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THE FAUNAL REMAINS FROM FOUR LATE IRON AGE SITES IN THE SOUTPANSBERG REGION: PART II: TSHITHEME AND DZATA*

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ABSTRACT

The faunal remains from four Late Iron Age sites in the Soutpansberg area are described in three parts according to the settlement patterns ascribed to them by Loubser (1988). Part II describes the faunal remains from two Dzata Pattern settlements with dates that range from the 15th to 18th centuries. Based on the small faunal sample from Tshitheme, cattle predominate in both the Mapungubwe and Letaba ceramic components but sheep/goat remains are also present. The excavations at Dzata, the capital of the Singo state, are not large. However, there is some faunal evidence of status differentiation and activities relating to the assembly area. All the remains are associated with Letaba ceramics. The distribution of ages, skeletal preservation, butchering evidence and pathologies are noted for these sites. Skeletal element representations are then considered on an intra-site level.

INTRODUCTION

Loubser (1988) excavated several Late Iron Age sites in the Soutpansberg region in order to investigate the origins of the Venda people and their relationship with the Shona of Zimbabwe and the Sotho-Tswana of the northern Transvaal. In Part I, the faunal remains from Tavhatshena, a Central Cattle Pattern settlement dating between the 11th and 16th, centuries were discussed (De Wet-Bronner 1994). In this paper I discuss the faunal remains of two Dzata Pattern settlements, Tshitheme and Dzata, dating between the 15th and 18th centuries (Fig.1).

The layout of Dzata Pattern settlements, their features and activity areas, do not vary much from earlier Zimbabwe Pattern settlements, but there are differences in wall styles (Loubser 1991). Dzata Pattern settlements are distinguished by short sections of semi-coursed walling and long sections of roughly stacked walls. Furthermore, Zimbabwe settlements are restricted to hill tops and mountain slopes in and north of the mountain range, whereas Dzata settlement types occur on both sides of the Soutpansberg on a variety of land surfaces.

Zimbabwe Pattern settlements are mainly associated with pre-Singo inhabitants. Dzata Pattern settlements, on the other hand, are associated with the Singo state centred in the Soutpansberg region (Loubser 1991). Tshitheme and Dzata were settled in the time of Singo rule over the northern Transvaal, the latter settlement being the capital of the Singo empire.

METHODS

Identification procedures, taphonomic processes and quantification techniques were discussed in Part I (De Wet-Bronner 1994).

TSHITHEME 2329 BB12

Tshitheme is located in a valley at the base of the southern slope of the Soutpansberg range (23.00.25S; 24.47.33N). On the basis of size (approximately 1,1 hectares), Tshitheme is a Level 2 settlement controlled by a headman. The excavations at this site were placed in and near the walled areas which are linked to royal residents of the settlement (Fig. 2).

According to informants, Lemba allies of the Singo also lived here (Loubser 1988, 1991). These Lemba were semi-specialist merchants and metal workers who were supposed to have moved south from Zimbabwe at about the same time as the Singo (Stayt 1931). They presumably lived in the commoner's area.

Two trenches were excavated. Trench 1 (4 m^2) was placed in a prominent midden and daga ridge against rough walling at the back of the prestige area. The debris from Trench 1 contained hut refuse along with faunal material and pottery. Trench 2, a smaller test trench of about 0,5 m^2, was placed in or near the cattle byre. Only bones were found in this trench. Not only does the site layout conform to the Singo conquest period, but a charcoal sample in Trench 1 Level 3 (T1/3) dates the

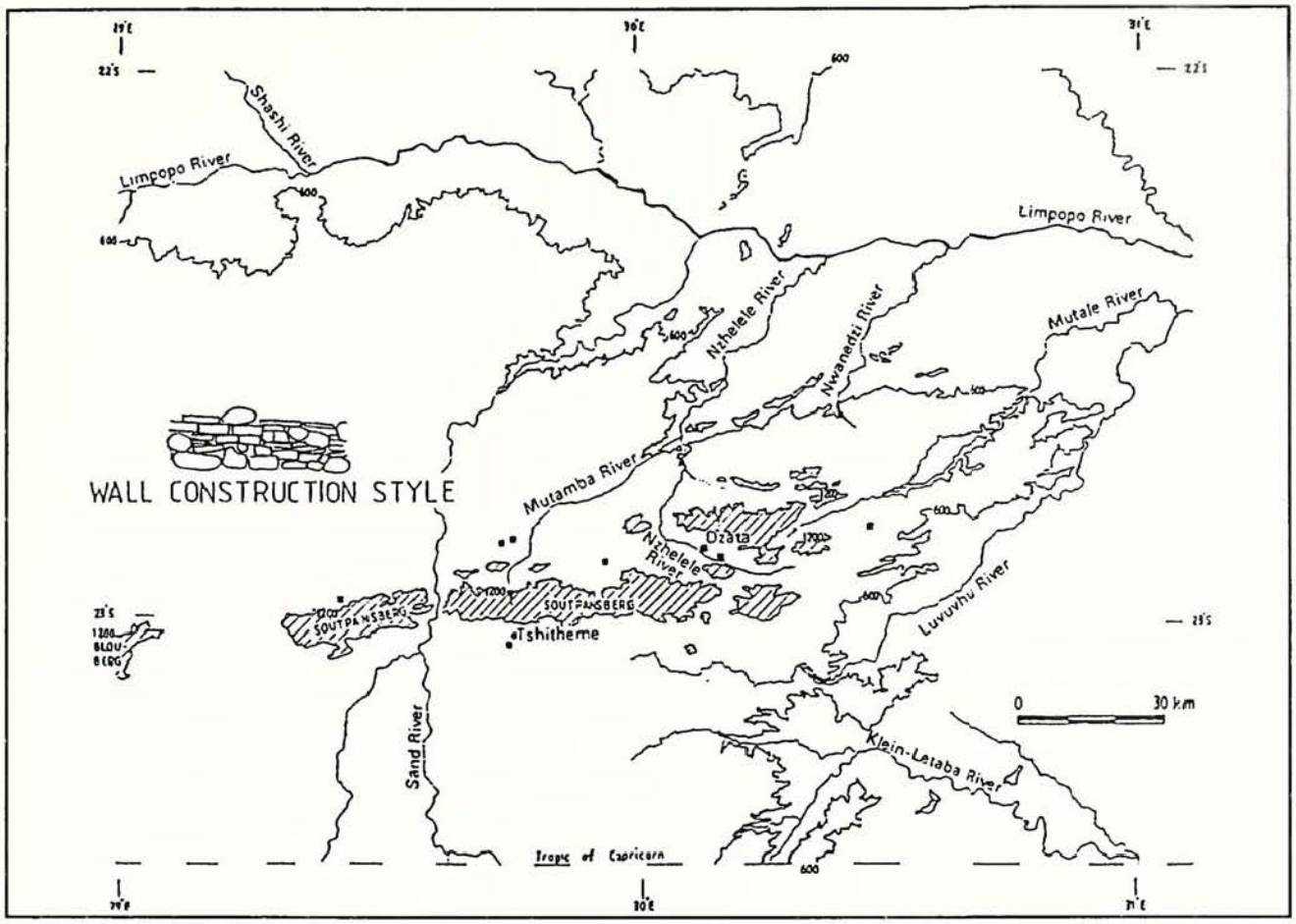

Fig. 1. Distribution of Dzata Pattern settlements in the Soutpansberg region.

upper levels to AD 1740 ± 50 (WITS-1544).

Loubser distinguished two ceramic components, and the fauna was analised accordingly. An earlier Mapungubwe component occurs in Levels 5-6 in Trench 1. It is unlikely that this earlier component is associated with the visible stone walling and considering the southerly location of the site the Mapungubwe sample probably represents a commoner settlement. At present the spatial location of the faunal sample within the Mapungubwe settlement is unknown. The more recent Venda component is marked by Letaba ceramics in Levels 1-4 in Trench 1.

TOTAL FAUNAL SAMPLE

The excavation yielded a total bone sample of 3183 pieces, weighing 11 102 g. About 84% of the total collection came from the top and about 15% from the bottom component in Trench 1. Trench 2 contributed under 1%. Less than 10% of the total sample was identifiable (Tables 1 & 2). *Bos taurus* and sheep/goats dominated the bovid bone count. Trench 2 contained a negligible amount of bone although it had primate material not present in Trench 1. It also contained zebra and amphibian remains.

No ivory was recovered, but worked bone was identified from both components of Trench 1 (De Wet 1993: Appendix A). Eight ostrich eggshell beads were retrieved from the Mapungubwe component. From the Letaba levels, a *Bos taurus* fifth metacarpus had been sharpened into a point and a sheep/goat femoral shaft had a hole drilled in the middle.

MEAT CONTRIBUTIONS

In terms of meat diet, cattle make the greatest contribution for both Mapungubwe and Letaba components in both QSP (quantifiable skeletal parts) and MNI (minimum number of individuals) counts (Tables 3 & 4). QSP is based on only those elements present in the sample and thus the meat contribution of those elements for that taxon. The MNI percentage for cattle meat drops in the Letaba component because buffalo are present. According to QSP calculations this contribution is low. Sheep/goats contribute a marginally higher percentage of meat in the earlier component in comparison to the later occupation.

Ostrich eggshell beads and fragments are not included in dietary calculations. Even if ostrich eggs were consumed, their contribution would be negligible. I excluded an indeterminate sized bird from dietary figures for the Letaba component as no weight could be assigned

Table 1. Tshitheme and Dzata: species/size classes present for all units.

Species	TSHITHEME T1/1-4	T1/5-6	T2/TT	DZATA T1/1-2	T2/1-6	T2/7-8
Papio ursinus			+			
Canis mesomelas black-backed jackal					+	
Viverrinae (cf. civet)					+	
Hyaenidae (cf. hyaena)					+	
Panthera leo lion	+					
Large carnivore					+	
Medium carnivore					+	
Loxodonta africana elephant					+	+
Equus burchelli zebra	+		+			
Procavia capensis rock dassie					+	
Bos taurus cattle	+	+	+	+	+	+
Capra hircus goat						+
Sheep/goat	+	+		+	+	+
Connochaetes taurinus blue wildebeest					+	
Alcelaphine (cf. hartebeest)						+
Sylvicapra grimmia grey duiker	+			+		+
Aepyceros melampus impala	+					
Hippotraginae (cf. H. niger) sable					+	
Syncerus caffer buffalo	+				+	
Tragelaphus (cf. angasi) nyala					+	
Taurotragus oryx eland					+	
Bov I	+	+			+	
Bov II non-dom	+			+	+	
Bov II	+			+	+	+
Bov III non-dom	+	+			+	+
Bov III	+	+			+	+
Bov IV					+	
Aethomys chrysophilus red veld rat						+
Lepus saxatilis scrubhare	+			+		
Pronolagus randensis red rock rabbit	+	+				
Lepus/Pronolagus hare/rabbit	+					
Struthio camelus ostrich	+	+		+		
Francolinus sp. francolin	+					
Medium sized bird	+			+	+	
Indeterminate bird	+					
Frog/toad			+			
Tortoise				+	+	
Potamonautis sp. crab	+					
Ledoulxia mozambicensis gastropod	+				+	
Achatina sp. gastropod	+	+		+	+	+
Tropidophora sp. gastropod					+	
Euonyma genus gastropod	+					
Unio/Aspatharia sp. bivalve		+			+	
Small terrestrial snail						+

N.B. Dzata: T3/1-2 - no identifiable fragments.

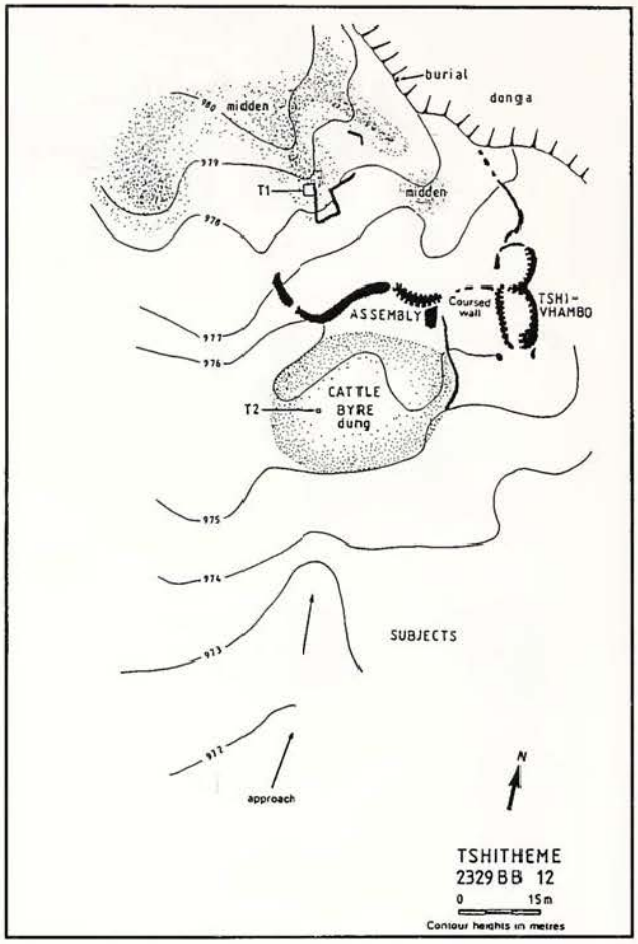

Fig. 2. Layout of Tshitheme.

to it. One *Bos* foetus was also excluded since it is probably inedible. QSP values could not be obtained for several small sized species such as crab (*Potamonautis* sp.) and certain gastropods. In any case their weight, number and contribution to diet is negligible.

AGE DISTRIBUTION

In the Mapungubwe component, cattle ages range from I to VIII in Voigt's classification (Table 5). Immature (Thorp's classes I - III) cattle predominate and juvenile cattle (Voigt's classes I - III) are well represented. In the Letaba component cattle ages range from Voigt's Class III to IX. Mature animals are in the majority and juveniles are nominally present.

The sheep/goat sample in the Mapungubwe component is too small to warrant much comment. Both components, however, have mostly adults.

SEXUAL IDENTIFICATION

Two pelvic fragments of cattle from T1/1-4 could be separated into male and female. This is insufficient, however, to draw conclusions.

SKELETAL PART PRESERVATION, TAPHONOMY AND DAMAGE

The identifiable remains from the Mapungubwe component show few butchering marks. Cattle bones have mostly cut and shear marks on the smaller limb bones. Other damage was caused by gnawing and weathering. This is similar for the sheep/goat bones. Longitudinal splitting occurs on a cattle first phalanx and a distal metacarpal.

Unidentifiable remains from this component show cut marks mainly on skull, vertebral and rib fragments, in that order. Burning occurs predominantly on miscellaneous pieces and longbone flakes. About 22% of the bones are weathered making this the most prominent taphonomic category in this component. The bones from Level 5 in particular are noticeably weathered on one side: they has been either immediately exposed to the elements for a long time or else covered and exposed later. Many Level 5 bones are stained with black speckles which are not removable. Manganese is the likely cause as this site is situated within a granitic environment.

In the Letaba component of Trench 1, the identifiable bones from cattle have mainly cut and chop marks. Cut marks occur more frequently on limb bones while chop marks occur mostly on pelvic and femoral elements and on mandible, teeth and skull fragments. These various

Table 2. Tshitheme total bone sample.

Skeletal part	T1/ 1-4	%	T1/ 5-6	%	T2/ T.T.	%	TOTAL T1-2	%
Bovid remains	189	7,0	50	10,7	-	-	240	2,3
Other remains	32	1,2	19	4,1	5	38,5	56	1,8
Total identifiable	221	8,2	69	14,8	6	46,2	296	9,3
Enamel fragments	12	0,4	7	1,5	-	-	19	0,6
Skull fragments	303	11,2	29	6,2	1	7,7	333	10,5
Vertebra fragments	160	5,9	25	5,4	1	7,7	186	5,8
Rib fragments	382	14,1	73	15,7	-	-	455	14,3
Misc. fragments	1360	50,3	213	45,8	3	23,1	1576	49,5
Bone flakes	267	9,9	49	10,5	2	15,4	318	10,0
Total non-ident.	2484	91,9	396	85,2	7	53,8	2887	90,7
TOTAL SAMPLE	2705	100,0	465	100,0	13	100,0	3183	100,0
Mass (g) ident.	2460	27,3	595	29,1	20	36,4	3075	27,7
Mass (g) non-ident.	6545	72,7	1447	70,9	35	63,6	8027	72,3
TOTAL MASS (g)	9005	100,0	2042	100,0	55	100,0	11102	100,0
% of sample burnt		8,6		11,0				8,8
% of sample ident.		8,2		14,8		46,2		9,3
Median length of bone flake (mm)*	4,3		3,4		4,0		3,9	

* Median average calculated for TOTAL.

Table 3. Tshitheme T1/5-6: Mapungubwe: meat contribution.

Species	QSP	QSP value	QSP %meat	MNI	MNI %meat
Herding					
Bos taurus adult	26	,18	83,1	5	66,6
juv.	3	,02	3,7	2	10,6
Sheep/goat adult	10	,08	2,4	2	1,7
juv.	3	,02	,5	1	,7
TOTAL HERDED	42	,30	89,7	10	79,6
Hunting					
Bov I	3	,02	,4	1	,5
Bov III non-dom adult	3	,02	3,7	2	10,7
juv	2	,02	2,2	1	3,2
TOTAL HUNTED	8	,06	6,3	4	14,4
Indeterminate bovids					
Bov. III	2	,02	4.1	1	5,9
TOTAL INDET.	2	,02	4,1	1	5,9
Snaring					
cf. Pronolagus randensis	1	,01	<,1	1	<,1
TOTAL SNARED	1	,01	<,1	1	<,1
Gathering					
Achatina sp.	-	-	<,1	1	<,1
Unio/Aspatharia	-	-	<,1	1	<,1
TOTAL GATHERED	-	-	<,1	2	<,1
TOTAL ANIMALS	53	,39		18	
Non-contributor					
Struthio camelus	1			1	

Table 4. Tshitheme T1/1-4: Letaba: meat contribution.

Species	QSP	QSP value	QSP %meat	MNI	MNI %meat
Herding					
Bos taurus adult	107	,78	88,2	8	63,4
juv.	7	,05	2,3	2	3,1
Sheep/goat adult	22	,17	1,2	2	1,5
juv.	2	,02	,1	2	,8
TOTAL HERDED	138	1,02	91,8	14	68,8
Hunting					
Equus burchelli	1	,01	,7	1	5,0
Bov I	3	,03	,1	1	,6
Bov II non-dom	3	,03	,3	1	1,6
Bov III non-dom	6	,05	2,3	2	6,3
Bov IV	1	,01	1,8	1	12,2
TOTAL HUNTED	14	,13	5,2	6	25,7
Indeterminate bovids					
Bov. II	11	,09	,7	2	1,0
Bov III adult	5	,04	2,0	1	3,4
juv	1	<,01	,3	1	2,1
TOTAL INDET.	17	,13	3,0	4	6,5
Snaring					
Lepus/Pronolagus	6	,05	,01	2	,1
Francolinus sp.	4	,08	,01	1	<,1
Medium bird	4	,08	<,01	1	<,1
Indet. sized bird	1	-	-	1	-
TOTAL SNARED	15	,21	,03	5	,1
Gathering					
Potamonautis gen.	1	,08	-	1	<,1
Achatina sp.	6	3,00	3,0	3	<,1
TOTAL GATHERED	7	3,08	3,0	4	<,1
TOTAL ANIMALS	191	4,57		32	
Non-contributor					
Bos taurus (foetus)	1			1	
Panthera leo	1			1	
Struthio camelus	1			1	
Ledoulxia mozambicensis	1			1	
Euonyma	1			1	

marks occur equally on proximal, distal and shaft areas of the limb bones. Longitudinal splitting occurs mainly on first and second phalanges. For sheep/goats, cut and chop marks are in the majority, occurring only on the larger limb bones. Few bones show any other damage.

Few other bovid bones show butchering marks although burning, gnawing and weathering occurs on some of the bones. Considering the small size of most of the punctates, dogs or perhaps jackals are probably responsible for the carnivore gnawing. Among the non-bovids, one medium-sized bird limb bone has an orange-brown discolouration which might be ochre staining.

Cut marks occur mainly on unidentifiable skull and vertebral fragments and chop marks or deep cut marks occur on most damaged ribs. Burning frequently on miscellaneous fragments and longbone flakes. Two vertebral

Table 5. Tshitheme and Dazata: ages of *Bos taurus* and sheep/goats based on tooth eruption and wear. Numbers listed are MNI.

	Age classes		MNI				
			Tshitheme			Dzata	
	Voigt (1983)	Thorp (1984)	T1/ 5-6	T1/ 1-4	T2/ 7-8	T2/ 1-6	T1/ 1-2
Bos taurus	I	I	1	0	0	0	0
	II	I	1	0	0	0	0
	III	II	0	1	0	1	0
	IV	III	1	2	0	0	0
	V	III	1	1	0	1	0
	VI	IV	0	1	0	1	1
	VII	IV	1	1	1	3	1
	VIII	IV	2	1	0	1	1
	IX	V	0	2	1	1	1
			7	9	2	8	4
Sheep/goat	I		0	0		0	0
	II		0	1		0	0
	III		1	1		0	1
	IV		1	1		0	0
	V		1	1		1	3
	VI		0	1		1	2
			3	5		2	6

N.B.: T2/7-8 = one adult sheep/goat tooth was recovered along with post-cranial fragments, MNI = 2.

Table 6. Tshitheme T1/5-6: Mapungupwe: number of skeletal parts(Ha: hare, nd: non-domestic, d: domestic).

Skeletal part	Bov I	Bov II d	Bov III nd	Bov III d	Bov III	Ha	Total
Cranial	1	2			1		4
Humerus			1				1
Ulna	1						1
Carpal				2			2
Metacarpal				1			1
Femur			1	1	1		3
Tibia	1	2	2				5
Lateral malleolus				1			1
Calcaneus		1		1			2
Tarsal				2			2
Metatarsal						1	1
Phalanx 1			1	1			2
2				3			3
3				1			1
Total	3	5	5	13	2	1	29
Teeth		9		13			22
TOTAL	3	14	5	26	2	1	51

fragments from T1/3 have green staining which suggests they were deposited near copper.

Identifiable bones are scarce from the Test Trench, some being damaged. A *Bos* second phalanx is longitudinally split like those of the Letaba component in Trench 1. The articulation area on the proximal end of a baboon radius shows slight rodent gnawing while a

Table 7. Tshitheme T1/1-4: Letaba: number of skeletal parts (E: equid, C: carnivore, Ha: hare, B: bird, Cr: crab, nd: non-domestic, d: domestic).

Skeletal part	E	C	Bov I	Bov II nd	Bov II d	Bov II	Bov III nd	Bov III d	Bov III	Bov IV	Ha	B	Cr	Total
Cranial	1		3		3	2	2	12	5					28
Scapula					1	1	1	1						4
Humerus					2	1		3			1	2		9
Radius				1	1		1	4						7
Ulna						2		3			1			6
Carpal					1		1	2						4
Metacarpal					1	1		3		1		2		8
Pelvis					2			6						8
Femur					2	1		7	1					11
Tibia			1		1	1		5				1		9
Fibula											1			1
Astragalus								1						1
Calcaneus						1		5						6
Tarsal								1	1					2
Metatarsal							1	4						5
Metapodial				1				1	1					3
Phalanx 1			1			2	2	9	1				1	16
2								3						3
3								4						4
Sesamoid								5						5
Limbbone												5		5
Other													1	1
Total	1	1	5	2	16	12	5	79	9	1	5	9	1	146
Teeth	1		1		9			39	2					52
TOTAL	2	1	6	2	25	12	5	118	11	1	5	9	1	198

zebra's hyoid has cut marks on the shaft. Almost all the unidentifiable fragments are unmodified except for a gnawed longbone flake.

SKELETAL PART REPRESENTATION

From the non-identifiable remains, miscellaneous fragments outnumber all other unidentifiable categories in both components (Table 1). The teeth and post-cranial remains for cattle are equal. Sheep/goat cranial fragments outnumber post-cranial material. Most other bovids are represented by post-cranial remains (Table 6). Adult cattle bones consist mainly of smaller posterior limb elements with the exception of carpal and metacarpal elements. Sub-adult cattle are represented only by tarsals and two second phalanges. On the whole there is a paucity of the larger limb bones in the cattle sample for this component.

From trench 1/1-4 of the Letaba component both cattle and sheep/goat are represented mostly by post-cranial material, except for Bov III. On the number of teeth alone, cattle outnumber sheep/goats and all other animals (Table 7). Except for the humerus, post-cranial adult cattle bones represent most of the skeletal elements. The ulna, calcaneus and metatarsal elements are better represented once skeletal complexity and reconstitution of fragments into elements is considered (De Wet 1993). Sub-adult cattle bones, although fewer in number, are better represented by ulna and calcaneus remains. The few juvenile animals are represented by humerus, femur and tibia only.

Sheep/goat post-cranial bones are all from adults. There is a noticeable lack of ulna and posterior elements such as calcanei, tarsals and metatarsals are absent.

The Bov II remains, which are all adult, are represented mainly by large limb bone elements from

both fore and hind sections. However, the more dense compact limb bones such as the carpals and tarsals along with the astragalus and calcaneus are not present. Considering the absence of sheep/goat ulnae and their presence in Bov II, I think several Bov II bones and fragments are most probably sheep/goat.

Skull and mandibular fragments occur in all cattle and sheep/goat age groups. Relatively little cranial material derives from the various bovids such as impala and buffalo or from the non-domesticates Bov II and III (sub-adult).

DZATA 2230 CC2

Dzata is located on a slight rise on the northern side of the Nzhelele valley (22.52.10 S; 30.08.30 E) next to the Gadabi Stream. It is the recognized capital of the Singo. The Singo established their capital in the late 17th-early 18th century, and it lasted for 60 to 80 years (3-4 generations) before a civil war erupted within the ruling class (Dzivhani 1940:37). According to Huffman and Hanisch (1987) the residential area covered at least 50 hectares and the "musanda", or palace area, was over 4500 m^2. It is likely that Dzata started out as a Level 4 settlement and achieved paramount status soon after the Singo's establishment of a state. Significantly it is the only Level 5 settlement known south of the Limpopo.

Loubser (1988:169) excavated a small portion of the royal core to determine the relationship between different wall styles and the sterile subsoil. The material recovered therefore represents a small sample from a very large, widespread and complex settlement (Fig. 3).

Loubser excavated three trenches. Trench 1 (9 m^2) was placed against a section of semi-coursed walling near the chief's reputed (Walton 1956) kitchen hut. Excavations by Huffman and Hanisch (pers. comm.), however, show that this structure was the chief's audience chamber. There are two levels in this trench separated by patches of floor. Charcoal from the floor level dates to AD 1630 ± 40 (WITS-1668). The finds recovered include Letaba style pottery, bones and worked bone, iron and copper objects and spindle whorls.

Trench 2 (8 m^2) was placed on the "daledale" ash heap against the southeastern wall of the main assembly area. The deposit in Trench 2 probably results from activities in the assembly area. It yielded eight layers of deposit. Dates derived from these levels are:

T2/2	AD 1660 ± 50 (WITS-1665)
	AD 1810 ± 80 (WITS-1601)
T2/5	AD 1580 ± 40 (WITS-1597)
	AD 1590 ± 50 (WITS-1660)
T2/7B	AD 1690 ± 70 (WITS-1599)

These dates calibrate to around AD 1700 (Loubser 1988, 1991).

Trench 3 (4 m^2) was placed against the only intact 'blue' stone wall section near an original 'chief's seat'. This trench contained two relatively sterile levels.

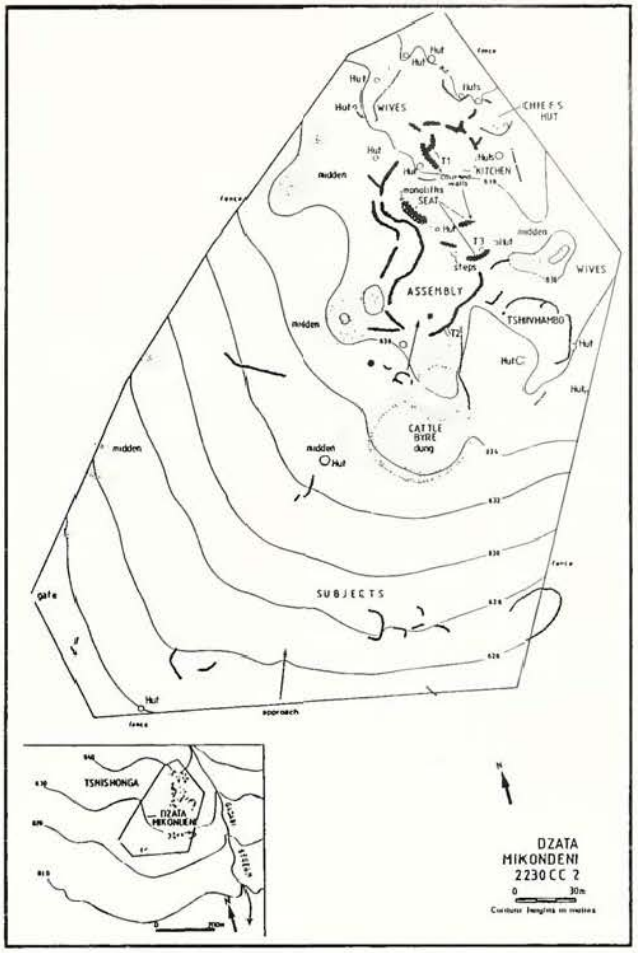

Fig. 3. Layout of Dzata.

TOTAL FAUNAL SAMPLE

As all three trenches contain one ceramic component, I combined the levels in each trench save for the lowest two in Trench 2. These lower levels, T2/7-8, extend under the assembly wall, and I therefore considered them separately. In all I analysed four units: T2/7-8, T2/1-6, T1/1-2 and T3/1-2 (Table 1).

The excavations yielded a total bone sample of 4956 pieces weighing 16 033 g (Table 8). Trench 2/1-6 represents 59% of the total bone sample with decreasing percentages for T1/1-2 and T2/7-8 respectively. Trench 3 contributes the negligible amount of 0,8%. Approximately 10% of the total sample is identifiable. Cattle and sheep/goats dominate the bovid bone count. There is a wide range of other animals present, particularly in T2/1-6. Domestic fowl are included in the total sample from T1/1-2. In T3/1-2 none of the fragments could be identified to species or animal size.

Seven fragments of worked elephant ivory, most of them from bracelets, were identified from all the levels of Trench 2. Worked tortoise plastrons were identified from both trenches, one square in shape, the other a disk, both with a hole in the centre. These may have been worn as pendants or used in the cotton spinning process (Huffman 1971). A number of other plastron fragments have smoothed edges or holes drilled through them.

Table 8. Dzata: total bone sample.

Skeletal part	T1/1-2	%	T2/1-6	%	T2/7-8	%	T3/1-2	%	TOTAL	%
Bovid remains	103	7,0	171	5,8	38	7,1			312	6,8
Other remains	37	2,5	72	2,5	30	5,6			139	3,0
Total identifiable	140	9,5	243	8,4	68	12,7			451	9,1
Enamel fragments	18	1,2	19	0,7			1	2,5	38	0,8
Skull fragments	52	3,5	445	15,4	37	6,9	1	2,5	535	11,6
Vertebra fragments	49	3,3	187	6,5	40	7,5	1	2,5	277	6,0
Rib fragments	372	25,1	421	14,5	96	17,9			889	19,3
Misc. fragments	676	45,6	1272	43,9	229	42,7	33	82,5	2210	48,1
Bone flakes	174	11,7	312	10,8	66	12,3	4	10,0	556	12,1
Total non-ident.	1341	90,5	2656	91,6	468	87,3	40	100,0	4505	91,0
TOTAL SAMPLE	1481	100,0	2899	100,0	536	100,0	40	100,0	4956	100,0
Mass (g) ident.	1815	40,0	3660	39,1	915	43,1			6390	39,9
Mass (g) non-id.	2725	60,0	5693	60,9	1206	56,9	19	100,0	9643	60,1
TOTAL MASS (g)	4540	100,0	9353	100,0	2121	100,0	19	100,0	16033	100,0
% of sample burnt		1,6		4,4		2,2				3,2
% of sample ident		9,5		8,4		12,7				9,1
Median length of bone flake (mm)*	3,8		4,0		4,3		4,3		4,1	

* Median average calculated for TOTAL.

Table 9. Dzata: T2/7-8: meat contributions.

Species	QSP	QSP value	QSP %meat	MNI	MNI %meat
Herding					
Bos taurus	17	,130	81,3	2	65,0
Sheep/goat	3	,023	,9	2	4,2
TOTAL HERDED	20	,153	82,2	4	69,2
Hunting: Bovids					
Bov I juv.	2	,015	,2	1	1,3
Bov. III non-dom.	1	,008	2,0	1	13,1
TOTAL HUNTED	3	,023	2,2	2	14,4
Indeterminate bovids					
Bov. II	3	,023	,9	1	2,1
Bov. III	7	,053	14,6	1	14,2
TOTAL INDET.	10	,076	15,5	2	16,3
Snaring					
Aethomys chrysophilus	3	,022	<,1	1	<,1
TOTAL SNARED	3	,022	<,1	1	<,1
Gathering					
Achatina sp.	1	,500	<,1	1	<,1
TOTAL GATHERED	1	,500	<,1	1	<,1
TOTAL ANIMALS	37	,774		10	
Non-contributor					
Loxodonta africana	1			1	
Small terrestrial snail	1			1	

Other worked bone is described in de Wet (1993: Appendix A).

MEAT CONTRIBUTIONS

Cattle are the largest contributors of meat for all units (Tables 9-11). In the lower unit of Trench 2 the indeterminate bovids contribute 15% according to QSP values. Since few other wild bovids are present in these levels, this amount may be added to the domestic bovid counts. The contribution from domestic animals decreases in the upper unit in Trench 2 where non-domestic bovids account for 26% in QSP calculations.

AGE DISTRIBUTION

In the lower unit of T2, only adult (mature) cattle teeth and post-cranial remains are present (Table 5). The upper unit of T2 consists mostly of mature cattle. With post-cranial remains included, one sub-adult (immature) proximal tibia increases the MNI count to nine. All cattle from T1/1-2 are mature. The post-cranial remains, however, include those of sub-adults and juveniles.

Sheep/goat remains from all three units are mainly from adults. Deciduous teeth from Trench 1 and one phalanx from the upper unit of T2 come from juveniles. Non-domestic bovids from these units are mainly adult, although juvenile duiker and hartebeest remains come from T2/7 and T2/6 respectively. Sub-adult nyala and eland are present in T2/1-6.

SKELETAL PART PRESERVATION, TAPHONOMY AND DAMAGE

The quality of the material varies constantly within and between levels. The condition of the bones from T2/7-8 is extremely good despite the mixed nature of the soil. One specimen, for example, is the fine weblike bone from the sinus passages of a large bovid.

The periodic cleaning of the assembly area probably created level 1 to 6 in Trench 2. As a result the unit varies from ashy to sandy red-orange soil. Some bones from Levels 1-6, particularly from Level 5, have several kinds of material clinging to them. This suggests that the bones lay for some time in one soil context and were later placed in another. The earlier date for Level 5 can be attributed to the fact that the inhabitants at Dzata dug into the assembly area during a cleaning episode.

Throughout these levels material found closest to the stone wall is more weathered and friable. This may be due to mineral acids from iron or other acidic components of quartzite leaching out of the stone wall (Bender, pers. comm.). Even a low ash content in an acidic soil context can hasten bone attrition. This same effect has been found in Stone Age shelters where much of the friable material occurs closest to shelter walls (Plug, pers. comm.).

Trench 1, Levels 1-2 have mostly weathered material and fragments pitted with termite and root damage. The stony soil was mainly brown and red with small scattered ash lenses. Many pieces have red soil cemented onto them which light brushing could not remove. T3/1-2 remains are mostly weathered and in poor condition.

On average 63% of the total sample is unmodified. In T2/7-8 the incidence of butchering is high at 28%. The cut, chop and chisel marks are mainly restricted to cattle, sheep/goat and Bov II classes. A cattle femur and the atlases from the Bov III class are longitudinally split.

Table 10. Dzata T2/1-6: meat contributions.

Species	QSP	QSP value	QSP %meat	MNI	MNI %meat
Herding					
Bos taurus adult	82	,626	66,2	8	50,5
juv.	3	,023	1,0	1	2,5
Sheep/goat adult	14	,107	,7	1	,4
juv.	1	,008	<,1	1	,3
TOTAL HERDED	100	,764	68,0	11	53,7
Hunting: Bovids					
Bov. I	1	,008	<,1	1	,3
Bov. II non-dom.	1	,008	,1	1	,6
Bov. III non-dom. adult	17	,131	5,4	4	10,1
juv	1	,008	,2	1	1,1
Bov. IV	17	,129	20,7	3	29,7
TOTAL HUNTED	37	,284	26,4	10	41,8
Indeterminate bovids					
Bov. II adult	4	,031	,2	1	,4
juv.	1	,008	<,1	1	,2
Bov. III adult	14	,107	5,0	1	2,8
juv.	2	,015	,4	1	1,1
TOTAL INDET.	21	,161	5,6	4	4,5
Hunting: Non-bovids					
Procavia capensis	1	,007	<,1	1	<,1
TOT HUNTED NON-BOV.	1	,007	<,1	1	<,1
Snaring					
Medium sized bird	1	,020	<,1	1	<,1
TOTAL SNARED	1	,020	<,1	1	<,1
Gathering					
Tortoise	3	,032	<,1	1	<,1
Achatina sp.	3	1,500	<,1	2	<,1
Unio/Aspatharia	1	,250	<,1	1	<,1
TOTAL GATHERED	7	1,782	<,1	4	<,1
TOTAL ANIMALS	167	3,018		32	
Non-contributor					
Canis mesomelas	2			1	
cf. civet	1			1	
cf. hyaena	1			1	
Large carnivore	1			1	
Medium carnivore	1			1	
Loxodonta africana	8			1	
Ledoulxia mozambicensis	1			1	
Tropidophora genus	1			1	

Table 11. Dzata T1/1-2: meat contributions.

Species	QSP	QSP value	QSP %meat	MNI	MNI %meat
Herding					
Bos taurus adult	52	,397	93,9	5	83,5
juv	1	,008	,8	1	6,6
Sheep/goat adult	36	,275	4,2	5	5,4
juv	3	,023	,3	1	,9
TOTAL HERDED	92	,703	99,1	12	96,3
Hunting: Bovids					
Sylvicapra grimmia	1	,008	,1	1	,7
Bov. II non-dom.	1	,008	,2	1	1,6
TOTAL HUNTED	2	,016	,3	2	2,3
Indeterminate bovids					
Bov. II	3	,023	,3	1	1,1
TOTAL INDET.	3	,023	,3	1	1,1
Snaring					
Lepus saxatilis	17	,125	,1	2	,1
Medium sized bird	5	,100	<,1	1	<,1
TOTAL SNARED	22	,225	,1	3	,1
Gathering					
Tortoise	9	,096	,1	4	,2
Achatina sp.	4	2,000	<,1	1	<,1
TOTAL GATHERED	13	2,096	,1	5	,2
TOTAL ANIMALS	132	3,063		23	
Non-contributor					
Struthio camelus	1			1	

Chop marks indicate that the atlases were split cranio-caudally.

In T2/1-6, chop marks are common on cattle bones and are visible on most of the bovid material. Longitudinal splitting occurs on cattle scapula, tibia, metacarpi, metatarsi and phalanges as well as on a phalanx of a non-domestic Bov III, as well as on the ulna and metatarsus of a buffalo. Carnivore bones also have chop marks, for example a distal radius from a large carnivore (*cf.* hyaena) and shearing, for example on the proximal radius from a jackal. The proximal end of a jackal ulna has been worn away. Chop marks on a fresh water mussel resulted in percussion flaking on the shell.

In T1/1-2 cut and chop marks are common particularly on cattle bones. Longitudinal splitting of bones occurs notably on cattle humeri, femora, first and second phalanges and on humeri and radii of sheep/goats.

Cut, chop and chisel marks predominate on the unidentifiable fragments and these vary in relative numbers for all units. In T2/1-6, the manner in which the ribs were broken differed from the lower unit. Instead of separating the rib from the vertebra at their junction, a number of specimens were chopped away on the shaft, resulting in ribs without articulation areas present.

Longitudinal splitting/shearing occurs on several vertebral pieces. In many cases the butcher separated the vertebrae medio-laterally and in others cranio-caudally. These patterns are seen on vertebrae from both units of Trench 2.

Cut and chop marks occur most frequently on rib fragments in T1/1-2. Also from this unit, two long bone flakes are stained green which may have been caused by copper nearby.

Little of the entire sample is actually burnt. Most bones have indirect heat damage that may have been caused by hot ash. Several bones from T2/5-7 appear to have been stained by manganese.

PATHOLOGY

Pathological remains are not common and those identified are mainly from Trench 2. Several cattle bones show two

Table 12. Dzata T2/7-8: number of skeletal parts. (E: elephant, R: rodent, nd: non-domestic, d: domestic).

Skeletal part	E	Bov I	Bov II d	Bov II	Bov III nd	Bov III d	Bov III	R	Total
Cranial		1			1	1	14	1	18
Atlas					1		1		2
Scapula				1		1	2		4
Humerus			1						1
Radius			1						1
Ulna				1		1			2
Carpal						1			1
Femur						2			2
Tibia						1			1
Astragalus						6			6
Tarsal						2			2
Metatarsal							1		1
Phalanx 1						1	1		2
2						2	1		3
Total		1	2	2	2	18	20	1	46
Teeth	1	2	1			3	1	3	11
TOTAL	1	3	3	2	2	21	21	4	57

Table 13. DZATA T2/1-6: number of skeletal parts (E: elephant, C: carnivore, Hy: hyrax, B: bird, T: tortoise, nd: non-domestic, d: domestic).

Skeletal part	E	C	Hy	Bov I	Bov II nd	Bov II d	Bov II	Bov III nd	Bov III d	Bov III	Bov IV	B	T	Total
Horncore									1					1
Skull						2	1	3	8	225	1			240
Hyoid							2		2	2				6
Atlas											1			1
Axis								2		2				4
Scapula						1		2	4					7
Humerus									5	1	1			7
Radius		3				3			4	1				11
Ulna		1							1	1	1			4
Carpal							1	1	5		1			8
Metacarpal					1			1	6	1				9
Pelvis		1					1	1	3	1				7
Femur								1	5	1	1			8
Tibia							1		3		2			6
Astragalus									1					1
Calcaneus									1					1
Tarsal									3					3
Metatarsal								1	2	2	1			6
Metapodial						1								1
Phalanx 1						1		3	4	1	2			11
2								1	3	1	1			6
3								2	3		1			6
indet						1								1
Sesamoid											1			1
Rib			2	1										3
Limbbone							1					1		2
Plastron													3	3
Other		1												1
Total		6	2	1	1	9	7	18	64	239	14	1	3	365
Teeth	9					7			28	2	5			51
TOTAL	9	6	2	1	1	16	7	18	92	241	19	1	3	416

relatively common pathological problems. Two distal femora have signs of osteoporosis, where the cortex of the bone shaft is much thinner than normal. Osteoporosis has varying aetiologies, such as disequilibria of phosphorous, nitrogen, or metals in the diet, or may even be the result of parasites or old age (Baker & Brothwell 1980:53, 55). There is evidence for at least one very old individual in the sample.

A cattle phalanx and naviculo cuboid show exostosis.

Table 14. DZATA T1/1-2: number of skeletal parts (Ha: hare, B: bird, T: tortoise, nd: non-domestic, d: domestic).

Skeletal part	Bov I	Bov II nd	Bov II d	Bov II	Bov III d	Ha	B	T	Total
Cranial			3		3	3			9
Scapula					2				2
Humerus			1		4				5
Radius			1	1					2
Ulna			1				1		2
Carpal			1						1
Metacarpal				2					2
Pelvis		1							1
Femur			2		11		1		14
Tibia							1		1
Astragalus					2				2
Calcaneus	1		2		1				4
Tarsal					2				2
Phalanx 1					3				3
2					4				4
3					1				1
Sesamoid					1				1
Wingbone							1		1
Limbbone							1		1
Plastron								9	9
Total	1	1	11	3	34	3	5	9	67
Teeth			33		20	15			68
TOTAL	1	1	44	3	54	18	5	9	135

Despite a wide variety of potential causes, this affliction is most likely due to physical stress, probably through the use of the animal for draught purposes. On the other hand, the exostosis present on the phalanx of a buffalo may be due to a stress fracture on a lower limb.

SKELETAL PART REPRESENTATION

Of the non-identifiable skeletal parts, miscellaneous pieces make up the single largest category in each unit followed by rib fragments (Table 8). In T2/8 there is a noticeable lack of skull, vertebra and rib fragments. A concentration of Bov III sized skull fragments comes from an isolated area of Level 7. The pieces are too fragmented for species identification but since several represent the same element more than one individual is therefore represented. A large concentration of skull fragments also occurs in T2/6. It seems that most of these pieces come from one Bov III sized individual.

Despite these pockets of skull fragments, post-cranial remains dominate the sample of identifiable fragments assigned to species in T2/7-8 as well as in the upper unit of this trench.

Teeth make up most cranial pieces in T1/1-2, most of which are from sheep/goats, followed by cattle and hares.

Of the post-cranial cattle parts from T2/7-8 only astragali are over-represented when skeletal complexity and reconstitution is considered. All other remains are under-represented and several elements of the fore and hind quarters are not present. NISP shows that parts of the hind quarters are more prevalent than fore quarters (Table 12).

In T2/1-6 cattle metacarpals, ulnar carpals and the naviculo-cuboid are over-represented. All the larger limb bones are present while some of the small fore and hind limb bones are under-represented. Phalanges are under-represented, are dense elements such as calcanei,

astragali and a variety of carpals and tarsals (Table 13). Although carpals, tarsals and phalanges preserve relatively better than less dense bone, other factors may have been responsible for the distribution pattern.

In T1/1-2 (Table 14) cattle distal femora are over-represented but when all skeletal elements are considered, the hind quarters predominate (Fig. 4). Sub-adult cattle parts are few and hind quarters are again better represented. NISP counts for sheep/goats from both trenches are too low to calculate element representations. The distribution patterns of skeletal parts in other bovids vary. In T2/7-8 most of the bovids are represented mainly by fore limb remains. In T2/1-6 (Table 13), Bov II, Bov II non-domestic and Bov I elements are too few for any meaningful discussion on element representations. Bov III and III non-domestic have a few hind limbs represented, however, most of these are not from adults, save for some metatarsal fragments. Bov IV on the other hand has a relatively good representation of the large fore and hind limb bones.

DISCUSSION

At Tshitheme and Dzata, *Bos taurus* is most prevalent in all components and units and outnumbers sheep/goat. Herding predominates as the main meat procurement activity and hunting, snaring and gathering provide dietary supplements, however, in the upper unit of Trench 2 at Dzata, hunted animals are strongly present. In terms of meat yield at Dzata, sheep/goats contribute very little in QSP terms. According to MNI, cattle and sheep/goats are equally represented except in Trench 2/1-6 where the number of cattle is somewhat higher. The misrepresentation of MNI counts can be seen in the meat contributions of hunted bovids in comparison to herded animals in T2/1-6. According to QSP counts which present a more accurate picture of real contributions, meat from hunted bovids is much less, but still forms a significant part of meat yield relative to the other units.

In terms of age structure, cattle present a wide range of ages for both sites. It is difficult to assess slaughter practices in terms of selection for specific age groups based on small areas from only two sites. It can be pointed out however that the excavations at Dzata yielded a very low number of juvenile animals. This age distribution was not anticipated. I had originally assumed that since Dzata was a very high status settlement, a high juvenile presence should be identified, much like the situation at Great Zimbabwe's Hill Midden. It is believed that this high juvenile number was the result of an elite prerogative to receive and consume young animals (Thorp 1984; De Wet-Bronner, in press). The lack of this kind of evidence at Dzata may suggest that royalty and the king did not participate in this kind of consumption pattern or that the evidence has yet to be uncovered.

Despite the low specimen count, the Letaba component at Tshitheme has a relatively high juvenile sheep/goat presence. This high occurrence may be due to disease or to a greater exploitation of the younger stock

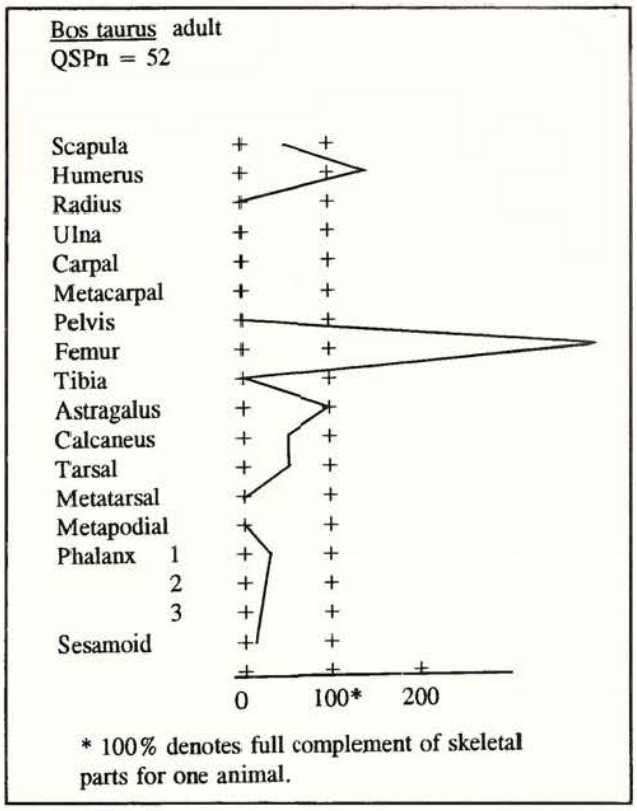

Fig. 4. Dzata T1/1-2: Letaba: Percentages of post-cranial remains represented after correction for skeletal complexity.

to preserve cattle herd numbers. It is not possible at this point to interpret the juvenile sheep/goats in the Letaba phase as a prerogative of the elite residents to consume younger and therefore more tender meat. Furthermore, sheep/goat juveniles may not be very edible (although this is a Western opinion). Juvenile sheep/goat may have been of some importance but the small size of the trench and lack of samples from other parts of the site prevents any interpretation now.

In terms of butchering practices at Tshitheme and Dzata, trends can only be fruitfully explored with larger samples. However, some observations can be made. Chopping marks on limb bones and cranial elements are evidence of a relatively common practice of marrow and brain extraction. Chopping near the proximal and distal ends of long bones is another method of extracting marrow (Brain 1981; Voigt 1983). Evidence of chop marks on the skull may be the result of blows to either remove the horns or to render the animal unconscious. Chop marks on atlas elements indicate blows to sever the head from the vertebral column. Cutting along the rib surface was commonly done to remove the skin (Voigt 1983) and one often finds these incisions on ribs. The chop marks found on ribs from Tshitheme and Dzata could indicate a more drastic method of butchering the carcase, that is, chopping the ribs away from the vertebral processes. Rib remains at Dzata without articulated ends strengthens this assumption. What is also unusual is that it is generally more common for first

phalanges to be longitudinally split than second phalanges (Voigt 1983). At both sites however, some second phalanges were also split in this manner, meaning that these bones were likely in an articulated state and therefore split with single blows.

Domestic animal remains at Tshitheme are not numerous enough to warrant interpretation in terms of patterns of disposal based on skeletal element representations. However, the lack of wild bovid cranial remains from both the Mapungubwe and Letaba components may indicate that these bovids were processed or deposited elsewhere. More excavations would need to be done in other parts of the area before any valid remarks on this aspect can be made.

There may, however, be some evidence for status differentiation at this site, particularly in terms of non-domestic animal remains. A lion's terminal phalanx from the royal area at Tshitheme (Trench 1) suggests high status. Traditionally all cat species are tabooed as food although they have ritual, medicinal and status purposes. The skins, particularly of lion and leopard, were given to the chief (Stayt 1931) and the lion bone may have been the remains of such a tribute. Finds such as wire bracelets and ceramic goods are similar to those from other Iron Age sites of the period. The fauna, along with these, are not unusual for middens near residences and the refuse in Trench 1 may have resulted from the activities of some royal wives.

It is however interesting to note that animals such as zebra, baboon and frog/toad occur together in the small Trench 2 at Tshitheme although it was sterile in other respects. The trench is close to the byre and may have been the dump for the court or the initiation enclosure to the northeast. The sample, however, is too small for firm conclusions. The baboon specimen suggests a medicinal role. Parts of the animal are used to prevent sickness and weakness in newborn babies and certain baboon bones such as astragali are commonly part of an "nganga's" divination kit (Stayt 1931; Plug 1987). The Venda also place ritual and medicinal importance on reptiles. I do not know the status of frogs and toads, but the specimens in this trench may have crawled there after the deposit was formed.

On the whole, cattle skeletal element representations are not remarkable at Dzata except for T2/1-2 where femora are over-represented. Based on relative density values for the post-cranial skeleton (Lyman 1992; De Wet-Bronner 1994) these femora do not have a high density. Other elements such as distal humeri and astragali with high densities are present but not over-represented. This means that natural taphonomic agents may not have been the main factor involved in this representation and that the over-representation of femora may be related to human activities. Stayt (1931) notes that Venda chiefs usually receive the hind leg of cattle as tribute, especially during ritual occasions and when the slaughter requires his permission.

Other remains from Dzata, from Trench 2/1-6, may allude to social differentiation and court activities. The few sheep/goats suggest that lower status food may not have been readily consumed in the court. The larger number of non-domesticates, particularly carnivore, are in keeping with court activities. All the non domestic animals from this 'court trench' are adults, save for a juvenile hartebeest and sub-adult nyala, eland and non-domestic Bov III in levels 1-6 and juvenile duiker from the lowest levels. The juvenile and sub-adult non-domesticates in the assembly area midden may indicate a preference for younger and therefore more tender meat by court participants. Would this be an indicator for an elite prerogative to consume non-domestic animals rather than cattle? The large number of ivory fragments found in Trench 2, particularly in the lower levels, along with carnivore remains, suggests activities dealing with status. The negligible amount of unworked ivory, however, suggests that ivory bracelets were either worked elsewhere, traded or presented as tribute. A clay figurine from T2/3 is similar to those which Venda women use and then break during their initiation rituals (Loubser 1991:307).

CONCLUSIONS

For constructive discussions these sites have a starting point as both belong to the same settlement pattern. Unfortunately, in faunal terms these sites are restrictive. They were excavated under a somewhat different research design than that required by a faunal analyst. For the initial purpose they provided valuable information in terms of Venda social and economic history (Loubser 1988, 1991). In descriptive terms, the faunal evidence is informative, but fruitful interpretation of socio-cultural activities would be tenuous at best. I have not conducted inter-site comparisons to any great extent. I have, however, presented some interpretations but these are, at the moment, primarily assumptions. Attempting to interpret the evidence in terms of patterns of disposal and evidence for activity areas is a difficult task when excavations are not aimed specifically towards this level of enquiry. Natural taphonomic factors need to be deciphered on general as well as the site level and cultural models need to be created. The former has been looked at by many, but more work needs to be done. Cultural modelling has yet to be attempted to any great extent (see Mack *et al.* 1991). In terms of these weaknesses, a few observations have been made here. Ultimately, an investigation concerning spatial patterning of traditional Venda settlements is needed. We know something about the settlement layout at a number of archaeological sites in the Soutpansberg but have yet to test this in relation to the faunal evidence on any intensive, theoretical level.

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