

**Assessment of Late Iron Age Settlements in the Rietvlei Nature Reserve, Rand Water
Head Office, Klipriviersberg, Johannesburg**

For

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By

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Executive Summary

An initial archaeological investigation in the 1980s recorded 8 Late Iron Age stone walled settlements in the Rietvlei Nature Reserve. Prompted by the proposed project to upgrade the existing fence to a concrete palisade construction it was realized that 3 unrecorded settlements have been damaged by the existing fence and were in danger of further negative impact.

This report mainly aims to address two issues:

- To minimize and prohibit further damage to the stone walled settlements through which the fence cut (namely 60/2006, 61/2006 & 62/2006).
- To reconstruct and stabilise damaged walls to prevent further deterioration.

As such, please note the following:

- Concrete palisade fences as specified in the brief (see Figure 1) require a foundation that is at least 450 X 450 mm, with a depth of 700 mm. Such a construction, compounded by the space needed to move the heavy intermittent concrete beams into place, will surely result in further damage to the Late Iron Age sites. It is therefore recommended to rather opt for steel palisades (with a smaller footprint) for the section between site 60/2006 and 62/2006.
- To prevent the further deterioration of the damaged sections of the walls of the three sites it is recommended that the damaged edges be reconstructed and stabilised by an experienced architectural restorer (ie. Sidney Miller, who reconstructed Thulamela in the Kruger National Park: Cell no: 0829396536). This should be done through consultation with the Estates Department of Rand Water. The edges could be held in place by a steel structure, clearly indicating which sections of the walls have been reconstructed.

The survey of the entire fence did not reveal any other sites that may have been damaged during its erection. Although Site 23/85 is in close proximity to the northern section of the fence it is far enough that no impact is foreseen on the site, during the upgrading of the fence (see Map 1).

Also note the following:

- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* **NHRA (Act No. 25 of 1999)**, Section 36 (6)).

1. Introduction

The Archaeology Contracts Unit (UNISA) conducted an investigation, focussing mainly on the stone walled Iron Age settlements which occur on the south-western periphery of the Rietvlei Nature Reserve. A secondary objective was an reassessments of the footprint of entire existing fence of the reserve. The investigation and assessment were necessitated by the proposed upgrading of the fence. The reserve is managed by the Estates Department of Rand Water, situated at their Head Office in Glenvista, south of Johannesburg.

Recommendations in this report focus on mitigation measures to minimise the impact of the proposed fence upgrade.

2. Terms of Reference

The terms of reference of this survey are as follows:

- * Assess the impact of the existing fence and the proposed fence upgrade
- * Survey the entire fence to establish if any other sites have been affected
- * Estimate the level of sensitivity/importance of the archaeological remains
- * Propose mitigation measures with regard to the construction of the fence upgrade, especially where Iron Age settlements are affected

3. Nature of the Activity or Development

The proposed upgrade project comprises the replacement of the entire fence of the Rietvlei Nature Reserve (east of Kliprivier Road) to that of concrete palisade fencing (see Figure 1).

4. Definitions and Approach

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited on or in the ground.
- All archaeological remains, artificial features and structures older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory. No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.
- Cognisance will also be taken of the **Minerals Act (Act No 50 of 1991)** and the **National Environmental Management Act (Act No 107 of 1998)** when making any recommendations.
- Human remains older than 60 are protected by the **National Heritage Resources Act**, with reference to Section 36. Human remains that are less than 60 years old are

protected by the **Human Tissue Act (Act 65 of 1983 as amended)**.

- Rating the **significance of the impact** on a historical or archaeological site is linked to the significance of the site itself. If the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low.
- Cultural resources are non-renewable.
- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.
- The guidelines as provided by the **NHRA (Act No. 25 of 1999)** in Section 3, with special reference to subsection 3, and the Australian ICOMOS Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* **NHRA (Act No. 25 of 1999)**, Section 36 (6)).
- A copy of this report will be lodged with the **South African Heritage Resources Agency (SAHRA)** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4).

5. Methodology

5.1 Maps and Other Sources

An aerial photograph demarcating the boundaries of the Rietvlei Nature Reserve was supplied by the client. The Reserve is situated on the farm Rietvlei 101/8 which is located to the west of the Klipriviersberg River and the farm Klipriviersberg as indicated on the 1:50000 topographic map sheet number: 2628AC. More detailed information was obtained from Revil Mason's report which was compiled as a result of a preliminary archaeological investigation of the Reserve which commenced in 1981. He did not, however, record the three settlements discussed in this report.

5.2 Fieldwork

After an earlier introductory meeting, an on-site investigation was conducted on 8 June 2006. The fence line and areas where sites are affected by the existing fence were investigated on foot.

6. Area Description

The Rietvlei Nature Reserve is located on a 170 hectares property of Rand Water at their

Head Office in Glenvista, south of Johannesburg. The Reserve is characterised by grassland, mixed bushveld and aliens. The grassland areas are susceptible to sheet erosion. In some areas climax grasses (*Themeda triandra*) are evident but mostly pioneer species (*Cynodon dactylon* and *Aristida congesta*) prevail.

A preliminary archaeology survey conducted by the Archaeology Department of the University of the Witwatersrand in 1985 indicated that eight Late Iron Age stone walled settlements (78/81, 54/81, 76/81, 53/81, 57/81, 70/81, 66/81, 62/81 and 61/85) are located within the Reserve (see Map 1)(Mason 1985). The report, furthermore, states that the settlements are associated with the Sotho/Tswana people who probably occupied the area *circa* AD 1640 to AD 1820s.

In the report Mason (1985) states that: ‘Most of the stone walls on Rietvlei appear to be cattle outposts rather than settlement units. The most common pattern consists of groups of closely related circles without a clearly defined central gathering place. No good evidence of occupation was noted with the exception of a quite substantial midden just north of the car park. Although this stone walled site does not conform in all respects with the usual settlement pattern, further investigation and judicious excavation can be expected to reveal the location of some huts. There is a possibility that some of the smaller circles might be the remains of collapsed corbelled huts built in stone’.

Within the regional context Mason conducted extensive surveys to document and interpret the Late Iron Age settlement sequence of the Witwatersrand. The following sites were excavated (Mason 1986: 517 & 518):

- Panorama 80/72 (which contained 13 smelting furnaces)
- Waterval 11/65
- Bruma 22-30/81
- Linksfield Ridge 1/78
- Lonehill 50-51/85
- Northcliff 31/81
- Klipriviersberg 5/65, 18/69 and 31/78
- Melville Koppies 7/63 and 9/70 (upper furnace)
- Melville Koppies 28/64 (lower furnace)
- Melville Cave 9/65

7. Archaeological Sequence

PERIOD	APPROXIMATE DATE
Early Stone Age	more than c. 2 million years ago - c. 250 000 years ago
Middle Stone Age	c. 250 000 years ago – c. 25 000 years ago
Later Stone Age (Includes San Rock Art)	c. 25 000 years ago - c. AD 200 (up to historic times in certain areas)

Early Iron Age	c. AD 400 - c. AD 1025
Late Iron Age (Stonewalled sites)	c. AD 1025 - c. AD 1830 (c. AD 1640 - c. AD 1830)

8. Archaeological Context

8.1 Stone Age

Large concentrations of Early Stone Age (ESA) sites are usually located on the flood plains of perennial rivers and may date to over 2 millions years ago. These ESA open sites may contain, firstly, scatters of stone tools and second, large concentrated deposits which range from pebble tool choppers to core tools such as handaxes and cleavers. The early hominids who made these stone tools, did not actively hunt.

Middle Stone Age (MSA) sites also occur on flood plains but are in many cases associated with rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades. They may have been hafted but organic materials do not always preserve. Limited drive hunting activities are associated with this period.

Sites dating to the Late Stone Age (LSA) occur primarily in rock shelters (though open sites have been recorded in the northern Cape). Well protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich egg shell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is sometimes possible. South African rock art is also associated with this period.

8.2 Iron Age Sequence

In the northern regions of South Africa at least three settlement phases, which pertain to prehistoric agropastorists, have been distinguished for the **Early Iron Age** (EIA). The first phase of the Early Iron Age is known as **Happy Rest**, representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase known as **Diamant** is dated to AD 600 - AD 900. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water.

The **Late Iron Age** (LIA) settlements are characterised by stone-walled enclosures situated on defensive hilltops (especially c. AD 1640 - AD 1830s). This occupation phase has been linked to the arrival of the Northern Sotho, Tswana and Southern Ndebele (Nguni-speakers) in the region dated from the sixteenth to seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19th century settlements with multichrome Moloko pottery, commonly attributed to the Sotho-Tswana. This correlates with oral traditions about various people who sought refuge in the mountains during the processes of disruption in the northern interior of South Africa, caused during the so-called *difaqane* (or *Mfecane*).

Mason's extensive archaeological and ethnographical research of the Witwatersrand confirmed that these Iron Age settlements are associated with the Sotho/Tswana period of occupation (Mason 1986:517-608).

9. Description of Sites

The Late Iron Age settlements (60/2006, 61/2006 & 62/2006) consist of stonewalls of varying height, some sections of which are still very well preserved while others are in a less pristine state. A typical Late Iron Age settlement is demarcated by several stone-walled enclosures grouped together in the centre (these usually include the cattle enclosures and the men's meeting place or *kgotla*), surrounded by a circular periphery stonewall. Houses are usually located in the open space created between the central enclosures and the outer periphery wall. Spatial division between houses and courtyards (living quarters and work areas) is usually created by secondary stonewalls and walkways. House rubble (*dagha*), potsherds and upper and lower grinding stones were found on the surface in association with house remains. No substantial middens were recorded. In general, the layout of both settlements conforms to what is known as the central cattle pattern (CCP).

As a result of the circular nature of the stone walled Late Iron Age structures, most enclosures were damaged twice during the construction of a linear fence.

9.1 Site 60/2006

The site consists of several extensive stone walled enclosures that are clustered together to form a large settlement. The stone walls are between 0.3 to 0.7 metres in height. Due to the impact of the existing fence the walls are damaged at several places (Photo 1 & 2). Although no substantial middens were recorded, surface scatters of potsherds occur throughout the site. The full extent of the site could not be determined as a substantial remainder is situated on the adjacent farm known as Thaba ya Batswana which features a hotel/conference facility.

9.2 Site 61/2006

The site is situated north of a rocky outcrop and consists of an extensive stone walled settlement. Most of the walling is over 1 metre high with several foundation sections which probably served as terraces. Some scalloping could be observed, which is a typical Tswana settlement trait. Due to the impact of the existing fence the walls are damaged at several places (Photo 3 & 4). Although no substantial middens were recorded, surface scatters of potsherds occur throughout the site. The full extent of the site could not be determined as a substantial remainder is situated on the adjacent farm known as Thaba ya Batswana which features a hotel/conference facility.

9.3 Site 62/2006

The site is situated on the southern slope (south of Site 61/2006) of the rocky outcrop and consists of several large stone walled enclosures. Due to the impact of the existing fence the walls are damaged at several places (Photo 5 & 6). Although no substantial middens were recorded, surface scatters of potsherds occur throughout the site. The full extent of the site

could not be determined as a substantial remainder is situated on the adjacent farm known as Thaba ya Batswana which features a hotel/conference facility.

10 Statement of site significance

The Late Iron Age settlements situated in the Rietvlei Nature Reserve have a lasting value in their own right and provide evidence of the prehistoric occupation of the area. They are valuable finite and non-renewable heritage resources. These sites have the capacity to promote understanding and respect of the prehistoric past. They furthermore have the potential to significantly contribute to education and tourism. In his report Mason (1985:2) states the following: ‘The Rietvlei 108 sites are important early Sotho/Tswana settlement sites in a good state of preservation’. ‘The Rietvlei 108 sites certainly contribute to the understanding of the prehistoric development of the Witwatersrand complex and must therefore be regarded as vital data for future preservation’.

The Rietvlei sites are especially significant within the regional context of other archaeological sites such as Klipriviersberg 5/65, 18/69 and 31/78, Melville Koppies 7/63 and 9/70, Bruma 22-30/81 and Linksfield Ridge 1/78 (Mason 1986:517-608).

Furthermore, the Late Iron Age settlements in Rietvlei Nature Reserve conform to the criteria of Class 5 sites which consists of a scalloped periphery stonewall that enclose a number of central enclosures. These settlements were probably occupied between *circa* AD 1640 and the early AD 1820s and are associated with Sotho/Tswana occupation.

11. Summary of Sites

Site	Coordinates	Significance	Impact	Action
60/2006	26°17'55.2"S 28°01'49.7"E	High	High	<ul style="list-style-type: none"> • Minimize further impact • Reconstruction of damaged edges of walls
61/2006	26°17'58.0"S 28°01'49.8"E	High	High	<ul style="list-style-type: none"> • Minimize further impact • Reconstruction of damaged edges of walls
62/2006	26°18'05.9"S 28°01'58.4"E	High	High	<ul style="list-style-type: none"> • Minimize further impact • Reconstruction of damaged edges of walls

12. Conclusions and Recommendations

As a result of the initial fencing project of Rietvlei Nature Reserve some years ago, extensive damage was done to several stone walled structures (which constitute at least 3 settlements) along the western boundary of the Reserve. This report mainly aims to address two issues:

- To minimize and prohibit further damage to the stone walled settlements through which the fence cut (namely 60/2006, 61/2006 & 62/2006).
- To reconstruct and stabilise damaged walls to prevent further deterioration.

As such, please note the following:

- Concrete palisade fences as specified in the brief (see Figure 1) require a foundation that is at least 450 X 450 mm, with a depth of 700 mm. Such a construction, compounded by the space needed to move the heavy intermittent concrete beams into place, will surely result in further damage to the Late Iron Age sites. It is therefore recommended to rather opt for steel palisades (with a smaller footprint) for the section between site 60/2006 and 62/2006.
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