

ARCHAEOLOGICAL MITIGATION FOR THE ASPEN HILLS DEVELOPMENT PROJECT

A Phase II report prepared for Patroni Investments (Pty) Ltd

Professor T.N. Huffman

L. Barrie

N. Black

K. James

J. Lier

L. Mallen

S. Mokhanya

P. Sekgaretso-Modikwa

S. Smuts

Archaeological Resources Management

School of Geography, Archaeology and Environmental Studies

University of the Witwatersrand

Johannesburg

November 2004

ARCHAEOLOGICAL MITIGATION FOR THE ASPEN HILLS DEVELOPMENT PROJECT

INTRODUCTION

The Aspen Hills Development Company, representing Petroni Investments (Pty) Ltd, commissioned Archaeological Resources Management (ARM) to assess the significance of stonewalled settlements on their property (Portion 37 of Liefde en Vrede 104IR) in the Klipriviersberg area of southern Johannesburg. The assessment report (Huffman 2004) recommended that two Type-N settlements should be mapped (Sites 1 & 2) along with two Klipriviersberg-Type settlements (Sites 5 & 6) and the excavation of three associated middens (Middens 4-6).

In general, mitigation measures are based on the premise that developers are responsible for the recovery of research potential, rather than research itself. Sufficient data should therefore be recorded so that the sites, once destroyed, could still be studied in the future.

The project managers accepted this premise and recommendations, and mitigation began in August 2004. As a result of greater visibility, four further settlements (Figure 1) were identified and mapped (Sites 7 to 10), and the team excavated another midden (Site 8). A short background to the Late Iron Age will provide an archaeological context to this mitigation. We then present the results.

BACKGROUND TO THE LATE IRON AGE IN THE PROJECT AREA

Stonewalled settlements dating to the Late Iron Age (AD 1300-1840) are well recorded in the larger region. The earliest are known as Type-N (Maggs 1976), or Group I (Taylor 1979), and date from AD 1500 to 1700. This type occurs in the Free State Province as well as southern Gauteng, and early members of the BaFokeng cluster occupied them. BaFokeng also built the Klipriviersberg-Type, or Group III (Taylor 1979; Loubser 1985), between AD 1700 and the Historic Period. Type-Z (Maggs 1976), built by Southwestern Sotho-Tswana such as BaRolong, was contemporaneous with Klipriviersberg, and

2628AC ALBERTON



Figure 1. Locations of Aspen Hill sites.

therefore also dates after AD 1700. Type-Z settlements dominate the western Free State and the southern portions of the Northwest Province, and one is on record in the Klipriviersberg area (Mason 1986: 559).

All these types followed the principles of the Central Cattle Pattern (Kuper 1982; Huffman 1982): cattle kraals marked the centre of the settlement, a male domain, while huts and grain bins surrounded the centre, forming the domain of married women. The settlement types differ in details, such as the internal arrangement of cattle kraals, the location of small stock kraals, the type of huts and the shape of the outer boundary wall. Nevertheless, the types derive from the same worldview that emphasizes a patrilineal ideology of procreation (one's blood comes from the father), male hereditary leadership, a preference for cattle as bridewealth (lobola) and a positive attitude about the role of ancestors in daily life.

In addition to the same worldview, the different Sotho-Tswana groups had the same general way of life. They were mixed agriculturalists, cultivating sorghum, millets and beans, and they herded domestic stock. As a rule, their settlements were located near soils that could be cultivated with a hoe. In the Aspen Hills area, the stream to the west and the large Kliprivier vlei to the south would have provided ample agricultural land. Because of their agricultural requirements, Late Iron Age farmers would have only been able to live in the Aspen Hills area when the climate was warmer and wetter than today.

DATA AND RESULTS

Method

The ARM team mapped the various ruins, either with a plane table (Sites 1 & 8) or with an EDM (Sites 2-7, 9 & 10), redrew the plans in the lab, and then checked them in the field. In some cases, recent activities have damaged the walls, while thick vegetation obscured some portions. To alleviate this problem, the developer cleared the vegetation for us from Sites 9 and 10.

The settlement plans place the middens in their spatial context. Because these settlements were probably not occupied for more than a generation, and animal burrowing disturbed many middens, the team first excavated in large (25 cm) spits and then subsequently removed each midden as a unit. The unit in each case measured 2 x 4 m. All midden deposit (except for a small portion of Midden 5) was sieved using a 5 mm screen.

Bone samples were divided into identifiable and unidentifiable categories, and a minimum species list was based on teeth. Faunal specialists can now consider the value of the samples for future analysis.

For descriptive purposes, the ceramic samples were divided into various categories, such as rims, decorated body sherds and so on. Fragments with a soot residue indicate functional categories. Decorated fragments were identified to facies, that is, the space/time unit used to construct culture-history sequences.

Type-N Settlements

Sites 1 (26 18 49S 28 03 10E) and **2** (26 18 51S 28 03 10E) lie at the western side of the Aspen Hills kopje (Figure 2) about 250 m apart. Although stone had been removed from both sometime in the past, the overall pattern is clear, and the smooth outer walls show that they belong to Type-N (Figures 3 & 4). Site 1 is about 50 m across, with an entrance on the south side. The central cattle kraal appears to have an internal division to enclose calves, while a low wall in the residential zone probably helped to separate different households. The function of a small enclosure outside, near the entrance, is unknown.

Site 2 is not as well preserved, but it is larger, about 66 m across, and appears to be more complex. Small enclosures on the outer wall probably sheltered sheep and goats, while walls on the south side probably served as lanes to funnel cattle into the centre. Midden deposits are not obvious at either site, but the scatter of potsherds suggests that rubbish may have been thrown behind each household.



Figure 2. Site 1 in centre, base of hill.

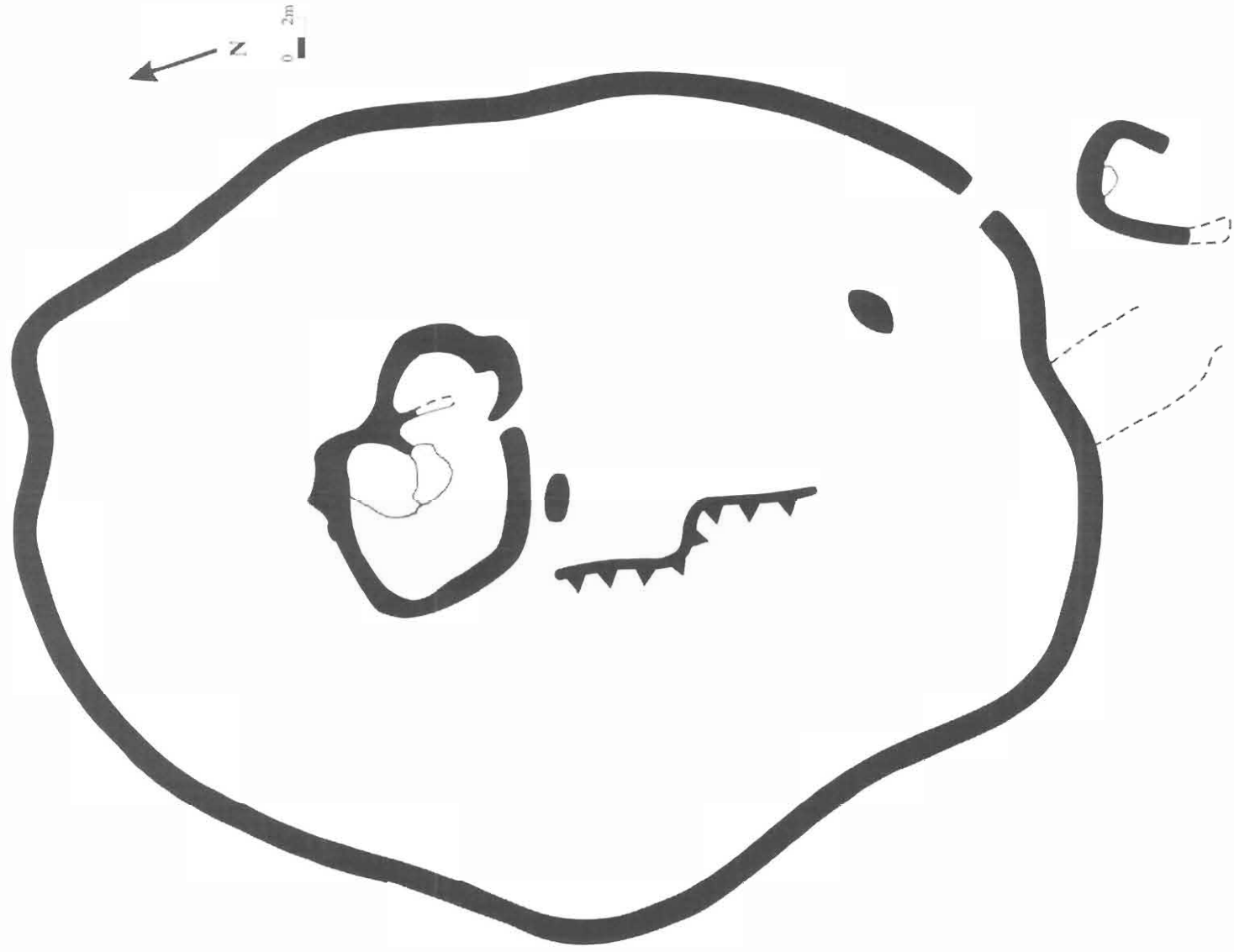


Figure 3. Plan of site 1.

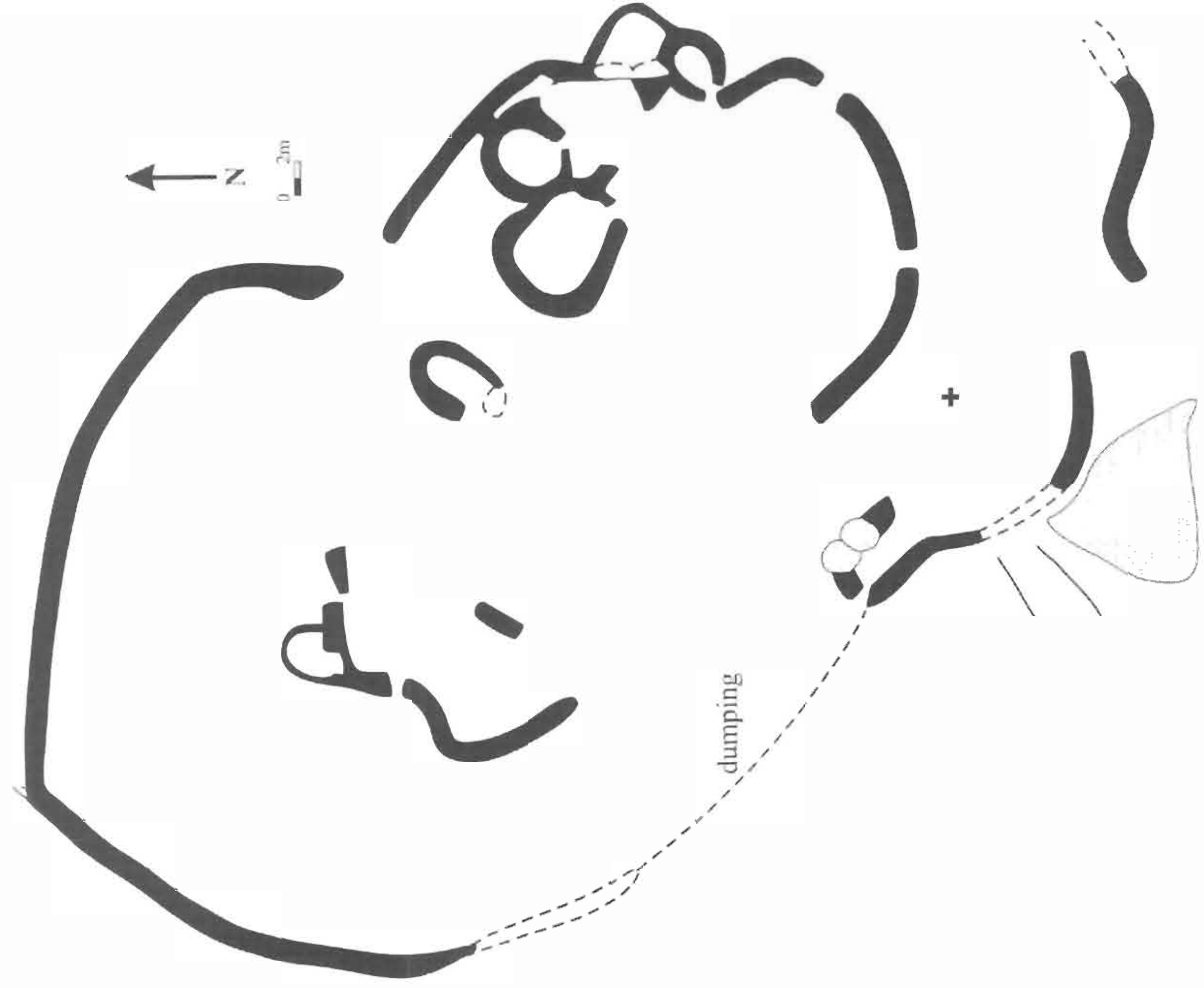


Figure 4. Plan of site 2.

Klipriviersberg-Type Settlements

The remaining sites all differ from the first two in that the central cattle area is more complex and the outer boundary wall incorporates multiple arcs, each marking the back of individual households.

Site 4 (26 18 44.5S 28 03 22.1E) lies on the saddle of the main kopje in an area highly disturbed by dumping. The walls could not be mapped completely because of heavy vegetation, and recent damage, but the characteristics of the Klipriviersberg-Type are nevertheless clear (Figure 5). Two solid stone cairns inside the site may have supported grain bins placed on the edge of livestock enclosures.

A large ash mound stood outside and down slope of the main walling (Figure 6). Animal burrowing was severe, and modern material from dumping lay on the surface. As a result, the excavations uncovered bottles and plastic deep in the deposit. The deposit itself comprised 55-65 cm of largely reworked ash on top of a hard red/brown gravelly sub-surface that formed bedrock (Figure 7). A small area on the eastern side may have preserved some of the original stratigraphy: there, thin (± 3 cm) lenses of ash, red/brown soil and more ash covered bedrock.

In addition to modern rubbish, the deposit yielded bone and pottery. The bone sample comprises 597 fragments, 282 of which are identifiable (Table 1), including the teeth of cattle and sheep/goat, as well as a young wild pig and a large-headed fish (cf barbel). The faunal sample also includes seven fragments of land snail (*Achatina sp*) and fourteen shell beads. The identifiable portion was sufficiently large to warrant separating it into elements (Table 2).

Table 1. Faunal remains from Midden 4.

	Identifiable	Unidentifiable	Teeth	Modified	Burnt	Shell	Other
Midden 4	282	315	38	12	29	7	Shell beads 14



Figure 5. Plan of Site 4 and location of Midden 4.



Figure 6. North face of Midden 4. Note bottle in wall near arrow.

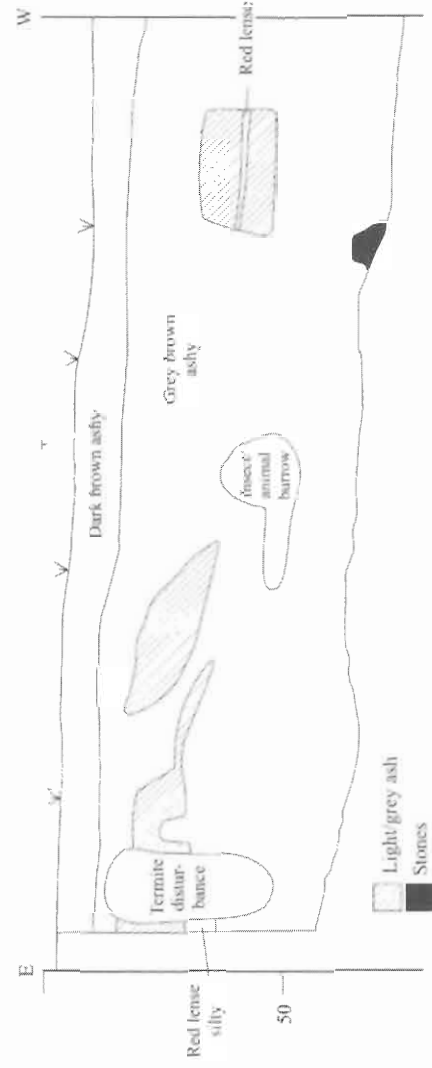


Figure 7. South section of Midden 4.

Table 2. Bone elements in Midden 4.

Cranial	
Teeth	38
Skull and Jaw	32
Postcranial	
Ribs	117
Spine	12
Limbs	79
Feet	12
Pelvis	15
Scapula	8
Modified	
Burnt	27
Cut/Shaped	14

The pottery sample from Midden 4 consists of 695 fragments, and includes 37 rims, eight with textured decoration, and 115 sherds with a colour burnish (Table 3). Most of this sample belongs to the *Uitkomst facies*, but three vessels – two with cord impressions and one with an incised motif – derive from the *Olifantspoort* style (Figure 8).

Table 3. Ceramic remains from Midden 4.

	Rims	Rims	Body sherds	Body sherds	Body sherds	Other
	decorated	plain	decorated	colour	plain	
Main trench	5	32	3	115	432	106 soot (4 rims, 3 colour, 99 plain)

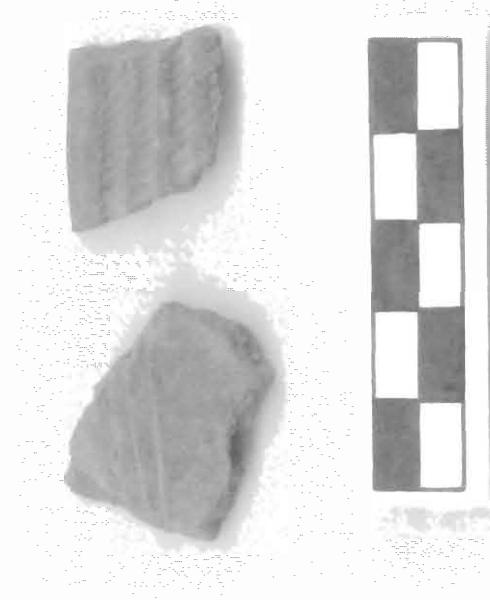


Figure 8. Pottery from Midden 4, derived from *Olifantspoort*.

Site 5 (26 18 55S 28 03 18E) stands at the southwestern foot of the main kopje. It is a large complex about 125 m across. Thick bush in the east corner prevented a complete picture, but it is nevertheless clear that the complex contains a large central cattle area and at least 12 households (Figure 9).

Midden 5 lies outside the northwest entrance against an outer wall (Figures 10 & 11). The normal 2 x 4m trench was extended east and south to meet this wall. The deposit was still well preserved, probably because it comprised alternating layers of ash and hard red/brown soil (Figures 12 & 13). Presumably, the hard lenses served to cap the ash.

Midden 5 yielded a relatively large bone sample comprising 1 186 fragments, 374 of which are identifiable (Table 4). The teeth represent cattle and sheep/goat, as well as a dassie (*Hyrax sp.*), a wild cat (cf *Felis lybica*) and a fresh water crab. The identifiable portion was worth dividing into bone elements (Table 5).

Table 4. Faunal remains from Midden 5.

	Identifiable	Unidentifiable	Teeth	Modified	Burnt	Shell	Other
Midden 5	308	748		47	1		
East	12	15					
South	30	22		2	1		

Table 5. Bone elements from Midden 5.

Cranial		
Teeth	45	
Skull and Jaw	29	
Postcranial		
Ribs	123	
Spine	17	
Limbs	111	
Feet	15	
Pelvis	25	
Scapula	9	
Modified		
Burnt	2	
Cut/Shaped	49	

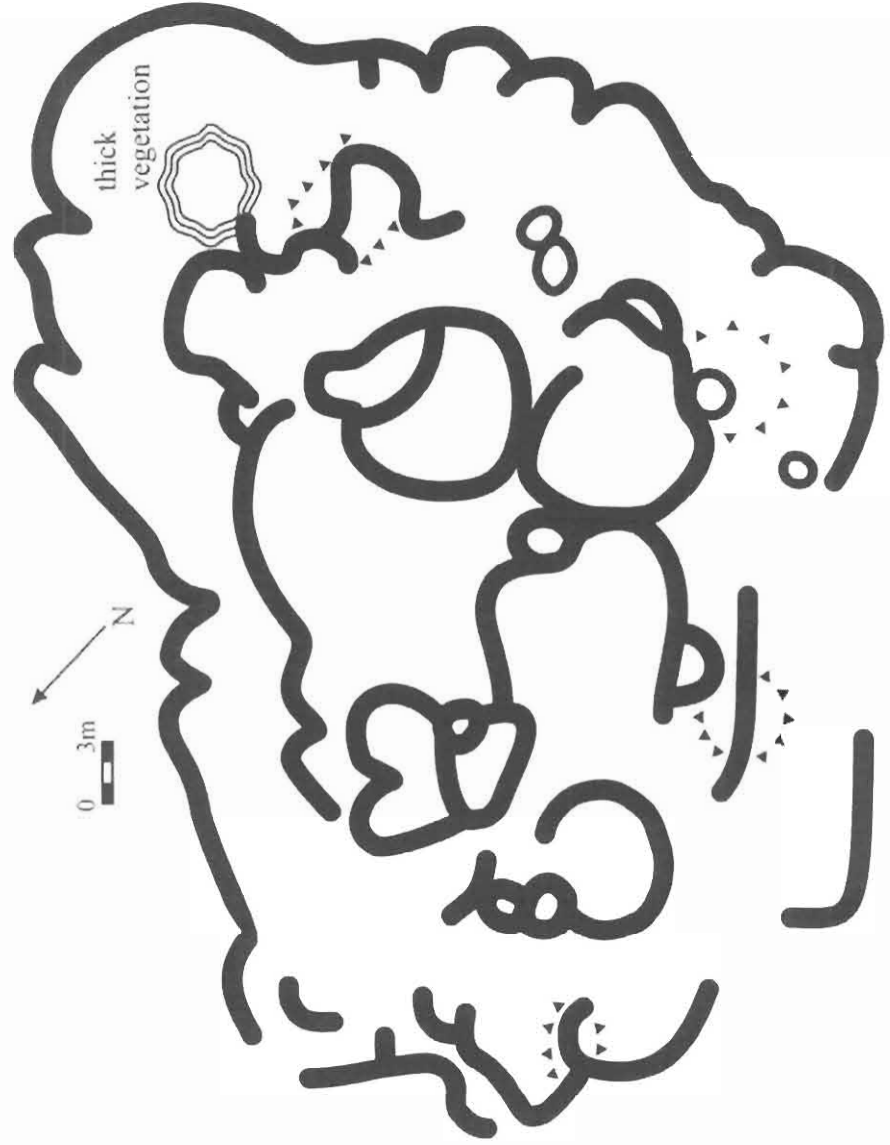


Figure 9. Plan of site 5.

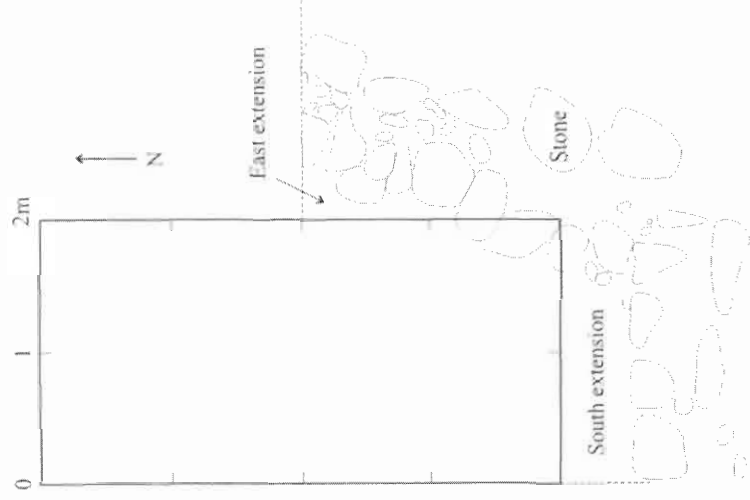


Figure 10. Plan of Midden 5.



Figure 11. Location of Midden 5.

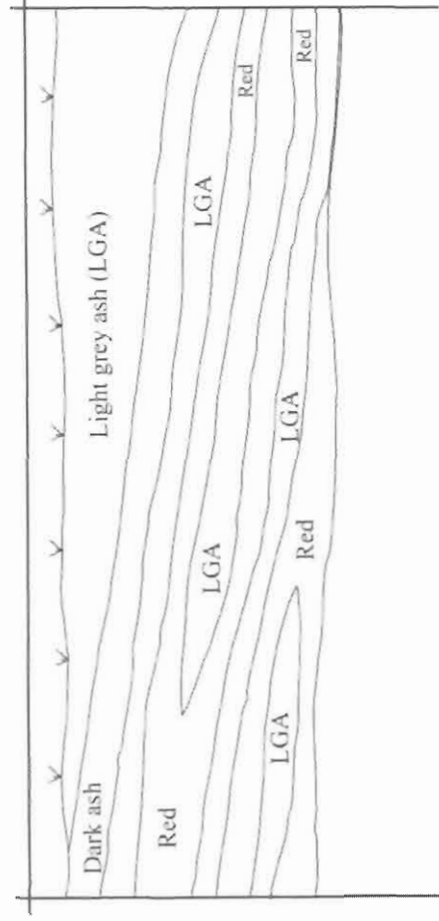


Figure 12. North section of Midden 5.



Figure 13. West face of Midden 5. Note red capping.

In total the pottery sample consisted of 345 fragments, and included seven sherds with textured decoration and 64 with a colour burnish (Table 6). The decorated pieces belong to *Uitkomst*. (Figure 14.)

Table 6. Ceramic remains from Midden 5.

	Rims	Rims	Body sherds decorated	Body sherds colour	Body sherds plain	Other
Main trench	3	12	4	47	170	1 small cup 51 soot
East		1		6	9	4 soot
South		3		11	8	15 soot

Site 6 (26 18 50.9S 28 03 26.2E) stands below the saddle on the south side of the hill. It is also a large complex, some 150 m across, with a complex central cattle area and at least 21 households (Figure 15). Cattle may have entered through the upslope back side. One household on the south side probably preserves the normal arrangement: a house would have stood in front of the stone arc, while a low wall to the north marks the front lapa entrance, next to a kitchen. The plan documents a few other kitchens. Rectangular foundations (about 4 x 4 m) in the southwest corner mark the former location of a labourer's house.

The team chose a midden in front of an entrance on the south side (Figure 15). Ash lay on the red/brown subsurface 50 cm below the surface, but most of the deposit consisted of grey brown soil. In the north end the soil colour was a lighter brown around a large stone concentration (Figures 16 & 17).

The deposit produced little bone, although there was the flexed skeleton of a dog in the south wall 35 cm below the surface (Table 7). The few teeth came from domestic cattle.



Figure 14. Pottery from Midden 5.



Figure 15. Plan of Site 6.

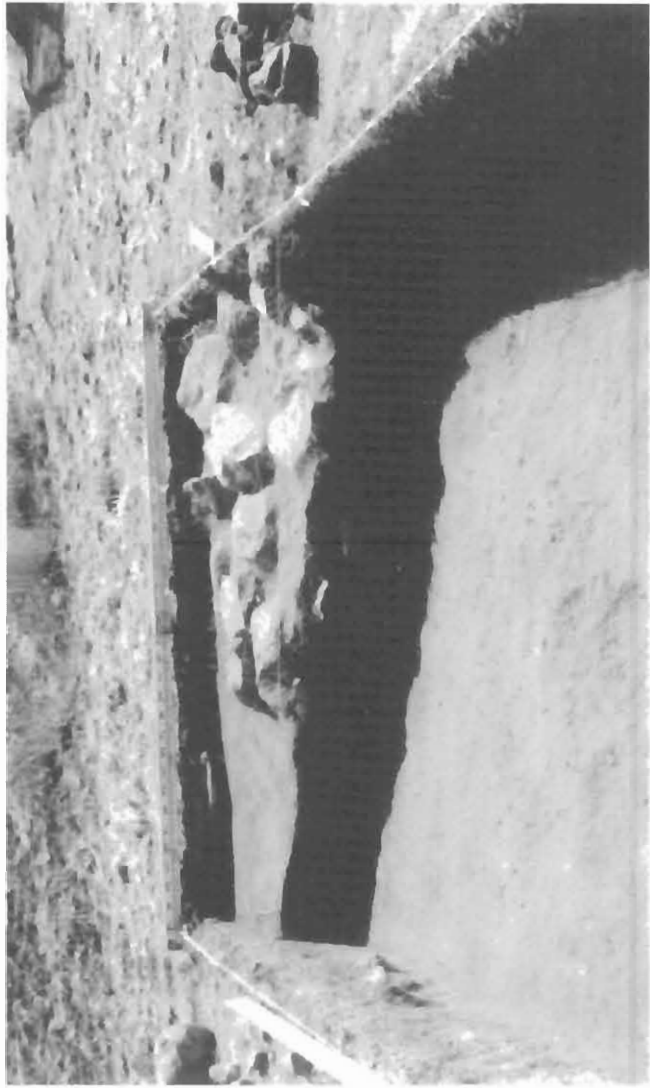
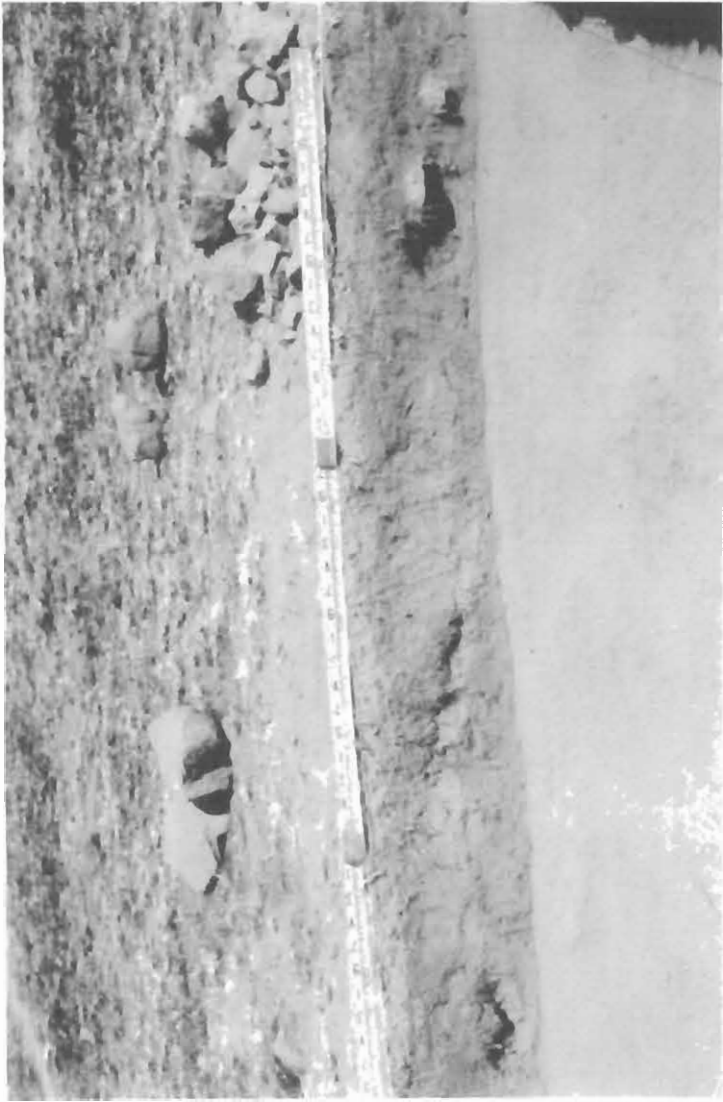


Figure 16. West (above) and North faces (below) of Midden 6.

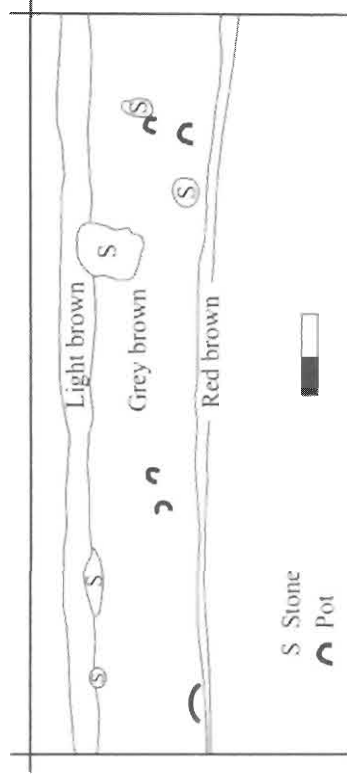


Figure 17. Plan and North section of Midden 6.

Table 7. Faunal remains from Midden 6.

	Identifiable	Unidentifiable	Teeth	Modified	Burnt	Shell	Other
Midden 6	15	20	5		5	1	Dog 115

In contrast to bone, the deposit yielded a large ceramic sample (Table 8). The sample totals 1817 sherds, including 177 with textured decoration and 273 with colour. The stamped designs belong to *Uitkomst*, while incised motifs and cord impressions derive from *Olijfantspoort* (Figure 18).

Of further interest are 67 sherds with evidence for metal production. Glazed surfaces and tiny prills show that these fragments were either used as skimmers or crucibles in copper production.

Table 8. Ceramic remains from Midden 6.

	Rims	Rims	Body sherds decorated	Body sherds plain	Soot	Metal working	Other
	decorated	Plain					
Midden 6	72	81	96	766	462 (2 rims, 5 colour)	67	2 with mending holes

Site 7 (26 18 47.3S 28 03 28.2E) lies below the saddle east of Site 6. It is about 70 m across with two cattle areas, space for some 14 households and a large sheep/goat kraal in the outer wall (Figure 19). The entrances to the central kraal areas appear to be located up slope at the back.

Midden 8 covered some 10 x 12 m between Site 7 and Site 8. The deposit was severely disturbed by animal burrows and termites (Figure 20), and the ashy midden soil had been reworked in antiquity as well as more recently. The red/brown stony bedrock lay 20 to 40 cm below the surface.



Figure 18. Pottery from Midden 6. Top half *Uitkomst*, bottom half *Olifanspoort*.



Figure 19. Plan of Site 7 with location of Midden 8.

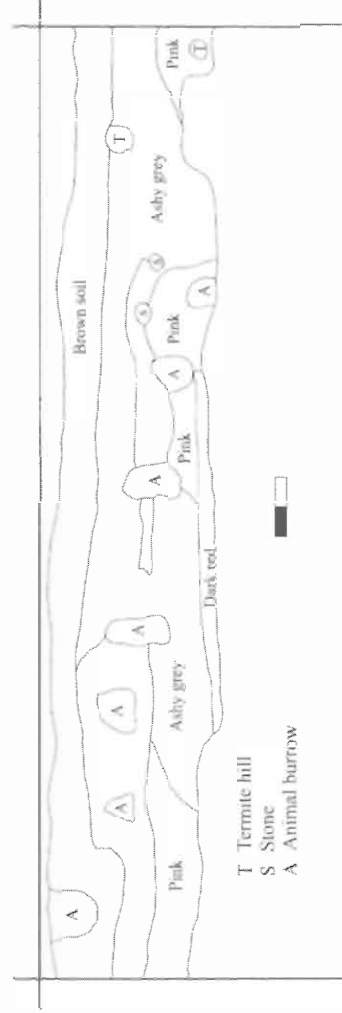


Figure 20. Plan and Northwest section of Midden 8.

The remains of a stonewall stand on bedrock in the east corner of the trench (Figure 21). Vestiges of this wall appear on the surface beyond the midden to the east, and it appears to mark the outer wall of an earlier Type-N settlement.



Figure 21. Stone wall uncovered in Midden 8.

The bone sample was relatively small (Table 9). The few teeth represented cattle and sheep/goat.

Table 9. Faunal remains from Midden 8.

	Identifiable	Unidentifiable	Teeth	Modified	Burnt	Shell	Other
Midden 8	58	139	17	13	29	1	

The small ceramic sample totalled 298 fragments with eight decorated pieces, including two notched rims (Table 10). Stamp decoration belongs to *Uitkomst* and one chord impression derives from *Olifantspoort* (Figure 22).

Table 10. Ceramic remains from Midden 8.

	Rims	Rims	Body sherds decorated	Body sherds plain	Soot	Metal working	Other
Midden 8	decorated 8	plain 20	2	204	28 (2 colour)		2 dagga pipe



Figure 22. Pottery from Midden 8.

Site 9 (26 18 39.5S 28 03 22.2E) stands in the east saddle of Aspen Hills kopje. Recent activity has damaged some walls, but the plan (Figure 23) is remarkably clear. The outer wall incorporates sheep/goat, while cattle and calf kraals form an inner circle. Other small circles mark the kitchens of individual households. The spacing of low lapa walls at the front of some households suggests that cattle entered the settlement from the west side.

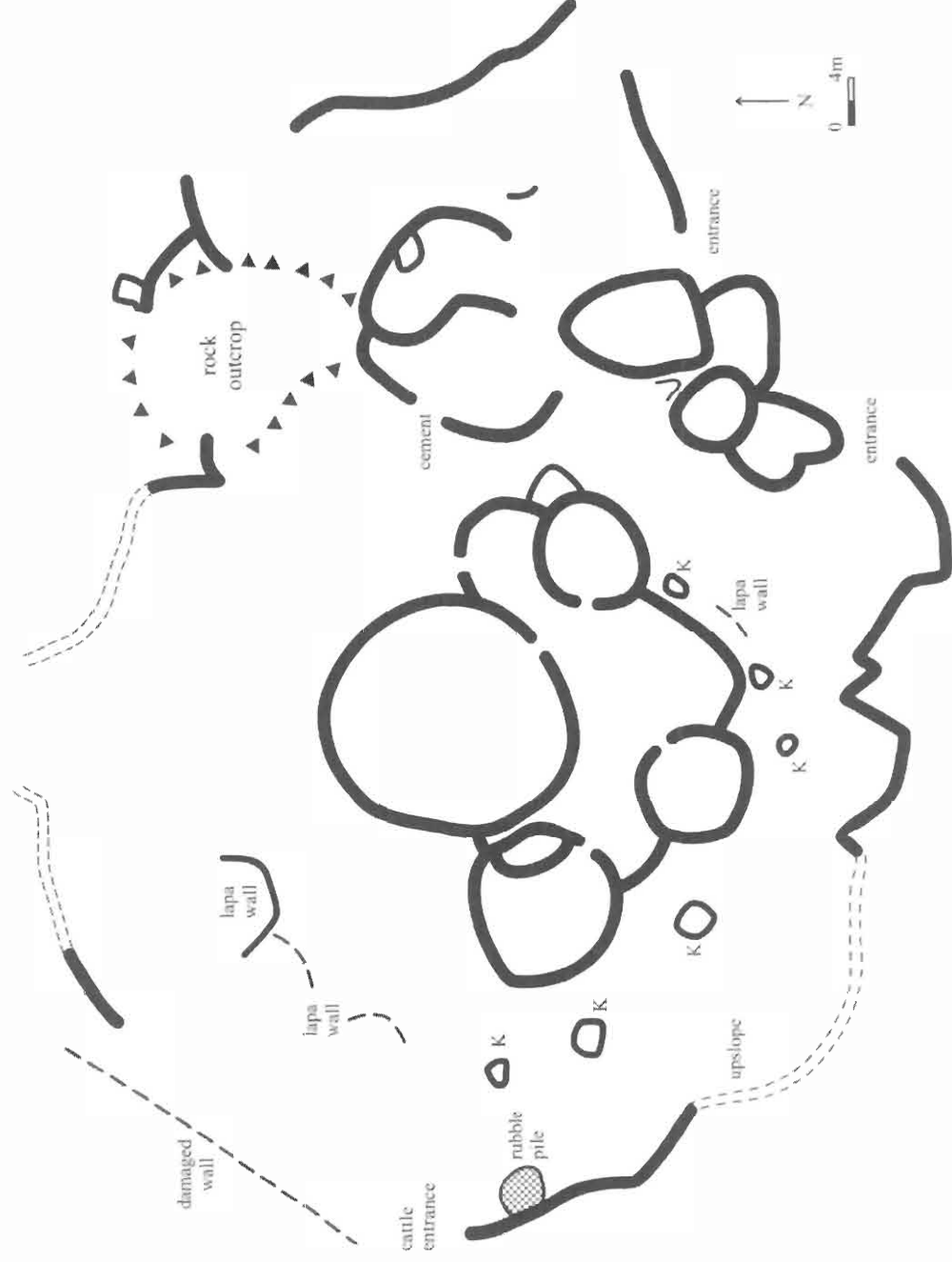


Figure 23. Plan of Site 9.

Site 10 (26 18 37.4 S 28 03 25.1E) is about 100m from site 9, on the east end of the hill. Dumping and other activities have damaged the outer walls, but much remains (Figure 24). An entrance on the north side, near a midden, leads to the central kraal, and then around to a large space upslope that may have been the men's court. The household further upslope probably belonged to the head man.

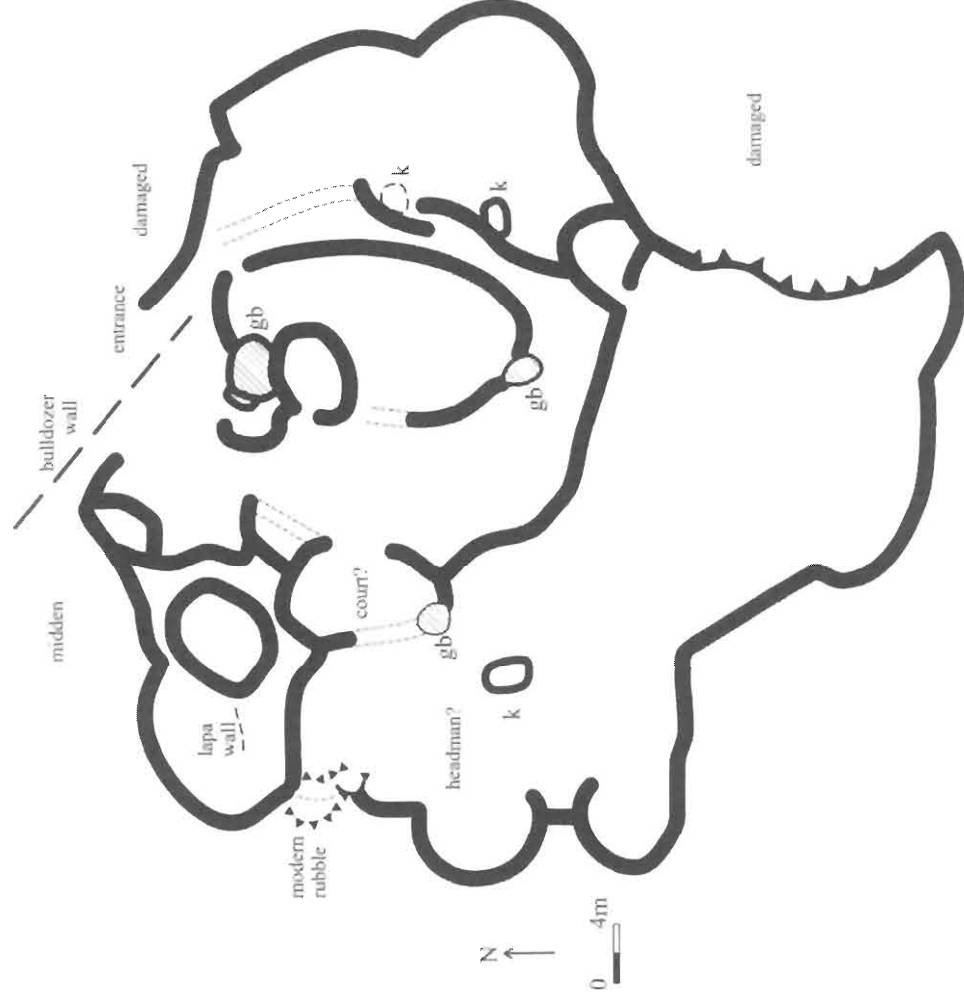


Figure 24. Plan of Site 10.

Type-Z Settlements

Site 8 (26 18 45.7S 28 03 28.8E) appears to be attached to Site 7 on the east side (Figure 25). It represents about one half of a normal homestead, with space for 4 households.

The open spaces between these households follow the Type-Z pattern, and the people here were probably Southwestern Sotho-Tswana, rather than BaFokeng.

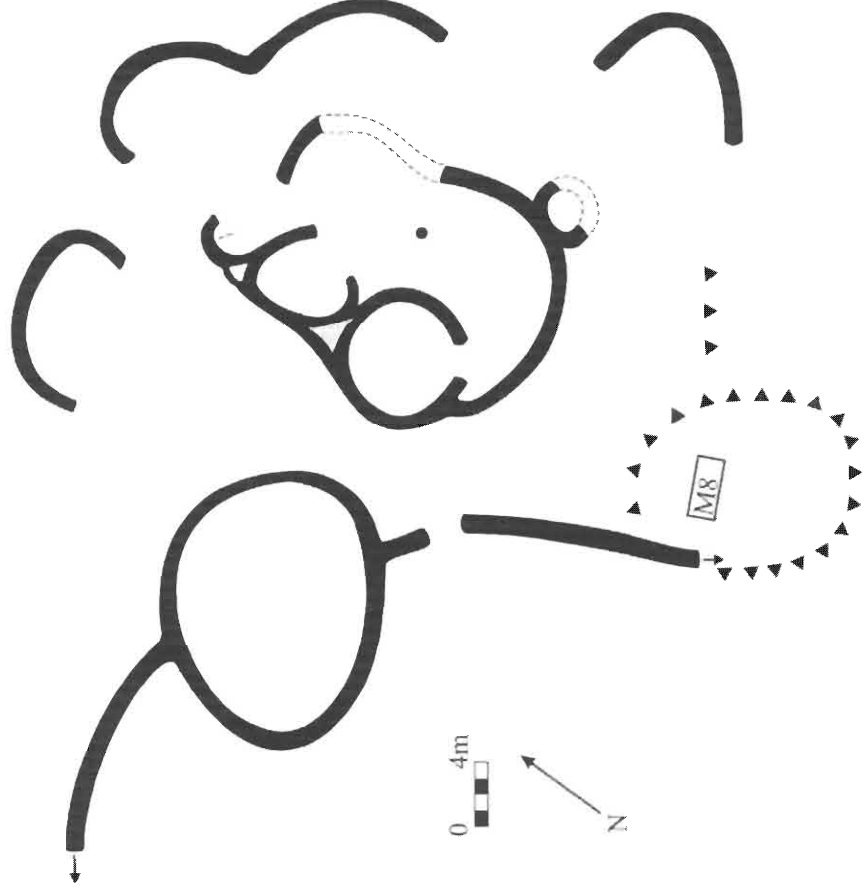


Figure 25. Plan of Site 8 and location of Midden 8.

DISCUSSION

The mitigation concentrated on midden excavations and settlement plans as records of the Aspen Hills sites that can be used for future research. Even now, however, the results have contributed to new insights.

First is Midden 5. The capping of the ash layers is unusual. Ash capping is on record in Ndebele sites in Mpumalanga (Schoeman 1998) and the Limpopo Province (Huffman & Steel 1996) as well as the Khami period capital at Danangombe in Zimbabwe (MacIver 1906). Nguni societies in KwaZulu-Natal dump their ash in public view in front of the homestead to prevent its use by witches (Raum 1973). Likewise, the midden at Danangombe contains refuse from the sacred leader's private quarters, and it too needed special protection. At Aspen Hills it is unclear who lived in Site 5, or what special activities took place there, but the capping also probably served to protect the ash.

Second is the evidence for copper working in Midden 6. Copper working, as well as iron, was a feature of farming communities throughout the Iron Age over a wide area of southern Africa. The only major restriction was the availability of ore. In this regard, copper deposits sometimes occur in the dolomites of the Transvaal Group (Coetzee 1976), which begins in the Klip River Valley to the south. So there may be small deposits in the neighbourhood of Aspen Hills.

Third is the pottery. It was previously thought that *Ntsuanatsatsi* and *Uitkomst* were virtually the same; the different names being the result of separate research in separate areas (Huffman 2002). In this previous view, *Ntsuanatsatsi* characterizes Type-N sites in the Free State while *Uitkomst* characterizes Group I sites north of the Vaal. In both areas the style emphasizes comb-stamped arcades and appliqué bands (finger pinching). These key features are also characteristic of the pottery in Klipriviersberg-Type settlements; and so, it appeared that the different stonewalled patterns provided a better chronological guide than the pottery.

The samples from the Aspen Hills excavations modify this interpretation. The *Olifantspoort* types in several middens show that BaFokeng had interacted with Southwestern Sotho-Tswana. These types include necked vessels with a wide band of cord impressions in the neck as well as necked vessels with incised arcades. Similar evidence for interaction occurs at Tafelkop (Mason 1952) north of Johannesburg. Furthermore, bowls with multiple bands of stamping and colour show that BaFokeng had adapted *Olifantspoort* types to their own style. This adaptation shows that the interaction preceded the development of the Klipriviersberg-Type of walling. The interaction itself probably included the exchange of wives to establish political alliances.

Significantly, the ceramic and stonewalled sequences are in parallel: *Nisuanatsatsi* pottery correlates with Type-N in the Free State and Group I in Gauteng (both should be called Type-N), while *Uitkomst* is limited to Group III, that is, the Klipriviersberg-Type.

When BaFokeng people spread across the Vaal in the 16th century, they appear to have introduced stonewalling to Western and Southwestern Sotho-Tswana, who developed Molokwane (formerly Group II) and Type-Z patterns, respectively. As a result of this interaction, BaFokeng altered their pattern (Type-N) to incorporate new features. Arcs in the outer wall to mark individual households are one obvious feature. At Aspen Hills, back and side entrances for cattle contrast with the front, down slope entrances at Molokwane settlements, such as Boschoek in the Suikerbosrand (Huffman 1982).

Klipriviersberg-Type walling dates to the *difaqane/mfecane*, the troubled period that started in the second half of the 18th century. At this time, most Sotho-Tswana aggregated into larger settlements for mutual protection. This is why so many BaFokeng settlements cluster on and around Aspen Hills, and why most of them contain at least two extended families.

This troubled period caused disjunctions throughout southern Africa. Some groups realigned their political affiliations, some formed new identities, while others disappeared altogether. Presumably, the Type-Z settlement attached to Site 7 represents a family of

Southwestern Sotho-Tswana who joined the Fokeng because they had become dispossessed. Presumably again, they joined BaFokeng because of their long history of interaction.

ACKNOWLEDGEMENTS

We thank Rory Sheahan from Aspen Hills Development for his cooperation through out the project. The excavations were conducted under the South African Heritage Resources Agency Permit No. 80/04/07/020/51.

REFERENCES

- Coetzee, C.B. (ed.) 1976. *Mineral Resources of the Republic of South Africa*. Pretoria: Government Printer.
- Huffman, T.N. 1982. Archaeology and ethnohistory of the African Iron Age. *Annual Review of Anthropology* **11**:133-50.
- Huffman, T.N. 2002. Regionality in the Iron Age: the case of the Sotho-Tswana. *Southern African Humanities* **14**: 1-22.
- Huffman, T.N. 2004. *Archaeological Assessment of Portion 37 Liefde En Vrede 104 IR*. Johannesburg: Archaeological Resources Management.
- Huffman, T.N. & Steel, R.H. 1996. Salvage excavations at Planknek, Potgietersrus, Northern Province. *Southern African Field Archaeology* **5**:45-56.
- Kuper, A. 1982. *Wives for Cattle: Bridewealth and Marriage in Southern Africa*. London: Routledge & Kegan Paul.
- Loubser, J.N. 1985. Buffelshoek: an ethnoarchaeological consideration of a Late Iron Age settlement in the southern Transvaal. *South African Archaeological Bulletin* **40**:81-87.
- MacIver, D.R. 1906. *Mediaeval Rhodesia*. London: Macmillan.
- Maggs, T.M. 1976. *Iron Age Communities of the Southern Highveld*. (Occasional Publication, 2.) Pietermaritzberg: Natal Museum.
- Mason, R.J. 1952. South African Iron Age pottery from the southern Transvaal. *South African Archaeological Bulletin* **7**:70-79.
- Mason, R.J. 1986. *Origins of Black People of Johannesburg and the Southern Western Central Transvaal AD 350-1880*. (Occasional Paper 16) Johannesburg: University of the Witwatersrand Archaeological Research unit.
- Raum, O. 1973. *The Social Function of Avoidances and Taboo among the Zulu*. Berlin: Walter de Gruyter.
- Schoeman, M.H. 1998. Excavating Ndzundza Ndebele identity at KwaMaza. *Southern African Field Archaeology* **7**(1):42-52.
- Taylor, M.O.V. 1979. *Late Iron Age Settlements on the Northern Edge of the Vredefort Dome*. MA dissertation, University of the Witwatersrand, Johannesburg.