, and includes the delta zone, which is a unique respite from the otherwise arid landscape (Thomas & Shaw 1991). The delta itself does not obtain its waters from local sources or rain, but from rainfall on the Bie Plateau in Angola. Water is transferred through the Cubango River and its tributaries to eventually reach Maun, on the southwestern edge of the delta, six months later (Denbow 2017: 6). Within the desert, resource patches occur. It is not a homogenised resource scatter, but rather isolated locales of plant life, water and animals (Lee 1976). Moving livestock through this region is particularly challenging, but possible. For example, Lindholm (2006) showed that excavated wells in drylands was a strategy used by pastoralists in the areas south of Nyae Nyae in Namibia. Tanaka (1976: 100) even recorded goat herding among G/wi Bushmen in the central Kalahari Desert, a community which Silberbauer (1981) found to be 'close to the archetype of the 'isolated' hunter-gatherer society as one could hope to come' (Headland & Reid 1989: 48). In fact, archaeologically, a human presence has been recorded in this region since at least the Middle Stone Age (Denbow 2017). Therefore, while it serves as the greatest geographic obstacle in the region, it is nonetheless both passable and habitable. Few, if any, barriers disrupting widespread landscape connections exist.

Instead, the region is characterised by a network of channels and interconnectivity. This is, perhaps, the most important archaeological theme for the region. Dendritic conduits emanating from social regions and especially centralised places, like the middle Limpopo Valley, organised the distribution and spread of prestige and wealth items and value systems (e.g. Chirikure 2014). Archaeologists have tended to focus on connections between hinterland regions and the east African coastline, from which exotic wealth was sourced (e.g. Huffman 1972; Pikirayi 1993, 2001; Pwiti 1996, 2005; Wood 2012). Less attention has been given to inter-hinterland connectivity (see Antonites 2012; Chirikure 2014; Denbow *et al.* 2008). Within these networks, local factors played an important role in the acquisition of wealth and appearance of power (Pwiti 1996), such as cattle, salt, wildlife products like ostrich shell and feathers, and subsistence goods (Denbow *et al.* 2008). Obtaining these and filtering them into, or towards, larger markets was important in hinterland constructions, but it also empowered hinterlands in market-based economies because of their ability to control the flow of goods and elect what passed through their

channels (Chirikure 2014; Prestholdt 2004). Distinct areas all played a role in these markets in terms of their sourcing of resources, production capacity, collective skillsets, and transportation abilities. They are, in this sense, part of a larger trade collective that changes in hue across the landscape and over time depending on the functioning of these vital services. Much like in the middle Limpopo Valley, Castells' (1972) ideas of flow of spaces applies.

There has been considerable work focussing on nodal places in central southern Africa (see Denbow 1984, 1986, 1999, 2017; Huffman 2009, 2012; Swan 1994). Authorities that controlled the construction of space and the centralisation of wealth resided at these sites. Most were in places connected to resource or value areas and, as in the middle Limpopo Valley, the accumulation of wealth through trade played a transformative role in local society. This was observed at sites such as Toutswe in Botswana (Denbow 1986), Mapela Hill in south-western Zimbabwe (Chirikure *et al.* 2014) and Schroda in South Africa (Huffman 2009). At Bosutswe, large reserves of trade wealth indicate relations with the Okavango region, to the northwest, and the middle Limpopo Valley, southeast, as well as towards the east African coastline (Denbow *et al.* 2008). Foragers were part of this system (Klehm 2013). Denbow (1999: 116) identified knapped stone and faunal remains from the Makgadikgadi area (200km away) which he argued indicated a forager presence at the political centre. Surrounding Bosutswe are also open-air forager sites (Klehm 2013: 179) with finely worked stone tools (Denbow 1982). This led Denbow (1990: 172) to conclude that there is 'evidence for larger, interdependent multi-cultural mosaics based upon mutual processes of negotiation, transformation, and change'. More specifically, foragers were part of this system even if only on the outskirts (Denbow 1982). Their role on these landscapes in larger economies might also have had as large a transformative influence as it did in the valley, but this has not been shown archaeologically yet.

Sites and their roles in local society help sketch interconnections across the landscape. For example, Divuyu is situated on the female hill at Tsodilo Hills, an important forager place, west of the delta and was occupied from AD 540 to 1000 (Phases 2 and 3). Faunal remains indicate exploitation of wild resources, including fish and carbonised mongongo nut (*Schinziophyton rautaneii*), all dating to the seventh to ninth centuries AD (Denbow 2011). A skeleton, however, produced a $\delta^{13}C$ value (8.8%) suggesting domesticated plants were consumed (Mosothwane 2010). Extensive jewellery and mining tools associated with specularite extraction were recovered along with a small lithic assemblage (Robbins *et al.* 1998). It appears that the specularite was mined and traded form the site; contributing to place-making at Divuyu was access to this valuable resource. Little evidence suggests Divuyu's occupants interacted with foragers, but 2km away at Nqoma a forager presence is clearer. Nqoma is located on a lower plateau of the female hill but contains more regular evidence associating its occupants with a purely farmer subsistence base – cattle bones, small stock and a grain-based diet – but also a larger forager assemblage (Mosothwane 2011). It appears that when Nqoma was occupied, between AD 650 and 1280 (Phases 2 to 4), interaction between foragers and farmers was more intense and foragers may even have lived within the settlement (Klehm 2013: 181; Mosothwane 2010). Significantly, nearby contemporaneously occupied forager shelters contain little evidence of farmer interactions (Denbow 2011; Robbins *et al.* 2000, 2008; Wilmsen & Denbow 2010). This spatial distinction reflects social stratification (Denbow 2017: 11), as is the case in the middle Limpopo Valley at Euphorbia, with different access patterns to social and economic resources between different groups. Not all foragers had equal access to farmer resources.

To the southwest in the Makgadikgadi Pans there are four important phases. The first two are appropriate here and at Kaitshàa, which overlooks the southern edge of the Sowa Pan, these phases are captured fairly neatly. The first is between AD 650 and 1000 (Phases 2 and 3), considered the Zhizo phase. It is slightly earlier here than in the middle Limpopo Valley because Zhizo-users travelled to these regions before arriving in the valley. Salt was likely the main trade and over 200 glass beads were recovered (Denbow *et al.* 2008). Several of these are of the Chibuene series, which predates AD 700,

also found at Nqoma (Daggett *et al.* 2016; Denbow *et al.* 2008; Wood 2012). The remains of chicken, a non-indigenous species, were also recovered. This all indicates a very early trade arrangement with the east African coastline. The rapid introduction of long-distance trade might further indicate that foragers were quickly incorporated into trade networks to assist with the movement and acquisition of goods (Denbow 2017: 14). In the following period, AD 1000 to 1200 (Phase 4), Leopard's Kopje ceramics replaced Zhizo pottery. Salt was still the main trade item but close to one hundred ivory fragments were recovered (Denbow *et al.* 2008). Nearby, at Mosu 1 (AD 900 to 1300), ivory bangles were also found (Reid & Segobye 2000). However, only a few glass beads were identified (N=4) (Denbow *et al.* 2008). The dramatic decline seems to indicate that the site lost its nodal status or that the occupants were not included in the wealth distribution network any longer. During this period, Bosutswe and Toutswe proliferated and may have drawn more influence than Kaitshàa (Denbow 2017: 15). Those occupying Kaitshàa may also have received other local items in return for their trade goods, with exotic trade wealth now being centralised in more prominent places, like those mentioned but also Bambandyanalo and Mapungubwe. Foragers were networked into these systems. They lived in smaller settlements around sites like those mentioned in the text and played an integral role in the social landscape (Klehm 2017: 607). These networks and inclusive systems highlight cross-regional interconnectivities and the widespread influence other parts of the landscape had on local economies.

Also occurring across the region at the same time is the shift from Central Cattle Pattern to the Zimbabwe Pattern. While it happened first at Mapungubwe, this was soon followed by sites in the eastern Kalahari and portions of Zimbabwe (Denbow 1999: 117; Huffman 1996). At Bosutswe, for example, it began around 1200 AD in the Toutswe phase. However, this was only shifting cattle away from the centre of the settlement, which might relate to heard management strategies (Denbow *et al.* 2008: 476). Toutswemogala, on the other hand, possessed clear status and also shifted to a Zimbabwe Pattern (Denbow 1986; Huffman 2015). In Zimbabwe, Mapela Hill is argued to demonstrate elite spaces, class-based society and possibly the Zimbabwe Pattern (Chirikure *et al.* 2014; Huffman 2015a) whereas Mtanye represents a stratified TK2 or Mapungubwe site (Huffman 2015a). Therefore, a number of sites in quite disparate regions shifted fairly soon after Mapungubwe to adopt a Zimbabwe Pattern. This reflects worldview changes expressed regionally, and fairly rapidly, as well as the sphere of influence the middle Limpopo Valley had on other important social landscapes. Their influence was very much linked to their position on the landscape and the region's ability to centralise the movement of trade goods and, consequently, wealth, prestige and status items.

The middle Limpopo Valley played an integral role in connecting regions, controlling trade, and from this, establishing state-level society. Without access to trade wealth, which was distributed from the specularite mines at Tsodilo, to the salt pans in Makgadikgadi Pans as well as the Soutpansberg to the south (Antonites 2013; Denbow 2017; Robbins *et al.* 1998) and eventually the gold reserves in south-western Zimbabwe (Swan 1994: 22), the development of social complexity may not have taken place in the valley. Several key factors co-existed and resulted in various feedbacks that combined resulting in the appearance of state-level society (Huffman 2015a). While this was happening, foragers were present and throughout this network, including large parts of Botswana and portions of Zimbabwe, they filtered into local society and contributed in numerous ways. This was as craftspeople, hunters and ritual participants, but it might also have involved transporters of goods and inter-marriage. Foragers likely acquired wild products for farmers, raw materials such as stone, and provided labour services (Denbow 2017). They became enmeshed at multiple levels and in different arenas of society. This was nowhere more apparent or integrated than in the middle Limpopo Valley.

Chapter 7: Redressing perspectives of forager interactions

There are probably no archaeological landscapes that compare to the middle Limpopo Valley. Here, unlike anywhere else in the world, foragers participated in the rise of state-level society. They were part of the social network, the distribution chain and the socio-political hierarchy. Whereas the role of foragers is often downplayed in complex societies (cf. Grinker 1992; Stiles 1992), here one would imagine it unavoidable. Although, despite this, it has been. Of all the work emanating from studies in this region, none that discuss complexity or the development of socio-political authorities and landscapes truly consider the role of foragers. Instead, they focus only on farmer communities. If one widens the scope, a far more varied and fluid identity-scape appears, which included foragers who resisted change, adapted to it, became merchants and craft specialists, and resided within homesteads. The breadth of responses is dotted across the landscape and not stored in single sites. If it was not for the variety of studies now completed in the area it would not be possible to construct such an integrated reading of the region's social landscape. The result is a more inclusive archaeology that acknowledges the important role played by indigenous foragers. The findings from the valley show that at least in this part of southern Africa their exclusion was not always the case. Foragers had access to wealth, status and importance and contributed to massive socio-political upheavals leading to the establishment of state-level society. Set against the local sequence, it is clear how these shifts signal transformations in forager communities that led to the development of complex society among themselves.

An integrated and inclusive forager sequence

The transition from Phases 1 to 2 highlights the initial shifts from a 'pre-contact' state into the contact period. At Balerno Main, like in the following phases, it demonstrates general continuity (van Doornum 2008). However, this is significant in terms of local social relations. Foragers were able to maintain their social systems and autonomy despite changes in the local socio-political landscape. Contact, therefore, did not lead to serfdom, subordination or the alienation of forager traditions. In Phase 2, most artefact densities decline except for those linked to rituality, *hxaro* or trade, and hunting. The increase in these artefacts mark an intensification of aggregation-like activities and may reflect forager attempts at harmonising new social issues through more regular trance dances but shorter gathering periods. At Little Muck and Dzombo, the transition was very different. Both shelters were reconstituted across the contact interface as trade bases with craft production increasing at Little Muck (Forssman *et al.* 2018; Hall & Smith 2000) and hunting at Dzombo (Forssman 2015). These activities came to be important features of each site's occupation. Significantly, it provided foragers with access to trade goods, wealth and prestige items. It also demonstrates the rapid rate of change; as farmers began settling the region, possibly the valley as well, contact began and it initiated change within forager society. The early appearance of farmer-items in forager contexts indicates that trade or exchange began fairly rapidly. This would imply that forager crafts, knowledge systems, and skills were relatively quickly valued by incoming farmers, and vice versa. All other sites exhibit a general increase in occupation intensity (Forssman 2014a; van Doornum 2005).

In Phase 3, regular contact with farmers began. Zhizo-users now occupied the valley in large numbers. They were cultivating fields, rearing livestock, trading with locally acquired goods for international items like glass beads and living in fixed settlements with an altogether different cultural assemblage to foragers. The valley also became connected to large regional networks, such as eastern Botswana and southern Zimbabwe (Chirikure 2014; Huffman 2009;). Contact introduced new opportunities into the valley for the incumbent forager population. Zhizo-users were actively involved in trade with the east African coastline which involved the sourcing, transport, management and control of large reserves

of tradeable goods as well as incoming items. Ivory, for example, was an important trade item and this needed to be sourced from the local elephant population (Forssman *et al.* 2014). Rituality was also important. The lack of Zhizo-period rain-control sites but the appearance of Zhizo ceramics in shelters might suggest these spaces were part of their ritual landscape (Schoeman 2009: 279).

At Little Muck and Dzombo, craft production and hunting, respectively, intensified while all other activities declined (Hall & Smith 2000; Forssman 2015; Forssman *et al.* 2018). Mafunyane's use shifted; the density of cultural material climbs steeply but during this phase foragers became involved in metal-working activities (Forssman 2016b). Balerno Main changes little (van Doornum 2008), but it seems a smaller population used the site, or their visits were shorter. Despite the decline in artefact frequencies, aggregation-associated activities appear to have intensified, possibly as a result of increased social pressures. Relative continuity at the site indicates those using the shelter, whether permanently or episodically, maintained a degree of autonomy during the contact period (which includes Phase 4). Similar cultural material to the earlier phases continues and assuming value systems did not change much, those at the site were able to live a fairly comparable life to pre-contact foragers. One might even say that while at the shelter, traditional practices continued unimpeded, but the full impact contact with farmers had on intangible cultural heritage is not known. Tshisiku and Balerno 2 and 3 all experience declines in artefact densities indicating a loss of place and preference (van Doornum 2004, 2007, 2014). The range of reactions to contact with Zhizo-users led to a mosaic of social outcomes. Not all are captured at single sites but rather they are spread across the landscape. Importantly, at some a close relationship between foragers and farmers is clear and this led to shifts in forager place-making and economies.

In Phase 4, the greatest disruption to forager lifeways occurred and corresponded with the eventual appearance of state-level society. The arrival of Leopard's Kopje-users around 1000 AD led to a range of contact scenarios. Zhizo-users met Leopard's Kopje-users and either vacated the valley or altered their ceramic tradition to include K2 elements, forming the Leokwe facies. Their role in society now included craft production, herding, rituality and possibly intermarriage with the politically dominant K2-users (Huffman 2014). Foragers, on the other hand, lost access to these resources and this led to a loss of social status, economic influence and trade wealth (Hall & Smith 2000). Whereas in previous decades their participation in the local economy facilitated the growth of socio-political and mercantile enterprises, new interactions and social roles interrupted their previous activities.

Phase 4 ended with the abandonment of most sites. For Little Muck, Tshisiku and Balerno 2 and 3, this was quite sudden (van Doornum 2000, 2005), while once again at Balerno Main there was little change (van Doornum 2008). Those using Dzombo, while probably fewer in number, hunted proportionately as intensively as before but expanded their toolkit to include scrapers associated with crafts (Forssman 2014b, 2015). They appear to have broadened their offerings in a bid to maintain access to the local market. This response by foragers was an attempt to create new spaces for themselves. The close ties with farmer society also led to foragers occupying farmer sites after AD 1000, specifically at João and Euphorbia but later Kambaku (Forssman 2016a; Seiler 2016). That the beginning of this settlement shift coincides with the declining trend of artefact densities in shelters might suggest that co-residency was one response opted for by foragers which contributed to their disappearance in shelter contexts. Although the full extent of Phase 4 interactions is not fully known, it resulted in a thorough restructuring of forager lifeways and their near disappearance from the archaeological record.

Beyond Phase 4, very little is known. The Mapungubwe polity declined around 1300 AD and the valley may or may not have been abandoned for more than a decade (Huffman 2009). From the mid-second millennium AD it was (re)occupied by Icon- and then Khami-users. At Kambaku, a Khami site, forager stone tools have been identified. Coupled with ceramics and radiocarbon dates, the chronology is fairly

clear, making this the latest known forager assemblage in the valley. Dzombo also has late dates but their association with the stone assemblage is not certain. From the late-1800s, historic records mention foragers (e.g. Elton 1872; Dornan 1917), as do informants (Eastwood & Eastwood 2006: 189-190), but no clear image emerges. Sparingly little is known of this period and of what has been identified, no data offer deep insights into the forager use of the valley during the mid-second millennium AD.

Over the course of these changes, the appearance of certain features led to the development of complex society among foragers. These include new trade, exchange and mercantile opportunities and landscape-wide place-making.

Trade and its impact on foragers

Possibly the most indelible mark left on the forager landscape was the explosion of trade during the late first millennium AD. With trade came opportunities and status. For each to become a reality, participation and access to the economic network was necessary. Generally, this is seen clearly at only a few sites. But, the impact of trade filtered through forager society and is represented at almost all their living sites from the early first millennium AD until at least the decline of Mapungubwe.

Little Muck unquestionably provides the most tangible evidence of trade and trade network participation. From the first millennium AD, it was suggested, the site became a craft workshop and these activities intensified until the beginning of the second millennium AD (Hall & Smith 2000; van Doornum 2000). Increases in scraper frequencies, at times while the overall assemblage increases (from Phases 1 to 2) and even when it declines (from Phases 2 to 3), suggests an emphasis on scraper-associated activities. Based on macro-traces on the artefacts, these were primarily for working rigid materials but possibly also hide-processing (Forssman *et al.* 2018). The extent of craft production exceeded the requirements of the live-in community. Standardised tools were also used, mostly small end scrapers, indicating crafters had set and probably preferred toolkits. These features – craft-tool dominance, dominant craft type production strategies and surplus production – indicate that Little Muck's occupants specialised in craft manufacture. The regular appearance of trade wealth, and especially glass beads, indicates systematised trade relations between foragers and farmers (Hall & Smith 2000).

Certain other sites also contain indicators of regular trade-based interactions. Dzombo, much like Little Muck but to a lesser extent, exhibits evidence indicating the intensification of hunting (Forssman 2015). This was not for personal consumption since the faunal assemblage over the same period that hunting activities increased did not change. The acquired wildlife products were instead traded with farmers for glass beads, metal implements and ceramics, possibly including the latter's contents. This lasted for the duration of the first millennium AD, after which the economy began to change. Foragers broadened their offerings and began producing scraper-associated crafts in addition to hunted products. Such a shift demonstrates economic fluidity within local forager society.

Mafunyane's sequence displays a close link between foragers and metal workers both using the shelter. Evidence of metal working includes a broken crucible, tuyère clay pipe and copper prills (see Walker 1994). A broken figurine found at the site might also be linked to metal-related activities (Calabrese 2000b). The presence of metal working in a forager context has several implications. It represents farmer elites who participated or just controlled metal working stretching their influence into the forager realm taking over a forager space. As a deeply ritualistic process with deep intangible associations, that foragers were included may have been to evoke their spiritual power as 'first people'. The rock art in the shelter might also have facilitated in this (e.g. Hall & Smith 2000). Metal working with foragers participating represents another inlet for foragers into farmer society and means of accessing resources, wealth and even status.

Evidence of trade appears irregularly at most other sites. Only at João was a large glass bead assemblage recovered (N=150). Most came from the shelter along with the majority of the forager assemblage. What the site's occupants provided in return for these goods is not known and there are no indications of what this might have been. Tshisiku and Balerno 2 and 3 also contain some evidence of trade, although this is mostly erratic and in low numbers.

The unequal distribution of wealth into forager society illustrates a social hierarchal system which included foragers at different levels. Social hierarchies are not uncommon in the area and became an important feature among farmers during the establishment of state-level society. It is also an important marker of social complexity (Huffman 2009, 2015a). Incongruent forager access patterns to prestige items demonstrates their uneven social structure. Some had access to farmer goods through their own skillsets or knowledge bases and from this had access to prestige, wealth or important goods as well as possibly subsistence products and social support. Possessing such resources, where for others it was lacking, created social and spatial hierarchies. This is fairly apparent in the archaeological record and not just in terms of the appearance of farmer-associated goods. At the time of Little Muck's and Dzombo's most affluent phase, the Zhizo period, most other sites experience a loss of favour and declining artefact sequence. The activities at Little Muck and Dzombo are preferred and continue when at others gradual abandonment begins.

A patterned landscape

Place-making features strongly in the reading of the valley's archaeological sequence. It helps examine how spaces link to one another and other social features. Much like with the farmer sequence (e.g. Chirikure 2014), linkages between places and people are considered fundamental in the forming of space. Sites, people, places and economies interdigitated in the valley and their boundaries changed over time. Place, as a cultural artefact, is not seen as static and instead viewed as fluid (Castells 1972, 2000). In this redressing of space, interconnectivity, social conduits and exchange networks are considered arterial and thus vital in the function of a landscape.

Following an ethnographic approach to space, Balerno Main largely fulfils the expectation of an aggregation site. It possesses a range of tools, possibly various activities, limited feasting, rituality and what might be *hxaro*. Balerno 2 and 3 and Tshisiku, on the other hand, appear consistent with dispersal camps for large parts of their occupation. Little Muck and Dzombo could represent dispersal camps in Phase 1, but they soon became trade centres. During the early second millennium AD, Little Muck might also represent an acculturated forager occupation site. The persistence of forager cultural material in Leopard's Kopje levels is somewhat enigmatic and poorly understood. However, supporting the idea of acculturation in an albeit abstract way are the finds from João and Euphorbia. Both sites provide evidence for a forager identity within an otherwise typical farmer homestead. It seems that from AD 1000 foragers integrated more wholly into farmer society. The binary aggregation-dispersal model is not suited to accommodate such heterogeneity and change over time.

Partly stimulated by this, the preference here is for a peer-place model. Places are viewed as connected nodal or peripheral points on a social landscape. These connections were fashioned through information exchanges, access routes, network orientations and authoritative personal. The combination of these features resulted in the creation of places; which are, basically, spaces that have been filled with cultural signifiers associated with activities or beliefs. In this light, the construction of Little Muck and Dzombo as trading centres makes sense within their broader context. Each is near to large and important farmer settlements. Leokwe Hill, near Little Muck, also had a vibrant craft industry from the second millennium AD. The place-making of both of these sites overlaps with the place-making of spaces around them. Mafunyane with its smithing enterprise and forager presence also served as a craft location, in this case

away from other farmer settlements and in relative isolation. Once again, the site's social context was essential in forming its role in society. In much the same way, Balerno 2 and 3 are linked to Balerno Main. Their contexts were broadly similar and yet their functions were different. Balerno 2 and 3 operated as satellite sites to the larger Balerno Main which served as an important gathering site, the term preferred here to aggregation. Schoeman's (2009) rain-control sites, which arguably contain forager traces, and Mafunyane fulfil ritual roles as well. The range of sites combine to form part of an interlaced social network tethering spaces and places to one another.

Places, though, also seem to have become ranked at some stage. While during Phase 1, there seem to have been two basic site types, gathering and residential, this began to shift from Phase 2 with the appearance of trade centres. Over the course of this transition, the cultural assemblages at most sites increase in density. Foragers were in more regular face-to-face contact with farmers and as a result they may have concentrated their activities in shelter contexts. However, during Phase 3, certain sites became favoured. Little Muck and Dzombo demonstrate an increase in trade-related activities and at Mafunyane all artefact categories are at their highest density (which is also higher than any other site at any point in their occupation). While these sites became more intensely occupied, at Balerno Main frequencies of artefacts associated with crafts increase slightly but gathering appears to have continued largely unaffected. At all other sites, artefact densities notably decline. Later, in Phase 4, all but Balerno Main experience significant declines in their cultural sequences and homestead occupations appear within farmer settlements, with at least one in a lower-tier location. Shifting spatial patterns did not occur in a vacuum; they were linked and connected across the region. The appearance of ranked spaces also reflects social activities and status of its occupants. Some sites, therefore, came to fulfil a more prominent role in forager society than others, more so than just becoming preferred spaces.

Complexity

These developments within forager society have unambiguously been likened to complexity. All too often complexity has been spoken about in the valley as being a farmer development, when foragers were very much part of valley society. They were not exclusively on the outskirts, passive or absent. Their role as traders, producers, ritual practitioners and sources of knowledge helped them enmesh within local communities. This led to their roles in the mercantile economy and their eventual occupation of farmer settlements. In terms of the wider social landscape, they were part of the rise of complexity.

Complexity also appeared among forager communities. To show this, several features have been identified which are considered important signals of social complexity. Many of these revolve around trade. Trade brought access to prestige and wealth items, which were curated at sites like Little Muck or João, but not all. Accessing glass beads was significant in that it indicates that foragers participated in an international trade system more than just a local network. To acquire these goods and others, foragers needed to provide their own trade items, which has been shown at Little Muck and Dzombo. From Mafunyane, goods might also have been supplied into the trade market with the help of foragers, but it could also be a sorting station where goods were brought to from afar and then worked by farmers. Either way, it implicates forager roles within the ritual landscape and in connection with elite groups who manage metal production. All of these roles placed foragers within a ranked system. This is clear at Euphorbia where forager groups occupied a lower tier within the hierarchal settlement. In this sense, they were part of class distinction. Finally, forager settlements became ranked with certain sites fulfilling a more prominent role in society than others. That these features all developed between 1220 BC and AD 1300 demonstrates a progressive trajectory, beginning with little heterogeneity across the landscape, but which culminated in complex society.

Thinking about complexity is a slightly foreign idea in a southern African forager context, but one that has far reaching implications. It challenges doctrines that have their roots in early colonial perceptions. Disrupting these linkages is essential to moving beyond colonially-derived understandings of indigenous communities and identities. There is no reason why complexity should not exist in some forager communities, whereas in others it may not have. In the middle Limpopo Valley, using tangible indicators certainly provides evidence that forager society developed to such a point that it represents a complex forager society. It comes as no surprise given the social dynamics occurring across the landscape and the trend towards complexity in more general terms, ending with the appearance of the Mapungubwe state. Foragers were active participants in these developments and those within their own society. Acknowledging this and their social developments generates a more inclusive history for the region and recognises their important role in the appearance and rise of socio-political developments.

Middle Limpopo Valley futures

One of the initial goals of this book was to formulate a more cohesive reading of valley forager sequences beyond providing fresh perspectives on forager history. Partly motivating this is a new resurgence of archaeological interest in the forager sequence of the valley. A myriad of projects are currently underway or being designed. These include studies into rock art records, the relationship between forager and farmer ritual spaces, forager and Leokwe-user craft relations during the K2 period, and further investigations into forager sequences, including those that predate the period of interest here. This range of research foci is encouraging and will no doubt provide a refreshing view of forager archaeology in the valley. Having said this, there are certain considerations that should be taken into account.

Ethnography has been problematised here. This is not a new and it has been called into question many times before. However, it has been used wholeheartedly and uncritically in the valley. It needs to be further unpacked. Perhaps, as suggested here, it should be seen as a part of a larger corpus of cultural practices. Historically, though, it is all that was witnessed and anthropologically recorded. On a socially dynamic landscape like the middle Limpopo Valley which includes ritual, trade, economic and socio-political layers, it is unwise to confine the archaeological record to what is known ethnographically from far removed social contexts.

To accommodate this approach, a more expansive understanding of the archaeological sequence needs to be gathered. Tshisiku, Balerno 2 and 3 and Little Muck have all seen limited excavations and only the internal excavations from Balerno Main have been analysed, which themselves are in a limited area. The analysis of the Balerno Main dripline excavation will also advance our understanding of the spatial use of the shelter and may provide further insights into the nature and contents of this gathering site. Furthermore, the surface of Little Muck has hardly been scratched. Only a small portion of the assemblage has been studied. Here, new research and excavations are planned, and the results will further develop our understanding of this very important site. Similarly, Euphorbia has had four probing trenches into key areas, but the site is a multi-tiered hilltop settlement with various levels of social organisation, most of which have not been studied. An extensive excavation program at the site would undoubtedly advance our understanding not only of foragers in farmer sites, but of K2-user social organisation and hierarchies.

Rock art studies are also poorly incorporated into regional sequences and studies (as is often the case due to chronological issues). There are many rock art sites in the area and the sequence is incredibly diverse. It also appears to be more like the art of Zimbabwe than the Maloti-Drakensberg. Eastwood and colleagues performed many surveys, mostly unpublished, but identified a large number of sites and variety of motif forms. Of the little research that has been conducted, most has attempted to understand

the art using exclusively a shamanic model with some ethology. No attempt has been made at testing new theories, applying different approaches, or examining the artwork without reference to the better-known panels of the Maloti Mountains. The field is desperate for new perspectives and alternate ways of examining and understanding the valley's painted record.

Chronologically, the periods predating 1220 BC and post-dating AD 1300 have hardly featured in any study from the area. While this is well justified – being beyond the scope of any study and lacking in materials and sites – remedying this will enrichen the forager sequence for the valley. For the more recent centuries, it will very possibly also help better understand what came of local foragers during the second millennium AD and possibly even help identify modern descent groups if genetic studies are performed in the area.

Most of the forager sequence, barring a few studies, are known through research at forager sites, such as shelters. Little is known of the forager sequence from farmer sites. For example, João, Euphorbia and Kambaku are all farmer sites with forager signatures and Schoeman's (2006) farmer rain-control sites seem to have a forager presence. However, Calabrese (2000a) recorded stone tools at Leokwe Hill and Baobab (see also Calabrese 2007). If produced by foragers, they might indicate their presence in larger regional farmer settlements. The Mmamagwa complex, with Dzombo and João nearby and possibly incorporated into the broader settlement, has not been studied. Not only might there be an integrative social network with multiple identities, but also without doubt a unique and exceptional farmer sequence. Research at this large complex will change the way the landscape dynamic is viewed especially if the site represents a local polity.

Lastly, large parts of Botswana and South Africa have been studied, but Zimbabwe has been almost entirely ignored (except for a few early and hard-to-compare studies). Politically, rectifying this omission is not easy but establishing international collaborative networks would certainly make it possible to do so and promote the cross-pollination of skills and resources.

These futures hardly cover all the possibilities. The field is incredibly diverse. There is a complex archaeological sequence in the middle Limpopo Valley with overlapping economies, essentialised techno-complexes, dynamic social interactions, cultural fluidity, and complex sets of place-making. A lot is known, and here it has been compiled for the first time in a cohesive narrative, but so much more potentially can be learnt. As with any field, advances in technology, methodological approaches and theoretical perspectives will undoubtedly begin to change these ideas and open new doors. Those that have been opened already, provide fascinating insights into past forager lifeways that are in many ways incomparable to what was happening in other parts of southern Africa and indeed the world. Importantly, though, tackling these issues by casting aside colonially held perspectives of foragers and complex societies has advanced our outlook of valley foragers beyond what has been considered previously. It has generated a more complete, inclusive history that recognises the important role foragers played in engineering social systems.

Chapter 8: References

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