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Unmasking the forgotten foragers of the Mapungubwe landscape

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The middle Limpopo Valley is best known because it was here that Mapungubwe arose, southern Africa's first state-level society, appearing around AD 1220. The Mapungubwe state was the culmination of a series of changes and events that date back to about 300 years prior when Zhizo farmers began settling in the region. However, these changes have their roots somewhat earlier when the first farmer groups settled the valley in the early first millennium AD. For nearly a century, Iron Age research has dominated archaeological studies in the valley. Hardly any attention has been paid towards Stone Age foragers, commonly known as hunter-gathers. This article reviews research in the region and presents evidence that depicts foragers as active participants in the rise of Mapungubwe. Through contact with farmers, foragers were able to obtain wealth, participate in the craft economy and develop local status in society. Moreover, during these periods, they were able to maintain their Stone Age lifeways and use their technologies and innovations to contribute to broader social patterns. The article ultimately attempts to more concertedly place foragers into the larger sequence of the Mapungubwe region and recognises their role in local socio-political and economic systems.

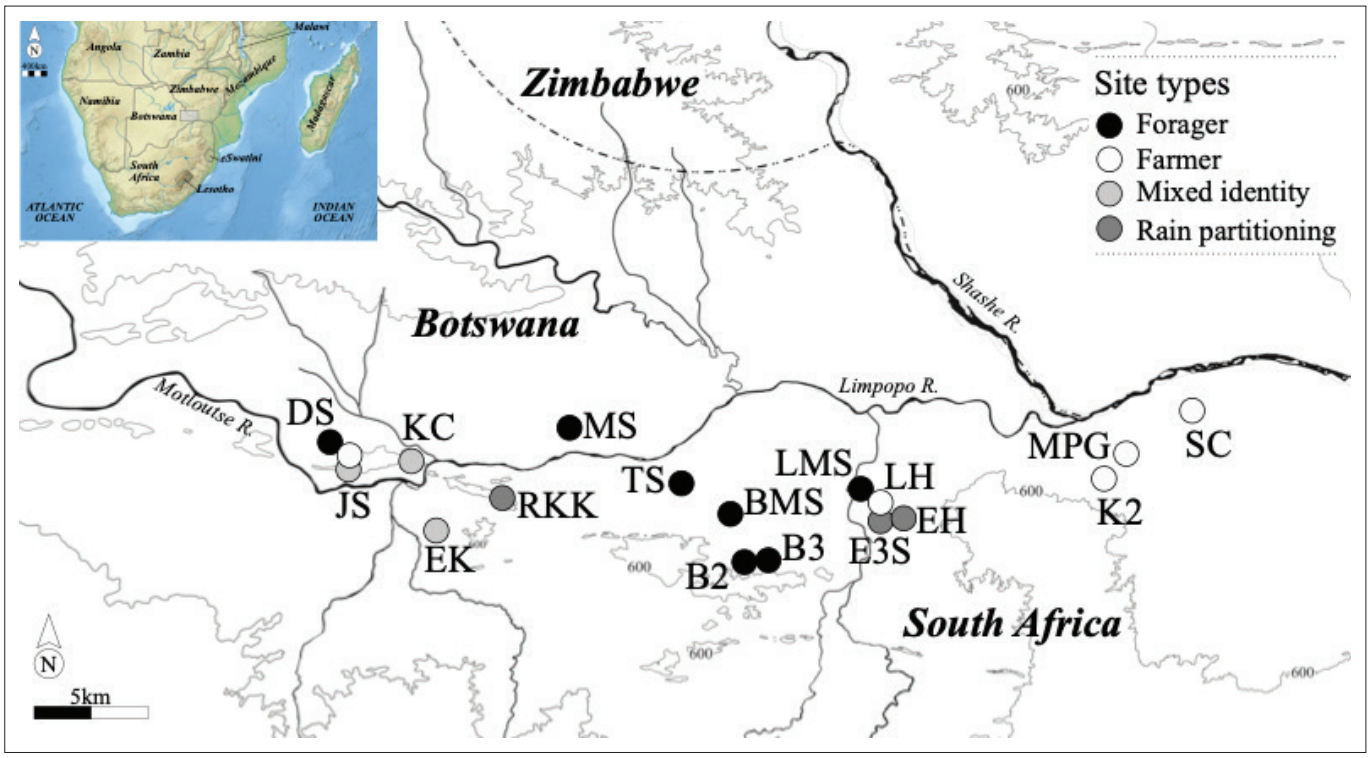
Keywords: Later Stone Age; archaeology; foragers; interactions; Iron Age; Mapungubwe; middle Limpopo Valley; southern Africa.

Introduction

Urbanism is a topic that has interested archaeologists for many decades. Even before archaeological research began, people have been interested in civilisations, kingdoms and early urban centres. Most of the earliest work that modern archaeologists would recognise as principally archaeological in nature was carried out at early state capitals or important centres of civilisation, such as Troy, Pompei or the epitomes of Egyptian dynasties (Fagan & Durrani 2016). Focus was also around prospects of affluent societies that were unknown to the western world but that possessed the promise of great wealth, such as the golden city of El Dorado in South America (Silverberg 2020) or beliefs that Great Zimbabwe contained a wealth of gold (Chirikure 2020). This interest in global civilisations was not equitably stretched around the globe, and there were clear focus areas, for example, South America, Egypt and the Middle East. Many other regions were neglected, including those that are in Africa (Scarre & Fagan 2016; Trigger 2003). Despite this, archaeological interest into the rise of states, kingdoms or civilisations influenced approaches, research agendas and research programmes (Trigger 1989). At times, this was to the detriment of archaeological identities that were not thought to be associated with urbanism.

Mapungubwe is considered southern Africa's earliest state-level society, established c. 1220 CE, and it received considerable attention after it was introduced to the western world in the 1930s (Tiley-Nel 2022). Focus was initially given to the capital itself. On the hilltop, excavations began and uncovered a vast amount of cultural material including golden items buried with three deceased individuals. Excavations continued at the site, but archaeologists became interested in the surrounding landscape in their attempts to understand broader social dynamics during the Mapungubwe period but also the rise of Mapungubwe (Eloff & Meyer 1981; Meyer 1998, 2000). Its appearance, as we now know, was linked to a series of developments that took place over about 300 years, since Zhizo ceramic-using farmers arrived in the valley, c. 900 CE (Figure 1). These included the appearance of royal and elite groups, sacred leadership ordained through the King's exclusive link to ancestors and rain, large reserves of wealth accumulating at the capital through trade networks, political authority, craft specialisation and a re-organised settlement pattern (Huffman 2015). The roots of Mapungubwe, however, are in fact in the early first millennium AD when the earliest farmers began moving into the region. Until such a time, the landscape was exclusively the domain of stone tool-using foragers. Almost a century of research has failed to consider the role that they played in the rise of Mapungubwe.

Note: Special Collection: Celebrating Cultural Heritage within National Parks.



Source: Forssman, T., 2022, 'An archaeological contribution to the Kalahari Debate from the middle Limpopo Valley, southern Africa', *Journal of Archaeological Review* 30, 447–495

B2, Balerno Shelter 2; B3, Balerno Shelter 3; BMS, Balerno Main Shelter; DS, Dzombo Shelter; EH, EH Hill and the Mbere Complex; EK, Euphorbia Kop; JS, João Shelter; K2, Bambandyanalo; KC, Kambaku Camp; LH, Leokwe Hill; LMS, Little Muck Shelter; M, Mmamagwa; M3S, M3S Hill; MPG, Mapungubwe; MS, Mafunyane Shelter (also Tuli Lodge); RKK, Ratho Kroonkop; SC, Schroda; and TS, Tshisiku Shelter.

FIGURE 1: The middle Limpopo Valley with sites mentioned in the text and other notable excavations in the area. Forager, farmer, mixed identity, and rain partitioning sites distinguished from one another.

Southern African forager groups are generally considered to be ancestral to contemporary San societies. The term San is derived from Sonqua or Soaqua, a Khoe word that was given by early colonial settlers possibly meaning to gather but also referring to a lifestyle (Parkington 1977, 1984). These communities were generally considered to be culture-less and lacked social complexity, richness and were viewed as sub-human (cf. Adhikari 2010; Bregin 2000; Gordon 1992; Voss 1987). They were often persecuted for theft or other crimes, hunted and killed as if they were not human enough (e.g., Sparrman 1785:194; Wright 1971). It is from early colonists that many of our understandings of San ancestors stem; the accounts and anecdotes of travellers, missionaries or naturalists provide insight into San groups but are often hued with prejudicial views (Bank 2006). These and other pejorative perspectives of forager groups pervade and have contributed to modern perspectives of the San and their ancestors (cf. Francis 2009; Wright & Weintroub 2014) and influenced our reading of the past (Forssman 2019). Thrust alongside a western interest in urbanism and the development of complex, civilised states the neglect of foragers on landscapes such as the middle Limpopo Valley is not surprising. It is only in a few instances that foragers – based on physiological attributes – have been referred to, in passing, by some scholars (see Tiley-Nel 2022).

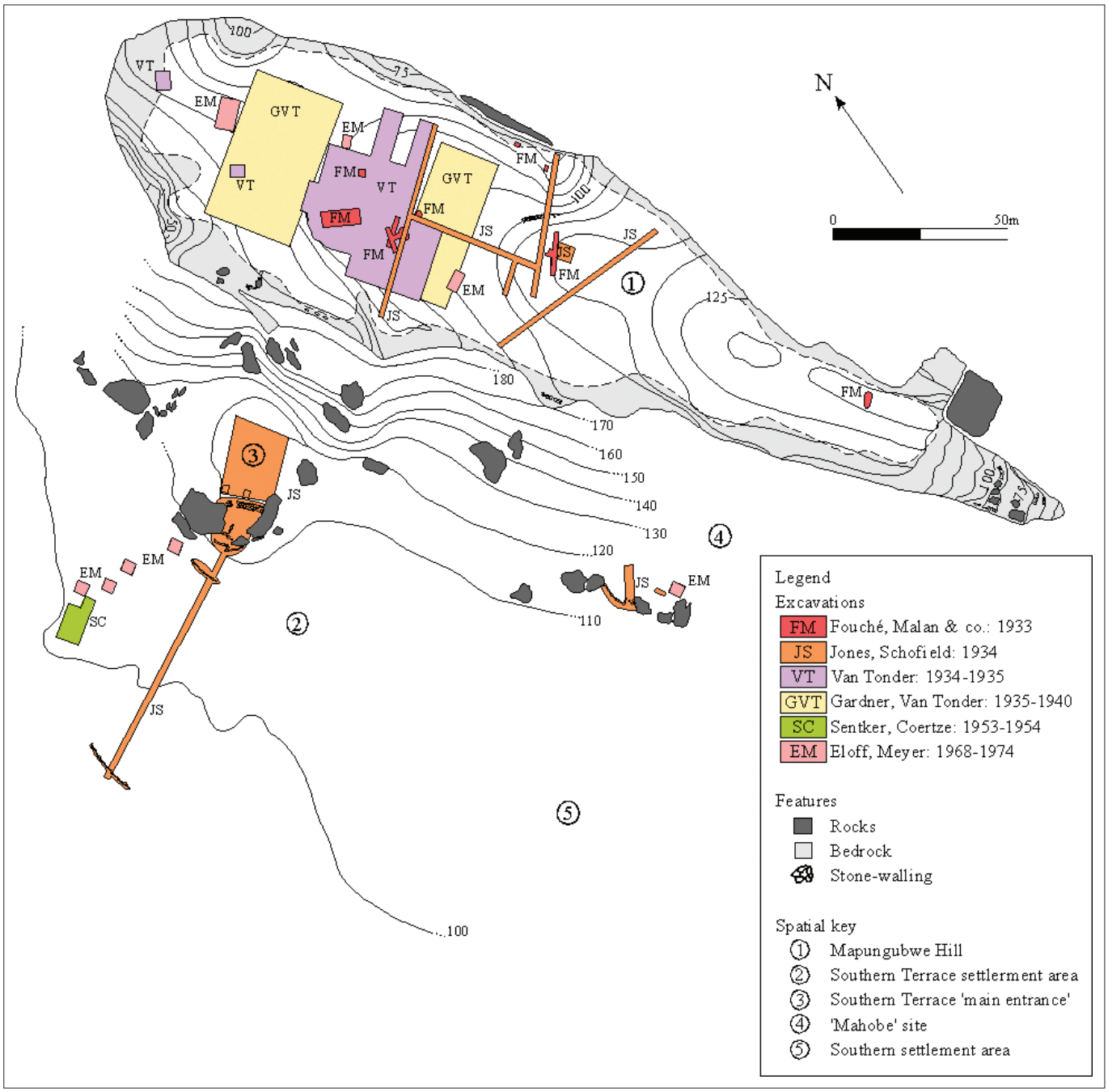
The aim of this article is to focus on forager communities of the middle Limpopo Valley and place their history into the region's archaeological sequence. Moreover, it intends to demonstrate their involvement in the rise of Mapungubwe using results from excavations combined with previous studies. The focus is on the period 900–1300 CE, which saw an acceleration in social upheaval in the valley, referring to shifts in social stratification and social relations (Forssman et al. 2023) and the eventual appearance of the Mapungubwe capital. It is posited that our neglect of foragers participating in these socio-political developments has disarticulated them from important historical sequences in southern Africa and disenfranchised them even further from local pasts. In so doing, we are reinforcing earlier, pejorative views that foragers were incapable of participating in complex societies and instead existed at their peripheral, or not at all (Dowson 1995).

Mapungubwe and a history of its research in the valley

In the eastern portion of central southern Africa, where Botswana, South Africa and Zimbabwe converge, the Limpopo River, running in an eastern direction, meets the south-east flowing Shashe River. After joining, the waters of these rivers flow towards Mozambique and head south-east to reach the Indian Ocean at modern-day Xai-Xai. Exposed sandstone borders large parts of the Limpopo River floodplain partly because it is here that the Kaapvaal and Zimbabwe Cratons meet, forming a mobile belt of geological activities (Bordy & Catuneanu 2002; Chinoda et al. 2009). The sandstone forms a series of hills, ridges, koppies and exposed boulders in a relatively thin band mostly south of the river but also to the north. In the vicinity of the Limpopo and

Shashe Rivers' confluence is a concentration of hills and koppies, some are large while others are small, low-level exposures. Among these is a largely inconspicuous plateau-like koppie that is about 300 m in length and 90 m at its widest. It does not stand out among the koppies; it is not geologically different in any particularly important way, and it does not have natural features that are unique to it. However, it was here that farmer communities chose to establish southern Africa's earliest state-level society.

Mapungubwe was introduced to the western world soon after the Van Graan family was shown the hilltop site by Mowena (although the spelling of his name is now disputed, with some oral history saying, it was a Mokoena), a local resident whose identity is not known, in 1933. The Van Graan party found golden items, glass beads and other interesting artefacts, which they collected and then proceeded to excavate the site in search of more. It was at this stage that they realised the potential significance of the hilltop settlement (Carruthers 2006). One of the Van Graans was a student at the University of Pretoria, and he reported the finds to Fouché (1937), the first Professor of history at the institution. In April 1933, Fouché (1937) began excavations at the site (Figure 2) (see also the earlier publication by Van Riet Lowe 1936). Interpretations were at first limited, largely because there were no trained archaeologists involved in



Source: Antonites, A.R., Bradfield, J. & Forssman, T., 2016, 'Technological, functional and contextual aspects of the K2 and Mapungubwe worked bone industries', *African Archaeological Review* 33, 437–463. https://doi.org/10.1007/s10437-016-9233-z

FIGURE 2: A reproduced map showing the Mapungubwe Hill and the series of excavations that have taken place at the site.

these earlier excavations and that little was known at the time. In addition, the concept of the Iron Age had not yet been developed (Carruthers 2006). A spate of publications that involved debates began from at least the 1960s until the 1970s. Gardner's (1963) seminal report on his 1935–1940 excavations at the site propelled Mapungubwe's international interest (Tiley-Nel 2022). It also contained a bogus claim that the human remains from the hilltop gravesite were Khoekhoe (he used a now-considered derogatory term). Others had likened such human remains to be linked to the Boskopoid man (Galloway 1959), also a misnomer. This claim was part of a larger national narrative that attempted to deny Bantu language-speaking groups connections to Mapungubwe (Schoeman & Pikirayi 2011). The same trend occurred in the interpretation of Great Zimbabwe. Gardner's (1963) conclusions led Van Riet Lowe to request that the University of Pretoria cease its excavations at the site because of the racial interpretations (Tiley-Nel 2022). Despite Gardner's (1963) problematic assertions, his work remains influential and presented novel excavation results as well as the first radiocarbon dates for the site obtained by Tobias (1959). Gardner's (1963) volume was also published after a series of studies at the site that displayed a clear nationalist slant (Dubow 1995).

Not all scholars were so politically inclined. Other attempts led to early studies into the site's glass beads (Van Riet Lowe 1955) and ceramics (Schoonraad 1960). This work eventually challenged the myth of the empty land, which purported a contemporaneous arrival between European and African groups in South Africa. Such racist connotations were undermined by the early 1200 CE date at Mapungubwe (Marks 1980). Nonetheless, politicisation of archaeological research at Mapungubwe and other parts of South Africa persisted (Hall 1990).

Following Gardner's volume (1963), the next in-depth studies on Mapungubwe came from Fagan (1965) and Eloff and Meyer's contributions (Eloff 1979; Eloff & Meyer 1981). Although relatively little was published, Meyer (1998) eventually continued systematic work at the site and reported on the cultural sequence, economy, settlement structure, stratification, chronology and typologies, among other aspects. Slightly earlier, however, Huffman (1982) began his research on the Mapungubwe landscape and applied a cognitive archaeological framework. It was for the first time that theoretical rigour was applied to archaeological research carried out at Mapungubwe. Several of his books, including *Snakes and Crocodiles* (1996) and *The Handbook to the Iron Age* (Huffman 2007), are now standard reference books to Mapungubwe (Tiley-Nel 2022:45). The Handbook, which is an all-encompassing overview of the Iron Age in southern Africa but with an emphasis on the central region, was the culmination of many studies. Among the elements that are featured in the handbook are research on rain control, settlement structures, ceramics, metal, trade wealth, inter-marriage, livestock and migrations.

Research has not solely been focussed at Mapungubwe although it has absorbed most of the attention. Studies have also considered broader social and economic dynamics over a larger area. This includes the initial settlement of the middle Limpopo Valley by Zhizo-using farmers (Du Piesanie 2008), and the influence that the local abundance of elephant and ivory had on migrations (Huffman 2000, 2009). Linked to this latter point is trade, and debates have ensued regarding the influence of local wealth items on society and its timing with the appearance of trade entering from the east African coastline (e.g., Chirikure 2014; Denbow, Klehm & Dussubieux 2015; Denbow 1984, 1990; Huffman 1984, 2009, 2015; Matshetshe 2001; Pikirayi 2001, 2017; Robbins et al. 1998). Following this, there have been several contributions and subsequent debates around changes to settlement and social structures that led to the appearance of state-level society (Calabrese 2007; Chirikure et al. 2013, 2014; Huffman 2000, 2009, 2015; Huffman & Woodborne 2021; Pikirayi 2001).

Ceramic analyses have also dominated Iron Age research since Huffman's (1980) attempt to delineate decorative traditions by developing strict typologies. He began by separating ceramics from contemporary groups and noted that decoration features were part of a larger subset that were shared between members of a group. Huffman (1989, 2007) argued that these shared traditions existed within distinct geographical regions separated by short distances and occupied by different linguistic groups. Of particular use is the general chronological confinement of traditions making it possible to examine decoration type, placement and combinations to determine not only the facies but also the period (Huffman 2007). This method of ceramic analyses has significantly informed studies in the valley, but there are other approaches as well that have not yet been fully deployed in the Mapungubwe area, including *chaîne opértoire* and vessel functional or petrographic analyses (e.g., Pikirayi 2007; Thebe & Sadr 2017; Wilmsen et al. 2019). There have been a range of other study themes and topics carried out at, or in the vicinity of, Mapungubwe. These include studies of human bones (Nienaber et al. 2008; Steyn 1997, 2007), climate change (Huffman 2008; Huffman & Woodborne 2016; Smith 2005; Smith, Lee-Thorp & Hall 2007), metal (Miller 2001, 2002), livestock ownership and consumption (Badenhorst 2010; Voigt 1981; Voigt & Plug 1981; Raath 2014) and geoarchaeology and landscape (Manyanga 2006; Manyanga, Pikirayi & Ndoro 2000; Nxumalo 2019). For the purposes here, these studies will not be reviewed, but summaries can be found elsewhere (Huffman 2007; Mitchell 2002).

It is one thing to list studies relating to farmer archaeology in the valley and claim that it has received more attention than Stone Age research, but several metrics support this assertion. Firstly, as mentioned, interest in the Iron Age began in the 1930s. Other studies in the middle Limpopo Valley were carried out in Zimbabwe in the 1960s (Cooke 1960; Cooke & Simons 1969), but these explorations were followed by

a hiatus until a single excavation in the early 1990s (Walker 1994). A more focused interest developed from the late 1990s (Forssman 2020). Secondly, this emphasis on the Iron Age is reflected in the number of Masters and Doctoral studies conducted in the area. Since 1990, there have been many more Iron Age studies (i.e. Du Piesanie 2008; Manyanga 2006; Murimbika 2006; Schoeman 2006; Smith et al. 2007; Raath 2014) than those that address the Stone Age period (the only studies are Forssman 2010, 2014a; Seiler 2016; Van Doornum 2000, 2005). Not a single rock art thesis has been completed in the region although there have been limited publications in this regard (e.g., Blundell & Eastwood 2001; Eastwood & Eastwood 2006; Eastwood & Smith 2005). In other regions of southern Africa, such as the Cape or the Maloti-Drakensberg Mountains, even where farmer archaeology exists, the Stone Age period has received relatively more attention from postgraduate students (e.g. see Lombard et al. 2012). Finally, a cursory inspection of the South African Archaeological Bulletin catalogue (December 1945–December 2020) reveals that there were 165 research articles and technical reports that mention Mapungubwe. Of these, 43 studies are from the middle Limpopo Valley, and this includes four that examine rock art, three on Later Stone Age, two on Earlier and Middle Stone Age sites, two dealing with the last 500 years and 32 on the Iron Age sequence, representing the overwhelming majority. These figures do not take into account the South African Archaeological Society Goodwin Series of 2000, *African Naissance: the Limpopo Valley 1000 years ago*, in which a single article out of 13 considered the landscape's Later Stone Age occupants (Hall & Smith 2000). While this is a narrow perspective, as it only considers one journal when there have been publications in other local and international journals, it nonetheless offers perspective on the matter.

It is apparent that our understanding of the local Iron Age far exceeds that which we know about the Later Stone Age. The reason for this is perhaps clear; interest in the process of urbanism has dominated studies. However, we have always known that forager communities were present during the entire period leading up to the appearance of the Mapungubwe State. They lived near and occasionally within, farmer homesteads (Forssman et al. 2022) and were involved in other aspects of farmer society and economy such as trade (Forssman et al. 2023) and possibly rain control (Schoeman 2009). As we know that they were around during the socio-political developments and economic growth in the valley, continued disregard of their inclusion perpetuates earlier racist views that foragers were culture less and simple communities that lived adjacent to communities undergoing social transformation. Redressing our understanding of the rise of Mapungubwe is needed to generate an inclusive portrayal of the Middle Iron Age. But historically, there has been a bias towards the study of the Iron Age period, even when the presence of forager archaeology was being acknowledged. Most of the archaeologists have been Iron Age specialists.

Late Holocene Stone Age foragers

The middle Limpopo Valley was once the terrain of only forager groups. Stone Age archaeology from the Earlier and Middle Stone Age transition period, notably the Sangoan Industry c. 300 KYA, has been recorded on the landscape (Kuman et al. 2005), and many Middle Stone Age surface scatters exist (Forssman 2013, 2014a). However, studying these two archaeological periods has proved difficult with only a few sites exhibiting stratification and primary contexts. The Later Stone Age possesses far greater potential for research. Numerous shelters were occupied by its producers from the mid- to late-Holocene onwards. The exception is Balerno Main Shelter that has an early Holocene occupation of c. 11 000 BCE (Van Doornum 2008). Also, Dzombo Shelter may have an earlier occupation than its lowermost radiocarbon date of c. 200 BCE as excavations continued for a further 24 cm and never reached bedrock but yielded no dateable material (Forssman 2014b). As such, there is a lengthy sequence of Stone Age occupants on this landscape. For the purposes of this discussion, what is of interest are the assemblages post-dating contact with farmers, but in particular, from AD 900.

By the mid-first millennium CE, the number of forager-occupied shelters had increased, as did artefact densities (Figure 3). The occupation of Tshisiku and Dzombo Shelters was ongoing, Balerno Main Shelter was re-occupied, and all other excavated sites were settled, seemingly for the first time, including Balerno Shelters 2 and 3, Little Muck Shelter and Mbere Shelter (Forssman 2020). This has variously been interpreted by scholars but most link it to farmer movements in the extended region. Walker (1995) noted a similar, but earlier, increase of forager-related cultural artefacts in Zimbabwe's Matopo Hills that he thought to be the result of a bow-wave migration of foragers ahead of farmers migrating into the region. This led to a concentration of foragers in the granitic domes of the Matopos and an intensification of various activities. Similar arguments have been made by Mazel (1989) and Hall (1994) in the Maloti-Drakensberg. Van Doornum (2005) argued that a similar occurrence took place in the middle Limpopo Valley around the BCE/CE transition, hence the increase in forager sites. Hall and Smith (2000), following Moore (1985), suggested that as farmer groups entered the valley, forager spaces became restricted, thus forcing a settlement shift leading to their increased use of shelters. Empirical evidence only shows a relatively sudden appearance of foragers in shelters. It can only be speculated as to where they were before. Whether it is the population or socially driven, it is apparent that Later Stone Age material increases in density from a few centuries before farmers appear in the area. It is likely that a better understanding of pre-contact forager settlement patterns, and in particular, of open-air spaces that were more often used after meeting farmers, will aid in better understanding this sudden change.

Between the different forager sites, there are various changes during the first millennium CE. This is likely because of

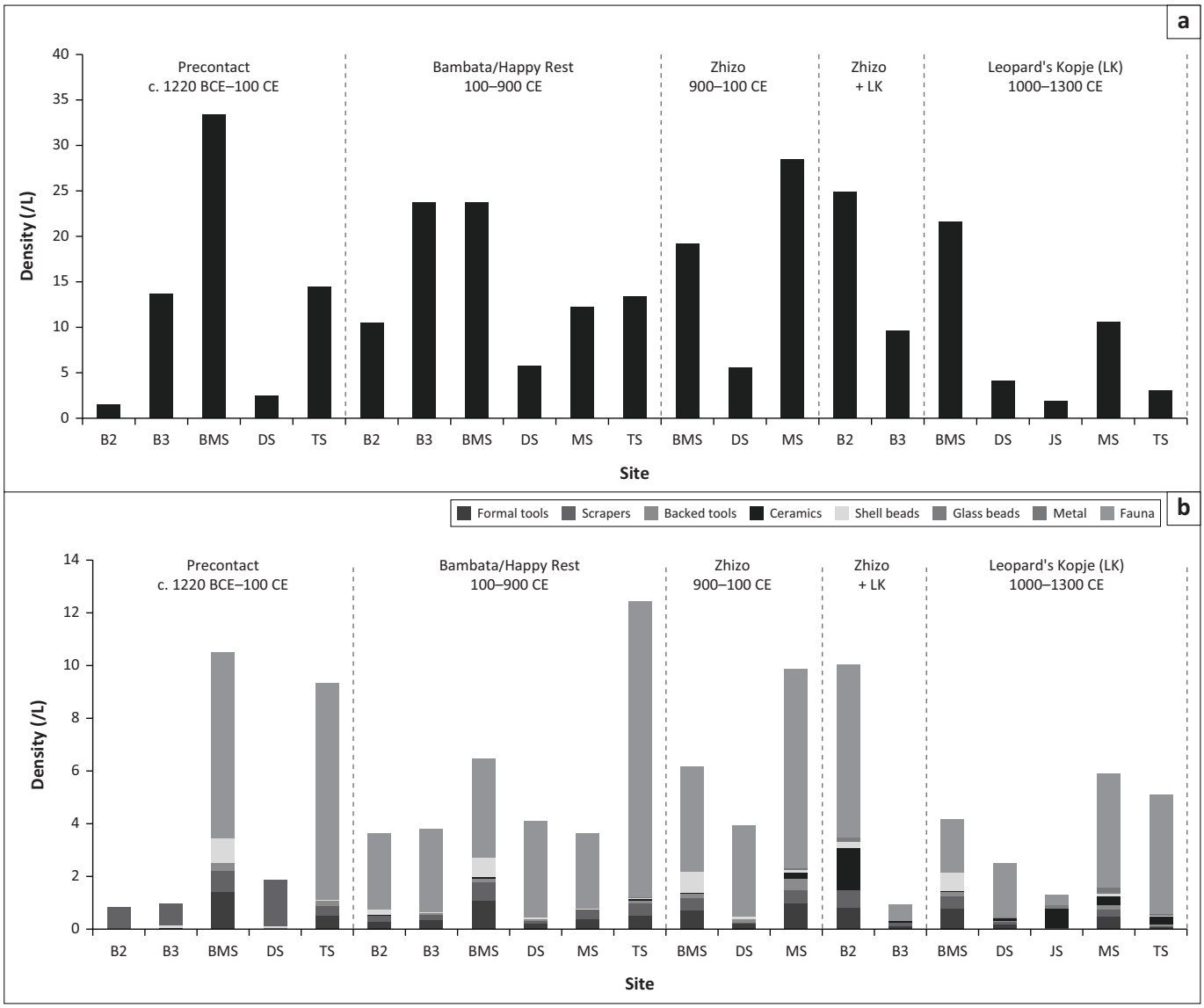


FIGURE 3: Artefact density change from 1220 BCE to 1300 CE at the excavated shelters: (top) the density of stone tools only and (bottom) the density of different artefact categories.

contact, its intensity, nature, and forager responses to the ensuing social networks. Many of the changes that take place during this period, prior to 900 CE, seem to continue into the Zhizo period and eventually the second millennium CE. Although this phase may be important in understanding the role played by foragers during state formation, the primary focus is what takes place after this period. Nonetheless, several points are worth mentioning here. From the first millennium CE, new opportunities appeared and led to shifts in forager activities and toolkits. This is most clear at Little Muck and Dzombo Shelters where craft activities and hunting were emphasised, respectively (Figure 4). Foragers at Little Muck Shelter began producing large amounts of stone scrapers that are thought to indicate the growth of craft activities that exceed their requirements. This is accompanied by an increase in farmer-related trade wealth, including ceramics, possibly their contents although this is not known, glass beads and metal items (Hall & Smith 2000). It is not clear what foragers were producing, but a use-wear analysis (Forssman, Seiler & Witelson 2018) and a follow-up replication study and comparison with specimens collected in renewed excavations at the site (Sherwood & Forssman 2023) indicate that it was rigid materials, such as wood, bone, ivory or tortoise shell. Dzombo Shelter also exhibits trade-linked change at this time, but it is related to hunting. An increase in stone-backed tools and the odds of diagnostic impact fractures forming on them appear to show an intensification of these associated activities. This is not reflected in the faunal record, but one would not expect a change in animal remains at the site if these activities are associated with trade (Forssman 2015). Contact with farmers, and the associated change in opportunities, stimulated shifts in forager activities, but this was possibly based on their own skillsets as indicated by heterogeneous reactions. In both cases, though, this was related to trade or exchange.

Another important change that took place in the first millennium CE are settlement shifts or the lack thereof. At Balerno Main Shelter, an interesting record of continuity

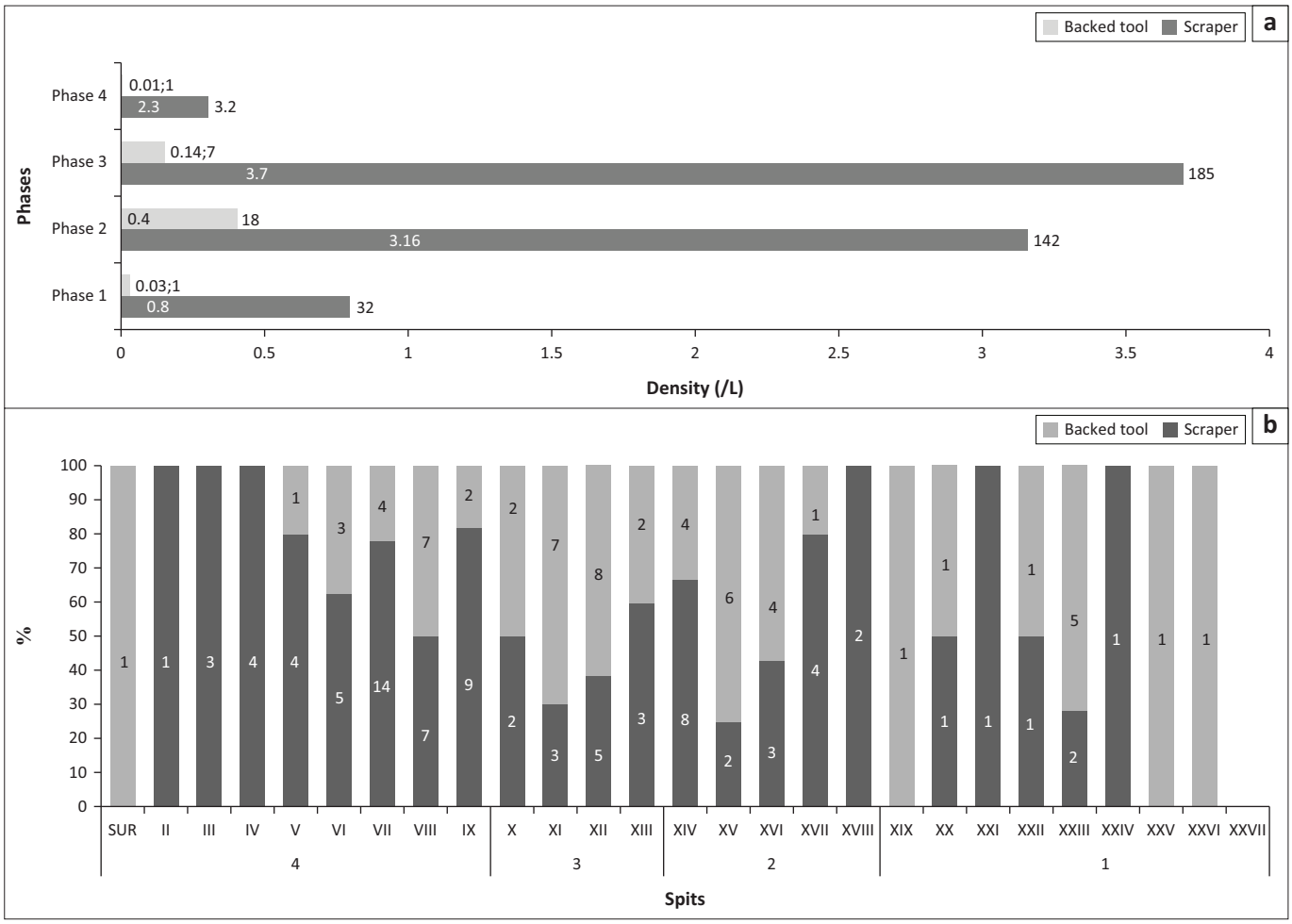


FIGURE 4: Comparison of scraper and backed tool numbers at Little Muck Shelter (above) and Dzombo Shelter (below).

has been recorded (Table 1). All main artefact categories largely remain in equitable representations throughout the sequence. For example, the main stone tool types produced in the late Holocene were scrapers and backed tools, both in various forms. From the BCE/CE transitional period to the second millennium CE, scrapers outnumber backed tools consistently between 2.9 and 3.8 to one with a slight increase in the first millennium CE before 900 CE (4.4:1). Overall, though, during this same period, the density of formal tools declines – 1.5/L to 0.8/L – with the lowest appearing in the Zhizo phase (0.7/L). Core frequencies remain mostly consistent, around 0.6/L – 0.7/L, with a minimum density in the Zhizo phase at 0.5/L. Small flaking debris and flakes fluctuate slightly, more than cores do, but together they indicate that on-site production took place and was regular throughout the site's occupation. Bead production also took place from the earlier occupation phases until the decline of the Mapungubwe capital at 1300 CE with more unfinished than finished beads throughout the sequence. Interestingly, there are very few farmer-associated items at Balerno Main Shelter. Van Doornum (2008) argued that these features indicate the site was an aggregation camp, an ethnographically recorded settlement type that existed for short periods within the annual cycle when forager groups aggregated at a camp to exchange goods, feast and perform rituals. Van Doornum (2008) suggested this continuity may have been the result of the site's use as a refugee camp because of its relative isolation from nearby farmers, who were at least 3km away. This distance is relatively small, and probably insignificant, but it may be the reason Balerno Main Shelter was consistently used in the way that it was. In any event, little changed at the site, unlike at Little Muck and Dzombo Shelters. It was also during this period that Mafunyane Shelter was first occupied as well, but the frequency of remains indicates a low-intensity occupation. Results from Tshisiku, Balerno 2 and 3 Shelters all show a gradual decline in artefact densities (see Figure 3), possibly indicating fewer users, less activities or that the sites were no longer used as often or preferred. Either way, these changes and others (for details, see Forssman 2014a, 2020; Van Doornum 2005, 2014) were initiated at the onset of contact with farmers but continued, and in some cases changed, after 900 CE, the period of interest here.

The Later Stone Age sequence from 900 CE exhibits a diaspora of forager changes including more pronounced settlement shifts. Balerno Main Shelter continues to exhibit limited change, as does Little Muck and Dzombo Shelters until at least 1000 CE. At this point, it appears that the occupation at Little Muck Shelter shifts and the site was utilised more as a campsite than a craft centre as it was before (Forssman 2020; Forssman et al. 2023). Most artefact categories decline,

TABLE 1: Balerno Main Shelter's cultural material sequence expresses little notable change between 1220 BCE and 1300 CE.

Artefacts	Phase 1†			Phase 2‡			Phase 3§			Phase 4¶		
	No.	%	Volume	No.	%	Volume	No.	%	Volume	No.	%	Volume
Stone tools	4912	-	33.41	16990	-	23.73	3400	-	19.21	7575	-	21.58
Chalcedony	2931	59.67	19.94	10861	63.93	15.17	1991	58.56	11.25	4755	62.77	13.55
Quartz	902	18.36	6.14	2513	14.79	3.51	586	17.24	3.31	1282	16.92	3.65
Small flaking debris	1454	-	9.89	5178.80	-	7.23	1580.80	-	8.93	2092.20	-	5.96
Cores	101	2.06	0.69	446	2.63	0.62	81	2.38	0.46	250	3.30	0.71
Formal tools (FT)	215	4.38	1.46	764	4.50	1.07	126	3.71	0.71	277	3.66	0.79
Chalcedony	201	93.49	1.37	724	94.76	1.01	120	95.24	0.68	261	94.22	0.74
Quartz	8	3.72	0.05	29	3.80	0.04	5	3.97	0.03	8	2.89	0.02
Scrapers	114	2.32	0.78	524	3.08	0.73	89	70.63	0.50	171	61.73	0.49
Backed tools	40	0.81	0.27	118	0.69	0.16	25	19.84	0.14	56	20.22	0.16
Ceramics	0	-	0.00	21	-	0.03	11	-	0.06	13	-	0.04
Shell beads	206	-	1.40	787	-	1.10	208	-	1.18	390	-	1.11
Complete	68	33.01	0.46	275	34.94	0.38	70	33.65	0.40	151	38.72	0.43
Incomplete	138	66.99	0.94	512	65.06	0.72	138	66.35	0.78	239	61.28	0.68
Glass beads	0	-	0.00	0	-	0.00	0	-	0.00	0	-	0.00
Metal	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
Worked bone	7	-	0.05	5	-	0.01	3	-	0.02	7	-	0.02
Ochre (g)	195.69	-	1.33	393.7	-	0.55	123	-	0.70	156	-	0.44
Fauna (g)	1041.84	-	7.09	2709.87	-	3.78	699	-	3.95	704	-	2.00

†, Volume 147 L; ‡, Volume 716 L; §, Volume 177 L; ¶, Volume 351 L.

but they persist, nonetheless, only at lower levels. This is in contrast to Hall and Smith's (2000) conclusion in which they stated the site became a farmer initiation site. However, even in their excavations, Later Stone Age artefacts continued (see Van Doornum 2000). If it was an initiation site, it was still visited by foragers. At Dzombo Shelter, the dominance of backed tools shifts at 1000 CE, and scrapers become more frequent. This likely reflects a shift by resident foragers to include a broader set of offerings as trade and exchange continued from the site indicated by the continued presence of farmer-related goods in the shelter. Although the backed tools have been examined for use wear, which showed the comparable occurrence of hunting-related damage to the first millennium CE, the scrapers have not been investigated and doing so may provide indications of what they were being used for. During this period, Mafunyane Shelter's artefact density increases massively to have one of the highest densities of stone remains in the region (28.5/L) behind Little Muck (46.7/L). However, of particular interest is the appearance of metal at higher densities in the deposit than has been found at any other site (n = 5; 0.1/L), along with 91 g of metal prills (17.5 g/L) and a tuyere fragment in levels dating to the Leopard's Kopje period, after 1000 CE, all in an ashy deposit (Figure 5) (Forssman 2016). While the use of each of these sites changed, barring Balerno Main Shelter, they all exhibit a decline in the density of forager remains, including the sequences at Tshisiku, Balerno 2 and 3 Shelters (see Figure 3).

Beginning when Later Stone Age shelter sequences decline in density is the appearance of stone tools in erstwhile farmer spaces. To date, two settlements from the Leopard's Kopje phase have been examined: João Shelter, which includes an outside homestead in front of an approximately 8 m wide shelter, and Euphorbia Kop, a terraced K2 site with a small,

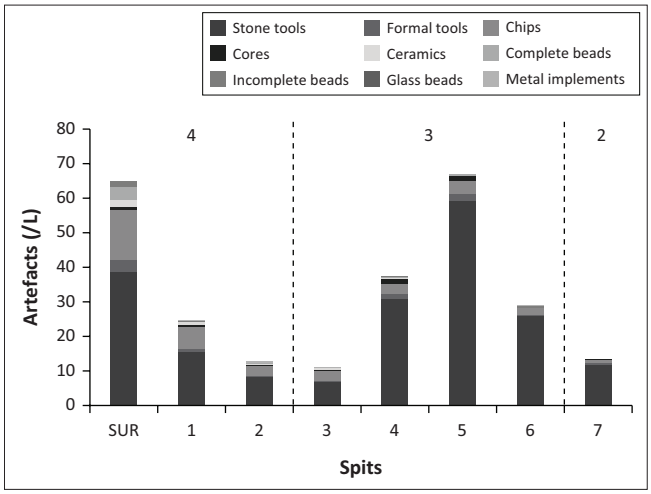


FIGURE 5: Artefacts retrieved from Mafunyane Shelter including those that demonstrate metal smelting or smithing activities at the site.

sheltered area included in the settlement's outskirts. Although both sites contained different assemblages (Table 2), each includes stone scrapers morphologically consistent with others from forager-occupied shelters and João possessed finely worked backed tools. The Euphorbia assemblage is small, with 195 tools, but several stages of the reduction process are present indicating on-site manufacturing (Forssman et al. 2022). João Shelter includes 3166 stone tools and the assemblage differs between the shelter and homestead. Most of the tools are from the shelter (N = 2552) and were produced using Crypto-Crystalline Silicate (CCS) materials (43.5%). The assemblage contains 57 formal tools (1.1%), which include 24 scrapers and 23 backed tools. The homestead assemblage was smaller (N = 614) and quartz-dominated (46.3%). Formal tools include four scrapers and three backed tools with 11 tools in total (1%). The formal assemblage from both areas of the site is dominated by CCS

TABLE 2: A summary of finds from João Shelter and Euphorbia Kop.

Artefact details	João			Euphorbia	
	Number	%	Volume	No.	%
Stone tools	2967	-	1.89	158	-
Chalcedony	1433	37.76	0.91	45	28.48
Quartz	812	27.29	0.52	111	70.25
Small flaking debris	461.50	-	0.29	36	-
Cores	88	3.00	0.06	5	3.16
Formal tools (FT)	66	2.25	0.04	4	2.53
Chalcedony	57	86.36	0.04	4	100
Quartz	3	4.55	0.00	0	0.00
Scrapers	32	42.42	0.02	4	100
Backed tools	26	39.39	0.02	0	0.00
Ceramics	1117	-	0.71	1992	-
Shell beads	87	-	0.06	236	-
Complete	77	32.49	0.05	236	100
Incomplete	10	4.22	0.01	0	0.00
Glass beads	150	-	0.10	4	-
Metal	11	-	0.01	0	-
Other ornamentation	0	-	0.00	0	-
Worked bone	0	-	0.00	0	-
Ochre (g)	0	-	0.00	0	-
Fauna (g)	667	-	0.42	342	-

Note: Volume = 1572.71 L.

(83.8%). Based on ceramic and glass beads found in both areas, each part of the site was occupied contemporaneously. Finally, like Euphorbia, João's assemblage also contained a range of tool types that indicate on-site manufacturing, including small flaking debris (51.4%), cores (N = 88; 2.3%), as well as complete and incomplete flakes. Both João and Euphorbia Shelters appear to indicate that post-1000 CE, foragers began spending time in farmer homesteads, but whether this was permanently, temporarily, or during short visits to the homesteads is not clear.

The number of sites excavated in the valley provides the opportunity to think more broadly about the local Later Stone Age sequence. However, it also allows for the examination of a series of forager responses during the rise of Mapungubwe. The different sites show various roles played by foragers, their forms of participation in local society and the outcomes, in some instances, of these activities.

Foragers during state formation: Some final thoughts

Reviewed above is a swathe of findings made across the middle Limpopo Valley at forager-occupied sites that span the last centuries BCE until the decline of the Mapungubwe state, 1300 CE. This collection of sites shows varied reactions and responses on behalf of foragers. It is clear that, when reviewed together, foragers were not forced into certain roles or positions in society, although this may have changed over time and across space. For example, if foragers were mobile, which is generally assumed, then they lived a more 'traditional' lifestyle while at Balerno Main Shelter compared to when they occupied Little Muck Shelter where intense craft production episodes took place. With this in mind, it is then worth considering what we mean by 'forager' during this time – do changes to their lifeways and subsistence habits render this term inappropriate or is it still relevant when referring to people descendant from pre-contact foragers? These indicators and questions stem from the various archaeological finds and show that using the local archaeological sequence as it is spread across the landscape is the most viable method to understanding the role foragers played within ensuing socio-political and economic systems.

The variable responses to contact 'stored' in different sites are particularly interesting. However, mobility needs to be considered. If foragers were moving between sites, then their residential spaces as a collective offer us a glimpse into forager ways of living during this time. This inter-site mobility is a prediction that has its roots in Kalahari ethnography where San groups moved regularly mainly as a result of the sparsity of available resources (see Hitchcock 2004). These conditions were not present in the middle Limpopo Valley, and the pressure to move was understandably diminished. Moreover, as Moore (1985) argued, with a farmer presence came stasis within forager society because of diminishing available land. As such, and which Hall and Smith (2000) advocated, foragers visited shelters more often and spent more time within them. Therefore, the likelihood that foragers were regularly moving between sites is perhaps overstated and lacks any evidence. Rather, there are indicators that foragers remained at sites, supported by both their different cultural sequences as well as the lack of goods being transported between these sites. For example, the density of farmer-associated trade wealth swelled at Little Muck Shelter but at Balerno Main Shelter, only 7.5 km west, is absent. It would seem unlikely that foragers were working hard to procure trade wealth just to abandon it when they moved to a nearby site. Instead, it appears that site sequences are a reflection of forager ways of living in those specific contexts who may not have been moving as often as is generally proposed.

Sites as constructs are themselves cultural material (Harmansah 2015). We see this in the valley quite clearly with respect to the range of archaeological expressions contained in shelter deposits, as described. It provides us insights into forager ways of living during the rise of the Mapungubwe State. Importantly, we can see that they were present during this time, and recent findings indicate that some were also involved in developing the economy, specifically those at Dzombo and Little Muck Shelters. This is notable for a few reasons. Significantly, it was during a time when international trade wealth but also local goods were contributing to the appearance of a stratified society (Calabrese 2000). Items such as glass beads and metal, both being found in forager contexts, were revered as prestige items and denoted wealthy elite groups (Calabrese 2007; Moffett, Hall & Chirikure 2020). It was upon these that the Mapungubwe Kingdom's wealth was founded. Therefore, while wealth items were playing a transformative role in valley society and being curated by elite groups, they were also appearing in forager contexts and at Little Muck Shelter,

and to a lesser extent at Dzombo Shelter, in larger numbers than elsewhere. While value systems are not inherent to trade goods, both of these sites were geared towards trade and, as such, acquiring goods was intentional, and thus they must have held some form of value although what precisely we cannot say. Nonetheless, foragers in the valley were obtaining prized goods by introducing their crafts into the local economy. At Little Muck Shelter, these activities fundamentally transformed the site's use and the presence of cultural material. Compared to other shelters, including places like Tshisiku and Balerno 2 Shelters, there is a far more regular accrual of trade wealth in the sequence. Perhaps this is not surprising, as Dzombo and Little Muck Shelters were geared towards trade, but it shows that foragers organised their landscape differently. The decline in cultural material densities, as was also recorded at Balerno 3 Shelter, and the relative continuity at Balerno Main Shelter, also supports the possibility that ranked spaces emerged. These various transformations cannot all be observed at a single site but with the luxury of having multiple excavation results available to us; we are able to stitch together these different cultural expressions and observe diachronic continuities and discontinuities.

It is likely that the only viable way to place foragers within a larger socio-political system requires that we consider landscape patterns. Forager responses, as shown in the previous section, were not homogenous or unanimous. Instead, they seem to be mosaiced with various outcomes that indicate their involvement in a range of networks that appear differently between sites. Discussed more here is trade, but there are also indicators that foragers participated in farmer rituals. At several rain control sites excavated by Schoeman (2006), stone assemblages were recovered in context and associated with ritual-related activities. The assemblages do not strongly resemble those found in shelters, as they lack formal tools and were dominated by quartz but may nonetheless signal their role in the ritual. These sites post-date 1000 CE when forager tools begin appearing in farmer homesteads and Later Stone Age remains in shelters decline. At Euphorbia, the 'forager space' is a shelter next to the site located at the base of the koppie. Up the koppie are several residential platforms indicating status (Huffman 2015). This spatial organisation reflected one's position within the site's hierarchy and foragers occupied a rung in this ladder. Although this is at the base of the social order, it is nonetheless part of it. The turn of the first millennium CE is also when Hall and Smith (2000) suggest that Little Muck Shelter was appropriated by farmers and used as an initiation site (Huffman 2014), with foragers abandoning the shelter. These findings combine to show that from 1000 CE, forager and farmer interactions changed in nature, and this seems to have included much closer relations; they shared spaces more often, and foragers appear at various levels of society. Future studies investigating these matters will be forced to think more broadly about identity categories and whether they apply during the second millennium AD, considering the closeness between groups, as they did prior to contact.

Considering these key factors – a forager presence on the landscape when the processes of state formation had begun, their involvement in trade systems and ability to obtain wealth when it indicated status, and their close residential and other relations after 1000 CE – our continued neglect of foragers in our study of the rise of the Mapungubwe Kingdom is unjustified. It perpetuates the perception of forager communities, stemming from earlier colonial views, that they were not part of important social, political and economic systems in southern Africa. These views do not provision forager histories with the roles that they played in developing networks, and they do not envision a forager presence in systems where social complexity arose. The archaeology of the middle Limpopo Valley does not abide by these perceptions. To the contrary, there are regular reminders of their participation in Mapungubwe and related networks, as discussed above. In studying these and improving our understanding of forager ways of living during this formative period, it will be possible to generate a more inclusive prehistory that acknowledges indigenous hunting and gathering people and their contributions.

We have much to learn and this is largely around what a forager participation entailed. More work at open-air sites and in the coast-wards corridor through which the movement of goods took place may assist. What were , if at all, foragers trading? Were they involved in transporting goods? Did they marry into farmer groups? Was there a patron–client relationship? And importantly, were they included as residents in major polities? We do not have answers to any of these questions for the middle Limpopo Valley. Ongoing studies addressing these and others will help us better understand the exact manner that they were involved with society at large. What we know with certainty, as the result of combining the findings made at a series of sites in the valley, is that foragers were present throughout the process of state development and they were actively engaged in local trade and exchange networks during this time, even obtaining prestige items themselves and accumulating wealth at certain sites.

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Author's contributions

The author conceived the study and prepared the document himself.

Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

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Data availability

These data have not been submitted to a database. Data sharing is not applicable to this article, as no new data were created or analysed in this study.

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