

SALVAGE EXCAVATIONS AT PLANKNEK, POTGIETERSRUS, NORTHERN PROVINCE*

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ABSTRACT

Two sites at Planknek were excavated before construction began on the N1 Toll Road. Six trenches were excavated in site 2429AA59 on the north side of the saddle, yielding a considerable amount of metal production debris, refuse bones and broken pottery. The pottery belongs to the Moloko and Letaba Traditions and shows that Northern Transvaal Ndebele lived there from about AD 1780 to 1840. Three trenches were excavated in site 2429AA61 on the south side of the neck. Ndebele lived here from about AD 1855 to 1875. Earlier material was found below the neck on the north side but was not excavated. These mitigation measures clarified the culture history sequence at Planknek and recovered sufficient material for future research.

INTRODUCTION

The South African Roads Board (SARB) contracted the Northern Toll Road Construction Company Limited (NTRC) in 1994 to construct a toll road from Middelfontein (just north of the Kranskop Toll Plaza) to Pietersburg.

In 1990, at an earlier stage of planning, Mark Wood Environmental Consultants, on behalf of Scott and De Waal, commissioned the Archaeology Department at the University of the Witwatersrand to survey for archaeological sites along three alternative routes. During this survey, the archaeologists identified an important Iron Age complex on Planknek (24.11.03S; 29.04.16E), just east of Potgietersrus (Fig. 1).

Planknek is a saddle in a quartzite ridge that trends NW/SE (Fig. 2). On the northwest side the height of the ridgetop varies between 1350 and 1450 metres. On the other side it varies from 1630 to 1730 metres and then curves around to become part of the Maribashoekberg. The saddle itself is about 1290 metres high, some 50 metres above the plain. The Dorps River on the north side flows down to the Nyl, creating a zone of good agricultural soil. The south side is drier and more sandy.

Different sides of the neck yielded Iron Age sites of different time periods and types, some with stone walling. Other studies in the area (Moore 1981; Loubser 1994) suggest that the Northern Transvaal Ndebele had probably lived in the stone-walled sites.

In February 1995, the new environmental consultants on the NTRC team, Cave, Klapwijk and Associates (CKA), commissioned Archaeological Resources Management (ARM) to investigate Planknek. ARM's mitiga-

tion policy is to recover data useful for future research. To achieve this goal, it is necessary to establish the cultural history sequence of the area. By agreement with NTRC, road construction in the neck would not begin until March 6. Accordingly, ARM staff spent six days excavating the complex. We began in the saddle.

EXCAVATIONS

Saddle (2429AA59)

Broken grindstones, ash mounds and slag heaps lie scattered over the saddle in and around vestiges of low stone walling. Because of the density of vegetation, the plan of the walling is not obvious. We therefore first excavated features in an open strip beneath a powerline, designated as Area A (Fig. 3).

Area A

Trench I was a 1 x 5 m cutting in an ash heap. For vertical control, it was excavated in 20 cm levels. A loose gravelly orange crust lay on top of an ashy midden, containing much pottery and broken bone. This midden in turn rested on a hard gravelly surface surrounding two storage pits, both filled with a continuation of the midden deposit (Figs 4 & 5).

Trench I

level 1	orange gravel crust with ash and artefacts	0-20 cm
level 2	ashy midden	20-35
	hard gravelly surface	35
level 3-7	fill of Pit B	35-160
	shaley sub-stratum	160

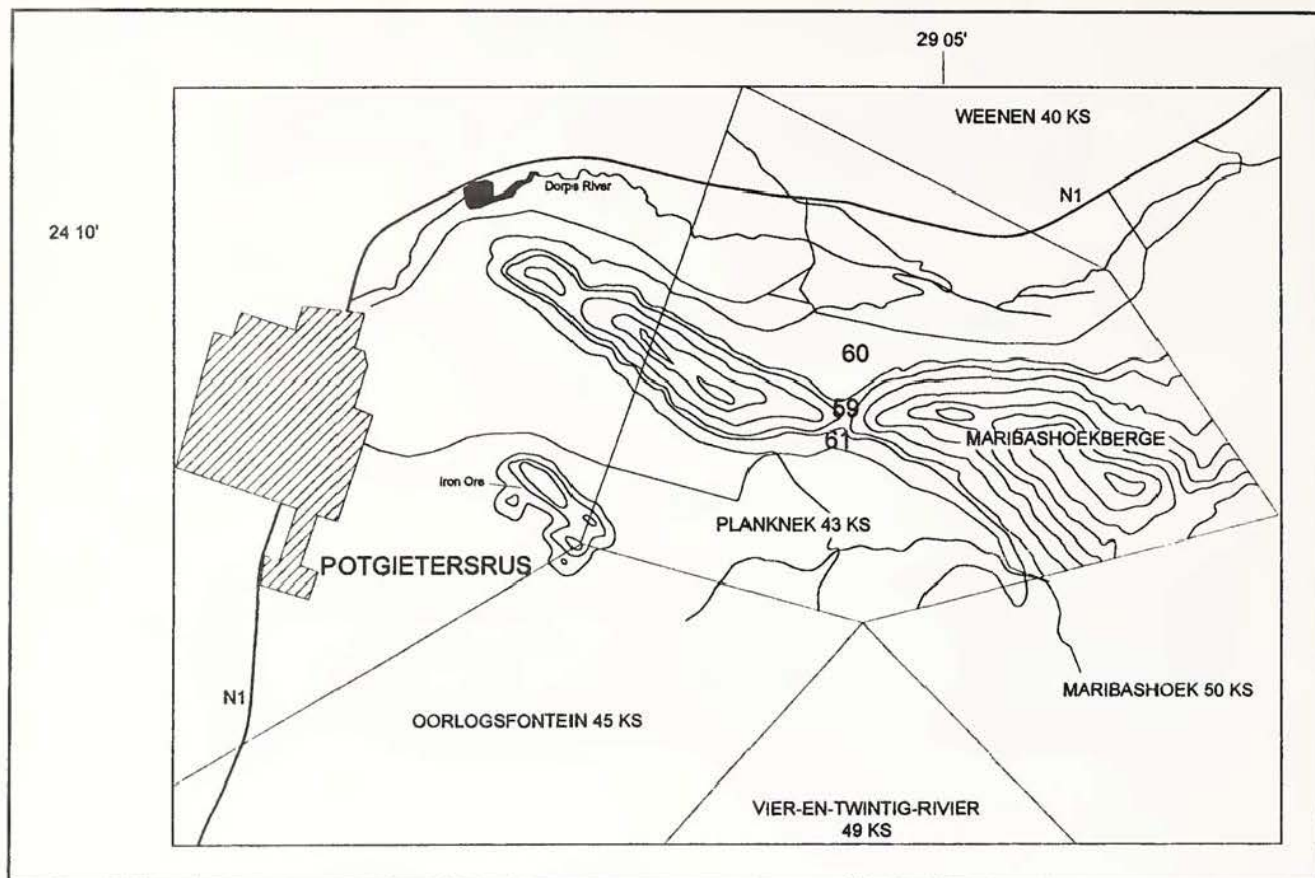


Fig. 1. Location of Planknek on Map 2429AA.

Only a portion of Pit A could be excavated because of its position within the trench, but it was at least 1,25 m wide at the top and 59 cm deep below the hard surface. More of Pit B could be exposed: it was slightly bell-shaped, measuring 1,60 m at the top and 1,25 m deep. It had been dug into a shaley sub-stratum.

The micro stratigraphy in Pit B represented short-term dumping episodes. Ashy midden deposit went down about 75 cm to a zone of stones mixed with khaki-coloured cattle dung. Five centimetres of charcoal lined the bottom of the pit.

Trench II, 1 x 4 m, also produced midden material. At the east end ashy deposit lay on top of a yellow-orange crust about 5 cm thick. This crust dipped west where the overlying midden reached 50 cm in depth. At the east end, the crust lay on top of more midden. Another yellow-orange crust covered a few centimetres of midden that rested on a hard gravelly surface (Figs 6 & 7). A cluster of stones on this floor at the west end included a broken upper grindstone.

Trench II

level 1	ashy midden	0 - 10cm
level 2a	yellow-orange crust	10 - 15
level 2b	ashy midden	15 - 45
level 3a	yellow-orange crust	45 - 50
level 3b	ashy midden	50 - 55
level 4	hard gravelly surface	55



Fig. 2. Planknek from the north.

The middens in both trenches yielded a large number of bones. For the purposes of this project the analysis involved separating the samples into identifiable cranial pieces (C), such as jaws, mandibles and teeth, identifiable post cranial pieces (PC), such as joints and phalanges, and unidentifiable post cranial pieces (UNID), such as fragments of bone shafts and ribs. In addition to these pieces, some bone fragments had been modified (M) by use, such as scraping, or by manufacture.

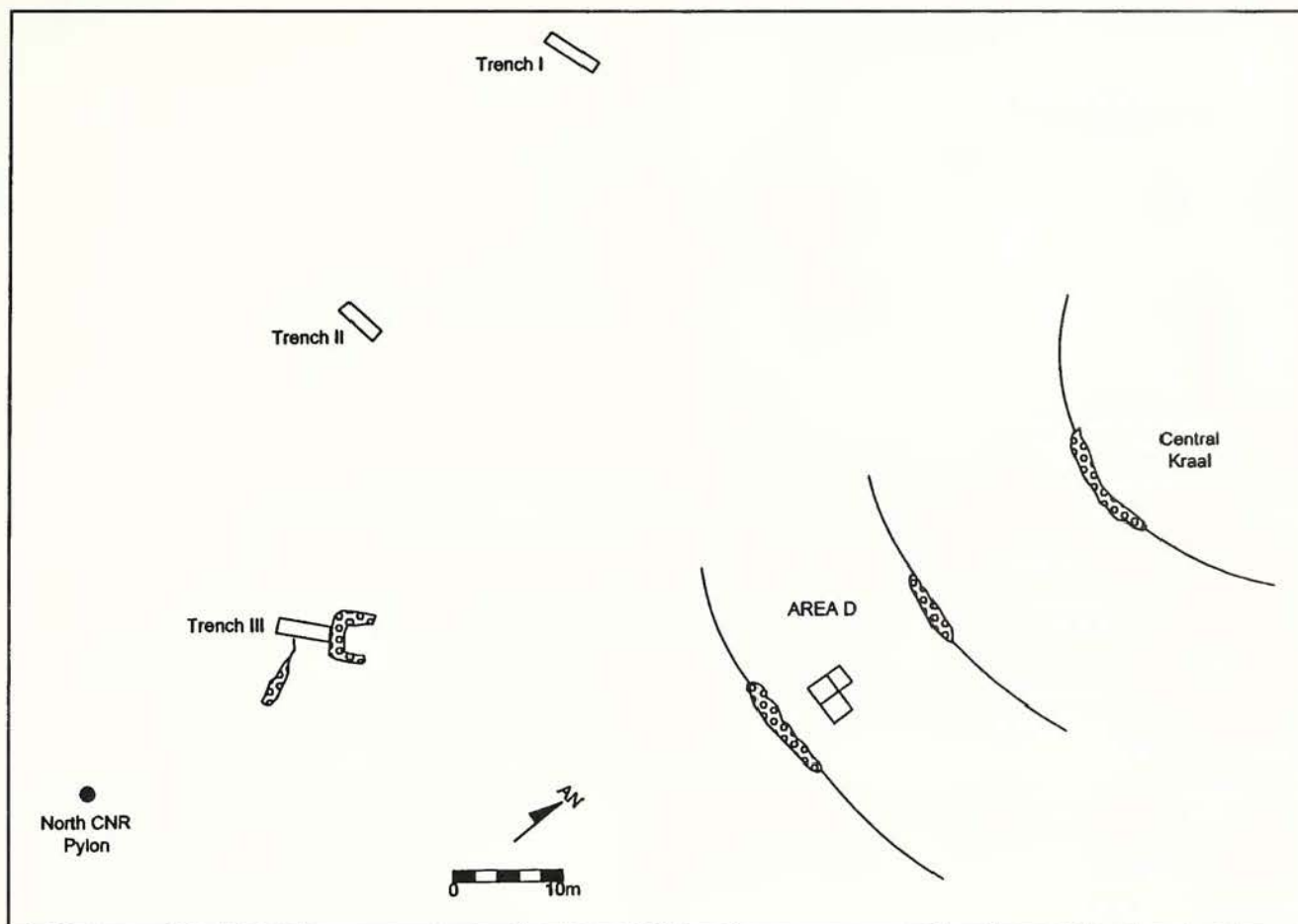


Fig. 3. Area A and D in Site 2429AA59.

Trench I					Trench I			
Level	C	PC	UNID	M	Level	T	SLG	MF
1	7	61	354	7	1		24	
2	7	80	118	4	2	4	5	1
Pit A 3	1	2	7		2			
Pit B 3	1	16	94	10	Pit A 3			
4	1	17	160	4	Pit B 3	1		
5	2	47	182		4	3		
6			53		5	4		
7	1	3	28		6			
					7			

Trench II					Trench II					
Level	C	PC	UNID	M	Level	UGS	OES	SLG	MF	OR
1	2	6	48		1			1		
2b	1	10	78	1	2b	2		2		2
3a crust		4	57	3	3a crust					
3b	6	44	376	4	3b		3		1	
4 gravel	1	13	71	2	4 gravel		1			

Besides the bones a few other artefacts occurred in the middens, including upper grindstones (UGS), ostrich egg shell and other shell beads (OES), tuyere fragments (T), metal slag (SLG), fragments of metal (MF) and specularite ore (OR):

Fortunately for culture history purposes, both middens also yielded identifiable pottery. We sorted this pottery in the field, discarding undecorated body sherds and retaining rims, decoration and unusual profiles:



Fig. 4. Trench I in 59A showing gravelly surface and pits A & B.

Trench I

	rims	decor.	sherds
Level 1	12	5	179
2	10	3	78
3			4
PitA 3			
PitB 3	2		138
4	8	1	118
5	3		100
6	1		46
7			4

Trench II

	rims	decor.	sherds
Level 1	2		25
2b	6		51
3a crust			28
3b	15	3	157
4 gravel	6	2	64

Two styles of pottery were present. The first was Moloko, characterised by a series of parallel lines separating black graphite burnishing in the upper portion of the vessel from red ochre burnishing below (Fig. 8). This style of pottery was made by Sotho-Tswana speaking people (Evers 1983). The second style was Letaba, characterised by a wide band of cross-hatching, hatching or alternating triangles on the upper shoulder of jars and below the rim of bowls (Fig. 8). This style was made by Venda and people influenced by them in the eastern lowveld (Evers 1979). Both styles occurred together in Trench II:

Trench I			Trench II		
Level	Moloko	Letaba	Level	Moloko	Letaba
1		3	1		
2		2	2b		
PitA 3			3a gravel		
PitB 3			3b	1	1
4		1	4 gravel	1	1

Trench III was a 1 x 5m cutting connecting two stone circles (Fig. 9). The larger circle, curving west, had been partially destroyed during construction of the power line; it may also have been robbed during antiquity. Our trench went through a section of this missing wall. The smaller, subrectangular circle, curving east, was still intact.

Section B, inside the large circle, contained three zones of cattle dung: white granules that continued across the missing wall area; light grey dung; and light brown dung on top of a red compacted dung surface.

Trench III

	A	B
Level 1	light grey dung 0-15 cm	white granular dung 0-10 cm
Level 2	brown soil 15-20	light grey dung 10-27 light brown dung 27-33 red dung surface 33-34
Level 3	sterile rubble 20	sterile rubble 34

Both the light brown dung and dung surface ended against small stones that marked the missing wall.

Three upright burnt posts in section B were next to this junction, a forth was on its side at the edge of the trench in the middle of the missing wall, a fifth lay on the outer wall in section A and two more stood upright nearby. Presumably, these posts filled the gap in the missing wall.

In section A, light grey dung had washed out of the kraal, filling the area between the two walls to a depth of 15 cm. Near the large wall the dung lay on top of sterile rubble, but brown soil occurred under the dung next to the small wall. Presumably the smaller circle is more recent. Trench III yielded some Letaba pottery and a few other artefacts:

Trench III

Trench III						
A						
	Pottery rims	decor.	sherds	SLG UNID	Bone	
Level 1						
2	2	5	13	1	6	
3	1					
B						
	Pottery sherds	SLG UNID	Bone			
Level 1	2					
2	7	3	1			
3						

Area D

For clarity on the overall residential pattern, we examined a large stone circle in the centre of the neck. We used a soil auger to search for burnt houses, but without success. Finally a 2 x 4 m trench was excavated inside the outer ring of the circle in an area with

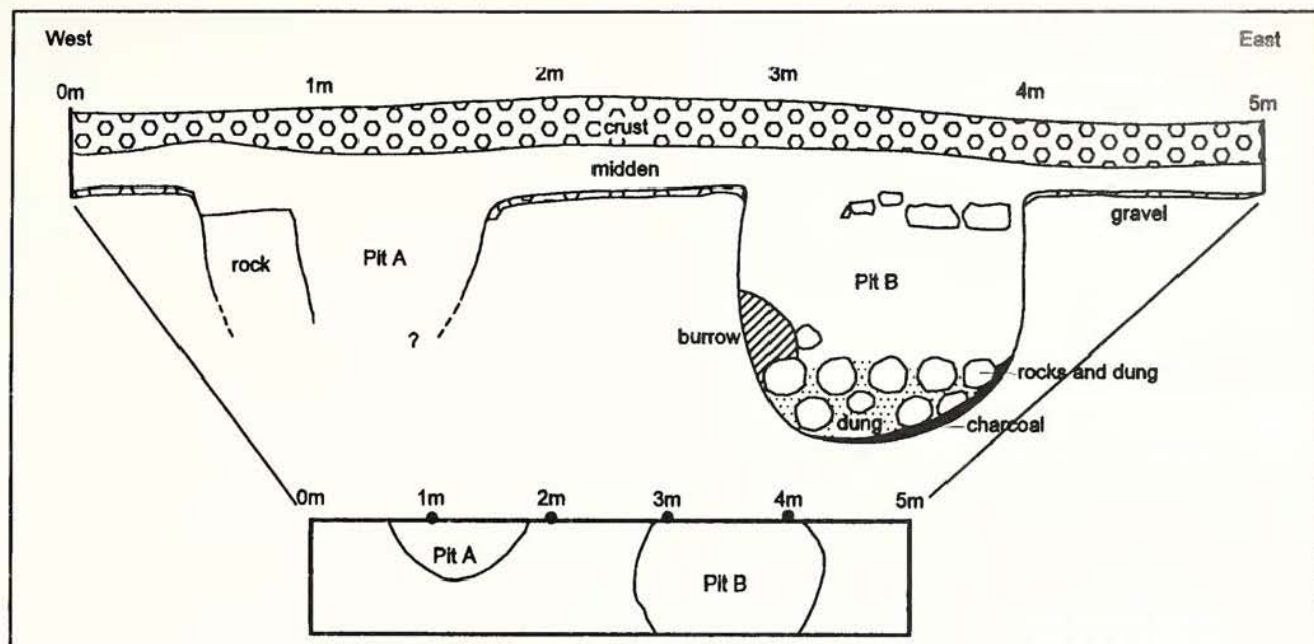


Fig. 5. Plan and north section of Trench I in 59A.

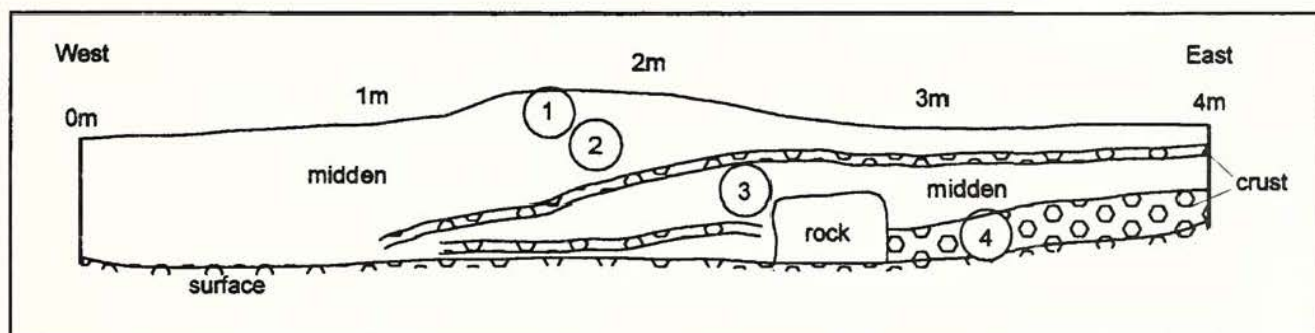


Fig. 6. North section of Trench II in 59A.

numerous upper and lower grindstones. A further 1.5 x 2 m section was later excavated (Fig. 3).

Area D

Section B

dark brown soil	0-10cm
red floor	12-15
dark brown soil	15-20
red floor with 3 plaster surfaces	20-22
grey midden	22-37
sterile red soil and pebbles	37

Five to 10 cm of dark brown humus covered an uneven red occupation horizon. This horizon varied from 2 to 5 cm thick and included upper and lower maize grindstones. There was no evidence that this surface had been fired.

Another occupation horizon lay some 5 cm underneath. It too consisted of an unfired red floor. In this

case there were at least three plaster surfaces from 2 to 5 mm thick (Fig. 10). The lower surface was relatively flat and even. One patch in section B was much harder than anywhere else, and it may have been an outside fireplace. An upper maize grindstone lay on the floor near this hard patch, and carbonised sorghum was found on the western edge. The lack of firing and large floor area indicate that this was a courtyard in a residential zone.

Grey midden lay underneath the courtyard in sections B and C. This deposit rested on rocks and red soil. It represents an earlier use, but the scope of the excavations was too limited to clarify the relationship between the midden and stone walls.

This excavation yielded fewer artifacts than the middens:

	Pottery		59D		Bone PC UNID	Other
	rims	decor. sherds	T	MF		
Level 1	1	36	2		5	
2	2	25	1	1	4	10 sorghum
midden	2	27	1		1	7



Fig. 7. Trench II in 59A. Note thick yellow-orange crust on top of gravelly surface in right corner.

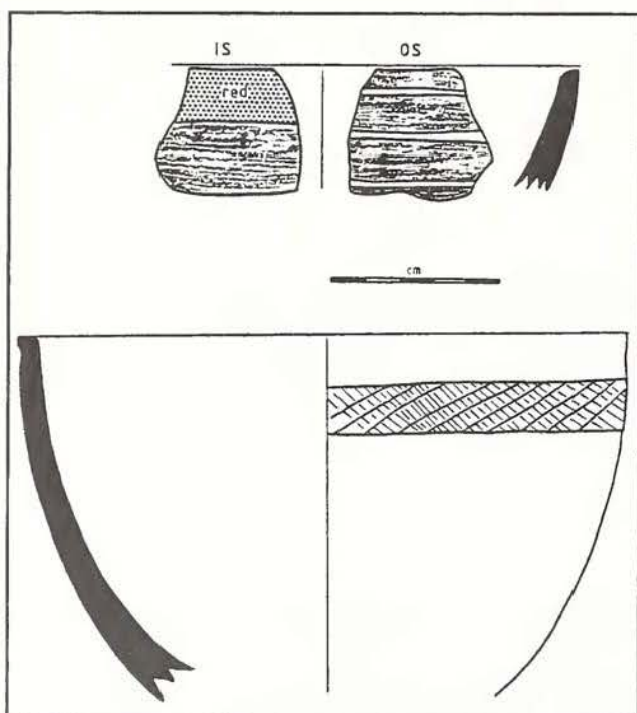


Fig. 8. Moloko (top) and Letaba pottery from 59A.

Although the walls were covered in dense vegetation, it was possible to see that they formed a variation of the Central Cattle Pattern. In this pattern a residential zone with houses, kitchens and privately owned grain bins surrounds cattle kraals. In the case of 59D, the plastered courtyard lay between the outer wall and cattle kraals (Fig. 3). The cattle area appeared to consist of a semi-circle of smaller kraals around a larger area in the centre. The distribution of *Euphorbia* suggest that a funnel-shaped entrance provided access to the centre.

The funnel entrance, semi-circle of kraals and smooth outer wall place this site within Loubser's (1994) Group II pattern. This particular pattern of walling was associated with the Northern Transvaal Ndebele in the Pietersburg area between about AD 1700 and 1900. The defensive location of site 59 also dates it to the troubled

times from AD 1780-1840. Indeed, the local name for the site (according to Frans Ramasubani, the oldest black resident) refers to a period of fighting - 'Sofale sa Mmatsetsenwa Ritshimbila Vhuraliya'.

Areas B and C

Two 1 x 1 m squares were placed on slag heaps exposed in a road cutting on the north eastern side of the neck about 250 m away from Areas A and D. We excavated these two squares in order to recover a sample of metal production residue.

In 59B, the square lower down the slope, about 4cm of grey-brown topsoil covered a 5 cm lens of broken tuyeres, slag and specularite ore. In 59C about 8 cm of topsoil covered a 10 cm lens of tuyeres and slag. Both lenses of residue lay on top of quartzite colluvium. No diagnostic pottery was recovered, but both areas probably date to the Late Iron Age.

59B		59C
0-4 cm	grey brown topsoil	0-8 cm
4-9	slag, tuyeres	8-18
9	sterile colluvium	18

The excavation in 59C uncovered the most material:

	Tuyere	Slag	Sherds	Furnace Fragments
59B	17	19	2	
59C	96	88	8	2

South Side (2429AA61)

Metal working was noted on the south side of the neck (Fig. 11). One dark slag heap lay exposed in the middle of the neck near the bottom at about the 1250 m contour. We placed Trench I on top of the slag heap and divided it into three sections: A was 2 x 2 m, B was 1 x 2 m and C was 1 x 4 m long (Fig. 12).

Generally, a dark zone of iron slag, ore and broken tuyeres (Layer 1) lay on top of red brown soil with little slag (layer 2) that graded into stones and red brown soil without any artefacts. In section C the slag zone varied from 5 to 17 cm. Ant disturbance in section A carried slag and tuyeres down to 35 cm (Fig. 13). After sieving, one bucket yielded 5.11 kg of residue. We saved the bucket sample as well as a range of vitrified tuyeres, possible furnace fragments, hammerstones and ore. As with site 59B, the ore was a form of specularite.

Trench I

	A		C
Level 1	0-15 cm	dark zone	0-17cm
Level 2	15-23	dark zone merging into red brown with few artefacts	
Level 3	23	sterile red brown	17

About 50 m east, other slag and midden debris were exposed underneath the remains of rectangular house foundations (Fig. 12). We sited Trench II (1 x 5 m) in a

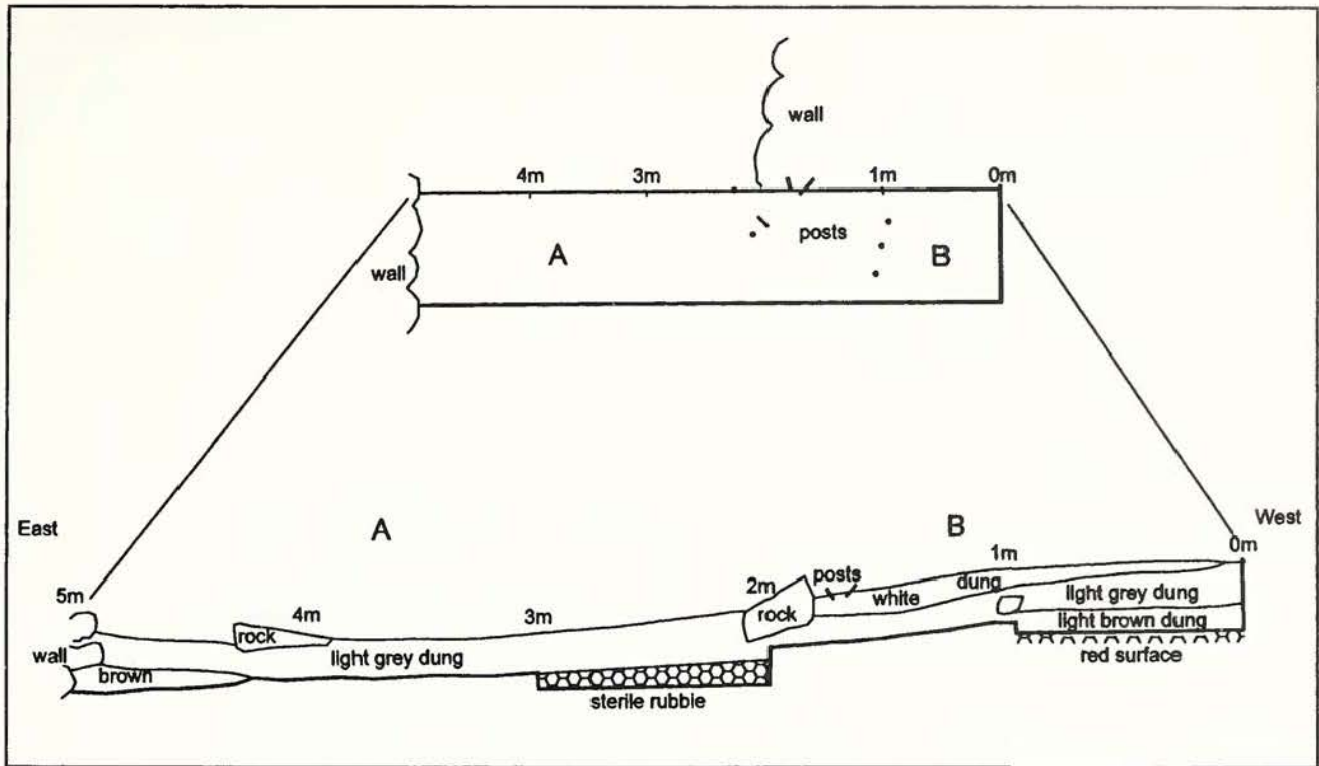


Fig. 9. Plan and south section of Trench III in 59A.

fresh bulldozer cutting to the side of the house remains and excavated in 10 cm levels. The grey soil of Level 1 yielded glass and other modern objects, while Level 2 contained a few pieces of slag, undecorated pottery and a blue hexagonal glass bead. Level 3 was sterile red subsoil (Fig. 14).

In the north end of the trench the grey soil filled a pit about 25 cm deep (Fig. 15). The top of the pit was marked by several stones, including a lower maize grindstone and two upper grindstones, one large and one small. The pit-fill contained a few pieces of slag and much charcoal.

Trench II

Level 1	0-10 cm	grey with modern artefacts
Level 2	10-20	grey with pottery, slag and glass bead
Level 3	20	sterile red

A third trench nearby yielded more. Trench III (1 x 4m) was placed between a modern soil pit and low modern stone wall. The grey soil of the village horizon was excavated in 10 cm levels. Next to the stone wall 15 to 17 cm of grey deposit lay on the red subsoil (Fig. 16).

Trench III

Level 1	0-10 cm	grey with artefacts
Level 2	10-17	grey with artefacts
Level 3	17	sterile red

All artefacts came from the grey zone.

Trench III

	slag	pottery	bone
Level 1	38	32	
Level 2	72	35	3

Another blue hexagonal glass bead was found further upslope along the path. In this higher area were low stone circles and stone-walled cattle tracks. One cattle track led to a complex of walling at about the 1300 m contour on the southeast side of the neck. Part of this complex had been destroyed for the power line and new road. What remains appears to belong to Loubser's (1994) Group III pattern. This type of walling and the blue hexagonal beads date the southern settlement from about AD 1855 to 1875. Earlier material occurred on the north side.

North Side (2429AA60)

The bottom of the neck on the north side was covered in *Dichrostachys* sp., a thorny shrub that grows on disturbed soil. Various eroded patches under the *Dichrostachys* sp. contain slag, bone, pottery and grindstones. Some grindstones bear long oval grooves characteristic of sorghum and millet milling before the introduction of maize. Decorated pottery shows that two early periods are represented. The oldest pottery belongs to the Eiland phase (Fig. 17) of the Early Iron Age, dating to between AD 900 and 1300. The second belongs to the black/red incised phase of the Late Iron Age Moloko Tradition, dating to between AD 1350 and 1600. There were probably several scattered homesteads making up a community during each period. During the

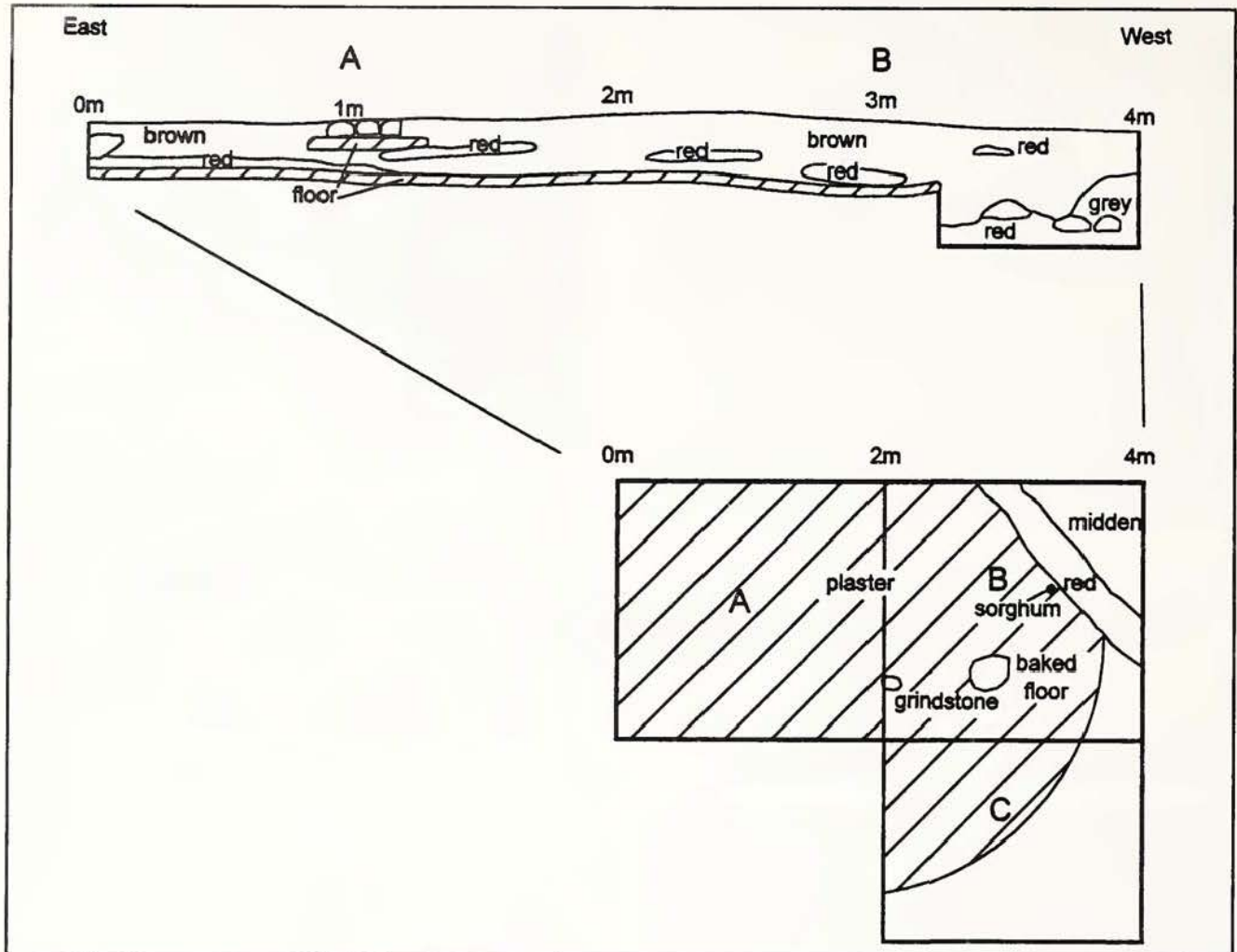


Fig. 10. Plan and south section of Area D.



Fig. 11. Planknek from the south.

survey, the early Moloko material was particularly obvious under the power line west of the new road alignment, while Eiland material was exposed in the new road area to the east. More slag and pottery of both periods occurred in the fields between the neck and the river. No evidence of these periods was found on the south side.

DISCUSSION

The purpose of the mitigation was first to understand the sequence of occupations at Planknek and secondly, to recover sufficient material for future research. We achieved both aims.

Eiland ceramics constitute the last phase of the Early Iron Age Kalundu Tradition, and it was replaced by the first phase of Moloko, representing the spread of Sotho-Tswana speaking people (Huffman 1982; Evers 1983). Eiland and early Moloko villagers chose the north side of the neck because of the close proximity of the Dorps River and good agricultural soil. We did not excavate these deposits because the ceramic sequence is relatively well known and because few sites will be damaged by the new road. We concentrated instead on metal production and the settlement complex in the neck.

The excavations in the neck and on the south side yielded a representative sample of metal production debris. The small slag from Trenches II and III in Site 61 was probably derived from smithing activities. On the other hand extensively vitrified tuyeres in Trench I suggest that this heap was generated by smelting activity. The specularite ore from 61 and 59B & C was not commonly smelted in Iron Age communities. Signifi-

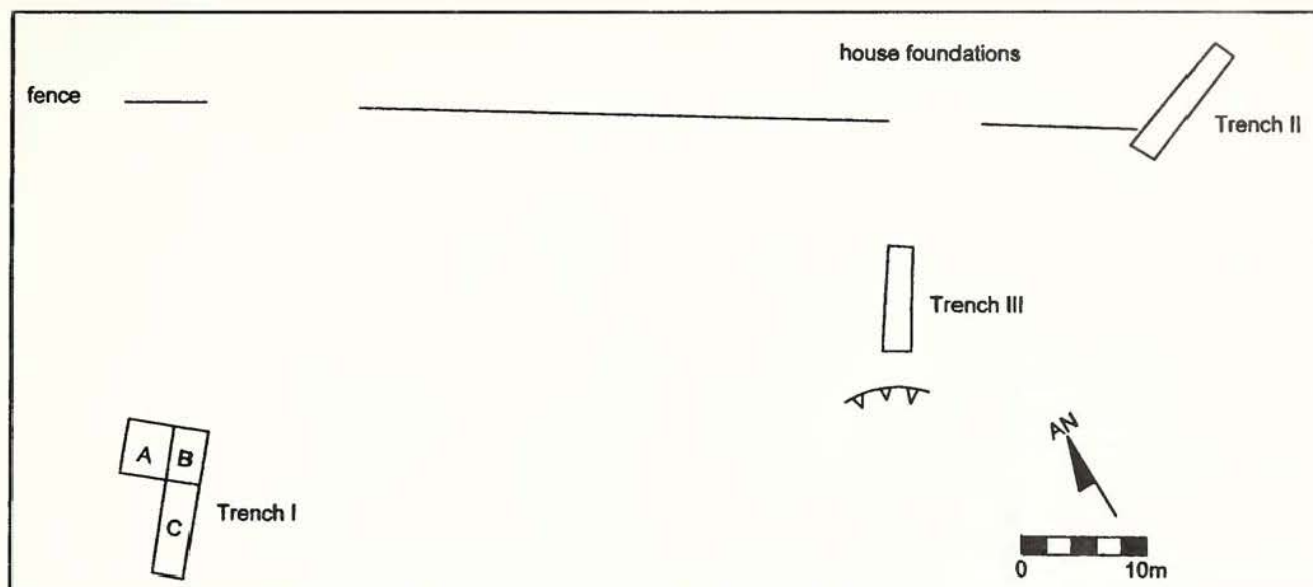


Fig. 12. Plan of Site 2429AA61.

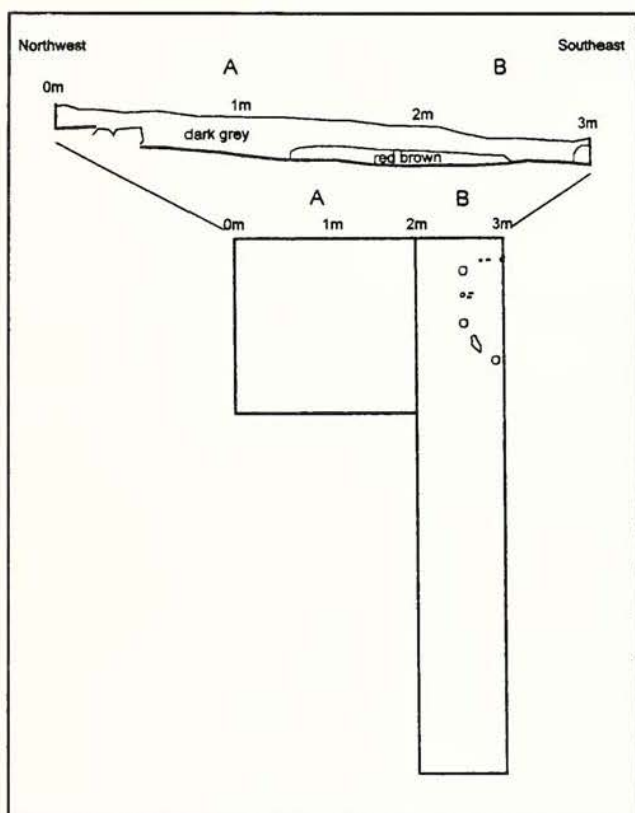


Fig. 13. Plan and north section of Trench I in 61.

cantly, a specularite quarry exists on a hill about 4 km west of Planknek. Consequently, the excavated samples will be of interest to any future research on iron smelting in the area.

Some of the metal working must have been done by Ndebele living in Site 59. Fortunately, Loubser's (1994) Ndebele research in the Pietersburg area clarifies the Late Iron Age sequence at Planknek. His Group II sites were concentrated on the north sides of hills. Because Ndebele

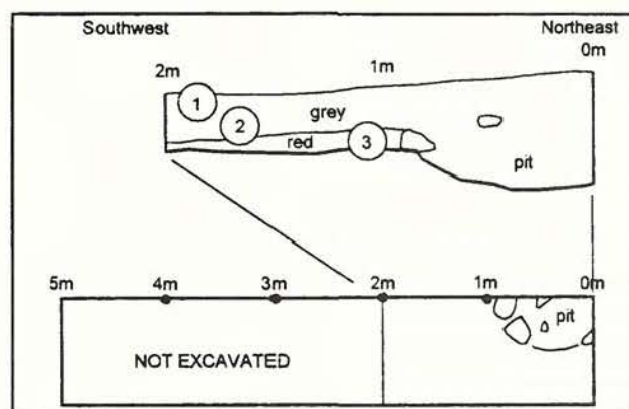


Fig. 14. Plan and north section of Trench II in 61.



Fig. 15. Trench II in 61 showing storage pit. Note upper grindstone on left of pit.

normally did not re-occupy an old site out of respect for the ancestors, later Group III sites were therefore built

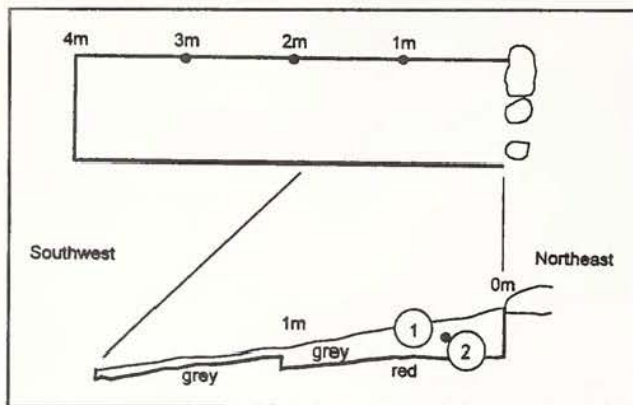


Fig. 16. Plan and east section of Trench III in 61.

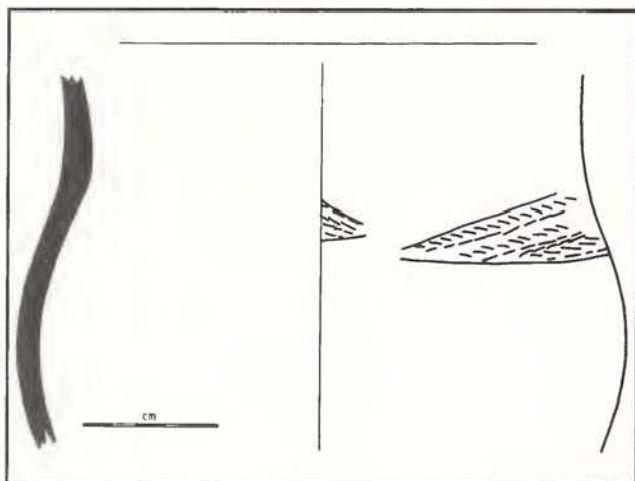


Fig. 17. Eiland pottery from site 2429AA60.

on the south side (Fig. 18). The locations of Site 59 (Group II) and 61 (Group III) follow this scheme. Indeed, even the cattle lanes on the south side that lead up to the top of 61 do not continue over the top to 59. The later people on the south side, then, appear to have avoided the older settlement.

By the beginning of the 19th century and the occupation of Site 59, the Ndebele had incorporated various people. The Letaba pottery in the middens of Area A shows that some of these people had connections with the Venda and the eastern lowveld. In Loubser's study, only important settlements contained Letaba pottery and only important settlements were located on the hills. Site 59 must have therefore been the settlement of an important leader.

Before the time of Site 59, the Northern Transvaal Ndebele lived in the Waterberg. Aukema's (Huffman 1990) research dated that occupation from the 16th to 18th centuries and shows that the Ndebele still used a material culture typical of Nguni speaking people, such as bee hive huts and plain hemispherical pottery. Furthermore, the pattern of stone walling, although based on the Central Cattle Pattern, was also visually different from Sotho-Tswana variations.

After these Ndebele moved east out of the Waterberg,

they became 'Sothoised', their settlements lost some of the distinctive Nguni features and they adopted Sotho-Tswana material culture. This process of Sothoisation is of interest to social scientists, and is the reason we tried to locate a burnt hut in the residential zone of 59D. We wanted to know if the bee hive form still persisted.

Another feature points to the probable Nguni origins of these Ndebele. Alternating layers of crust and ash in middens have not been recorded in stone-walled sites identified with Sotho-Tswana speakers, such as Olifantspoort (Mason 1986). Yet Loubser (1994) found this feature in his Ndebele sites near Pietersburg. This difference may be due to different attitudes Nguni and Sotho-Tswana have about witchcraft and ritual pollution - a state of impurity and danger. Sotho-Tswana refer to pollution in terms of 'heat': hot is bad or dangerous, cold is good (Pauw 1960; Hammond-Tooke 1981). To remove the pollution Sotho-Tswana use cool and wet medicines that often include white ash. Since ash after a fire is cold, ash heaps are not ritually dangerous. Nguni-speaking people, however, refer to pollution as 'dirt', and ash heaps are potentially dangerous because witches could take the ash and cause harm to the household that produced it (Raum 1973:146). Ideally, a single homestead should have only one midden to prevent witchcraft accusations between different households. Furthermore, the midden should be located in public view at the front of the settlement.

In the case of Planknek several different households lived together, and the potential for witchcraft accusations must have been high. Periodically capping the ash heaps with soil would have helped to lessen this potential and its destructive affects. Further research into Nguni ethnography is needed to clarify this custom.

This new direction for future research demonstrates the success of the mitigation measures. Not only have the excavations yielded sufficient material for future research, the stratigraphy of the middens at 59A provide data relevant to an interesting research topic.

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REFERENCES

- Evers, T.M. 1979. Salt and soapstone bowl factories at Harmony, Letaba District, northeast Transvaal. South African Archaeological Society Goodwin Series 3:94-107.

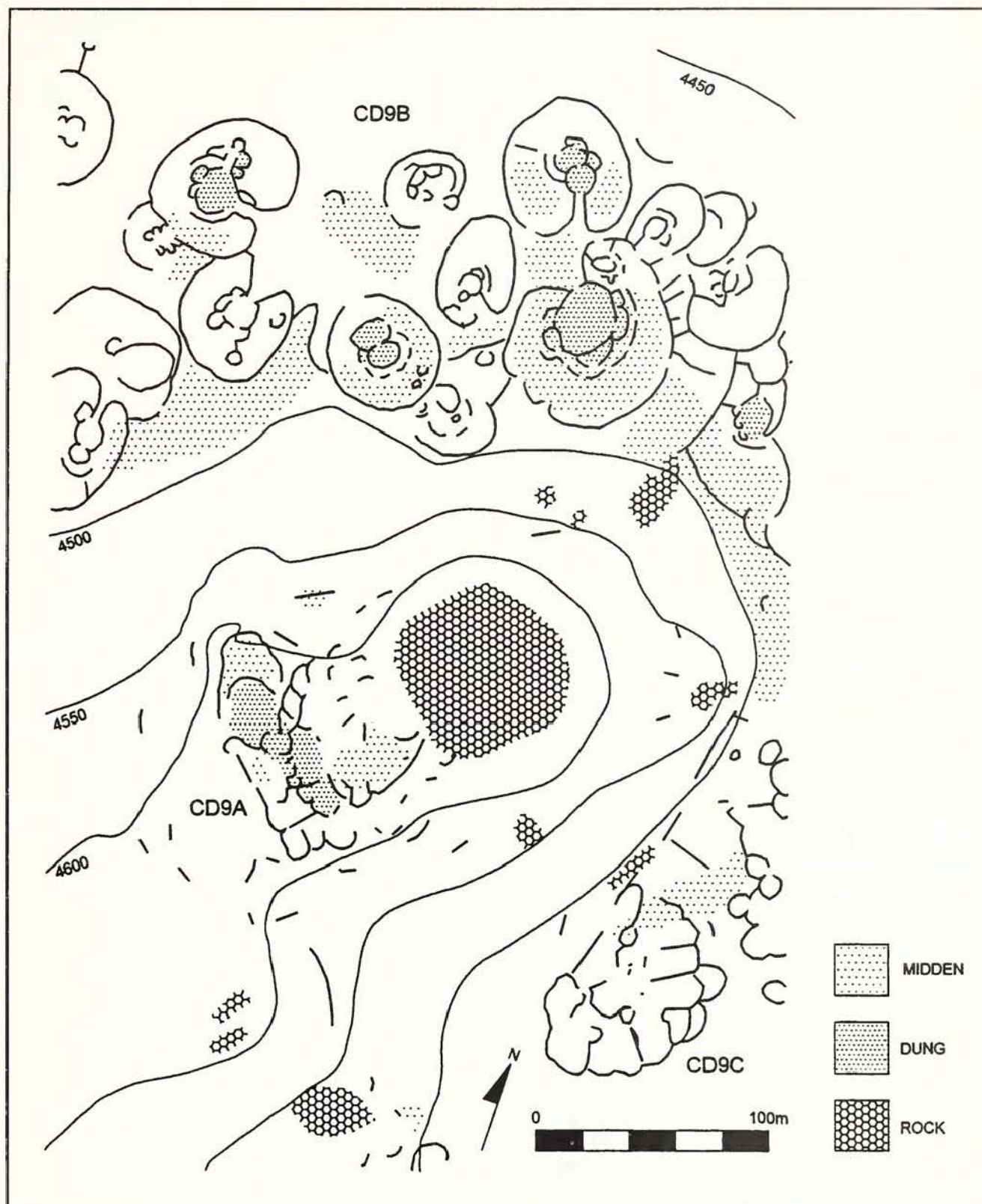


Fig. 18. Group II (CD9B) and Group III (CD9C) sites around Bambo Hill near Pietersburg. After Loubser 1994.

Evers, T.M. 1983. 'Oori' or 'Moloko'? The origins of the Sotho-Tswana on the evidence of the Iron Age of the Transvaal, reply to R.J. Mason. *South African Journal of Science* 79:261-264.

Hammond-Tooke, W.D. 1981. *Boundaries and Belief: The structure of a Sotho worldview*. Johannesburg: Witwatersrand University Press.

Huffman, T.N. 1982. Archaeology and ethnohistory of the African Iron Age. *Annual Review of Anthropology* 11:133-150.

Huffman, T.N. 1990. The Waterberg research of Jan Aukema. *South African Archaeological Bulletin* 45:117-119.

Loubser, J.H.N. 1994. Ndebele Archaeology of the

- Pietersburg Area. Navorsinge van die Nasionale Museum Bloemfontein 10(2):61-147.
- Mason, R.J. 1986. Origins of Black People of Johannesburg and the Southern Western Central Transvaal AD 350-1880. University of the Witwatersrand Archaeological Research Unit. Occasional Paper No. 16.
- Moore, M.P.J. 1981. The Iron Age of the Makapan Valley Area, Central Transvaal. University of the Witwatersrand: M.A. dissertation.
- Pauw, B.A. 1960. Religion in a Tswana Chieftdom. London: Oxford University Press.
- Raum, O. 1973. The Social Functions of Avoidances and Taboo among the Zulu. Berlin: Walter de Gruyter.