Field and Technical Report

DZOMBO SHELTER: A CONTRIBUTION TO THE LATER STONE AGE SEQUENCE OF THE GREATER MAPUNGUBWE LANDSCAPE

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ABSTRACT

On the Greater Mapungubwe Landscape, Later Stone Age (LSA) research has been conducted mostly in South Africa, with limited studies in neighbouring Botswana and Zimbabwe, all part of the broader landscape. In an attempt to broaden our understanding of the regional sequence, a recent study in Botswana sought to integrate finds made here with those in South Africa. This paper presents the results from one excavation, conducted at Dzombo Shelter, and relates these to finds made elsewhere on the landscape. Of particular interest is the dominance of backed stone tools between AD 900 and 1000, a period in which scrapers usually dominate the formal component of LSA assemblages, and the infrequency of exchange goods even though the site is in close proximity to farmer homesteads. I argue here that due to the various outcomes from interactions with farmers, excavating a variety of site types is required in order to achieve a holistic understanding of forager cultural change.

INTRODUCTION

The Greater Mapungubwe Landscape, which includes parts of Botswana, South Africa and Zimbabwe (Fig. 1), has a unique archaeological record. Research has mostly sought to explain the local agricultural sequence (see Huffman 2007 for a review), but there have also been a number of LSA studies (see Forssman 2014 for a recent review). These include excavations at Little Muck Shelter (Hall & Smith 2000), Balerno Shelter 3 (van Doornum 2000), Balerno Main Shelter, Balerno Shelter 2 and Tshisiku Shelter (van Doornum 2005), as well as a surface analysis of 25 LSA assemblages in the region (Forssman 2013a). Finds from the dated rockshelters mentioned above and the surface scatters show little material continuity in the forager sequence, which is partially due to interactions with local agriculturalists starting from as early as AD 350 (van Doornum 2005). To explore this lack of continuity, a study of various sites in different contexts within a largely unstudied area was undertaken. This paper presents the results from one such site, Dzombo Shelter, which yielded the largest dated LSA assemblage from northeastern Botswana.

SITE DETAILS

The sandstone hill (*koppie*) in which Dzombo is situated is on a palaeo-floodplain created by the Motloutse River, about 1.8 km south of the site, and is in an area characterised by north–south running sandstone ridges that are approximately 7 km in length, interspaced with floodplains and Kalahari sands (Alexander 1984). About 600 m southeast of Dzombo is the agriculturalist centre of Mmamagwa (see Hall 2003), which includes a hilltop occupation and a number of surrounding homesteads dating from at least AD 900 until the 20th century

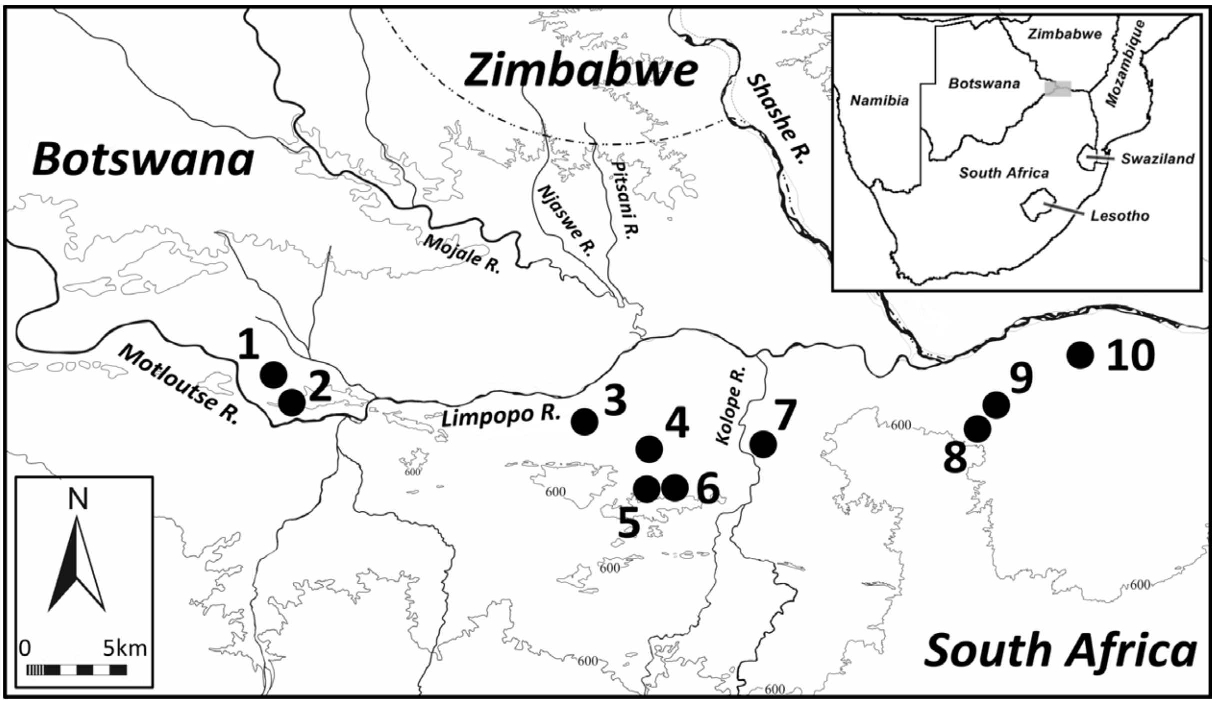

FIG. 1. *Sites mentioned in the text and prominent settlements:* (1) *Dzombo Shelter;* (2) *Mmamagwa;* (3) *Tshisiku Shelter;* (4) *Balerno Main Shelter;* (5) *Balerno Shelter 3;* (6) *Balerno Shelter 2;* (7) *Little Muck Shelter;* (8) *K2 (Bambandyanalo);* (9) *Mapungubwe and* (10) *Schroda.*

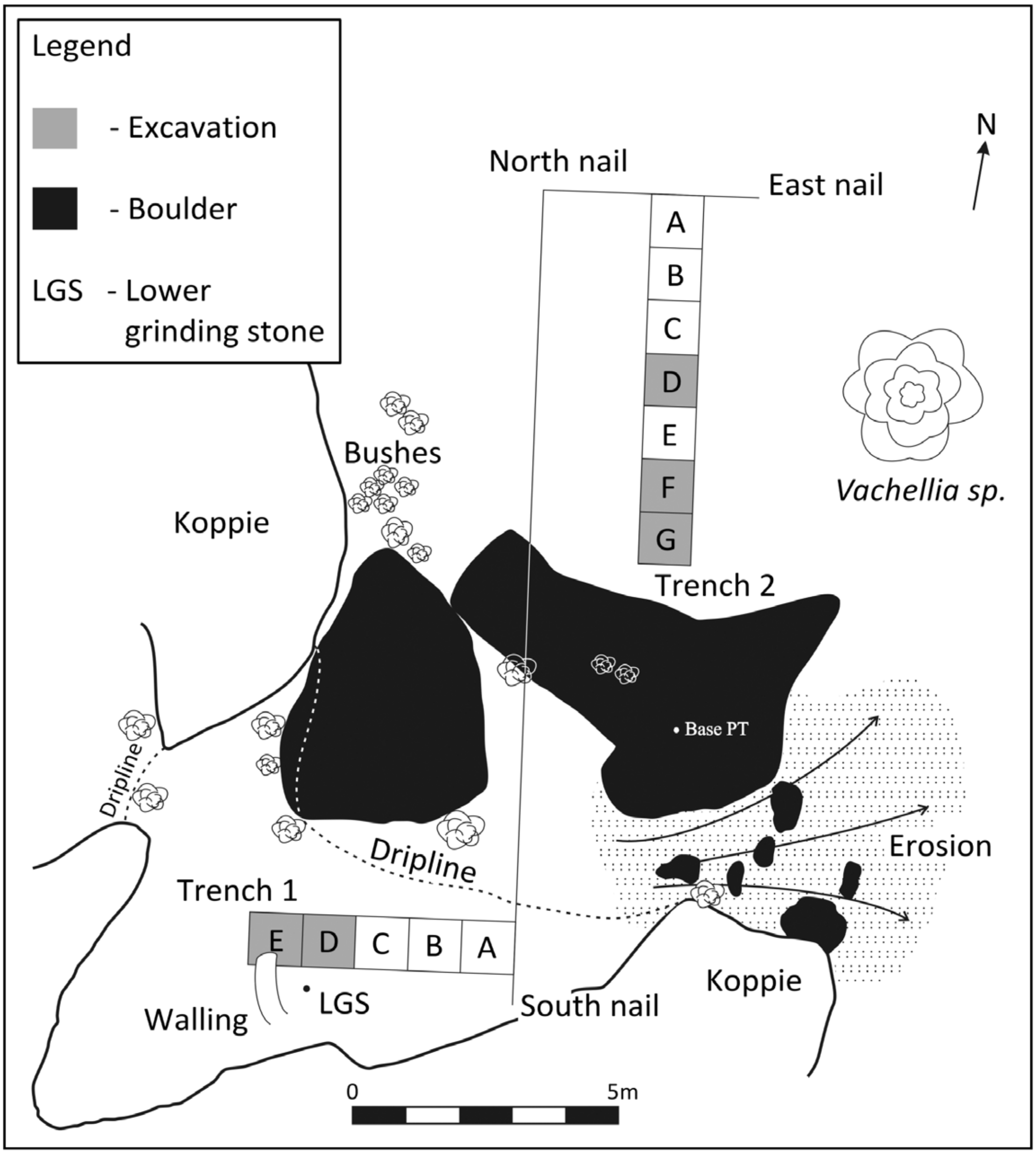

FIG. 2. *Dzombo Shelter site plan. The large boulders form a natural terrace (after Forssman 2013b: 68).*

(Hall 2003). Behind Dzombo is a small rockshelter with herder artwork, identified based on finger-painted aprons (see Eastwood & Smith 2005; for more details see Forssman 2013a, 2014). The primary reasons for excavating the site were a) its close proximity to farmer homesteads (see Sadr 2002); b) its considerable deposit, possibly predating 2000 BP, and c) the potential evidence for interactions and regional variations that might be present at the site.

METHOD

Two trenches were excavated at Dzombo (Fig. 2): Trench 1, located inside the rockshelter, consisted of five 1×1 m squares, two of which were excavated (D and E). These squares were chosen because the surrounding deposit appeared intact; dry-packed stone walling protruded into Square E; a lower grinding stone lay nearby, and a large amount of surface material was present. The 1×1 m squares were excavated in quadrants and, where possible, stratigraphic units were divided into 30 mm spits. Trench 2 was set up outside the rockshelter, below the natural rock shelf, but no dates were obtained, so the results are not discussed here (see Forssman 2014 for details).

STRATIGRAPHY

Twenty-seven spits were excavated in Square D and 19 in Square E. Within these a series of distinct stratigraphic units were identified based on colour, compaction, composition and inclusions, using the Museum of London's Archaeological Site Manual (1994). The first unit was labelled grey soil (GS) and is a fine sand unit with a grey/brown tint and pebbles 10 cm in length. This unit, approximately 6 cm thick, was succeeded by compact GS (CGS), which contained larger pebbles (10 cm) and was more compact than GS and about 15 cm thick. This unit overlay grey ash (GA), which was noted throughout the excavation and was the thickest (±54 cm) and most substantial unit. It is characterised by rocks, pebbles and roof spall and appears to be a hearth. The layers compact GA (CGA), grey soil 2 (GS2), compact GS 2 (CGS2), grey brown soil 3 (GBS3) and grey compact brown 3 (GCB3) were all found within GA and vary in thickness and extent. At the base of the trench was grey brown soil 2 (GBS2), which was about 15 cm thick, brownish grey in colour, loosely consolidated, and contained large rocks. The base of the deposit was not reached and it may be that additional stratigraphic units exist below GBS2 (Fig. 3; Table 1). Due

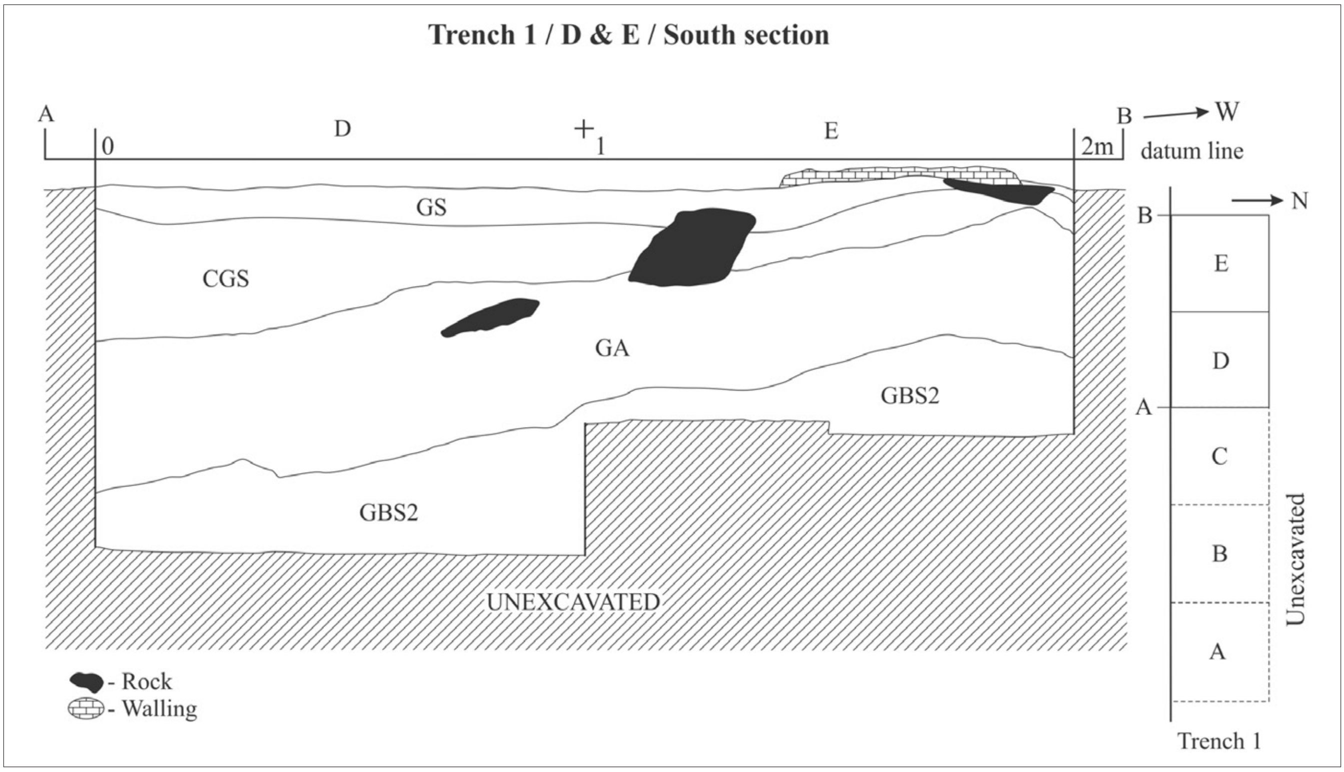

FIG. 3. *Section profile of Trench 1 showing major stratigraphic units GS, CGS, GA and GBS2. Other units were contained within these and covered a limited area of the square (after Forssman 2013b: 68).*

to the extensive GA deposit and the lack of correlation between the stratigraphic units and the artefact assemblage, the assemblage will be viewed in terms of spits.

The general dip of the stratigraphic units needs further discussion. On average, across the 2 m section profile, the stratigraphic layers rise from east to west by 18° with a peak in the western part followed by a sloping gradient; excavation of Square F is needed to confirm whether the slope continues. The ashy deposit suggests that there were possibly one or more hearths present. Additional stratigraphic units, identified within layers GS, GA and GBS2, are all intact and distinct, indicating little disturbance in the deposit. At present a geoarchaeological study on samples collected from the deposit is the focus of a Masters study at the University of Pretoria and will tell us more about the site's formation.

FINDINGS

RADIOCARBON DATES

Charcoal samples were taken from levels where changes in the assemblage were noted and the results are presented in Table 2. Between Spits IV and VII, K2 and Mapungubwe ceramics and glass beads were found and stone tool frequencies dropped noticeably, all discussed below. Thus, this may be a

TABLE 1. *Dzombo Shelter stratigraphy.*

Layer	Thickness (cm)	Spits	Description
Grey soil (GS)	±6	II–IV	Grey with light brown tint; unconsolidated; fine sand with some pebbles (< 10 cm)
Compact GS (CGS)	15	III–VIII	Grey with light brown tint; loosely consolidated; increased rocks (> 10 cm) and roof spall present; similar to GS; gives way to GA irregularly across the squares
Grey ash (GA)	54	IV–XXVII	Ash grey; loosely consolidated; rocks and pebbles as well as roof spall present; possible hearth; contains other units
Compact GA (CGA)	<3	VIII	Ash grey; soft; rocks and roof spall; restricted to Square D; possibly localised compacted GA
Grey soil 2 (GS2)	12	IX–XII	Organic brown; soft; large rocks; loamy texture similar to GS
Grey brown soil 2 (GBS2)	15	IX–XV	Brownish grey; loosely consolidated; few small rocks and some root activity; large rocks; restricted to Square E, Quadrant D, Spits IX–XV, and Quadrant C, Spit XV
Compact GS2 (CGS2)	<6	X–XI	Grey with brown tint; loosely consolidated; more rocks than GS and roof spall; similar to CGS but in different area
Grey brown soil 3 (GBS3)	6	D: XVIII–XIX; E: XVI–XVII	Restricted to small areas in Squares D and E
Grey compact brown 2 (GCB2)	±3	D: XXVII; E: XIX	Organic brown; soft with harder inclusions; range of rock sizes; only in terminal levels

TABLE 2. *Radiocarbon dating results, calibrated to 2 sigma, and justification.*

Spit	Code	Years BP	Calibration	Justification
IV	OxA-27136	190 ± 26	AD 1666–1815	Stone tool assemblages increase in density below Spit IV
VII	BETA-342860	40 ± 30	AD 1877–1931	To obtain a more accurate date for the upper levels of the deposit, in light of results obtained for OxA-27136 and OxA-27139
VIII	OxA-27139	114 ± 26	AD 1807–1950	Ceramic and bead frequencies decrease significantly below this level
XI	OxA-27138	982 ± 28	AD 1029–1162	Agricultural items disappear with only isolated finds in some spits below this level
XIX	OxA-27137	2165 ± 30	207–42 BC	The lowest datable sample of charcoal found at Dzombo

critical point in Dzombo's occupation, and relate to contact between foragers and farmers. Both the samples from Spits IV (OxA-27136) and VIII (OxA-27139), submitted to the Oxford Radiocarbon Accelerator Unit, and the sample submitted to Beta Analytic (Beta-342860) dated to the last 400 years with the oldest coming from Spit IV (see Table 2 for details). The association between these dates and the surrounding deposit is problematic because they do not concur with the chronological markers in these levels. First, during pre-treatment there was no indication of contamination and so acid-base-wet oxidation (ABOX) was not used, a method more capable of dealing with contamination than the standard acid-base-acid (ABA) pre-treatment (see Bird *et al*. 1999). However, it is still possible that the samples' integrity was compromised, affecting the dates. Second, the one diagnostic ceramic sherd and 11 glass beads from these levels (Spits IV–IX), discussed below, are similar to material that has been securely dated across the region to the period AD 900 to 1300 (see Huffman 2007), and there are no grounds to suggest that these dates require revision. The incompatibility between the three radiocarbon dates and cultural material may indicate that all three samples have moved, but this seems unlikely. Alternatively, the ceramics and glass beads have all been misidentified and the dates are accurate. Additional radiocarbon dates along with increased samples of diagnostic ceramics and glass beads are needed to resolve this issue. The dates from Spits XI (OxA-27138) and XIX (OxA-27137) concur with ceramic and glass bead chronological indicators, strengthening their association with the assemblage. Therefore, the site appears to have been occupied from within the first three centuries BC until *c*. AD 1300, perhaps not continually, and possibly again thereafter, as indicated by the late radiocarbon dates.

STONE TOOLS

The assemblage comprises 10 112 (125.9 per 13 l bucket) stone tools and is dominated by crypto-crystalline silicates (CCS), except in Spit XXVI, Square D, where quartz is more frequent (Fig. 4). Quartzite, dolerite and agate (itemised separately from CCS following van Doornum 2005) were utilised but occur in low frequencies. Most of the stone tools were found between Spits IV and XVIII, with numerical peaks in Spits VII and XII and a trough in Spit X. However, when density (number of artefacts divided by volume of deposit) is calculated it becomes clear that while there is still an increase above Spit XVIII and a decrease above Spit VII, the concentration of artefacts is less pronounced (Fig. 5).

Cores (n =122) make up 1.2% of the total stone tool assemblage (Table 3). Their distribution appears to be concentrated between Spits IV and XIV, with peaks in Spits IV, VII and XII. When the density of cores is calculated the pattern is less distinct, but there is still a decrease from Spit XVIII to the base of the trench. Irregular cores are the most frequent core type (51.6%), followed by single platform (16.4%), preliminarily flaked (containing less than three flake removals; 10.7%) and bladelet cores (7.4%), but also present in low numbers are radial, radial bladelet, bipolar bladelet, blade, rice seed and opposed platform cores.

Formal tools account for 1.8% of the total stone tool assemblage and, following van Doornum (2005), when chips are excluded they represent 3.9% of the assemblage. Most are made on CCS materials (74.6%), followed by agate and quartz (10.3% each), dolerite (3.2%) and quartzite (1.6%), but CCS consistently dominates. The majority of formal tools were found between Spits IV and XVII, but when density is calculated, a peak in Spit XXVII is revealed, followed by a decrease in artefacts until Spit XVIII at which point their density increases and finally declines once again in Spit VI. Scrapers dominate the formal assemblage (45.5%), and include small (34.7%), medium (8.4%) and large scrapers (1.5%), with two broken scrapers of an indeterminable size class. Backed tools (36.1%), which follow scrapers in frequency, include segments and backed bladelets (6.9% each), miscellaneous backed pieces

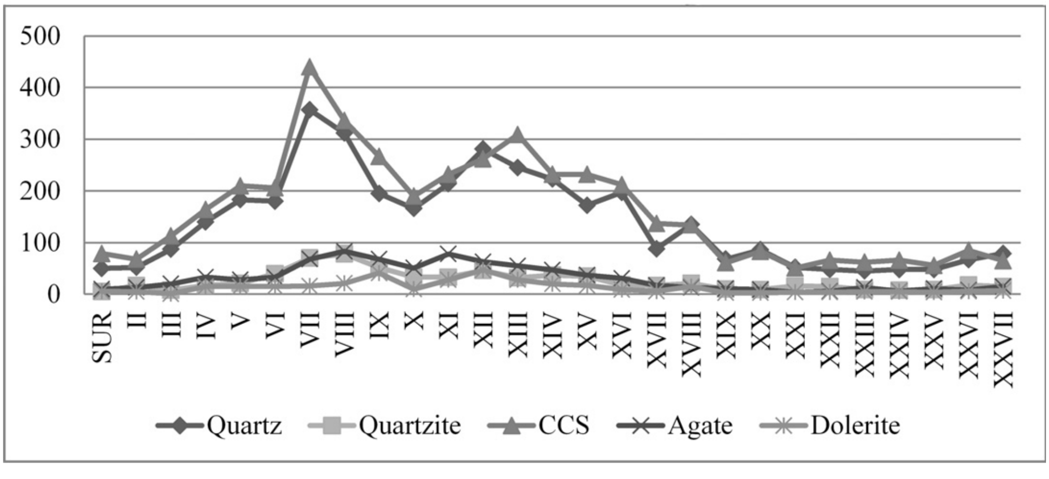

FIG. 4. *Lithic raw material frequencies by spit.*

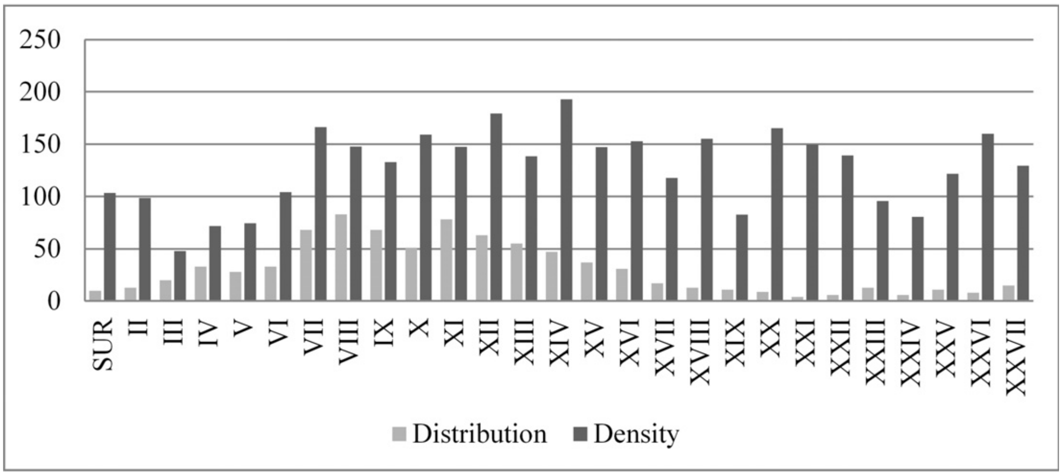

FIG. 5. *Stone tool distribution and density in Trench 1.*

(MBP; 4%) and backed flakes (1%). Also found were miscellaneous retouched pieces (MRP; 15.3%), adzes and awls (1% each) and a plane and facetted piece (0.5% each; Fig. 6).

The most significant pattern in the formal tool component, as noted across southern Africa (Deacon 1984: 269), is the inverse relationship between scrapers and backed tools observable in some levels. Scrapers are more frequent in Spits III–IX, XIV and XVII, whereas backed tools are more frequent in SUR, II, X–XIII, XV–XVI, XIX and XXV–XXVII. In general, scrapers increase in frequency from the lower to upper levels (Table 3), but the density of scrapers and backed tools remains relatively high throughout the deposit.

CERAMICS

Five of the 61 ceramic sherds recovered have decorations or rims. One of these, retrieved from Square D, Spit V, is either

TABLE 3. *Stone tool assemblage from Dzombo Shelter and formal tool categories.*

Spit	Debitage	Cores	Formal tools	Backed flake	Facetted flake	Plane	Scraper (small)	Scraper (medium)	Scraper (large)	Broken scraper	Segment	Adze	Awl	Backed bladelet	MRP	MBP
SUR	149	3	1	0	0	0	0	0	0	0	1	0	0	0	0	0
II	152	5	3	0	0	0	1	0	0	0	0	0	0	0	0	2
III	226	4	3	0	0	0	3	0	0	0	0	0	0	0	0	0
IV	362	12	7	0	0	0	4	0	0	0	0	0	0	0	3	0
V	452	7	5	0	0	0	3	1	0	0	1	0	0	0	0	0
VI	464	5	10	0	0	0	3	1	1	0	3	0	1	0	1	0
VII	928	16	23	0	0	0	12	2	0	0	3	0	1	1	2	2
VIII	811	5	19	0	0	0	7	0	0	0	1	1	0	6	3	1
IX	611	7	12	0	0	0	7	2	0	0	2	0	0	0	1	0
X	445	10	5	0	0	0	2	0	0	0	1	0	0	1	0	1
XI	574	5	11	0	0	0	3	0	0	0	3	0	0	4	1	0
XII	683	11	16	2	0	1	4	0	0	1	3	0	0	5	3	0
XIII	663	5	6	0	0	0	3	0	0	0	1	0	0	1	0	1
XIV	546	6	13	0	0	0	7	1	0	0	1	0	0	3	1	0
XV	483	4	10	0	1	0	0	1	1	0	1	1	0	5	1	0
XVI	460	3	7	0	0	0	2	1	0	0	3	0	0	1	0	0
XVII	259	3	6	0	0	0	1	2	1	0	1	0	0	0	1	0
XVIII	316	1	2	0	0	0	1	1	0	0	0	0	0	0	0	0
XIX	152	3	1	0	0	0	0	0	0	0	1	0	0	0	0	0
XX	188	1	2	0	0	0	1	0	0	0	1	0	0	0	0	0
XXI	126	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0
XXII	137	1	2	0	0	0	0	1	0	0	1	0	0	0	0	0
XXIII	126	0	8	0	0	0	0	2	0	0	2	0	0	3	1	0
XXIV	132	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
XXV	126	1	2	0	0	0	0	0	0	0	0	0	0	1	1	0
XXVI	182	1	2	0	0	0	0	0	0	0	0	0	0	1	1	0
XXVII	178	0	3	0	0	0	0	0	0	0	0	0	0	0	2	1
Total	9931	122	185	2	1	1	65	15	3	2	30	2	2	32	22	8

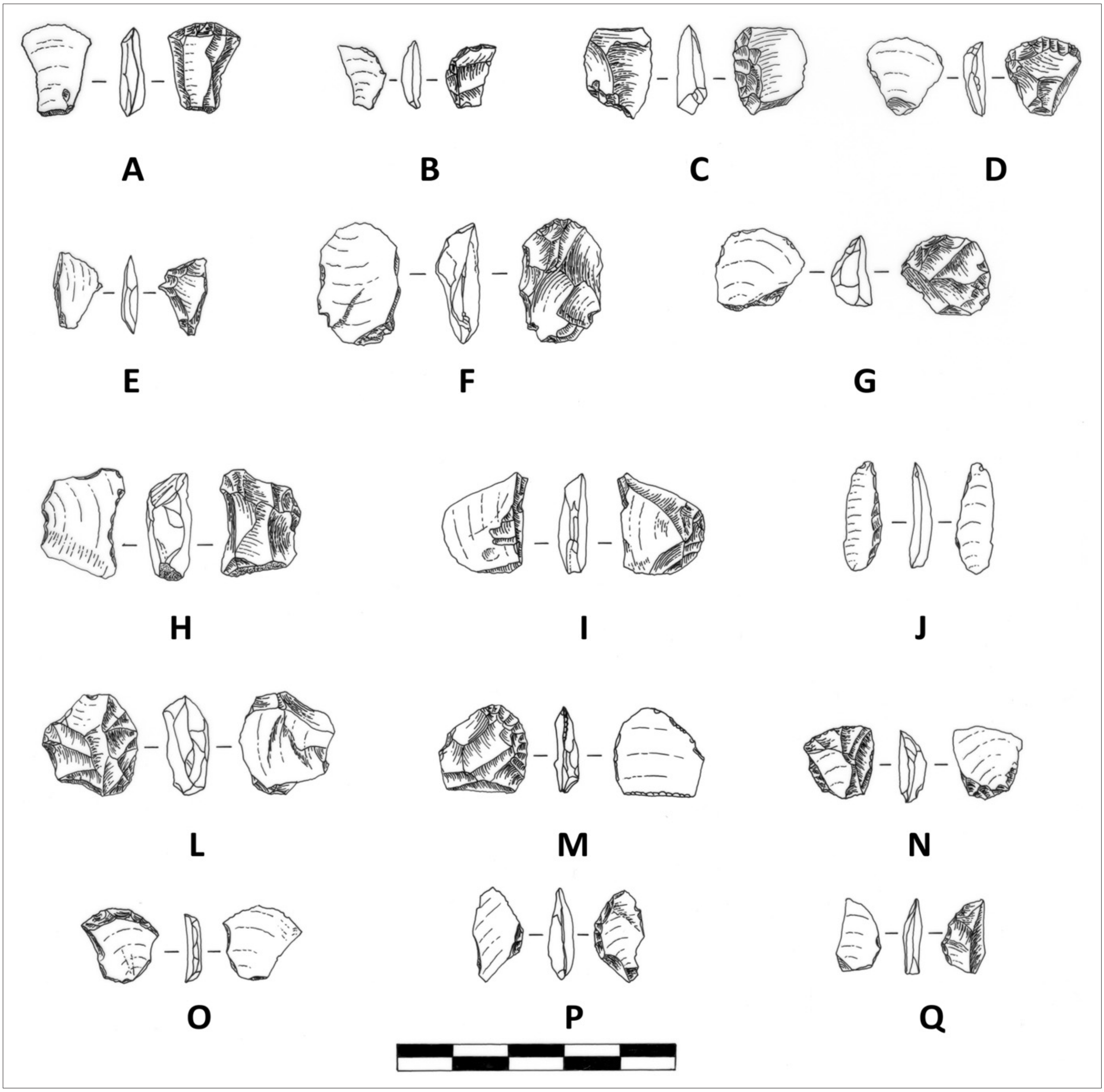

FIG. 6. *Dzombo Shelter formal tools.* (**A, D & M–N**) *small end scraper;* (**B**) *incomplete segment;* (**C & L**) *small side scraper;* (**E**) *miscellaneous backed pieces (MBP);* (**F**) *medium end scraper;* (**G**) *broken small end scraper;* (**H**) *adze;* (**I**) *broken small side scraper;* (**J**) *backed bladelet;* (**K**) *medium side scraper;* (**O & P**) segment.

from the Zhizo facies, dating from AD 750 to 1050 (Huffman 2007: 143), or the K2 or Transitional K2 facies, dating between AD 1000 to 1200 and AD 1200 to 1250, respectively (Huffman 2007: 279). This date range is incongruent with a radiocarbon date from Square E, Spit IV, of 190 ± 26 BP (OxA-27136). The distribution of ceramics in the excavated deposit is striking, with 83.6% found between the surface and Spit VII, with infrequent finds below. The increase from Spit VII is accompanied by a significant decrease in stone tool numbers (Fig. 7), a relationship recorded at other sites in the region in which the LSA record disappears (e.g. Hall & Smith 2000; van Doornum 2008).

BEADS

In total, 106 beads were found. Ostrich eggshell beads are the most frequent (n = 48), followed by bone (n = 30) and glass (n = 18). The bulk of the ostrich eggshell and bone beads were found between Spits VII and XIV (Fig. 7). Below these spits, they are present, but are less consistent in their frequency and density. From the base of the trench to Spit XIV, ostrich eggshell bead preforms are infrequent, but from Spit XIV to XI all forms occur: eight complete, seven preforms, six broken and two broken preforms. Thus, it appears that it was during this time that bead production, indicated by the presence of preforms, increased. From Spit XI upwards, ostrich eggshell bead numbers decrease, with a lesser peak in Spit IV. Glass beads are mostly from between Spits III and IX (n = 17). One was found in Spit XV, but is likely to have filtered down the deposit, a common issue with glass bead assemblages (Wood, pers. comm. 2012). The glass beads have been placed preliminarily into Wood's (2005) typology, indicating that there are nine K2 series, four Indo-Pacific and two Mapungubwe beads and a Zhizo series, Khami and unclassified bead.

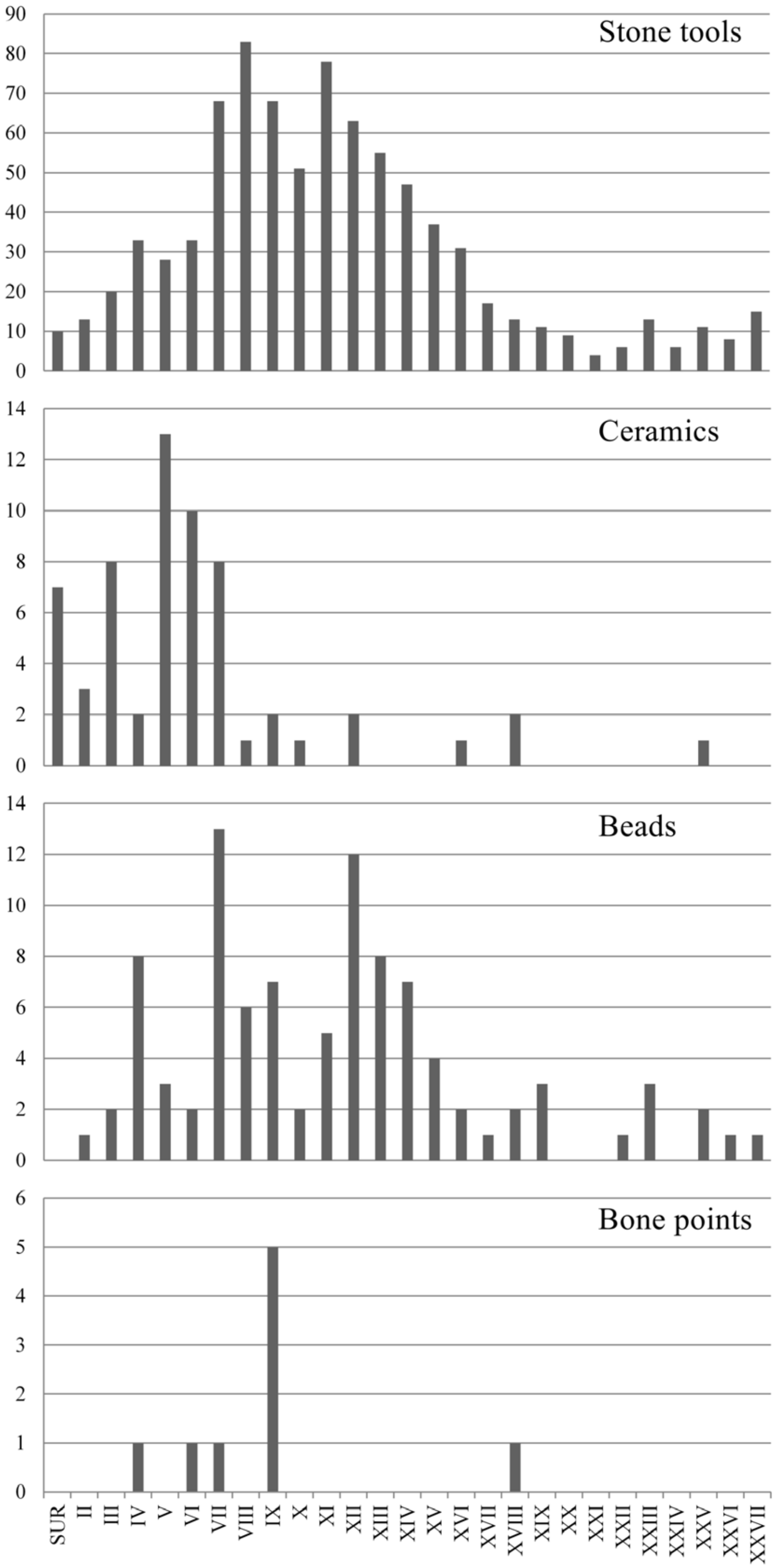

FIG. 7. *Stone tool, ceramic, bead and bone point numbers by spit.*

BONE POINTS AND METAL ITEMS

Nine bone points (8.6/m^3) were recovered but they have not been placed into a typology because no macro- or micro-fracture analysis was conducted (Bradfield 2012). Like the beads, bone points were found mostly in the upper levels between Spits IV and IX, peaking in the latter, and with an isolated find in Spit XVIII (Fig. 7). Further analysis is required before anything meaningful can be said about the bone points. Ten metal items were found and include copper bangle pieces (n = 8) and an arrowhead and copper prill. All were found between Spits III and VI. No additional analysis has yet been performed on the metal items.

FAUNAL REMAINS

A total mass of 2.6 kg (2485.7 g/m) of bone was recovered, concentrated between Spits V and XVIII. Of the number of identifiable specimens (NISP; Table 4), tortoise is the most frequent, followed by lizards, bovids and fish (identified by Stephanie Caruana [Baker] using the faunal collection at the University of the Witwatersrand; Plug 2000 was used to order taxa). The majority of the faunal assemblage represents animals that can easily be collected, such as tortoises, or snared, including rodents, mice, birds and other reptiles, some of which may have been naturally introduced and were not food sources. There are also larger animals, medium to very large bovids, which would have required active hunting. There seems to have been an increase in the diversity of species subsisted upon at the site between Spits IV and XVII. This increase is also reflected in all NISPs and in the total weight and density of faunal remains found in the trench. The possible sheep/goat patella from Spit XII is of interest. Spit XI yielded the date of AD 1029–1162 (OxA-27138), suggesting that the patella from the spit directly below it may date to the Zhizo period. Its appearance in a forager context may be related to exchange with farmers or herders or indicate a late transition from hunting to herding, such as argued by Sadr and Plug (2001). The honey badger specimen is unusual and was identified from a deciduous first molar.

DISCUSSION

Dzombo is the first dated LSA sequence from northeastern Botswana and offers us deeper insights into the regional forager record. Here I briefly summarise this sequence and its relationship to other sites on the broader landscape. A more in-depth analysis will be presented in a future paper.

Little can be said about the assemblage from the base of the trench, between Spits XIX and XXVII, but a possible date of between 207 and 42 BC (OxA-27137) from Spit XIX is the earliest date for an LSA assemblage in northeastern Botswana. From Spit XVIII upwards there is a steep increase in artefact density, which at present has not been dated. Similarly, van Doornum (2005) noted an increase in her excavations in the AD 350 levels (see van Doornum 2005: 159–160), possibly related to an increasing population (van Doornum 2008: 272) or an emphasis on rockshelter occupations due to interactions with farmers. Of interest is a single potsherd found in Spit XXV at Dzombo, which might represent an early ceramic facies, such as Bambata (Sadr 2008: 107), or alternatively could have moved down the deposit. Van Doornum (2005) believes that forager/farmer interactions at this time were sporadic based on the low density of farmers on the landscape and of exchange items, such as ceramics, glass beads and domesticates, found at forager sites. One wonders, however, whether basing such determinations on the presence or absence of material remains in rockshelter camps is an accurate measure of exchange. I would suggest that we need to excavate a variety of site types before we can draw such conclusions.

From about AD 900 the local farmer population increased noticeably (Huffman 2000). It seems likely that Spits XI to XIII at Dzombo date to this phase, between *c.* AD 900 and 1000, based on radiocarbon dates from Spit XI. As in contemporaneous levels at van Doornum's (2005) sites, the artefact assemblage continues to increase. In these levels at Dzombo the dominance of backed tools, unlike any spit above or below, is unusual; generally when contact with farmers begins, scrapers dominate LSA stone tool assemblages (Deacon 1984: 269). It has been suggested that when trade increased, so did scraper frequencies, because these were used to prepare hides (Deacon & Deacon 1980: 35), possibly for farmers (e.g. Hall & Smith 2000). At this same time backed tools, which based on macrofracture analyses were possibly used to tip arrows (e.g. Pargeter

TABLE 4. *NISPs identified in the faunal assemblage (genus and species names from Skinner & Chimimba 2005; taxon order from Plug 2000).*

Species	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI	XXVII	Total
Chacma baboon (*Papio hamadryas*)						1																					1
Honey badger (*Mellivora capensis*)			1																								1
Rock hyrax (*Procavia capensis*)											1					1											2
Suidae, indeterminate											1									1							2
cf. Ovicaprid											1																1
Common duiker (*Sylvicapra grimmia*)					1																						1
Klipspringer (*Oreotragus oreotragus*)										1												1				3	5
cf. Steenbok (probably *Raphicerus campestris*)						1																					1

Continued on p. 190

TABLE 4 (*continued*).

Species	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI	XXVII	Total
Impala (*Aepyceros melampus*)															1												1
cf. Impala (probably *Aepyceros melampus*)	1	1																									2
Bovid I	2			2				1	1		2	3	2	1			1	1	1								17
Bovid II	1				1	3		1	1		2				1				1					1			12
Bovid III						1						3															4
Bovid IV						1																					1
Bovid, indeterminate	4	6	10	8		3	1			2	5	1		3	4		6						1				54
Porcupine (*Hystrix africaeaustralis*)	1													1													2
Muridae, indeterminate	2			1					1			1					3										8
Rodent, indeterminate	1	1		5					2		1		1	2				1	1		1		2			1	19
Hare/rock rabbit (Leporidae)				2									1	1		1	1										6
cf. Hare/rock rabbit (probably Leporidae)				1			3	1																			5
Bird, small			2	3	2				1	1	1	1		1		2											14
Tortoise, indeterminate	10	4	5	29	18	36	32	34	12	16	16	62	26	16	19	9	21	2	10	1	3	3	3	1	5	2	395
Snake, indeterminate			3	2	2			1				2		1	1	1											13
Rock monitor lizard (*Varanus niloticus*)		1										3			3												7
Lizard, indeterminate	4	4	7	3	6	6	7	3	1	1	3	6	24	2	2	2		1		1	1	1	1	3	2	1	92
Reptile, indeterminate							2												1				1				4
Fish, indeterminate			2	7	5	2		6	2	4	2	8	8	2	6	2		4						1		1	62
Freshwater crab (*Potaminautes* sp.)				1		2	1							1													5
Total	26	17	30	64	35	56	46	47	21	25	35	90	62	31	37	18	32	9	14	3	5	5	8	6	7	8	737

2011: 41), decreased in density and frequency, possibly because iron arrowheads were obtained from farmers (e.g. Hall & Smith 2000: 34). The presence of backed tools noted at Dzombo might be linked to an emphasis on hunting linked to trade; very few metal finds have been made at Zhizo period sites (see Calabrese 2000: 110), possibly explaining why foragers continued using stone-tipped arrows. However, there have been studies indicating that backed tools may have been used to process or harvest plant material (Wadley & Binneman 1995) or for hide-working, as found in Australia (Robertson & Attenbrow 2008). In both cases the use of backed tools is linked to interactions with farmers. Thus, this trend at Dzombo demonstrates the varied nature of forager/farmer interactions, and the need to consider a variety of sites to develop a holistic understanding of the late Holocene LSA in the region.

From Spit VII upwards, the density of artefacts decreases markedly, except for ceramics which suddenly increase. Based on the ceramic and glass bead assemblages between Spit IV and X, it appears that these levels date to the Leopard Kopje period, which includes the K2 and Mapungubwe periods between AD 1000 to 1220 (Huffman 2000). The radiocarbon dates, however, do not confirm this association and there are three possible explanations: either the dated samples moved down the deposit, the levels are mixed, or the ceramic and bead identification is incorrect. If the dates are correct, the levels above at least Spit VIII all date to within the last four centuries and indicate that foragers were living at the site during this time and continued producing stone tools and possibly integrating into farmer society. It is thought that around AD 1300 foragers either abandoned their material culture, or the region, based on the disappearance of LSA artefacts in rockshelters (see van Doornum 2005). Thus, Dzombo could be the youngest known LSA assemblage in the region and could offer significant insights into the post-Mapungubwe forager sequence. To confirm it, however, additional dates and excavations are required.

CONCLUSION

The Dzombo assemblage appears, in part, consistent with finds made by van Doornum (2005), but also contains certain disparities, notably the dominance of backed tools during the Zhizo period. The upper levels could be of great importance if the radiocarbon dates and artefacts are associated. These finds, nevertheless, suggest a need to expand our studies of late Holocene forager expressions by including a variety of sites across a cultural landscape that contain different archaeological assemblages.

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