

THE ARCHAEOLOGICAL INVESTIGATION OF A  
LATE IRON AGE SITE ON THE FARM KROONDAL 304 JQ,  
RUSTENBURG DISTRICT, NORTHWEST PROVINCE

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REPORT: *2004KH07a*

Date of work: *February 2004* Date of report: *March 2004*

## SUMMARY

The National Cultural History Museum was contracted by DRA, on behalf of Aquarius Platinum (S.A) Pty Ltd., to conduct said archaeological investigation on the farm Kroondal 304 JQ in the Rustenburg District, Northwest Province. The site is located on the property of the existing Kroondal Platinum Mine. The development of a new Waste Rock Dump site and Plant is being undertaken in this area, and the site will be directly impacted upon by the developments. The archaeological work at the site includes the mapping and drawing of the site, as well as archaeological excavations. This document constitutes a report on the first phase of work, namely the mapping and drawing and preliminary interpretations of the site based on this work.

Photographic documentation of the site was also undertaken, although this was not done in great detail, as the site was badly overgrown during the first phase of fieldwork. Complete photographic documentation will be conducted during the excavations.

<b>CONTENTS</b>
SUMMARY
CONTENTS
AIMS
LEGAL REQUIREMENTS
METHODOLOGY
DESCRIPTION OF THE AREA
DISCUSSION
CONCLUSIONS AND RECOMMENDATIONS
REFERENCES
PROJECT TEAM
APPENDIX 1- MAP OF THE AREA INDICATING THE LOCATION OF THE SITE
APPENDIX 2 – MAP AND DRAWING OF THE SITE

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**AIMS**

The aims of this first phase of archaeological work at the Kroondal Iron Age site were the following:

- (a) to identify and locate all possible structures, features and objects associated with the site that will be impacted upon by the development
- (b) to undertake the detailed and complete mapping and drawing of the site to help facilitate the reconstruction and interpretation of settlement organization and layout. This will help in building up a record of the site, as well as help us to determine where archaeological excavations needs to be undertaken

We were informed by the client about the extent of the area that will be affected by the proposed development. The work was to be confined to this area.

**LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are mainly dealt with in two acts. These are the South African Heritage Resources Act (Act 25 of 1999) and the Environmental Conservation Act (Act 73 of 1989).

**South African Heritage Resources Act**

**Archaeology, palaeontology and meteorites**

Section 35(4) of this act states that no person may, without a permit issued by the responsible heritage resources authority:

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

- (c) alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency.

#### **Environmental Conservation Act**

This act states that a survey and an evaluation of cultural resources should be undertaken in areas where development, which will change the face of the environment, is to be made. The impact of the development on the cultural resources should also be determined and proposals to mitigate this impact are to be formulated.

#### **METHODOLOGY**

##### **Documentation**

The documentation comprised the following:

*Foot survey* – The area was surveyed on foot first in order to determine the extent of the area that will be affected by the development, as well as to determine the perimeters of the site to be mapped. During the foot survey we also aimed at locating all possible structures, features and objects that form part of the site so that as complete a map as possible could be drawn.

*Photographic* – Photographs of the site in general, as well as individual structures, features and objects, were taken to help with the interpretation of settlement layout. These photographs also form part of the permanent record of the site; should it be disturbed or destroyed.

*GPS Data* - A GPS reading of the site was taken in order to locate it on the 1:50 000 map of the area (See Appendix 1).

*Mapping and Drawing* – This was done using a Nikon Total Station Electronic Surveying device. The data generated through this was then downloaded onto computer and a software package called Model Maker was then used to generate a map and drawing of the site (See Appendix 2).

#### **DESCRIPTION OF THE AREA**

The site is located on the farm Kroondal 304 JQ, in the Rustenburg District of the Northwest Province, and on the property of the Kroondal Platinum Mine. It lies between **25°42'43.7" S** and **27°21'45.5" E**.

The topography of the area is basically flat open veld with stretches of more dense bush and thorn trees. Large sections of the area were used for agricultural purposes in the past. There is no prominent hills close-by, although a low outcrop lies to the south of the site.

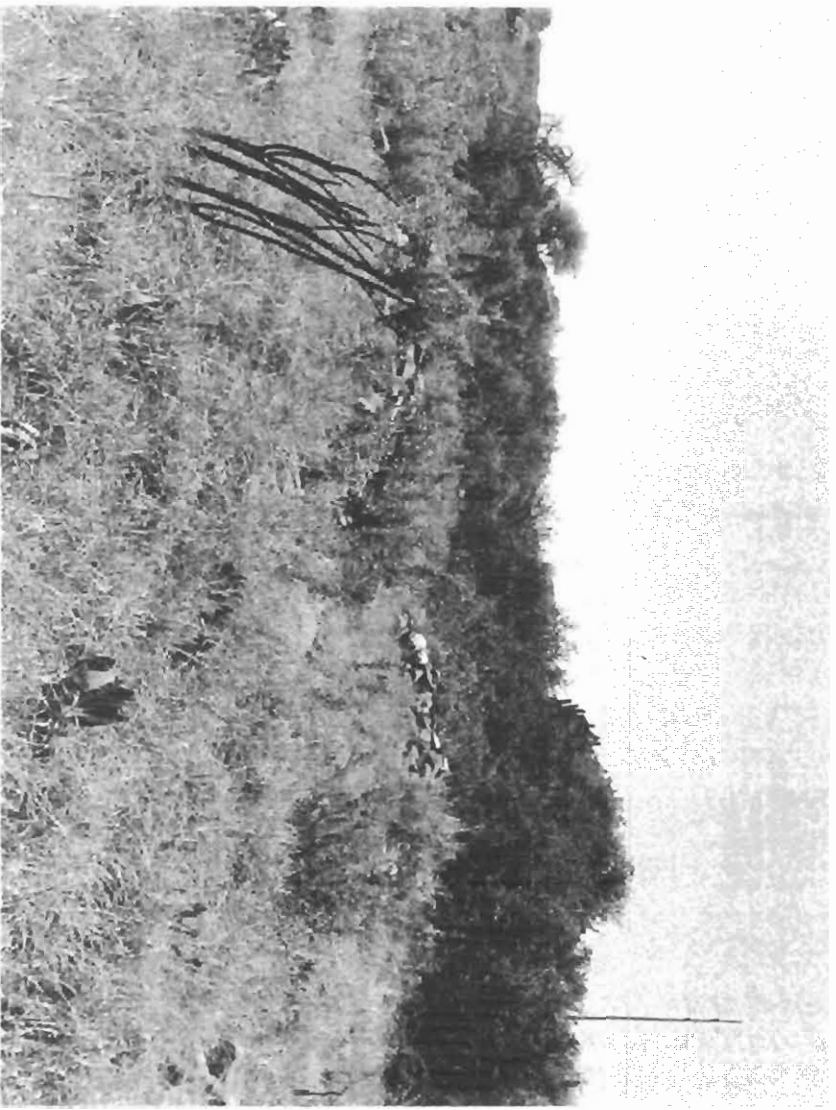
The vegetation consists of a combination of Springbok Flats Thornveld, Sourish Mixed Bushveld and Sour Bushveld. The thornveld is generally open, but tends to thicken up when the grass cover is reduced by grazing mismanagement. The bushveld is largely open savanna with *Acacia caffra* the dominant tree in a fairly tall and dense grassveld (Acocks, 1988). Although past agricultural activities has disturbed the vegetation, patches of original thornveld and bushveld still prevail. The Iron Age inhabitants of the area would have favored this vegetation, as it would have provided them with excellent grazing for their cattle. The closest water sources to the site are the Hexriver and Sandspruit, a few kilometers to the southwest.

## DISCUSSION

The site consists of the stone walled remains of a Late Iron Age settlement, containing cattle kraals and smaller livestock (sheep/goat) enclosures, hut bays, granary platforms, the remains of huts and other associated features, such as ash middens. A few broken lower grinding stones (used to grind maize) were identified, while some potsherds and bone fragments lie scattered over the surface of the site. A few nearly complete pots, two close to one of the huts and a third on top of the remains of another, have also been identified. These artefacts will be removed during detailed excavations of these huts.

The mapping of the site aimed at providing as detailed a drawing of the settlement as possible to help with the reconstruction and interpretation of settlement layout. During the mapping process, areas with potential for archaeological excavation were also identified. These included a number of huts, a midden and a possible cattle kraal. The excavations will hopefully provide us with enough information to help with further interpretation of settlement organization, reconstructing domestic economy, providing a time-frame for Late Iron Age occupation of the settlement and possibly determining the cultural identity of the group who lived here.

Over and above the evidence of Late Iron Age settlement on the site and in the area, we also found evidence for earlier human activity in the vicinity. This is in the form of Middle and Later Stone Age stone tools that are found scattered over the surface of the area. A few concentrations of these tools were identified, and are indicated on the map of the site (See Appendix 2). These Stone Age artefacts are evidence of human presence and activity in the area for thousands of years, possibly stretching back as far as 200 000 years ago.



**Fig. 1: General view of the site, looking east. Note the tall grass and bush. This made mapping difficult and detailed photographic documentation nearly impossible. Stone walls are however visible.**



**Fig. 2:** The clay remains of a hut. These slight mounds are formed when the walls of the huts collapse inwards on top of the hut floors. A number of these were identified at the settlement.





Fig. 3: Two large pots located on the edge of one of the huts at the settlement. Their position will be carefully documented during excavations before they are removed.

## CONCLUSIONS AND RECOMMENDATIONS

The Late Iron Age (LIA)settlement at Kroondal Platinum Mine forms part of a much larger Settlement Complex on the farm Kroondal 304 JQ. The complex consists of a number of smaller individual settlement units, each similar to the one under threat and being investigated.

Based on the mapping and drawing conducted during the first phase of fieldwork (see Appendix 2), the settlement layout conforms to the so-called Central Cattle Pattern (CCP). The CCP is an ethnographically-derived model of spatial organization based on Kuper's (1982) analysis of Nguni and Sotho-Tswana settlements. Although there are variations from site to site, between groups and from period to period, the basic principles of the CCP applies to most LIA settlements. Generally, the center of a settlement contains large cattle kraals and smaller livestock enclosures, around which the huts are located. Settlements also have small private and larger communal granary platforms (Huffman 1982).

LIA archaeologists have identified many types, classes and groups of settlement over the years, but it is difficult at this stage to say exactly to which one the site at Kroondal relates to. It is possibly similar to Group II sites identified by Taylor on the Vredelfort Dome. They date to between AD 1650 and 1840, and generally have a series of semi-circular walls, facing inwards towards a central ring of smaller enclosures (Taylor 1979).

Determining the cultural affinity of the group who settled here is also difficult at this stage. We hope to achieve this through the analysis of cultural material recovered during archaeological excavations (Phase 2). Through these excavations we will also get a better idea about the time-span of Iron Age settlement (with C14 dating) and the domestic economy of the settlement. The excavations will be carried out as soon as a permit to do so has been obtained from the South African Heritage Resources Agency (SAHRA). It is therefore recommended that the site not be disturbed in any way until the archaeological work has been completed.

## PROJECT TEAM

A.Pelser . Project Leader and Researcher, NCHM(Curator: Archaeology)  
F.Teicher, Assistant-Project Leader and Researcher (Curator: Human Skeletal Remains), NCHM

## REFERENCES

- Scientific Journals and Publications
- Acocks, J.P.H. 1988. Veld Types of South Africa. Memoirs of the Botanical Survey of South Africa. No.40. Pretoria: Botanical Research Institute.
- Huffman, T.N. 1982. Archaeology and ethnohistory of the African Iron Age. Annual Review of Anthropology. 11: 133-150.

Kuper, A. 1982. Wives for cattle: bride wealth and marriage in southern Africa. London: Routledge and Kegan Paul.

Taylor, M.O.V. 1979. Late Iron Age settlements on the northern edge of the Vrededorp Dome. Unpublished M.A. dissertation. Johannesburg: University of the Witwatersrand.

#### Unpublished Reports

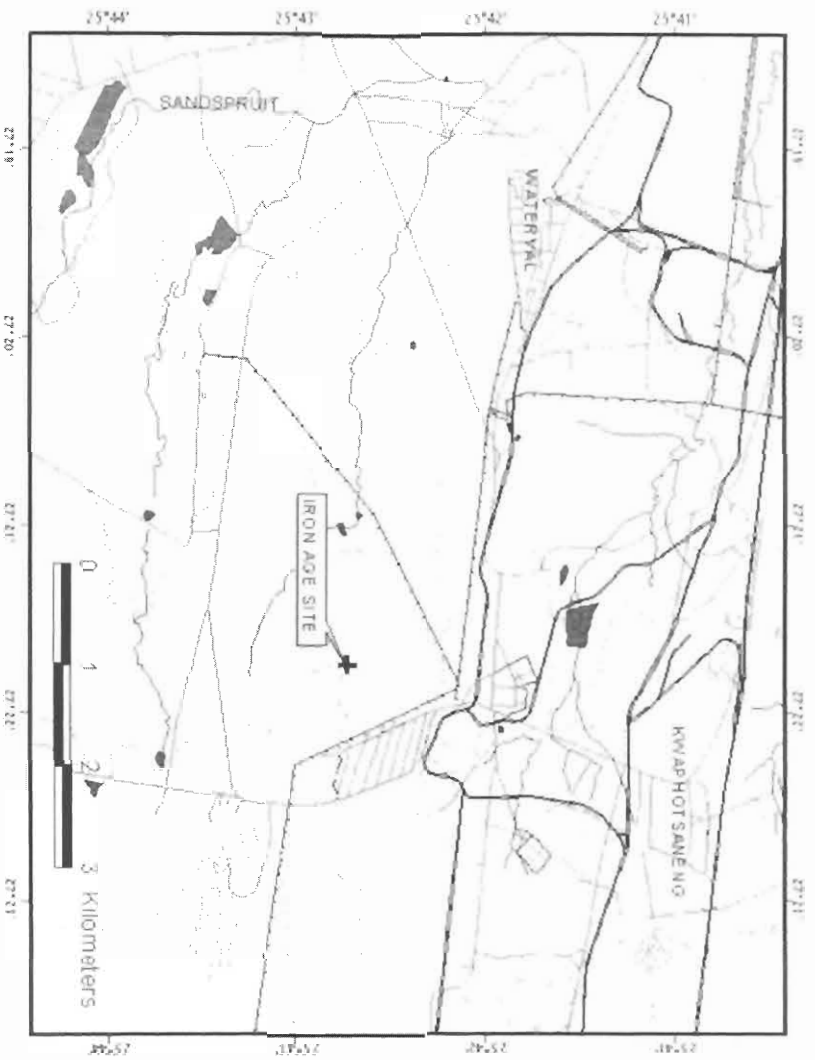
Van Schalkwyk, J.A. & A.J. Pelser. 1997. A Survey of Cultural Resources on the farm Kroondal 304 JQ, East of Rustenburg. NCHM, Unpublished Report 97KH107 (Client: SRK Consulting Engineers).

Van Schalkwyk, J.A. & A.J. Pelser. 2001. A Survey of Cultural Resources on the farm Kroondal 304 JQ, East of Rustenburg. NCHM, Unpublished Report 2001KH02(b) (Client: DRA).

#### Other Sources

Map: 2527CB Rustenburg (East) – 1 : 50 000 scale

APPENDIX 1 – THE LOCATION OF THE  
KROONDAL IRON AGE SITE



## APPENDIX 2 – MAP AND DRAWING OF THE SITE

