

SAHRIS

FINAL CONSOLIDATED PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT

**Proposed urban and residential development including high-cost housing,
filling station and apartment buildings Portion 9 of the farm
Mooiplaats 147 JT, Mpumalanga Province**

Project type	Phase 1 Heritage Impact Assessment		
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Project code	ARC2007/010		
Project name	Mooiplaats HIA		
Report type	Final Consolidated Report		
Project duration	31 May, 1-4 June 2007		
Report date	25 July 2007		
Client	GO EnviroScience cc		
Province:	Mpumalanga		
Magisterial district:	Belfast		
1: 50 000 Map number (or SAN chart):	2530AD		
Latitude and Longitude:	Between S25°29'/E30°25' & S25°29'/E30°24' and S25°28'/E30°24' & S25°27'/E30°24'		
Farm Name and No.:	Portion 9 of Mooiplaats 147 JT		
Town/Nearest Town:	Machadodorp and Nelspruit		
	Name	Date	Comments
Reviewed:			

PREPARED BY:

- Archaic HPM, Department of Anthropology & Archaeology under auspices of
- Business Enterprises at University of Pretoria (Pty) Ltd

PREPARED FOR:

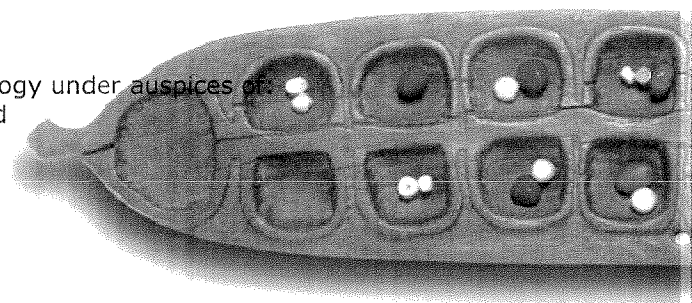
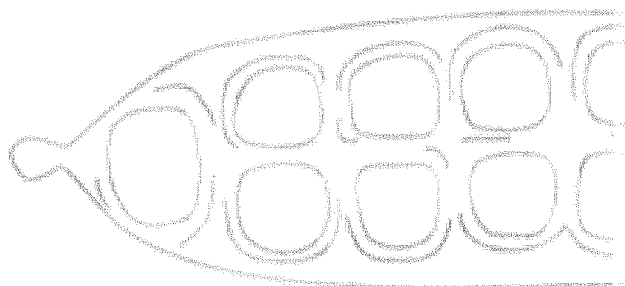
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EXECUTIVE SUMMARY

Purpose

Archaic HPM was contracted by GO Enviroscience cc. to undertake a Phase 1 Heritage Impact Assessment (HIA) on areas on the Portion 9 of the Farm Mooiplaats 147 JT (refer to Site Location, p. 8). These areas have been earmarked for proposed development of a high-income housing estate and a filling station.

Findings

The HIA identified the following heritage resources:

- large stonewalled structures and terraces in various states of preservation
- four rock engraving sites, two of which may be associated with the stonewalled structures
- three Middle Stone Age sites
- a rock outcrop with various usage areas, such as cupules, grinding/rubbing spots

Recommendations

- Large scale, detailed survey and mapping of proposed development impact areas
- Mitigation of certain sites in proposed development impact areas
- Removal of three loose stones with engravings from proposed development impact areas to more appropriate locations
- Detailed documentation and recording of rock engraving sites, and mitigation on parts where sites have been disturbed
- Declaration of rock engraving site as a provincial heritage site

Stakeholders

- Schoemanskloof Water Strome, developer
- Mr. Willie Stols, landowner

Explanation of terms

Bantu-speakers

accepted term when referring to African groups in the archaeological record.

Before present

measure of time before 1950, scientifically accepted as the present

Iron Age

refers to period where metal working first appears; coupled with animal husbandry, agriculture, ceramic manufacturing; divided into two or three phases – Early, Middle and Late; also known as *Early or Late Farmers*; in South Africa from c. 1700-200BP (c.300 – 1800AD)

Pedestrian survey

survey technique where an area is physically walked

Primary context

objects, features, sites that are in a more or less original state as that when abandoned

Secondary context

objects, features, sites that have been disturbed, removed, damaged or that are *ex situ*

Stone Age

period dating from approximately 4 million-2000BP; three phases namely Early, Middle and Late; Late Stone Age associated with hunter-gathers such as San

Transect

survey method linked to pedestrian survey where parallel routes are surveyed systematically, spaced at regular intervals

1. INTRODUCTION

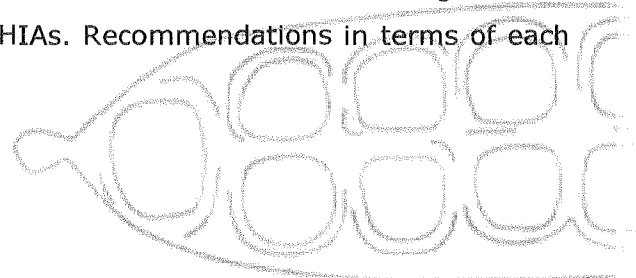
Archaic HPM acts as the Archaeological Contracts Office of the Department of Anthropology and Archaeology, University of Pretoria. The company specialises in the management of heritage projects. The field of expertise include the generation of desktop surveys, the undertaking of scoping surveys and Phase 1 Archaeological Impact Assessments and/or Specialist reports, Phase 2 Mitigation of archaeological and/or heritage sites, and Phase 3 Site Management Plans.

The parameters within which Archaic HPM operates are firstly the National Heritage Resources Act No. 25 of 1999 (NHRA) and minimum standards provided in terms of this act by the South African Heritage Resources Agency (SAHRA). Secondly, Archaic HPM endeavours to comply with the code of ethics and standards of the Association of Southern African Professional Archaeologists (ASAPA). Thirdly, complementary national and provincial legislation such as the National Environmental Management Act No. 107 of 1998 (NEMA), the Environment Conservation Act No. 73 of 1989 (ECA), and Environmental Management Plans (EMPs) as required by the relevant National Departments, form key components of every project.

Archaic HPM's position within the Department of Anthropology and Archaeology creates a unique environment within which heritage resources management may be undertaken. The contracts office has access to professional, qualified individuals who may assist with various projects.

As such, Archaic HPM has been contracted by GO EnviroScience cc. to undertake a Phase 1 Heritage Impact Assessment on an urban development that is being proposed on Portion 9 of the farm Mooiplaats 147 JT. The development will include approximately 100 to 150 luxury 2- and 3-bedroom houses, a shopping centre, a block of flats and fuel station. The luxury houses will be situated on top of the mountain and on small false plateaus on the slopes, down to the foot of the mountain. The proposed shopping centre, flats and fuel station will be situated on the valley floor between the N4 and the Buffelskloofspruit.

The heritage impact assessed heritage resources in the proposed development impact areas through a preliminary survey. At least twenty sites that may be regarded as heritage resources have been identified during the initial survey. All resources were recorded and their significance rated according to the SAHRA minimum standards for HIAs. Recommendations in terms of each site's mitigation have been included.



2. BRIEF, LEGAL REQUIREMENTS, AIM & LIMITATIONS OF STUDY

BRIEF / TERMS OF REFERENCE

The Terms of Reference was interpreted according to the brief supplied by Archaic HPM and GO EnviroScience. The activities and results as it applied of each aspect of the TOR is listed below.

1. *General descriptions of the cultural, social and historical heritage in the area*

All sites that have been identified during the Heritage Impact Assessment are listed in the Register of Identified and Recorded Sites (p17).

2. *Locating, identification and assessment of all structures on the site under investigation, graves and rock art according to the Minimum Standards for HIAs as drafted by SAHRA*

All structures, graves and rock art have been located, identified and assessed within limitations as described under Limitations (p9). Specific attention was paid to the sites identified in the briefing document. No sites were recorded outside the boundaries set by the Client and as described by the Developer.

3. *Recording and mapping of all structures notwithstanding relevant heritage significance*

All visible sites have been recorded and mapped using a GPS and listed in the Register of Identified and Recorded Sites (p17).

4. *Use of local knowledge*

Where possible, local knowledge was accessed to determine land use and intangible heritage associated with sites, e.g. initiation sites, places of ritual and/or ceremonial significance. The landowner was mainly consulted in terms of this point.

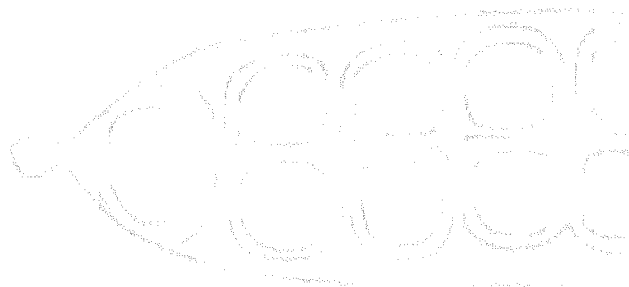
5. *Compilation and presentation of comprehensive Heritage Site Management Plan (HSMP) as part of the final report that will include:*

This report fulfils the requirement of a Heritage Site Management Plan and includes:

- a. Recommendations for suitable buffer zones for each feature or site;
- b. Description of possible impact of the proposed development on each site;
- c. Recommendations regarding possible opportunities and/or constraints provided by each site;
- d. Submission and presentation of final technical report in printed and electronic formats;
- e. Recommendations in terms of possible mitigation of archaeological and/or historical sites.

LEGAL REQUIREMENTS

National Heritage Resources Act No. 25 of 1999 (NHRA), with specific reference to Section 32;
National Heritage Resources Act No. 25 of 1999 (NHRA), with specific reference to Section 35;
National Heritage Resources Act No. 25 of 1999 (NHRA), with specific reference to Section 36;
National Heritage Resources Act No. 25 of 1999 (NHRA), with specific reference to Section 38;
Environmental Conservation Act No. 73 of 1989 (ECA);
National Environment Management Act No. 107 of 1998 (NEMA);
List of Activities and Regulation for Environmental Impact Assessments (EIA), Government Notice Nos. R385, R386 and 387;
Human Tissues Act No. 65 of 1983;
Removal of Graves and Dead Bodies Ordinance 7 of 1925.



AIM OF STUDY

Recording, documentation and rating of known sites according to SAHRA minimum standards.
Survey of affected areas to identify any other heritage resources
Recording of any heritage resources identified

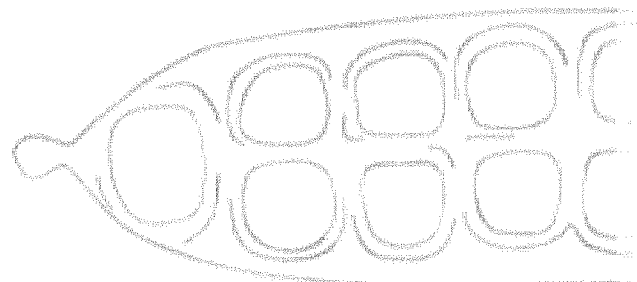
LIMITATIONS

All work is undertaken under mandates of the National Heritage Resources Act 25 of 1999, SAHRA minimum standards and the constitution and code of ethics of the Association of Southern African Professional Archaeologists (ASAPA).

Archaic HPM and persons contracted by Archaic HPM cannot be held responsible for exposure of any subsurface heritage resources, including graves and burials, exposed during intrusive construction and development activities.

Notwithstanding Archaic HPM's attempts at a detailed and comprehensive assessment of the affected areas, the heritage resources identified during the study do not necessarily represent the total resources in the area. Several reasons exist which may lead to heritage resources remaining unidentified: subsurface resources, impenetrable, dense vegetation, dangerous ascents/descents.

Absence of evidence *is not* evidence of absence.



3. BACKGROUND INFORMATION

GEOGRAPHICAL BACKGROUND

Report type Heritage Impact Assessment report
Development type Urban and commercial development
Rezoning and/or land subdivision Rezoning from agriculture to urban
Developers

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Lydenburg
1250

Province: Mpumalanga
Magisterial district: Belfast
1: 50 000 Map number (or SAN chart): 2530 AD
Latitude and Longitude: Between S25°29'/E30°25' & S25°29'/E30°24' and S25°28'/E30°24' & S25°27'/E30°24'
Recording method (GPS, Trig., Other): GPS (Garmin Etrex, Accuracy 4m)
Farm Name and No.: Portion 9 of Mooiplaats 147 JT
Town/Nearest Town: Machadodorp & Nelspruit

1:50 000 orthographic map 2530 AD

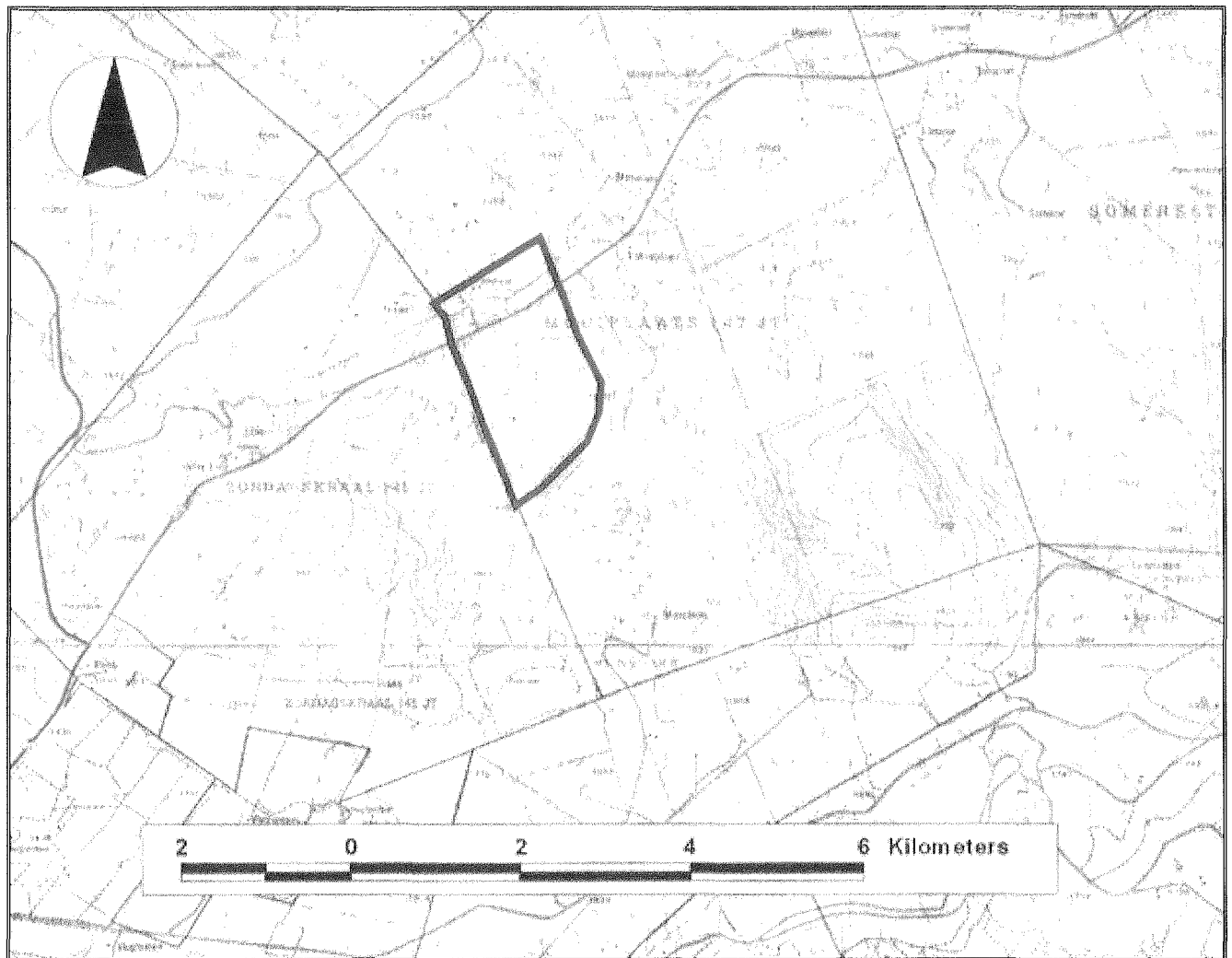


Figure 1: 2530 AD map indicating study area

ARCHAEOHISTORICAL BACKGROUND

Mpumalanga is, archaeologically speaking, a relatively under-researched province and thus potentially able to offer new research insights for the region. This province has however been witness to many different stages of South African history and prehistory. The Schoemanskloof valley is a fertile valley suited to agricultural activities. It is also a natural thoroughfare from the colder Highveld region into the warmer sub-tropical climate of the Lowveld. A passage such as this enables migration of people, as well as animals. This provides an ideal environment for human settlement from the earliest hunter-gatherer communities to historical European expansion. Evidence of land use in the area is witnessed in terms of various types of settlement and artefacts; ranging from 2.5 million year old hand-axes to 100 year old churchyards.

The Great Escarpment and surrounding areas form part of what is generally known as the Bushveld basin and the Lowveld. This area is comprised out of Highveld, Escarpment, Lowveld and Bushveld areas. The Great Escarpment separates the Highveld and Bushveld areas from the Lowveld. The area is characterized by a mountainous landscape forming the escarpment. The landscape evens out further east towards the Kruger National Park, becoming broken plains. Various large rivers including the Sabie, Crocodile, Olifants and Komati Rivers course through this area.

The area under investigation is located in Schoemanskloof on the banks of the Buffelkloofspruit, a tributary of the Crocodile River. This area is situated in the summer rainfall zone of South Africa and the annual rainfall varies from 400 to 500mm in the low-lying areas, and up to 1500mm in the higher foothills of the Drakensberg on the escarpment. The survey area was divided into four broad sections: 1) mountain/hilltop, 2) mountain slope, 3) valley and 4) agricultural lands. This division was arbitrary based on geographical location and land use. Each section was surveyed separately.

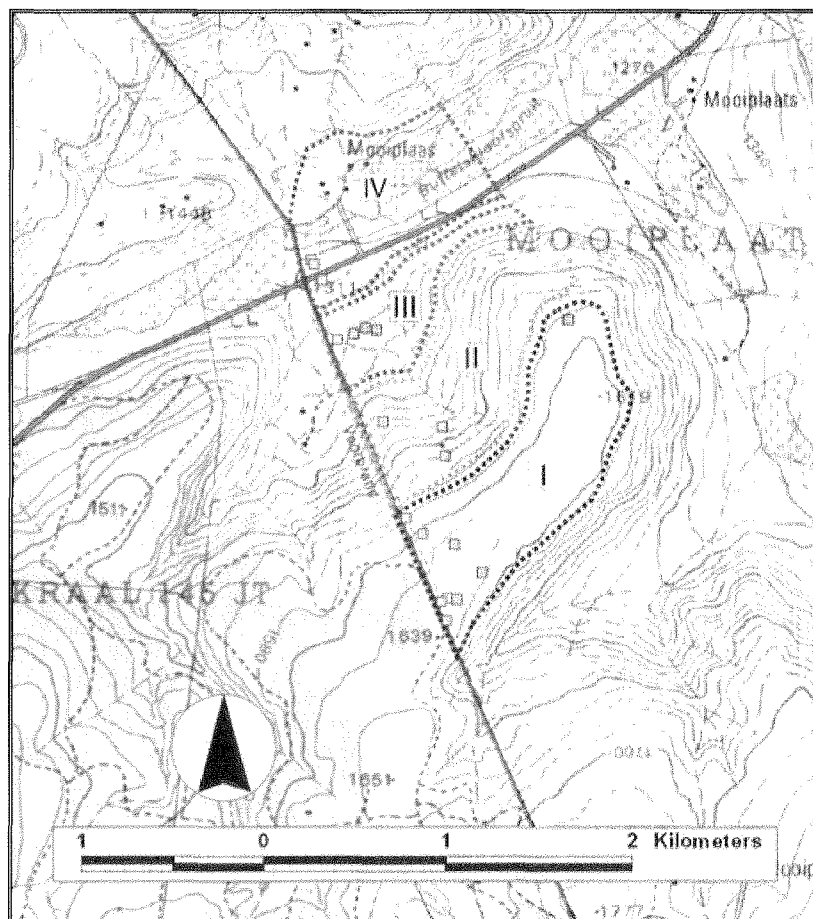


Figure 2: Detail map indicating areas surveyed

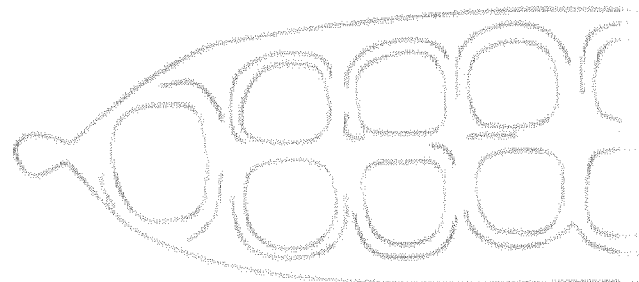
The mountain/hilltop (section 1) mainly consists of grassland with denser tree and shrub growth inside the stone wall structures. A small rock outcrop exists at the north-eastern side of this section. The area is bordered on the west by SAPPI pine plantations. The southern and western extents slope steeply into two river valleys. The third of section 1 towards the north-east is characterised by short cliff faces below small, flat false plateaus that end at a non-perennial fountain. From there it slopes steeply towards the north.

The mountain slope (section 2) covers the entire northern slope of the mountain. The slope consists of natural terraces ranging from less than five meters to approximately twenty meters, interspersed with fairly steep gradients. This section is bordered on the west by the SAPPI plantation and on the east by a river valley and mountain slope. Section 2 is characterised mainly by mixed grass and woodland, especially *Acacia*, *Cussonia* and *Aloe* species.

The valley (section 3) is bound by a river valley and the SAPPI plantation in the west, the lower mountain slopes in the south and east, and a game fence in the north. The game fence also indicates the beginning of disturbed, agricultural land. The valley is characterised by erosion gulleys, non-perennial streams, and mainly woodland and riverine type vegetation typified by *Acacia sp.*

The agricultural lands (section 4) lie immediately north of the above mentioned game fence in the valley. It extends to the N4 highway, which intersects this section, and continues to the slopes of the mountains north of the N4. The vegetation is mixed grassland, indigenous and exotic trees, and cultivated soils. All present residential and agricultural structures are located in section 4.

The study area comprises several archaeologically significant periods: Middle and Late Stone Age, Late Farmer, hunter-gatherer, and historical European and African expansion. Previous research in the region have been done by Van Hoepen (1939), Maggs (1995; 2007) Schoeman (1998a; 1998b), Delius (1983) and others. The first mention of rock art research in the province dates to 1918 and so far 400 rock art sites have been recorded in the province; primarily in the northern and eastern parts of the province (Lydenburg, Nelspruit, Nsikazi, Witbank, White River Districts and the Kruger National Park – see Murray & Schoonraad 1965; Schoonraad & Schoonraad 1975; Smith & Zubieta 2006; Tracey 1956).



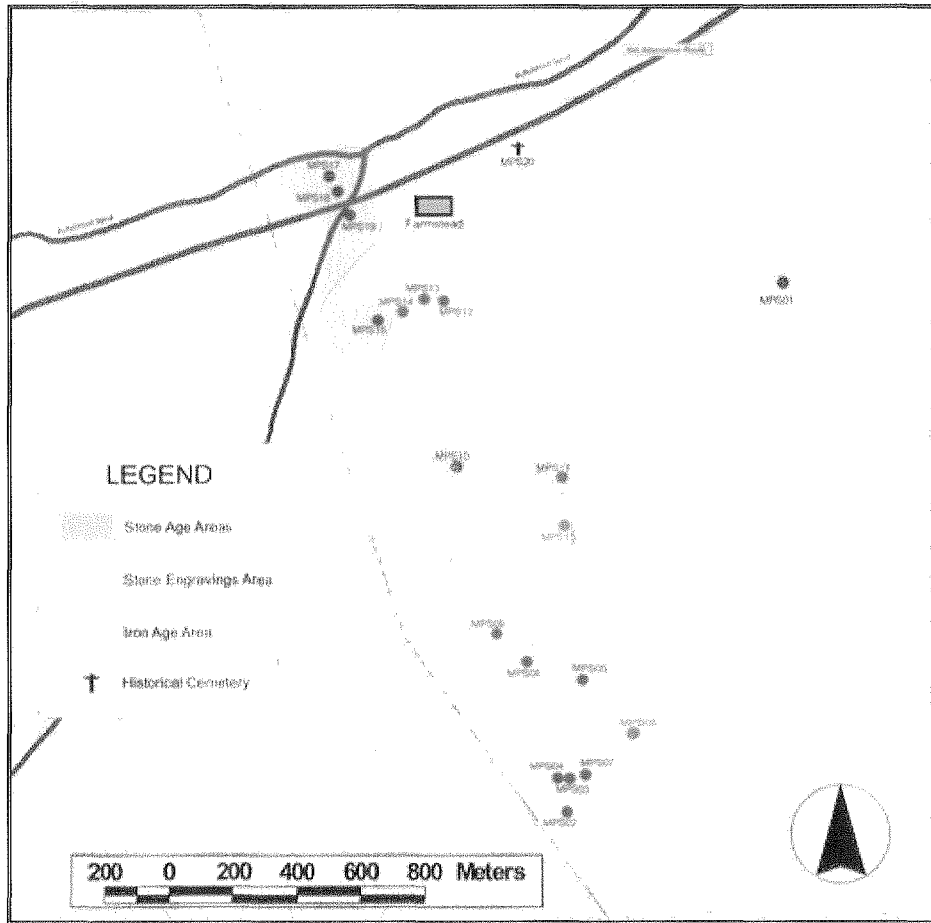
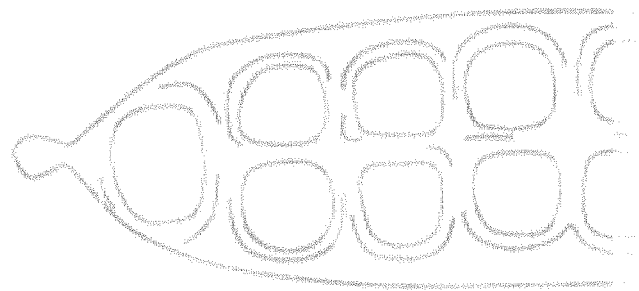


Figure 3: Map indicating major heritage resources areas



5. METHODOLOGY

A team of three professional archaeologists (Johan Nel, Neels Kruger and Dr Sven Ouzman) undertook pedestrian surveys in all four sections of the property (refer to Area Background) between 31 May and 4 June 2007. The survey was conducted over a period of four days. Approximately 70% of the total property area was covered by the survey during this period. The remaining 30% included areas not affected by the proposed development, the residential area and inaccessible areas on steep slopes and densely vegetated valleys.

Section 1: Mountain/hilltop

The main part of the proposed urban development will be on the mountain top. This area was surveyed in transects starting at the south-western corner of the property. These transects were oriented approximately east-west, between the eastern, southern and western boundary fences. Each transect was approximately 20 meters from the previous.

Visibility was limited in places due to long grass. However, the large stone wall structures were obvious, as well as several other similar structures that may have been robbed at some stage by successive occupants of the area, as evidenced by the lack of definitive walling and the general preservation of the sites.

Robbing of stone walls occurs in several ways and periods. Stones in walls are often re-used by successive occupants of sites. These "robbers" may be the same groups who had originally built the stone walls and who, for various reasons moved from one stonewalled complex to build another within a short period of time. The "robbers" may also be totally different groups of stone wall builders that come into an area and simply use the existing stonewalls to construct walls typical to their group. This is similar to historic and more recent robbing of stone wall complexes by farmers in order to build cattle kraals, houses, dams and other structures. However, although the robbing of walls are part of the archaeological history and forms important "layered histories" of sites, it is illegal to alter, destroy or damage any archaeological site or structure without permission from the relevant authorities.

Section 2: Mountain slope

According to the original brief, several units will also be developed on parts of the northern slope. This slope was surveyed along its natural contours. The majority of engravings were located on the more accessible parts of the slope. The inaccessible and steep contours of the slope as far as

possible, although no development is to take place on these gradients. Visibility was limited due to long grass and steep gradients hindered survey.

Section 3: Valley

The valley south of the N4 highway was surveyed according to possible localities of heritage resources. This area will become the main access route to the mountain top development. Attention was paid to natural water courses, erosion gulleys and pits, and plant growth.

The valley had a fairly high visibility due to grazing activities.

Section 4: Agricultural lands

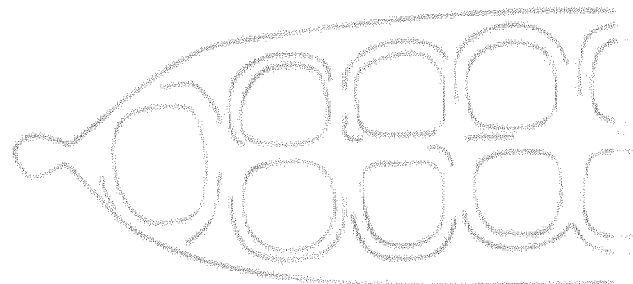
The proposed filling station will be situated in the agricultural lands either north or south of the N4 highway. Both fields were surveyed in transects, spaced approximately 10 – 20 meters.

Visibility was limited due to grass and weeds, the fields also seemed to have been tilled fairly recently.

All visible heritage resources were recorded with a Garmin Etrex GPS, using the WGS 84 datum. Three sites were initially indicated to the survey team by the landowners. These were two stonewalled sites and one large boulder with rock engravings.

During this survey areas specifically marked by flags were concentrated on, as this was indicated by the landowner as areas where development will take place. Heritage resources that occurred within these localities were deemed to be at risk and subsequently identified thus.

No material culture was collected and removed from the farm, as no permit was requested to undertake surface collecting.



SITE DESCRIPTIONS

MPS 003

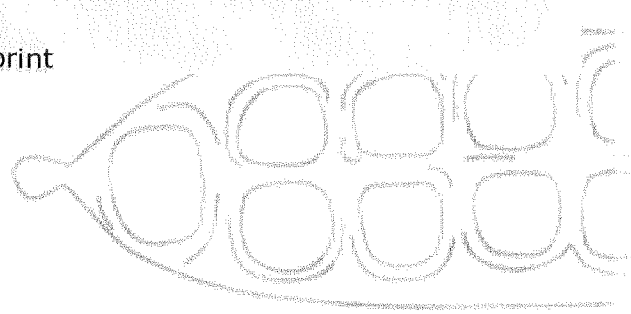
Site number	MPS 003	GPS (Garmin Etrex Legend, WGS 84)	S25°29'03.38"	E30°24'32.20"
Estimated size	N/A	Site type	Farmer rock engravings	
Site Category	Agricultural	Context	Primary	

Statement of significance (0-5; 0=none, 5=high) Total: 3.9 (78%)

Rating	Reason	
A	5	The rock engravings found on Mooiplaats represent unique, under-researched heritage resources relating to the past 500 years of southern African history in general and in Mpumalanga specifically.
B	5	Although these engravings are not uncommon, rare or endangered, sufficiently little is known regarding the use, spread and interpretation of such engravings. Engravings of late farmers may contribute significantly to the understanding of southern Africa cultural heritage, specifically in Mpumalanga concerning more accurate hypotheses regarding the Pedi empire and the role of the Koni in this province.
C	5	These engravings occur in relation to late farmer settlements. The exact relationship between the engravings and the landscape has yet to be identified.
D	4	The engravings seen as a certain artistic representation of the landscape may be important to various communities and/or cultural groups.
E	5	As two-dimensional representations of a landscape, a high degree of technical creativity is present.
F	5	Although little is known about the cultural affinity of these engravings, they do represent strong associations with late farmer communities. The reasons for these associations are still being researched.
G	5	Due to the age and anonymity of these engravings, they cannot be associated with any specific person or group.
H	0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, the age of these engravings, as well the abstract context thereof does not contribute to an understanding of slavery in South Africa.
I	1	
=	35	

Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	
	Local	III B	High, mitigation possible with retention of parts	✓
	Generally Protected A	IV A	High/medium, mitigated before destruction	✓
	Generally Protected B	IV B	Medium, recorded before destruction	
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	None, other than the two engraved stones
Cultural affinities	Late Farmer
Burials/graves	None
Threats/risks	In proposed residential unit footprint



SITE DETAIL

Located about 40m SE of the Sappi road entrance gate on top of the hill overlooking the Mooiplaats farm are two engraved rocks immediately next to each other (Figures 4 & 5) on the edge of an archaeological terraced field. These rock engravings are placed among a cluster of large, natural andesite rocks, some of which have been used as grinding / food preparation surfaces as well as parts of a stone wall that has been robbed. There are no surface finds of artefacts such as pottery, stone tools, metal etc. near these engravings. On a bearing of 340° from these engravings on the opposite valley slope at least three stonewalled settlement complexes are visible.



Figure 4: General view of site MPS 003 rock engravings.
MPS 002 can be seen at the top right



Figure 5: Detail of MPS 003, with the engraved stones in the foreground

MPS 008

Site number	MPS 008	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 38.15"	25°28' 58.75"
Estimated size	N/A	Site type	Farmer rock engravings	
Site Category	Settlement/ agricultural	Context	Primary	

Statement of significance (0-5; 0=none, 5=high) Total: 3.9 (78%)

Rating	Reason
A 5	The rock engravings found on Mooiplaats represent unique, under-researched heritage resources relating to the past 500 years of southern African history in general and in Mpumalanga specifically.
B 5	Although these engravings are not uncommon, rare or endangered, sufficiently little is known regarding the use, spread and interpretation of such engravings. Engravings of late farmers may contribute significantly to the understanding of southern Africa cultural heritage, specifically in Mpumalanga concerning more accurate hypotheses regarding the Pedi empire and the role of the Koni in this province.
C 5	These engravings occur in relation to late farmer settlements. The exact relationship between the engravings and the landscape has yet to be identified.
D 4	The engravings seen as a certain artistic representation of the landscape may be important to various communities and/or cultural groups.
E 5	As two-dimensional representations of a landscape, a high degree of technical creativity is present.
F 5	Although little is known about the cultural affinity of these engravings, they do represent strong associations with late farmer communities. The reasons for these associations are still being researched.
G 5	Due to the age and anonymity of these engravings, they cannot be associated with any specific person or group.
H 0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, the age of these engravings, as well the abstract context thereof does not contribute to an understanding of slavery in South Africa.
I 1	
= 35	

Field rating

Type	Grade	Significance	
National	I	Very high, no mitigation	✓
Provincial	II	Very high, no mitigation	
Local	III A	High, heritage register site, mitigation not advised	
Local	III B	High, mitigation possible with retention of parts	✓
Generally Protected A	IV A	High/medium, mitigated before destruction	✓
Generally Protected B	IV B	Medium, recorded before destruction	
Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts

None, other than the engraved stones

Cultural affinities

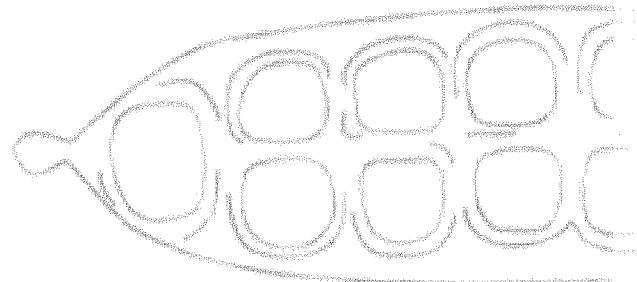
Late Farmer

Burials/graves

None

Threats/risks

In footprint of proposed residential unit



SITE DETAILS

Located almost 100m east of MPS 003, is a solitary engraved rock that seems to have been moved from elsewhere and been incorporated into a long, low stone wall made up of single stones placed on their sides. The line of this wall ends close to the gravel pit/dam excavated to the south of the largest stone-walled site on the hilltop. Quite close to the game fence and overlooking the kloof and waterfall to the SE.

Engraving 1: MPS 008

A 610mm x 410cm triangular sandstone-like dolerite rock, resting flat on the ground. The rock's main facet, as well as a smaller side facet, is engraved with a series of meandering engraved lines (Figures 10 & 11). This rock shows considerable erosion, weathering and cracking.

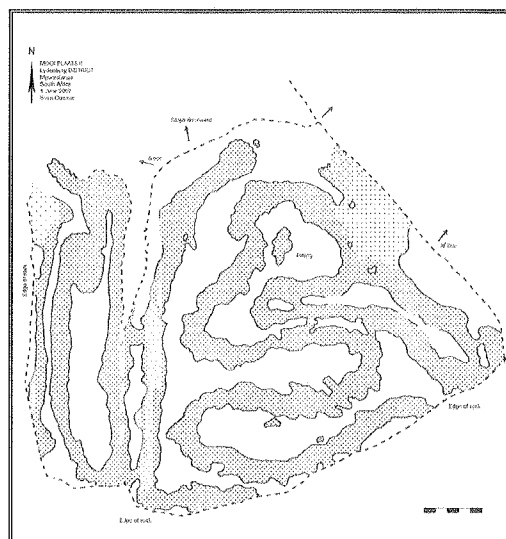
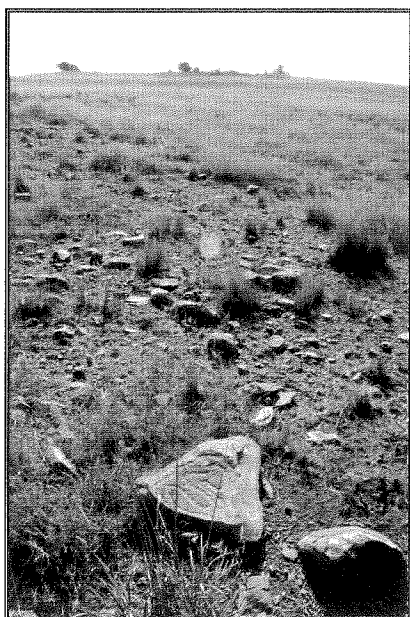
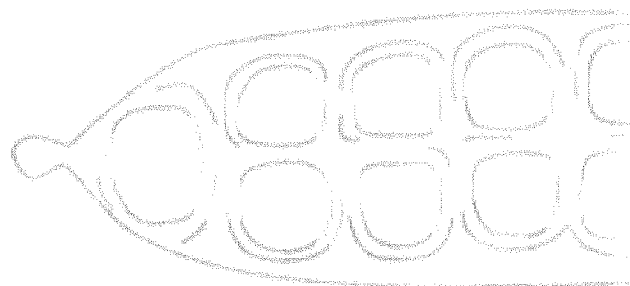


Figure 10: Photograph of Engraving 1, MPS 008 Figure 11: Tracing of Engraving 1, MPS 008



MPS 010

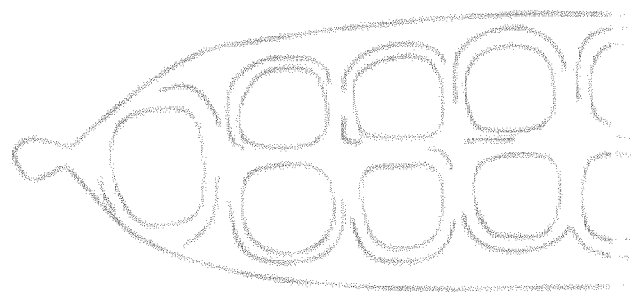
Site number	MPS 010	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 20.74"	25°28' 32.20"
Estimated size	N/A	Site type	Farmer rock engravings	
Site Category	Open	Context	Primary	

Statement of significance (0-5; 0=none, 5=high) Total: 3.8 (78%)

Rating	Reason
A	5
B	5
C	5
D	4
E	5
F	5
G	5
H	0
I	1
=	35

Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	✓
	Local	III A	High, heritage register site, mitigation not advised	✓
	Local	III B	High, mitigation possible with retention of parts	
	Generally Protected A	IV A	High/medium, mitigated before destruction	
	Generally Protected B	IV B	Medium, recorded before destruction	
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/ Ecofacts	None, other than the two engraved stones
Cultural affinities	Late Farmer
Burials/graves	None
Threats/risks	Main access route to mountain top cuts through site. Some engraved rock already damaged.



SITE DETAIL

This site is located on either side of the zigzag contour road leading from the Mooiplaats farmhouse to the hilltop (figure 6). The *platboom* or 'flat tree' marks the eastern extremity of a site complex that consists of at least 50 engraved rocks (Figure 7) – the grass was very thick during surveying so it is almost certain more engraved rocks will be located. The area of engravings extends to the western boundary fence, at least 80m above the road and 35m below the road. The rock here is a much finer-grained dolerite than the granitic rock on most parts of the farm. The engraved rocks range from small 300mm x 150mm rocks at ground level to large rocks up to 1.8m long and 500mm across. These rocks bear a variety of images that are variations on a theme – solid and outline circles, meandering lines, circles with short, bent lines coming out of them, and so forth. On one of the two large upright rocks above the road is an engraving on a vertical surface, comprising circles connected by lines. The site complex exhibits considerable variation with a larger, coarser pecking technique evident in the eastern section, grading into a smaller, finer peck with more emphasis on circles to the west.

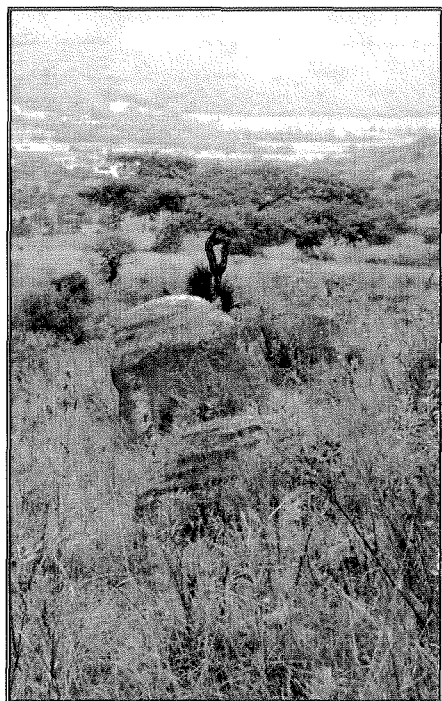


Figure 12: Views to the north of MPS 010

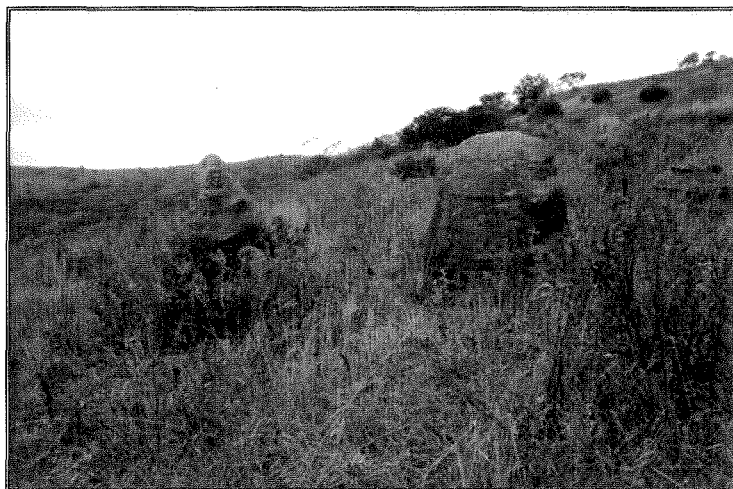
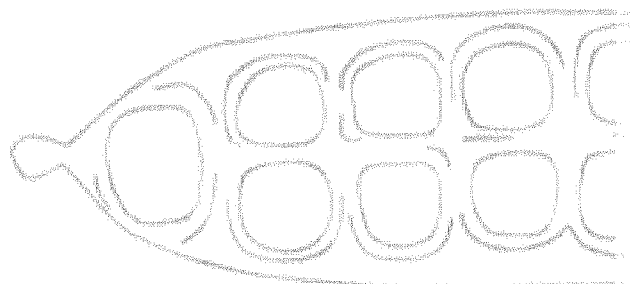


Figure 13: Views to the east of MPS 01025



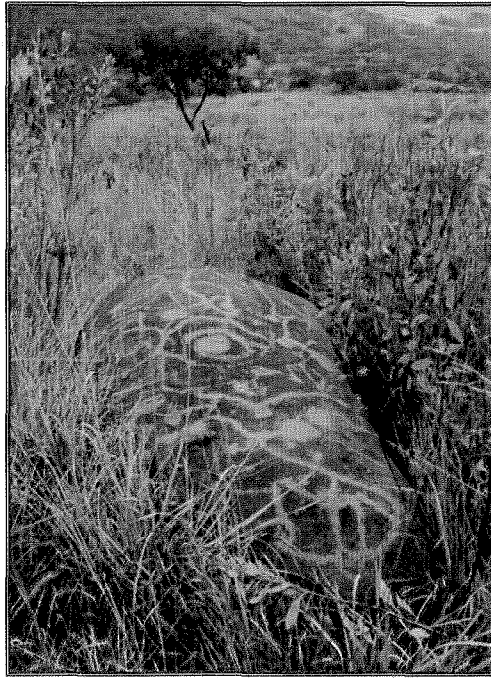


Figure 14: Detail photograph of rock with engraving from MPS 10

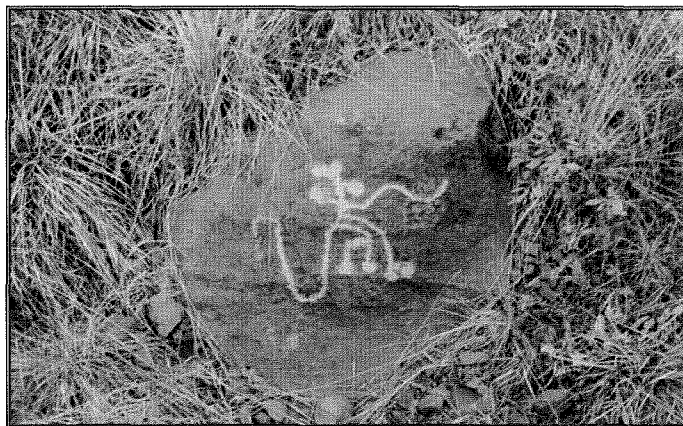
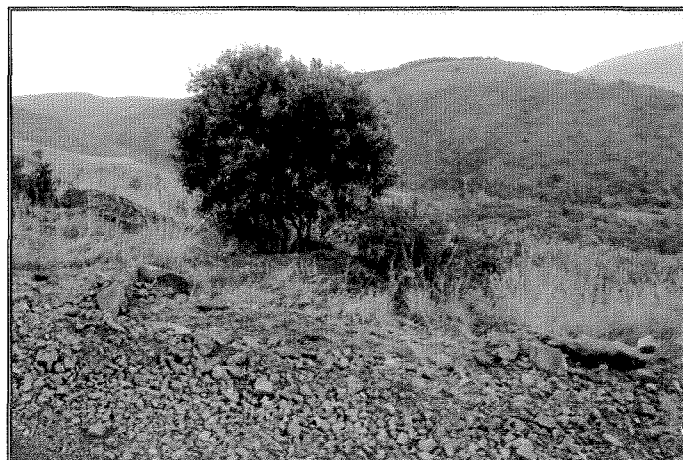


Figure 15: Detail of engraving at MPS 10



Figures 16: General view MPS 10, detailing road damage

MPS 011

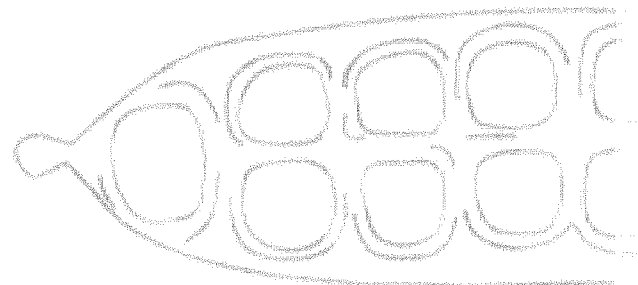
Site number	MPS 011	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 20.74"	25°28' 32.20"
Estimated size	N/A	Site type	Farmer rock engravings	
Site Category	Open	Context	Primary	

Statement of significance (0-5; 0=none, 5=high) Total: 3.9 (78%)

Rating	Reason
A	5 The rock engravings found on Mooiplaats represent unique, under-researched heritage resources relating to the past 500 years of southern African history in general and in Mpumalanga specifically.
B	5 Although these engravings are not uncommon, rare or endangered, sufficiently little is known regarding the use, spread and interpretation of such engravings. Engravings of late farmers may contribute significantly to the understanding of southern Africa cultural heritage, specifically in Mpumalanga concerning more accurate hypotheses regarding the Pedi empire and the role of the Koni in this province.
C	5 These engravings occur in relation to late farmer settlements. The exact relationship between the engravings and the landscape has yet to be identified.
D	4 The engravings seen as a certain artistic representation of the landscape may be important to various communities and/or cultural groups.
E	5 As two-dimensional representations of a landscape, a high degree of technical creativity is present.
F	5 Although little is known about the cultural affinity of these engravings, they do represent strong associations with late farmer communities. The reasons for these associations are still being researched.
G	5 Due to the age and anonymity of these engravings, they cannot be associated with any specific person or group.
H	0 Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, the age of these engravings, as well the abstract context thereof does not contribute to an understanding of slavery in South Africa.
I	1
=	35

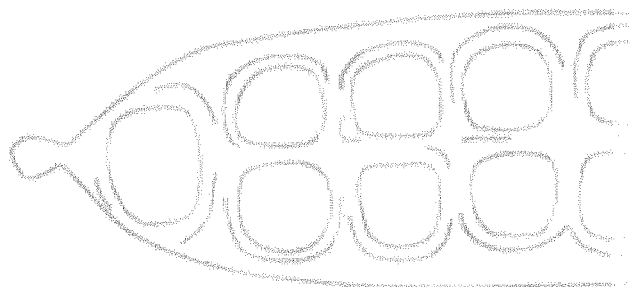
Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	✓
	Local	III B	High, mitigation possible with retention of parts	
	Generally Protected A	IV A	High/medium, mitigated before destruction	
	Generally Protected B	IV B	Medium, recorded before destruction	
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/ Ecofacts	None, other than the engraved boulder
Cultural affinities	Late Farmer
Burials/ graves	None
Threats/risks	None



SITE DETAILS

This site is located on the northern slope of the mountain, facing the homestead (figure 16). This site comprises of a single large, freestanding rock, approximately 300m west of site MPS 010. Survey in and around the immediate area did not reveal any more engravings. However, the site was located in fairly dense vegetation that hampered detailed survey. This area is also not at risk due to the proposed development.



STONE-WALLED SITES

MPS 002

Site number	MPS 002	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 31.94" 25°29' 07.24"
Estimated size	c. 100m	Site type	Stone wall and terraces
Site Category	Residential & agricultural	Context	Primary, with possible secondary disturbance.

Statement of significance (0-5; 0=none, 5=high) Total: 3.3 (67%)

	Rating	Reason
A	4	These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B	3	Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C	5	These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D	5	The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E	5	These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F	5	Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G	3	These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H	0	Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I	0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
=	30	

Field rating	Type	Grade	Significance	
National		I	Very high, no mitigation	✓
Provincial		II	Very high, no mitigation	
Local		III A	High, heritage register site, mitigation not advised	
Local		III B	High, mitigation possible with retention of parts	✓
Generally Protected A		IV A	High/medium, mitigated before destruction	
Generally Protected B		IV B	Medium, recorded before destruction	
Generally Protected C		IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	Several potsherds, upper and lower grinding stones found on surface
Cultural affinities	Late farmer, possibly of Koni or Pedi origin.
Burials/graves	None identified
Threats/risks	Close to one of the residential units. The associated terraces will be destroyed during construction. The stonewalls will in all probability be damaged.

SITE DETAIL

This site is located at the south-western corner of the property, overlooking a deep valley to the south. A Sappi pine plantation exists immediately west of the site, with evidence of more stone walling in the plantation. Fence roads/firebreaks are present alongside the fences, and have possibly disturbed part of the site. The site comprises of both stone wall enclosures and low terraces. Most of the stonewalls are overgrown and large *Cussonia sp.* grow in and next to the walls. The wall heights range from 120cm to 50cm where these are broken. As a whole the stonewalls are in fairly good preservation.

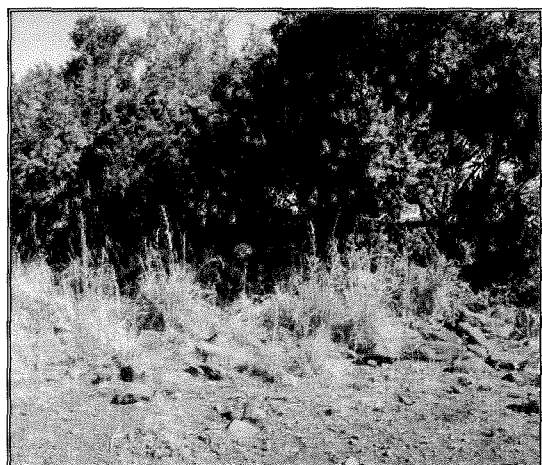


Figure 17: View of MPS 002

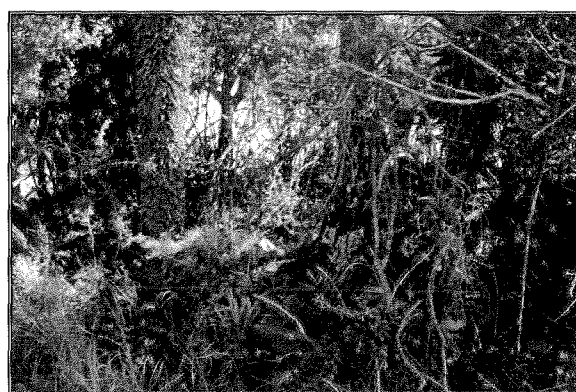


Figure 18: Detail of walling and vegetation at MPS 002

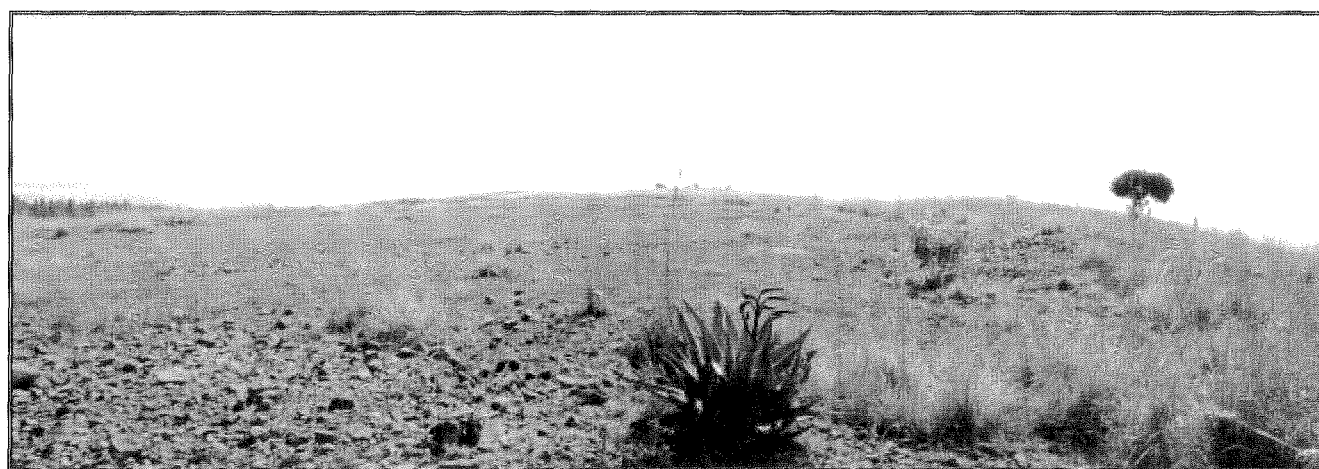


Figure 19: View to the north from MPS 002. Note the stones in the foreground that may be possible remains of wall foundations. MPS 004 can be seen in centre left

The complex consists of several enclosures (Figure 20). The central, circular enclosure (Enclosure 1) measures approximately 12.5m by 11.1m. An entrance of 2.4m is visible in the northern wall, with a short wall abutting this enclosure at the entrance. Two other enclosures scallop out of this

central enclosure on the northern side. The smaller (Enclosure 2) measures approximately 5m by 5.5m, with an entrance into the second and larger enclosure (Enclosure 3), close to the entrance to Enclosure 1. Enclosure 2 is almost circular, whilst Enclosure 3 has a semi-circular outside wall. The inner walls are shared with the Enclosure 1. Enclosure 3 measures 6.6m from the abutment east, and 9.7m north-south.

Two large walls extend from Enclosure 2's outer wall, almost inline with Enclosure 1's entrance. One wall forms about three quarters of a circle to the west. The other wall forms about half a circle to the east. Both these walls have been destroyed by the fence roads/firebreaks on the east and south of the site. Two large elongated heaps of smallish stones separate the walls from terraces immediately to the north. These are possibly foundation remnants of a large outer wall around the described enclosures.

The terraces are very low, allowing a drop of approximately 10cm after each retaining wall. The retaining walls are made of rows of stones packed along natural contours, and extend towards the north. There are between ten and fifteen terraces between the stonewalls and the robbed walls of MPS 004.

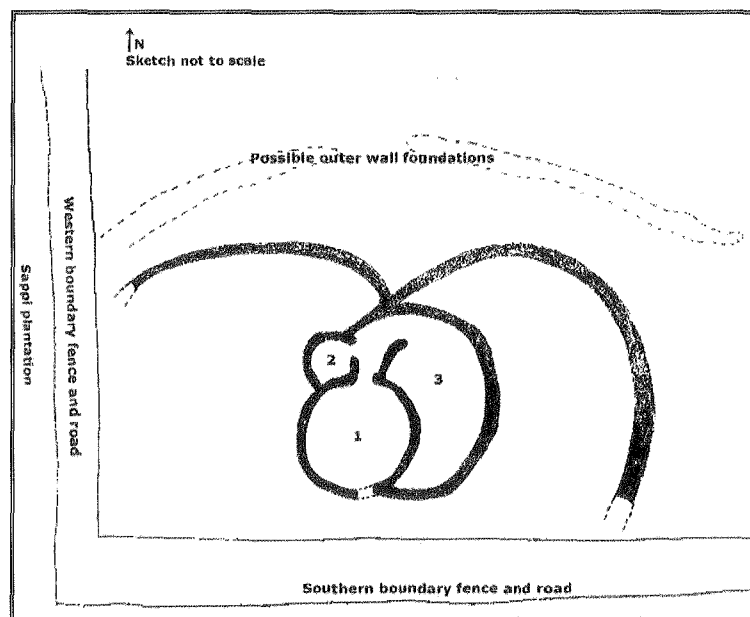
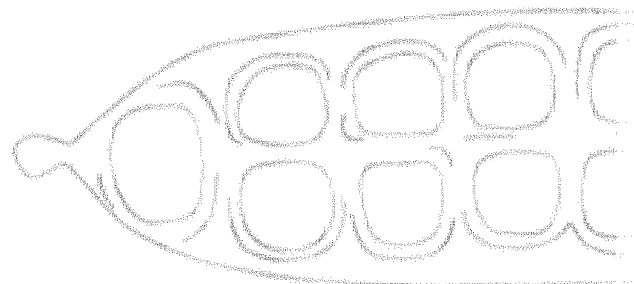


Figure 20: Sketch map indicating major enclosures



MPS 004

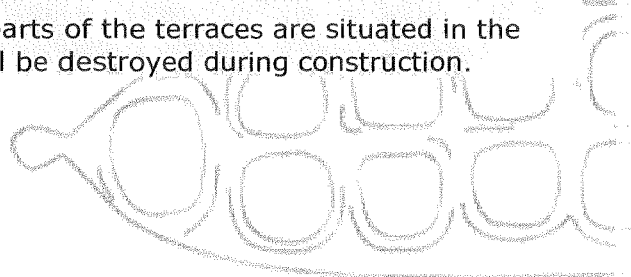
Site number	MPS 004	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 31.04"	25°29' 03.95"
Estimated size	c. 100 – 150m	Site type	Robbed stonewalls and terraces	
Site Category	Residential & agricultural	Context	Secondary, with some primary remains.	

Statement of significance (0-5; 0=none, 5=high) Total: 3.0 (60%)

Rating	Reason
A 3	These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B 3	Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C 5	These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D 5	The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E 3	These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F 5	Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G 3	These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H 0	Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I 0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
= 27	

Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	
	Local	III B	High, mitigation possible with retention of parts	
	Generally Protected A	IV A	High/medium, mitigated before destruction	
	Generally Protected B	IV B	Medium, recorded before destruction	✓
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	Few ceramic potsherds, some MSA and LSA flakes
Cultural affinities	Late farmer, possible of Koni or Pedi origin.
Burials/graves	None identified
Threats/risks	The stone wall foundations and parts of the terraces are situated in the development footprint. These will be destroyed during construction.



SITE DETAIL

This site is located approximately 200m south of MPS 002. Parts of the walls have been destroyed by the western boundary fence road. The site comprised mainly of robbed stonewalls and rows of double packed stone. It is unclear whether the terraces found around the site can be associated with this or with MPS 002. The area has been intensively grazed and most walls and foundations could be clearly identified. The two engraved rocks are situated approximately 50m away, due east of the site. The wall heights ranged from about 80cm to less and comprised almost exclusively of the lower foundation stones and small stone fill. The site further seems to continue west of the boundary fence, into the Sappi plantation.

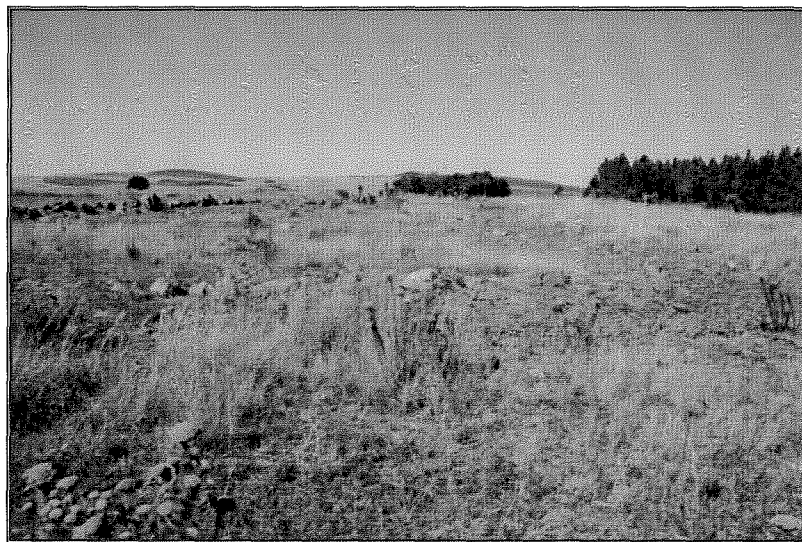


Figure 21: General view south of MPS 002. The outer perimeter wall can be seen, as well as the robbed central enclosure. MPS 002 is in the background



Figure 22: View towards the north-west of MPS 004.

The row of stones in the centre is part of the outer perimeter wall

MPS 004 was characterised by a small central enclosure, approximately 6m in diameter (figure 23). Three walls abutted this enclosure, two of which joined to the outer perimeter wall. Due to

the dilapidated nature of this site it was difficult to determine the exact shapes of walls and the existence of any entrances. At least five double rows of packed stone could be discerned around the main circular stone wall. At least one of these abutted the main wall. These are possibly the only visible remains of stone wall foundations of which the fill has either washed away or been robbed. The material may have been used in constructing parts of MPS 002 and/or MPS 005. A low retaining terrace wall existed from the approximate eastern centre of the outer perimeter wall to a row of double packed stones.

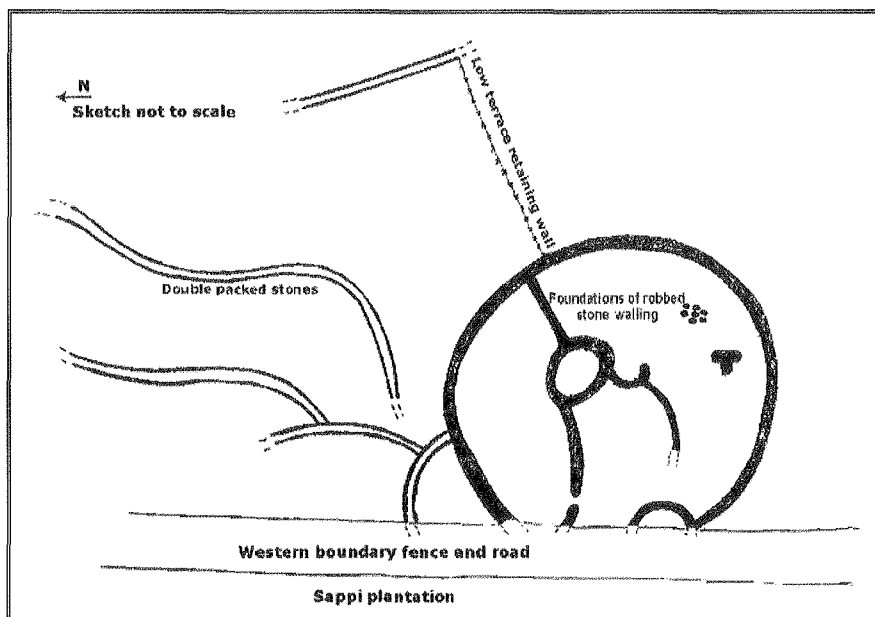


Figure 23: Sketch map of MPS 004, detailing robbed walls and double rows of stone

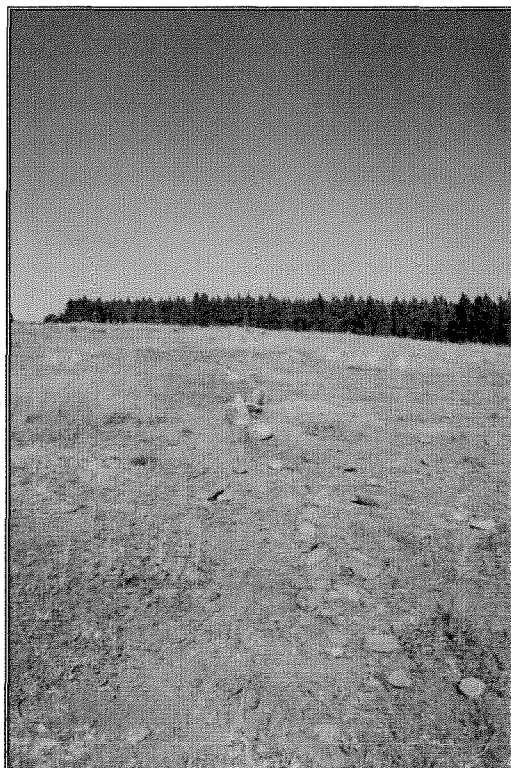


Figure 24: Detail of double rows of stone.



Figure 25: Detail of double rows of stone

MPS 005

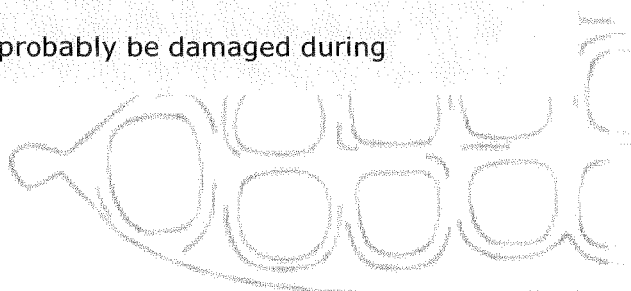
Site number	MPS 005	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 33.45"	25°28' 53.82"
Estimated size	c. 50m x 20m	Site type	Stonewalls and terraces	
Site Category	Residential & agricultural	Context	Primary	

Statement of significance (0-5; 0=none, 5=high) Total: 3.4 (69%)

Rating	Reason
A 4	These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B 4	Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C 5	These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D 5	The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E 5	These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F 5	Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G 3	These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H 0	Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I 0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
=	31

Field rating Type	Grade	Significance	
National	I	Very high, no mitigation	✓
Provincial	II	Very high, no mitigation	
Local	III A	High, heritage register site, mitigation not advised	✓
Local	III B	High, mitigation possible with retention of parts	
Generally Protected A	IV A	High/medium, mitigated before destruction	
Generally Protected B	IV B	Medium, recorded before destruction	
Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	No material culture found
Cultural affinities	Late farmer, possibly of Koni or Pedi origin.
Burials/graves	None identified
Threats/risks	Within residential units. Site will probably be damaged during development.



SITE DETAIL

This site is located approximately 300m north-east of MPS 004, above a natural terrace on the northern slope of the mountain. This terrace has been reinforced with stone retaining walls ranging between 80cm to 120cm. These walls followed the natural contours of the slope, forming a possible passage for cattle to the main stonewalled area. The site was heavily overgrown, but the walls were in very good repair. The walls averaged a height of about 100cm to 120cm. The approximate size of the walled enclosure was 20m north-south and 30, east-west. Some terracing was evident, but due to the dense grass no indication of the size or orientation could be made.

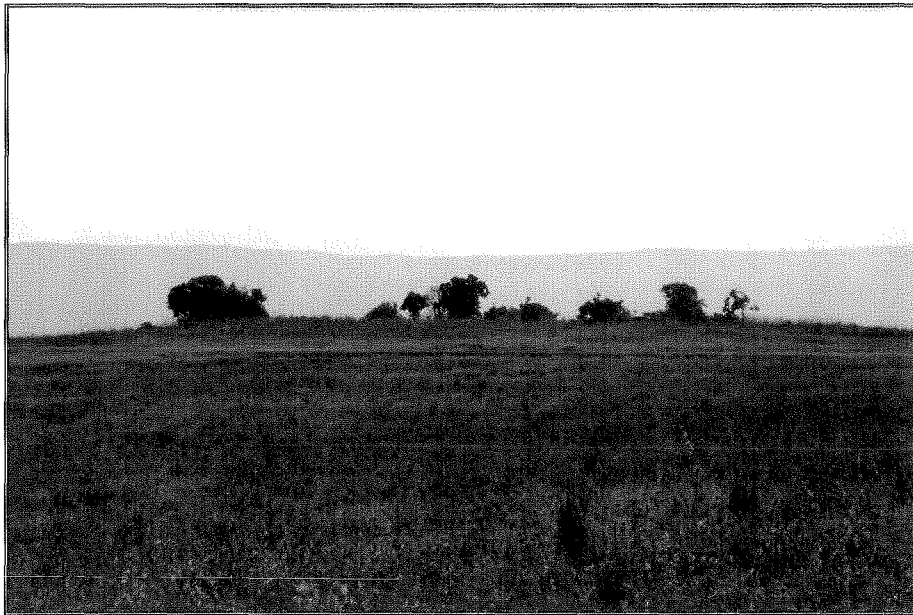


Figure 26: General view from MPS 004 towards MPS 005

The walling followed the typical "wagon-wheel" design prevalent in the Mpumalanga escarpment region (figure 27), with a probable entrance in the southern centre of the outer wall. A total of twelve enclosures were identified within the outer perimeter wall. A central circular enclosure with two possible entrances was identified (1). Six enclosures were placed around (1), enclosures (2) and (3) both were connected to (1) by narrow entrances. No definite entrances could be seen in the remaining four enclosures.

The whole enclosure was bisected approximately north-south by stonewalls in the eastern and western halves that created enclosures (8) and (9). Both (8) and (9) were further divided in the west by stonewalls that connected the outer perimeter wall with the inner complex. A very small enclosure was found in enclosure (10), joining (5). Two short walls that abutted (5) and (7) respectively could also be seen. Remains of a possible wall that would have abutted (3) and the perimeter wall were also found.

No material culture of any sort could be identified due to the overgrowth.

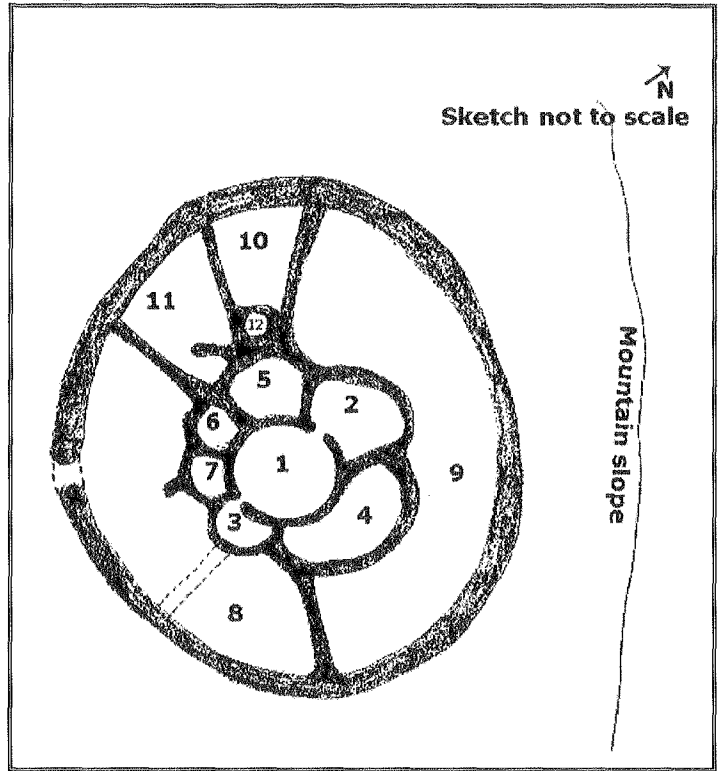
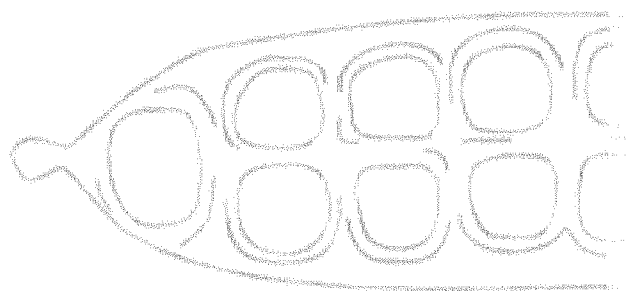


Figure 27: Sketch map of MPS 005, indicating separate enclosures



MPS 006

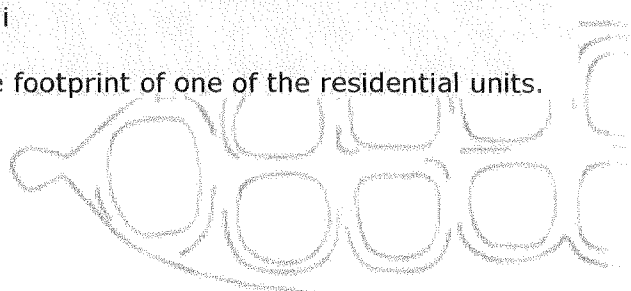
Site number	MPS 006	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 27.82"	25°28' 52.00"
Estimated size	c. 20m from centre	Site type	Stonewalling & terraces	
Site Category	Residential & agricultural	Context	Secondary	

Statement of significance (0-5; 0=none, 5=high) Total: 3.2 (64%)

Rating	Reason
A	3 These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B	3 Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C	5 These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D	5 The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E	5 These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F	5 Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G	3 These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H	0 Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I	0 Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
=	29

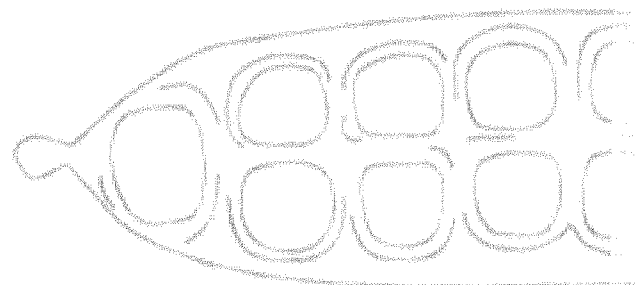
Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	
	Local	III B	High, mitigation possible with retention of parts	
	Generally Protected A	IV A	High/medium, mitigated before destruction	✓
	Generally Protected B	IV B	Medium, recorded before destruction	✓
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	None identified
Cultural affinities	Late farmer, possibly Pedi or Koni
Burials/graves	None identified
Threats/risks	The site is situated directly in the footprint of one of the residential units.



SITE DETAIL

Situated north-west below MPS 005 on a natural terrace, the site comprised of some stonewalling and agricultural terraces. The stonewalling seems to have been disturbed. Intensive grazing had occurred leaving most of the wall remains clearly visible. No material culture was found on the surface, and no definite deposit could be identified.



MPS 007

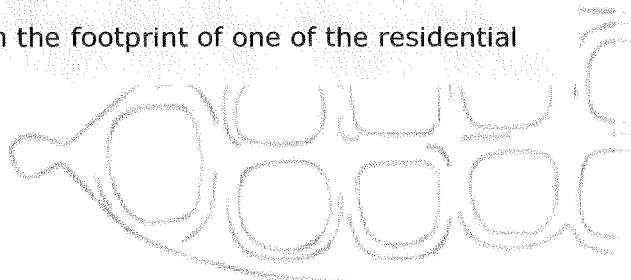
Site number	MPS 007	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 33.75"	25°28' 03.45"
Estimated size	c. 50m in diameter	Site type	Stonewalling & terraces	
Site Category	Residential	Context	Primary or secondary	

Statement of significance (1-5; 1=low, 5=high) Total: 3.2 (64%)

Rating	Reason
A 3	These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B 3	Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C 5	These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D 5	The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E 5	These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F 5	Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G 3	These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H 0	Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I 0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
=	

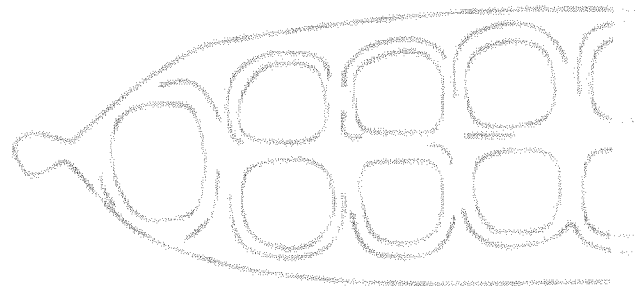
Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	
	Local	III B	High, mitigation possible with retention of parts	
	Generally Protected A	IV A	High/medium, mitigated before destruction	✓
	Generally Protected B	IV B	Medium, recorded before destruction	✓
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	No material culture found on surface
Cultural affinities	Late farmer, possibly Koni or Pedi
Burials/graves	None identified
Threats/risks	The site is situated directly within the footprint of one of the residential units.



SITE DETAIL

The site is situated approximately 50m east of MPS 002 and MPS 004 (stonewalled sites), and MPS 003 (engraving site). The entire site was overgrown with dense grass. The walls could only be seen in parts, and then only a few stones were visible. Some terracing could also be identified in the grass. No definite outlines of enclosures could be seen, other than the outer perimeter and inner enclosure. A long row of stones, possibly foundations of a very large outer wall, extended eastwards parallel to the southern boundary fence. The single engraved stone (MPS 008) was found in this row and may be associated with the site.



MPS 009

Site number	MPS 009	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 24.85"	25°28' 49.20"
Estimated size	c. 50m in diameter	Site type	Stone wall	
Site Category	Residential	Context	Primary	

Statement of significance (1-5; 1=low, 5=high) Total: 3.3 (67%)

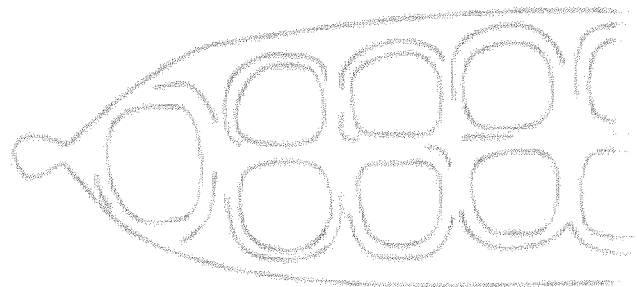
Rating	Reason
A 4	These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B 3	Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C 5	These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D 5	The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E 5	These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F 5	Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G 3	These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H 0	Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I 0	Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
∑ 30	

Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	
	Local	III B	High, mitigation possible with retention of parts	✓
	Generally Protected A	IV A	High/medium, mitigated before destruction	✓
	Generally Protected B	IV B	Medium, recorded before destruction	
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	No material culture found on surface
Cultural affinities	Late farmer, possibly Koni or Pedi
Burials/graves	None identified
Threats/risks	No immediate threats exist as the site is situated on a fairly steep gradient outside the development footprint. However, increased activity resulting from the proposed development may cause indirect threats and/or risks.

SITE DETAIL

The site is situated close to the western boundary fence at the edge of a the Zondagskraal river valley. The vegetation was extremely dense and only the most prominent walls could be seen. The layout conformed to the general layout of sites in the area with a central stone wall enclosure from which various other enclosures originate. The site continues across the western fence into Sappi property.



MPS 015

Site number	MPS 015	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 31.62"	25°28' 38.20"
Estimated size	c. 20m in diameter	Site type	Stonewalls & terraces	
Site Category	Residential & agricultural	Context	Primary	

Statement of significance (1-5; 1=low, 5=high) Total: 3.3 (67%)

Rating	Reason
A	4 These sites are significant in an understanding of southern African history over the last 500 years in terms of new research being undertaken on late farmer archaeology.
B	3 Although these stonewalled sites are not unique, they represent an important part in the understanding of southern African late farmer history in the past 500 years, especially as new and more updated research are being done on these sites.
C	5 These types of sites may yield significant information based on new research and new understandings of the archaeology and history of southern Africa.
D	5 The sites represent principal characteristics of classes of southern African cultural heritage, both in terms of the landscape and possible cultural affinity during a particular period.
E	5 These sites are typical of stonewalled settlements found in the Mpumalanga Province. Although no specific community of cultural group has been identified with these structures, they have a high rate of aesthetic characteristics that can be associated with various living groups in southern Africa.
F	5 Based on recent research (Maggs 1995; 2007) these sites demonstrate levels of possible intensive agricultural land use, equalling high rates of creative, technical achievement for that particular period.
G	3 These sites cannot definitely be associated with any specific community or cultural group. However, new research and recent findings may identify such associations.
H	0 Due to the age and anonymity of these sites, they cannot be associated with any specific person or group.
I	0 Even though certain stratified societies almost certainly did have forms of slavery, or at least serfdom, these sites do not contribute significantly to an understanding of slavery in South Africa.
=	30

Field rating	Type	Grade	Significance	
National		I	Very high, no mitigation	✓
Provincial		II	Very high, no mitigation	
Local		III A	High, heritage register site, mitigation not advised	
Local		III B	High, mitigation possible with retention of parts	✓
Generally Protected A		IV A	High/medium, mitigated before destruction	✓
Generally Protected B		IV B	Medium, recorded before destruction	
Generally Protected C		IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	No material culture found on surface
Cultural affinities	Late farmer, possibly Koni or Pedi
Burials/graves	None identified.
Threats/risks	The site falls well outside any of the development footprints. No immediate threats could be identified.



STONE AGE SITES

MPS 016

Site number	MPS 016	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 12.70"	25°28' 17.65"
Estimated size	c. 5m-10m in diameter	Site type	MSA	
Site Category	Open scatter	Context	Unknown	

Statement of significance (1-5; 1=low, 5=high) Total: 1.7 (36%)

Rating	Reason
A	3
B	2
C	2
D	1
E	2
F	5
G	1
H	0
I	0
=	16

Stone Age sites are important in terms of the general archaeology of southern Africa. This site seems to be of a secondary context, within a late farmer context. The artefacts found at this site are not rare or uncommon, and seem to be from a secondary context. Although any Stone Age site could contribute significantly to the understanding of southern Africa's past, they need to be in context. The artefacts identified do not significantly illustrate any particular characteristics. Other than the scientific community and others of similar interest, the resources identified do not exhibit any particular aesthetic characteristics. As with all Stone Age assemblages, the artefacts found demonstrate high degrees of creative and technical achievement and innovation in that particular period. Due to the age no special associations on social, cultural or spiritual grounds can be made. Due to the age no special associations based on the life or work of a person, group or organisation can be made. No significance related to the history of slavery can be made.

Field rating	Type	Grade	Significance	
	National	I	Very high, no mitigation	✓
	Provincial	II	Very high, no mitigation	
	Local	III A	High, heritage register site, mitigation not advised	
	Local	III B	High, mitigation possible with retention of parts	
	Generally Protected A	IV A	High/medium, mitigated before destruction	
	Generally Protected B	IV B	Medium, recorded before destruction	✓
	Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts	Various MSA flakes and tools
Cultural affinities	Late Middle Stone Age
Burials/graves	None identified
Threats/risks	The site is situated immediately west of the main access route and on the edges of an erosion gully.

SITE DETAIL

The site represents quite a large assemblage of MSA flakes and tools. It is situated approximately 20m west of the last stonewalls of sites MPS 012, 013, and 014, next to the main access road. It is possible that the site was created due to material washed from the gully. There was also evidence of earthmoving activities that have taken place sometime in the past. Although, the quantity of material and type found may indicate that the site be partially *in situ*.

MPS 017, 018, 019

Site number	MPS 017 MPS 018 MPS 019	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 07.90" 30° 24' 08.40" 30° 24' 09.80"	25°28' 03.45" 25°28' 04.20" 25°28' 06.95"
Estimated size	c. 200m	Site type	MSA	
Site Category	Disturbed open scatter	Context	Secondary	

Statement of significance (1-5; 1=low, 5=high) Total: 1.7 (36%)

Rating	Reason
A 3	MSA sites are important in terms of the general archaeology of southern Africa. However, in order to understand the relationship over time and place, such sites need to have primary contexts, which are absent from these.
B 2	The artefacts found at this site are not rare or uncommon, and seem to be from a secondary context.
C 2	Although any Stone Age site could contribute significantly to the understanding of southern Africa's past, they need to be in context.
D 1	The artefacts identified do not significantly illustrate any particular characteristics.
E 2	Other than the scientific community and others of similar interest, the resources identified do not exhibit any particular aesthetic characteristics.
F 5	As with all Stone Age assemblages, the artefacts found demonstrate high degrees of creative and technical achievement and innovation in that particular period.
G 1	Due to the age no special associations on social, cultural or spiritual grounds can be made.
H 0	Due to the age no special associations based on the life or work of a person, group or organisation can be made.
I 0	No significance related to the history of slavery can be made
= 16	

Field rating

Type	Grade	Significance	
National	I	Very high, no mitigation	✓
Provincial	II	Very high, no mitigation	
Local	III A	High, heritage register site, mitigation not advised	
Local	III B	High, mitigation possible with retention of parts	
Generally Protected A	IV A	High/medium, mitigated before destruction	
Generally Protected B	IV B	Medium, recorded before destruction	✓
Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	✓

Artefacts/Ecofacts

Various MSA flakes and tools

Cultural affinities

Middle Stone Age

Burials/graves

None identified

Threats/risks

All three sites are located in tilled, agricultural fields. It is impossible to ascertain any primary context. The sites are in continuous threat from farming activities.

SITE DETAILS

Sites MPS 017 and 018 are located north of the N4 in an agricultural field, while MPS is situated south of the road. All three sites have been extensively disturbed. However, they are located in a typical environment where MSA artefacts could be expected. The fields have been made in fertile clay soil, associated with the Zondagskraal and Buffelskloof rivers' floodplain. Site MPS 016 is also located close to the Zondagskraal river valley.

HISTORICAL CEMETERY: MPS 020

Site number	MPS 020	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 27.40"	25°28' 00.45"
Estimated size	c. 4m x 8m	Site type	Cemetery	
Site Category	Historical	Context	Primary	

Statement of significance (1-5; 1=low, 5=high) Total: 3.0 (60%)

Rating	Reason	
A	5	The remains of the individuals buried may have high importance to the community.
B	2	No uncommon, endangered or rare aspects of heritage resources are associated with the cemetery. However, the tradition of stone carving associated with the headstones is becoming extinct.
C	3	In terms of possible physical anthropological research, some important information may be obtained as to health, demographics and other factors related to historical settlement in the region.
D	1	Graves rarely demonstrate any principal characteristics related to cultural places or objects.
E	5	The cemetery as a whole may exhibit particular aesthetics valued by a local community or group.
F	2	Other than the engraved headstones, no particular level of creative or technical achievement is demonstrated. However, some degree of this may be present associated with the physical remains in terms of possible surgical procedures, etc.
G	5	The cemetery may have special associations with various communities based on social, cultural and spiritual reasons.
H	3	Although unlikely, the cemetery may have some association with the life or work of a person in the history of South Africa.
I	1	Although unlikely, the cemetery may have some significance to the history of slavery in South Africa, cf. <i>inboekselinge</i> during the ZAR government.
=	27	

Field rating

Type	Grade	Significance	
National	I	Very high, no mitigation	✓
Provincial	II	Very high, no mitigation	
Local	III A	High, heritage register site, mitigation not advised	
Local	III B	High, mitigation possible with retention of parts	
Generally Protected A	IV A	High/medium, mitigated before destruction	✓
Generally Protected B	IV B	Medium, recorded before destruction	
Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	

Artefacts/Ecofacts

Various grave goods observed on surface, including tin of Nutsi snuff, clear glass bottle with liquid, some broken vase sherds.

Cultural affinities

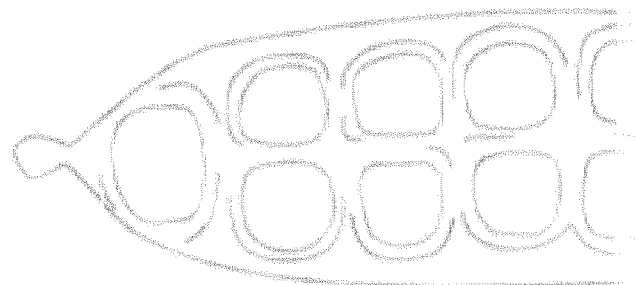
Two graves have written inscriptions identifying them as European. The other seems to be of African origin.

Burials/graves

Three

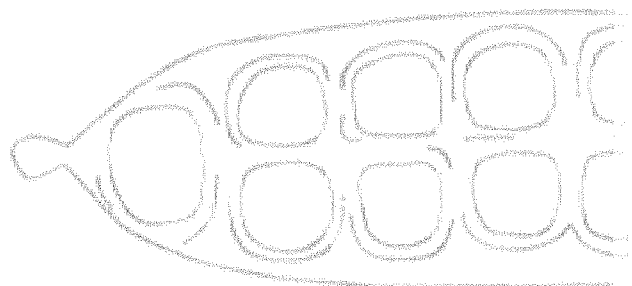
Threats/risks

No immediate threats or risks have been identified



SITE DETAIL

The cemetery will not be directly impacted upon by any of the proposed development. However, increased visitor and residential density resulting from the development may indirectly impact on the site. The cemetery is located between the N4 and the foot of the easternmost branch of the mountain on the farm. A large historical stone wall kraal is also in close association with the site. Three graves are present, two of which have headstones with inscriptions. These have been identified as most probably European graves. A third grave has no headstone or any other features for identification. It is rectangular in shape and outlined with large stones. A *Nutsi* snuff container and a clear glass bottle containing some liquid was found at the head. It is assumed that this grave is of a Black individual.



ROCK OUTCROP UTILITY AREA: MPS 001

Site number	MPS 001	GPS (Garmin Etrex Legend, WGS 84)	30° 24' 53.28"	25°28' 14.05"
Estimated size	c. 3m x 2.5m	Site type	Activity area	
Site Category	Farmer and/or hunter-gatherer	Context	Primary	

Statement of significance (1-5; 1=low, 5=high) Total: 1.7 (33%)

Rating	Reason
A 2	This site may be important in context of the immediate area. However, it is an isolated activity area with no evidence of relationship to any hunter-gather or farmer settlement. It is also not unique in terms of its usage. As such it is difficult to place the site within the larger pattern of southern African history.
B 2	The site displays no unique characteristics in terms of southern African heritage resources.
C 3	Very little potential exists in yielding any significant information regarding an understanding of southern African heritage resources. However, in terms of distribution and relationships with the sites in the immediate area it may be of value. The recording and documentation of this site is deemed sufficient for such purposes.
D 2	The site does not demonstrate any principal characteristics of any class of cultural places or objects.
E 1	No aesthetic characteristics, other than its position in the landscape are evident.
F 3	The use of a natural feature as a utilitarian area may be significant.
G 2	No association can be drawn related to any particular community or group <i>per se</i> . However, some association with the site in terms of symbolic or ritual activity may be possible, especially if the site may be associated with hunter-gather/farmer relationships.
H 0	None
I 0	None
= 15	

Field rating

Type	Grade	Significance	
National	I	Very high, no mitigation	✓
Provincial	II	Very high, no mitigation	
Local	III A	High, heritage register site, mitigation not advised	
Local	III B	High, mitigation possible with retention of parts	
Generally Protected A	IV A	High/medium, mitigated before destruction	
Generally Protected B	IV B	Medium, recorded before destruction	
Generally Protected C	IV C	Low, sufficiently recorded in Phase 1	✓

Artefacts/Ecofacts

Cultural affinities

Burials/graves

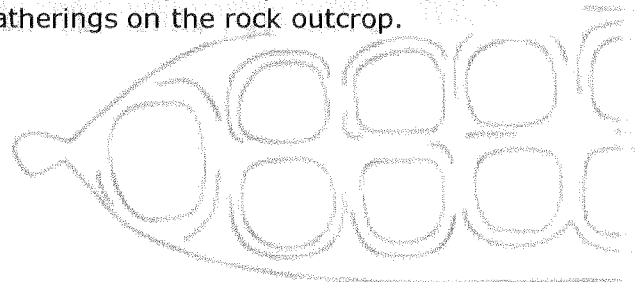
Threats/risks

None

Unknown

None

Very close to one of the residential units. May be impacted on by leisure activities such as walks, social gatherings on the rock outcrop.



5. EXPLANATION OF STATEMENTS OF SIGNIFICANCE AND FIELD RATINGS

Statement of significance and field ratings of all sites identified during Phase 1 heritage impact assessments are required under SAHRA's minimum standards. The NHRA states that heritage resources that are of significant cultural value are considered part of the national estate. Such resources are held "in trust" by the heritage resources authorities for present communities and future generations. Grading of sites is the responsibility of the heritage resources authorities. However, heritage specialists must provide Field Ratings for the sites, as proposals for grading in order to comply with section 38 of the NHRA.

Statements of significance are made against the following guidelines (NHRA section 3.3):

- a. The importance of the heritage resources in the community, or pattern of South Africa's history;
- b. The possession of a heritage resource of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- c. A heritage resource's potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- d. The importance of a heritage resource in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- e. The importance of a heritage resource in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- f. The importance of a heritage resource in demonstrating a high degree of creative or technical achievement at a particular period;
- g. A heritage resource's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- h. A heritage resource's strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- i. Sites of significance relating to the history of slavery in South Africa.

SAHRA's minimum standards for archaeological and palaeontological components of Impact Assessment Reports provide the following field ratings:

National: This site is considered to be of Field Rating/Grade I significance and should be nominated as such (mention should be made of any relevant international ranking);

Provincial: This site is considered to be of Field Rating/Grade II significance and should be nominated as such;

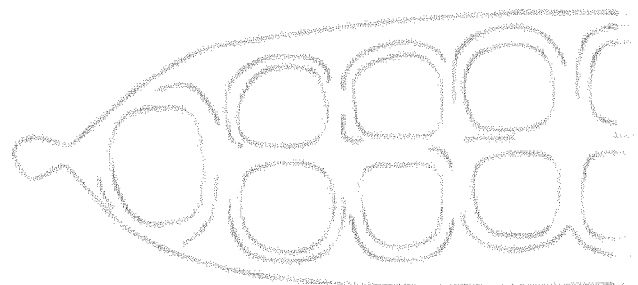
Local: this site is of Field Rating/Grade IIIA significance. The site should be retained as a heritage register site (High significance) and so mitigation as part of the development process is not advised;

Local: this site is of Field Rating/Grade IIIB significance. It could be mitigated and (part) retained as a heritage register site (High significance);

Generally Protected A (Field Rating IV A): this site should be mitigated before destruction (generally High/Medium significance);

Generally Protected B (Field Rating IV B): this site should be recorded before destruction (generally Medium significance);

Generally Protected C (Field Rating IV C): this site has been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (generally Low significance).



6. RECOMMENDATIONS

Engraving sites

MPS 003 and MPS 008

The three rock engravings located on the hilltop will be directly impacted on by the proposed development. These three engraved rocks should, pending permit approval from SAHRA, be removed to either the Lydenburg Museum or to an on-site display that showcases the farm's rich archaeological heritage.

MPS 010

The over 60 engraved rocks on the hill slope site constitute a significant and interesting rock engraving concentration and should be declared a provincial heritage site through SAHRA. In addition, the road that bisects the site should be upgraded only with on-site supervision to ensure no further damage is done to the engravings (Figure 30). Alternatively, this road should not be used at all, and arrangements made to use the existing Sappi road on the western boundary of the farm to access the mountain top. Further, the entire site should be mapped, photographed, and select tracings made of the more significant engraved rocks.

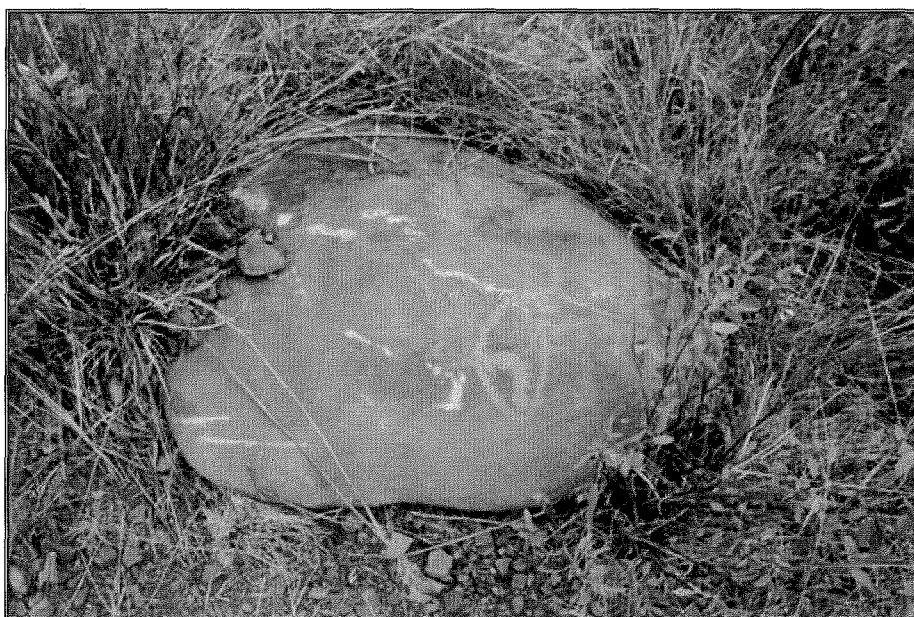
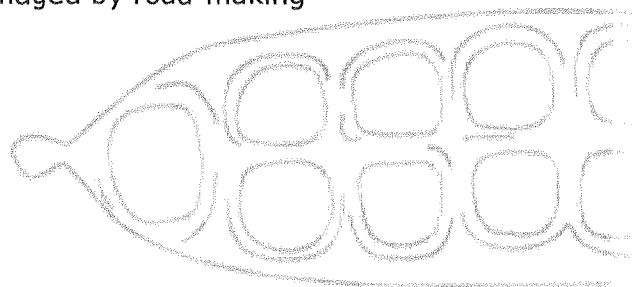


Figure 28: Engraving from Site 3 damaged by road-making



Stonewalled sites

All the stonewalled sites should be surveyed, mapped and documented in detail.

The mountain top sites MPS 002, MPS 004, MPS 006, and MPS 007 should be mitigated prior to any development taking place at any of these sites. MPS 004 and MPS 007 especially, as they may be associated with two of the rock engraving sites (MPS 003 and 008).

MPS 005 should not be mitigated, and a buffer zone of at least 25m around this site should be allowed. Although not unique, this is the best preserved site of this type on the farm. It may also be the final expression of these types on the mountain, if it may be assumed that the stones used for its building was robbed from the other sites. This site should at least be mapped and documented in detail.

The stone wall sites (MPS 012, 013, 014) in the valley (survey section 3) should also be surveyed, mapped and documented in detail. At present no mitigation is deemed necessary as no direct impact will affect these sites. However, the sites will need to be mitigated if this situation changes.

Stone Age Sites

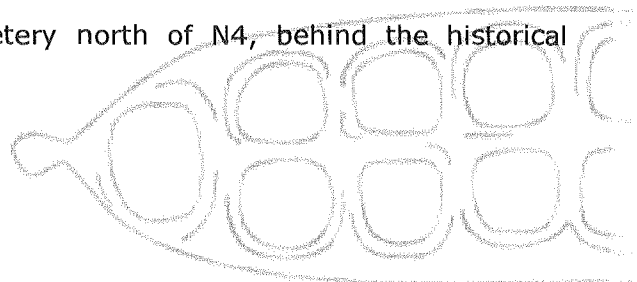
MPS 016 should be recorded. A surface survey and collection should be made by a specialist in this period and either curated by the Lydenburg museum, or housed in an interpretive centre in the development.

The sites located in the fields should also be surveyed by a Stone Age specialist, and the finds surface collections done.

Historical cemetery

It is recommended that the cemetery be fenced off with a durable fence (perhaps palisade) to inhibit casual impact that may arise from the development. Should any development at some stage impact negatively on the cemetery, steps must be taken to ensure either the proper protection of the site, or the relocation of the graves to a more suitable environment.

Exactly the same is recommended for the old cemetery north of N4, behind the historical farmstead.

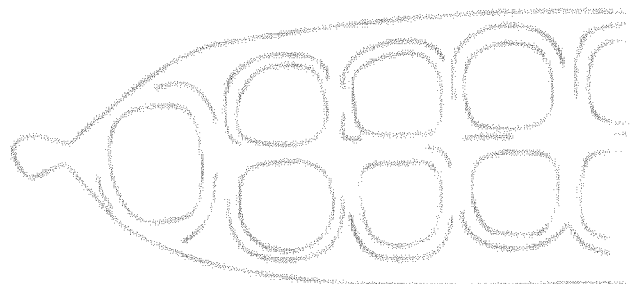


Rock outcrop utility area

It will be difficult to protect site MPS 001 from casual impact. The developers, as well as the later owners, should be made aware that there are heritage resources on the rock outcrops. Measures such as prohibiting fires on the rock surfaces, vehicle traffic (bicycles, motorcycles, etc), and unnecessary walking over these outcrops should be put into place.

General recommendations

- Prohibitions should be put into place regarding any disturbance, damage or destruction of any site on the farm. This should include activities such as climbing, riding, or driving over, on or near to any stone wall or engraving site.
- A watching brief be implemented during the upgrading of the road through MPS 010.
- SAHRA, the local museum (Lydenburg) and/or qualified, professional and accredited archaeologist should be notified prior to any development taking place in or near any heritage resource.
- Destruction permits should be obtained from SAHRA, through a qualified, professional and accredited archaeologist prior to any walls or stones being altered, removed or repaired.
- A specialist museum and exhibition consultant should be contracted if the Client wishes to display and house some of the heritage resources on the property. This should be done in consultation with the local museum (Lydenburg) and relevant authorities such as the Provincial Heritage Authority and provincial SAHRA office.



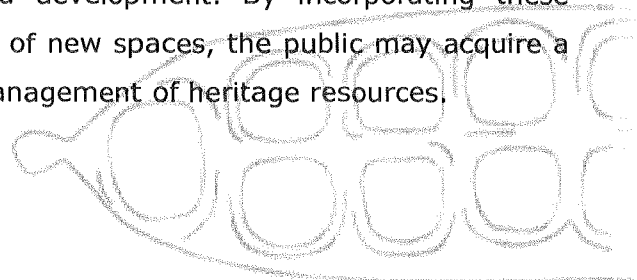
7. CONCLUSION

Development necessarily affects and impacts the natural and culture environment, the combined heritage, of an area. Even though development usually results in sites being altered, damaged or destroyed, it provides an invaluable opportunity to at the very least record sites that would have remained otherwise unknown or inaccessible to research. The South African Heritage Resources Agency, as mandated by the National Heritage Resources Act, is responsible to capture all heritage sites in a National Heritage Register.

This is important when considering that the old Eastern Transvaal, and now Mpumalanga Province, has long been neglected in terms of intensive archaeological research. Notable aspects that need to be investigated include the trade and migration routes that have followed some of the major rivers in the region, such as the Sabie, Crocodile and Olifants. The people who have walked these routes left behind rich heritages, only waiting to be understood. The relationship between the various groups in the area over time also needs to be studied. Although not unique, the archaeology of Mooiplaats does provide an opportunity to investigate the history of the province more in depth.

The rock engravings especially are of great significance. They represent a very specific tradition of art in southern Africa. Art that was not merely made for art's sake: they are two dimensional expressions of a three or more dimensional world. They could express the world view of the person or people who made them, or contain some symbolic meanings which we possibly will never understand. They also stand in relationship with very particular expressions in settlement patterns. This relationship may help present and future researchers in understanding a very small part of our history. However small it may be, this piece is necessary to complete the southern African puzzle.

In terms of economic benefit heritage cannot, or should not, be given material value. No insurance value can really ever replace a five hundred year old pot or even a hundred year old headstone. However, in protecting and caring for various heritage resources, intrinsic value is added to modern landscapes, such as the proposed development. By incorporating these resources as far as possible into the design and layout of new spaces, the public may acquire a sense of ownership and responsibility in terms of the management of heritage resources.



8. REFERENCES

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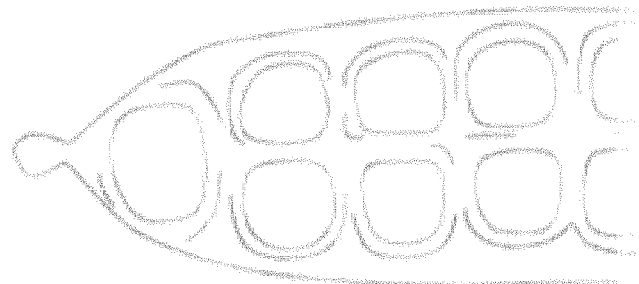
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ADDENDUM A. SPECIALIST ROCK ART REPORT

Specialist Archaeological Rock Art Report on Three Rock Engraving Localities on the Farm Mooiplaats, Lydenburg xx District, Mpumalanga, South Africa

June 2007

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Introduction

Southern Africa has one of the world's richest rock art heritages going back at least 30 000 years. Rock art provides a visual record of the ideas, beliefs and ways of life of past people such as 'San' hunter-gatherers, Khoekhoen (formerly 'Khoi') pastoralists, Bantu-speaking farmers and European colonists. Each of these rock art traditions means something different, though rock art also records the contact different people had with each other. Some of this rock art continues to be produced today in, for example, Venda.

Mpumalanga is, archaeologically, a relatively under-researched province and thus potentially able to offer to South Africa and the world new research insights. The first mention of rock art research in the province dates to 1918 (Figure 1; Pijper 1918, 1920) and so far 400 rock art sites have been recorded in the province; primarily in the northern and eastern parts of the province (Lydenburg, Nelspruit, Nsikazi, Witbank, White River Districts and the Kruger National Park – see Murray & Schoonraad 1965; Schoonraad & Schoonraad 1975; Smith & Zubieta 2006; Tracey 1956).



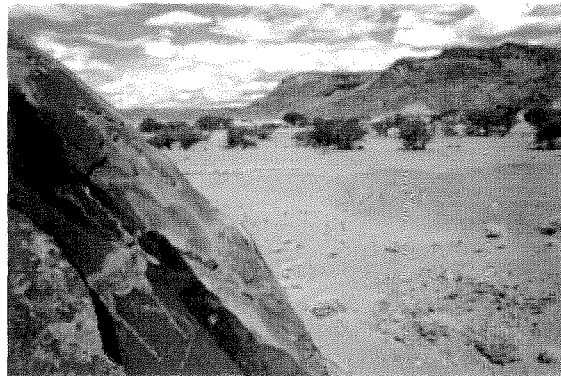
Figure 1: Large rock engraving made by Bantu-speakers, Boomplaats Lydenburg (Pijper 1918). Original partially removed in 1938 by E.C.N. van Hoepen to National Museum, Bloemfontein.

These sites include fineline San rock paintings, concentrated in the Nelspruit area, that relate to their shamanistic and symbolic belief systems. In the same area as well as Lydenburg district, the finger-painted handprints, fingerdots and geometric symbols of Khoekhoen herders have been recorded. Finger-painted initiation rituals (usually in thick white pigments) of Sotho Tswana speakers have been found in hilly areas that are often difficult to access near Bronkhorstpruit, Middelburg and Witbank. These paintings consist of animals, some geometric forms and human figures. The 'graffiti' of European settlers, sometimes over 100 years old, occurs throughout the province. Finally, Mpumalanga is known for the rock engravings of Bantu-speaking farmers that are thought to depict aerial views of the stone-walled towns and cattle pathways of these people (van Hoepen 1939; Maggs 1995). The most famous such site is Boomplaats although in 1937 van Hoepen, Director of National Museum, Bloemfontein removed over a dozen of Boomplaats' engravings to Bloemfontein. Mooiplaats also has Bantu-speaking farmer's rock engravings - in significant quantities. Though thought to be specific to Nguni-speakers, these rock engravings are also found in non-Nguni areas. The province is also home to some more enigmatic engravings, consisting of human-like figures and geometric forms, the meaning of which is not yet known (Ouzman 2001).

What is 'rock art'?

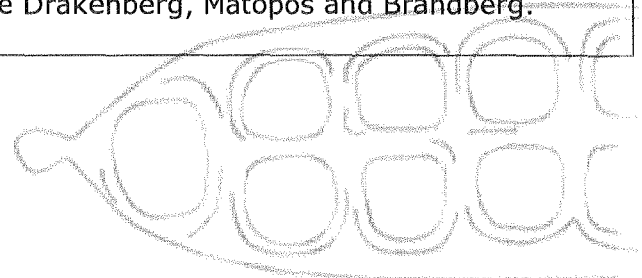
There are three kinds of rock art found at over 40 000 sites in southern Africa.

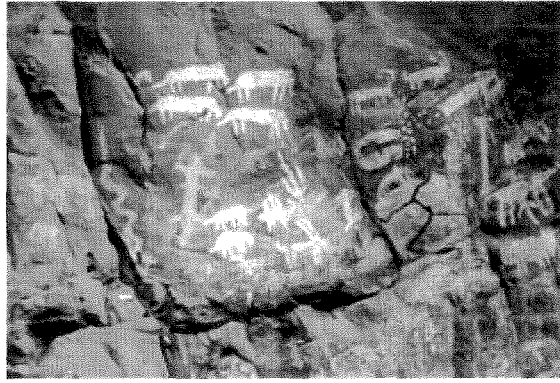
Rock engravings consist of images pecked, cut and scraped into rock with another rock or with metal tools. By removing the outer surface of the rock, lighter-coloured rock is exposed, making for a high-contrast image that then weathers to a darker colour as the years pass by. Rock engravings tend to be found on individual rocks on the low hills and ridges of the central interior of South Africa, though Mpumalanga is known for its engravings made by Bantu-speaking farming people over the last 1000 years



San rock engraving of a kudu (left foreground), Twyfelfontein, Namibia

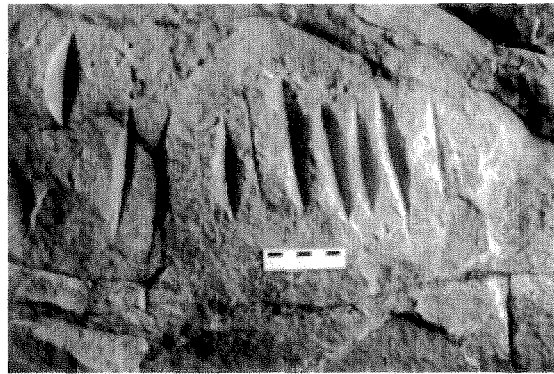
Rock paintings are made by applying paint to rock surfaces, usually rock shelters. The paint is made from earth oxides, kaolin, manganese and so on, bound together with blood, plant sap and so forth. Usually found in mountainous areas such as the Drakenberg, Matopos and Brandberg.





Bantu-speakers' finger-paintings, Limpopo, South Africa

Rock markings: These are mostly engravings that do not form 'pictures' but consist of small hollows, grooves, scratches and similar marks that do not seem to have been used for ordinary tasks such as grinding food, but for symbolic functions such as communication with the ancestors, rain control and so forth.

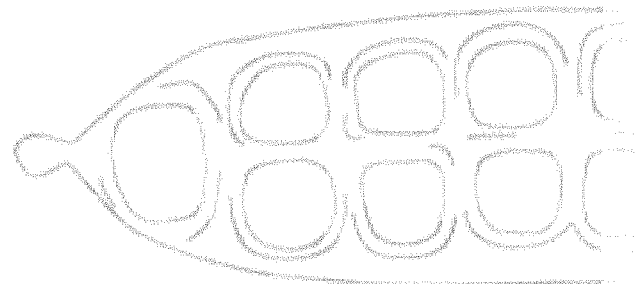


'Slash marks' located 3 m above ground level in a rock shelter, Limpopo, South Africa

Mooiplaats Rock Art Sites

Site 1 S 30° 24' 32.20" E 25°29' 03.38":

Located about 40 m SE of the Sappi road entrance gate on top of the hill overlooking the Mooiplaas farm are two engraved rocks immediately next to each other (Figure 2) on the edge of an archaeological terraced field. These rock engravings are placed among a cluster of large, natural andesite rocks, some of which have been used as grinding / food preparation surfaces as well as parts of a stone wall that has been robbed. There are no surface finds of artefacts such as pottery, stone tools, metal etc near these engravings. On a bearing of 340° from these engravings on the opposite valley slope one looks down on at least three stone-walled settlement complexes are visible.



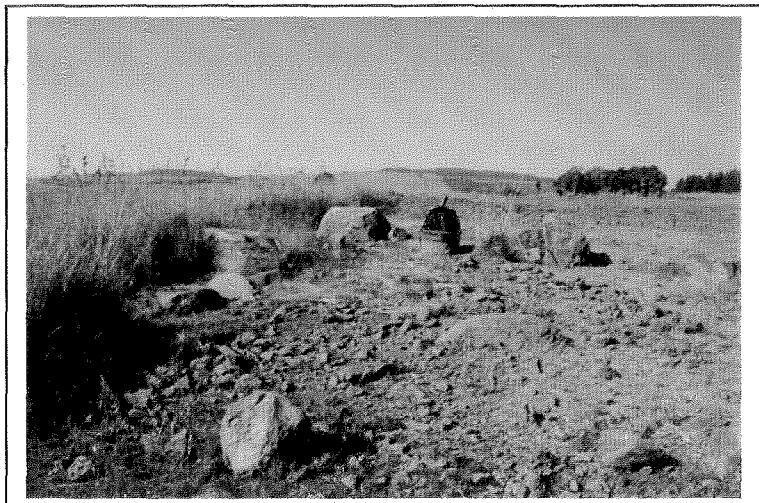


Figure 2: Location of Site 1's two engraved rocks, Mooiplaats, Mpumalanga, South Africa

Engraving 1

The smaller of the two at 670 mm x 400 mm at a 60° angle. The engraved surface faces north. The engraving has been made with a coarse-pecked 'gouging' technique – almost certainly by a metal instrument. The engraving comprises two clear, pecked infill circles (the largest is 60 mm in diameter), 1 outline circle and 1 partial circle; all connected by lines that have 3 distinct trajectories. These lines are 10 mm – 25 mm thick. The bottom 60 mm of the rock is covered by earth and some of the engraved lines are covered by this earth layer, suggesting some time has passed since the manufacture of these engravings (Figure 3). There is a moderate degree of patination (weathering) of the engraved lines, which also suggests an age in the order of several hundred years.

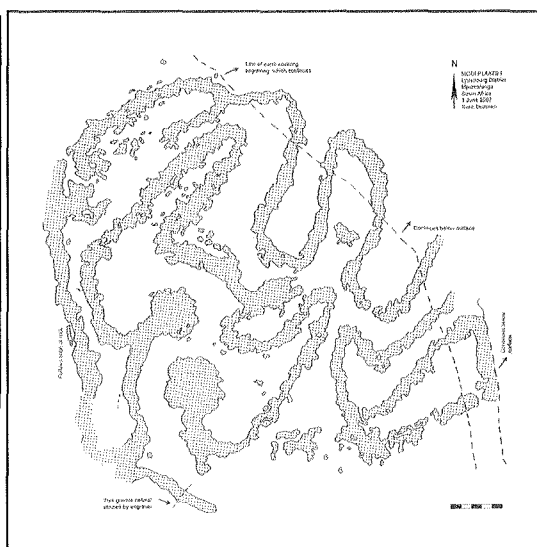
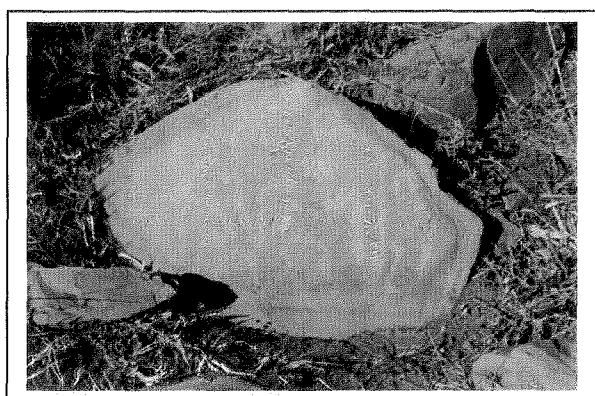


Figure 3: Photograph and Redrawing of Engraving 1, Site 1, Mooiplaats, South Africa

Engraving 2

A slightly larger rock – 790 mm x 650 mm that lies flat, though roughly south-east facing (Figure 4). The engraving consists of two pecked infill circles (largest has an 80 mm diameter) and 3 clear line trajectories with some interlinking. There are also 3 short lines not connected to any other engraved areas. There are 9 pecked area. Light abrasion marks suggest that this rock could

either have been used for everyday activity or the abrasions (which have an unusual patina) could have had a symbolic importance.

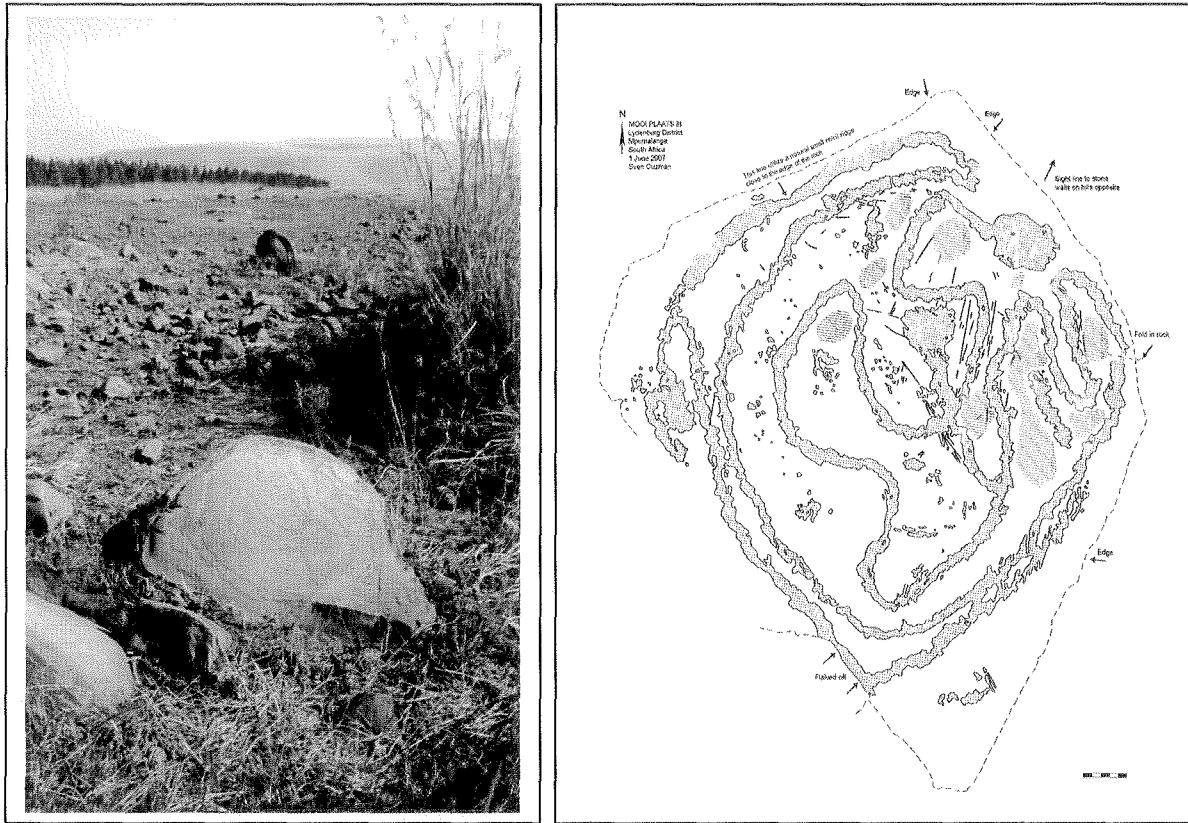


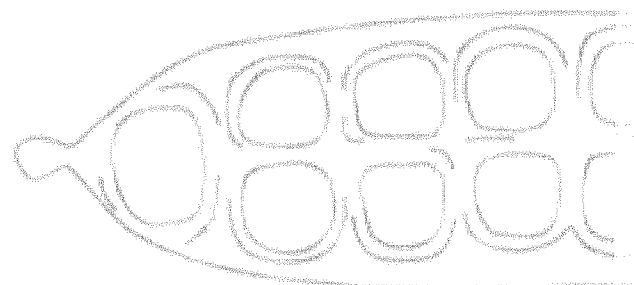
Figure 4: Photograph and Redrawing of Engraving 2, Site 1, Mooiplaats, South Africa

Site 2 S 25°28' 58.75" E 30° 24' 38.15":

Located almost 100 m east of Site 1, is a solitary engraved rock that seems to have been moved from elsewhere and been incorporated into a long, low stone wall made up of single stones placed on their sides. The line of this wall ends close to the gravel pit/dam excavated to the south of the largest stone-walled site on the hilltop. Quite close to the game fence and overlooking the *kloof* and waterfall to the SE.

Engraving 1:

A 610 mm x 410 cm triangular sandstone-like dolerite rock resting flat on the ground. This rock's main facet as well as a smaller side facet are engraved with a series of meandering engraved lines (Figure 5). This rock shows considerable erosion, weathering and cracking.



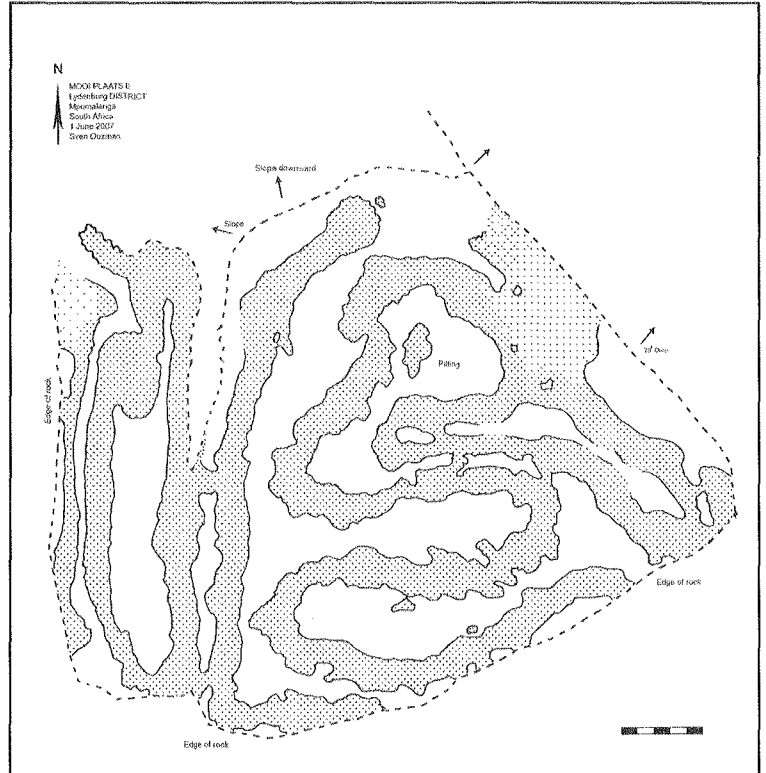
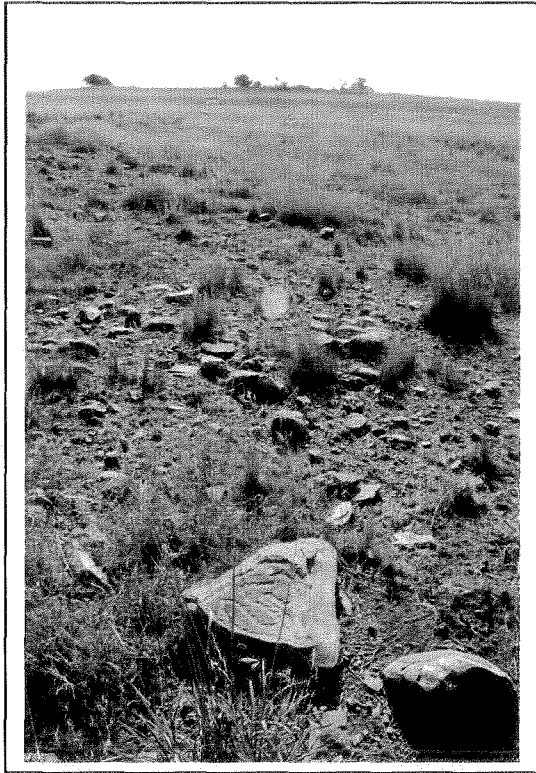
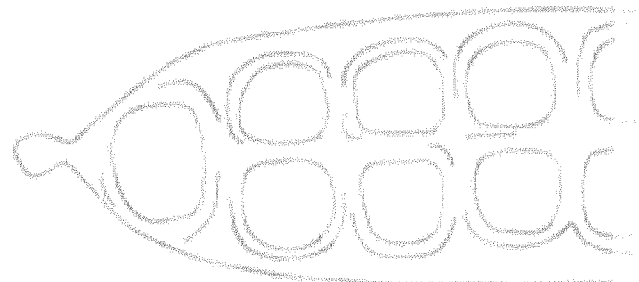


Figure 5: Photograph and Redrawing of Engraving 1, Site 2, Mooiplaats, South Africa

Site 3 S 25°28' 32.20" E 30° 24' 20.74":

This site is located on either side of the zigzag contour road leading from the Mooiplaats farmhouse to the hilltop (figure 6). The *platboom* or 'flat tree' marks the eastern extremity of a site complex that consists of at least 50 engraved rocks (Figure 7) – the grass was very thick during surveying so it is almost certain more engraved rocks will be located. The area of engravings extends to the western boundary fence, at least 80 m above the road and 35 m below the road. The rock here is a much finer-grained dolerite than the granitic rock on most parts of the farm. The engraved rocks range from small 300 mm x 150 mm rocks at ground level to large rocks up to 1.8 m long and 500 mm across. These rocks bear a variety of images that are variations on a theme – solid and outline circles, meandering lines, circles with short, bent lines coming out of them, and so forth. On one of the two large upright rocks above the road is an engraving on a vertical surface, comprising circles connected by lines. The site complex exhibits considerable variation with a larger, coarser pecking technique evident in the eastern section, grading into a smaller, finer peck with more emphasis on circles to the west.



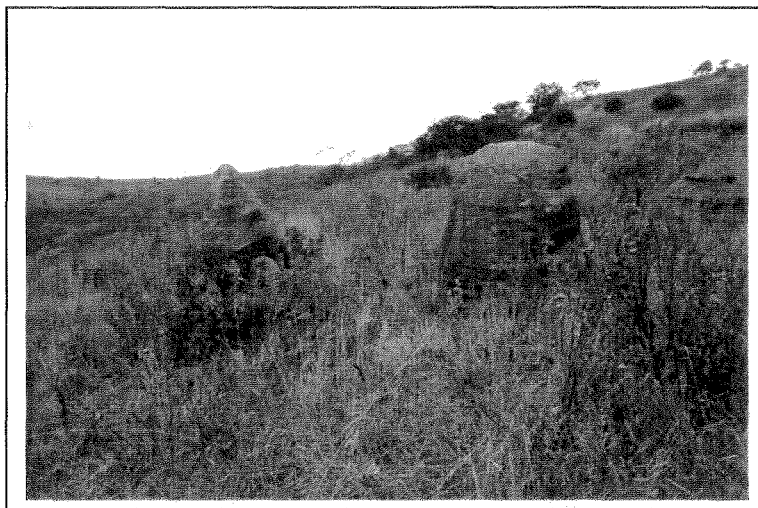
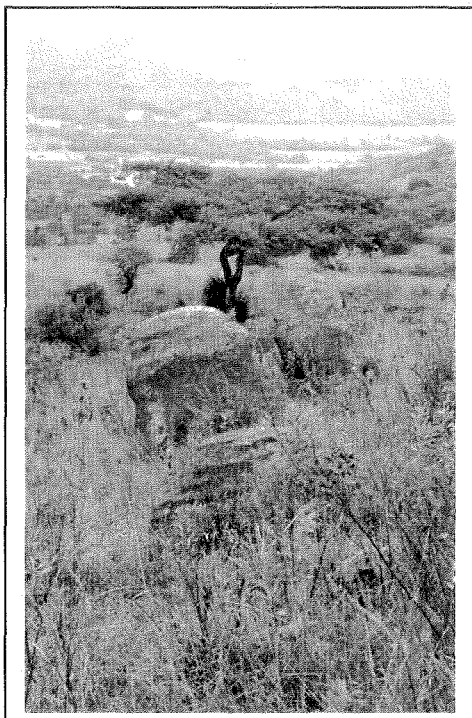
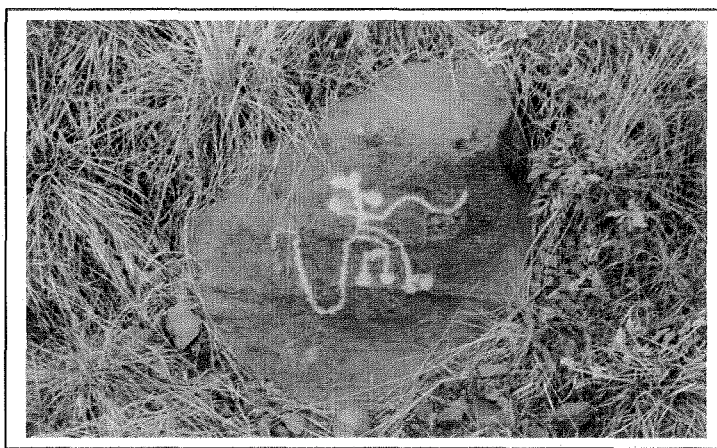
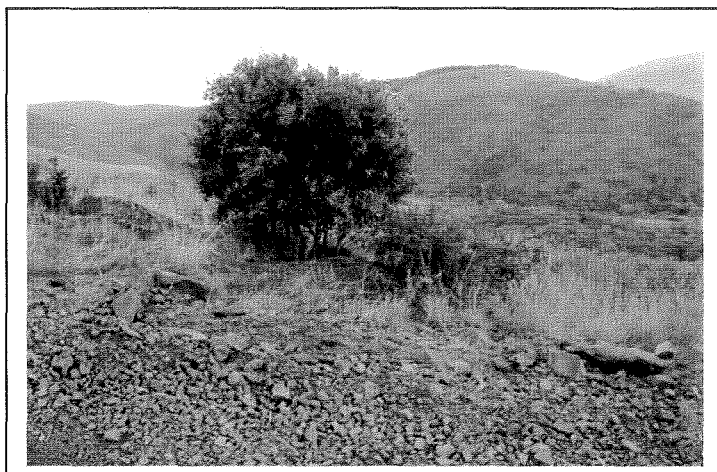
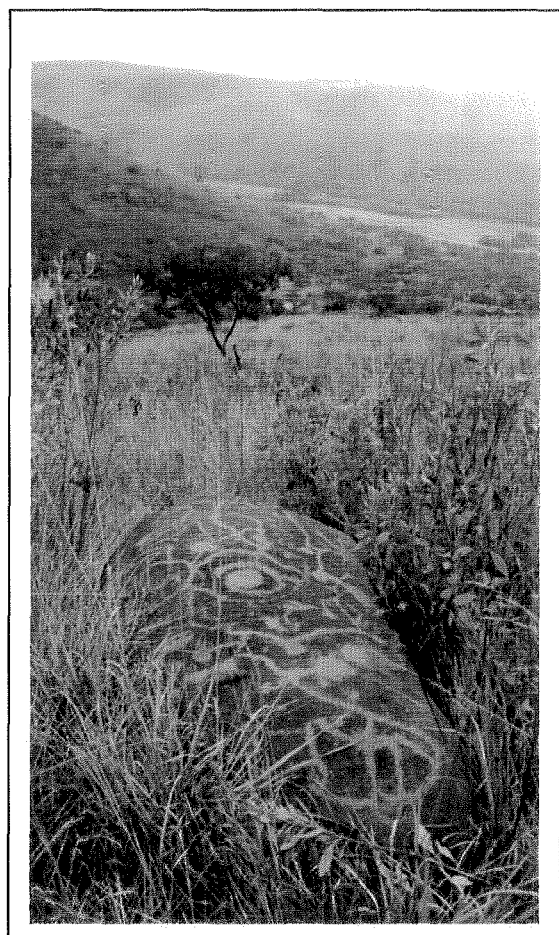


Figure 6: Views to the north and east of Site 3, Mooiplaats, Mpumalanga, South Africa

Figure 7: Sample pictures of engravings from Site 3, Mooiplaats, Mpumalanga, South Africa



Interpretation of rock engravings at Sites 1-3: Most of the engravings show a considerable awareness for the contours of the rock. Iconographically, circles and lines predominate lending support to the interpretation of van Hoepen (1939) and Maggs (1995) that these engravings were made by Bantu-speaking farmers in the last 500 years or so and that they represent an

aerial view of stone-walled settlements and the paths of movement of people and cattle as well as perhaps areas of terraced fields. Though not necessarily a 1:1 'realistic' map, these rock engravings select for certain areas of these settlements presumed to be areas of male influence. It is not impossible that these engravings could have been used in the education and initiation of young boys/men; though more research needs to be conducted on these engravings' meaning. Sometimes lizard-like animals are also depicted at farmer rock engravings sites, but none have been noted at Mooiplaats. Mooiplaats is a major new site in this tradition and promises to shed light on this fascinating yet imperfectly understood form of southern African rock art.

Recommendations:

The Hilltop Sites: The three rock engravings located on the hilltop (Site 1 S 30° 24' 32.20" E 25°29' 03.38"; Site 2 S 25°28' 58.75" E 30° 24' 38.15") are directly in harm's way from the proposed development. These three engraved rocks should, pending permit approval from SAHRA, be removed to either the Lydenburg Museum or to an on-site display that showcases the farm's rich archaeological heritage.

The Hill slope site: (Site 3 S 25°28' 32.20" E 30° 24' 20.74")_The over 60 engraved rocks on the hill slope site constitute a significant and interesting rock engraving concentration and should be declared a provincial heritage site through SAHRA. In addition, the road that bisects the site should be upgraded only with on-site supervision to ensure no further damage is done to the engravings (Figure 8). Further, this whole site should be mapped, photographed, and select tracings made of the more significant engraved rocks.

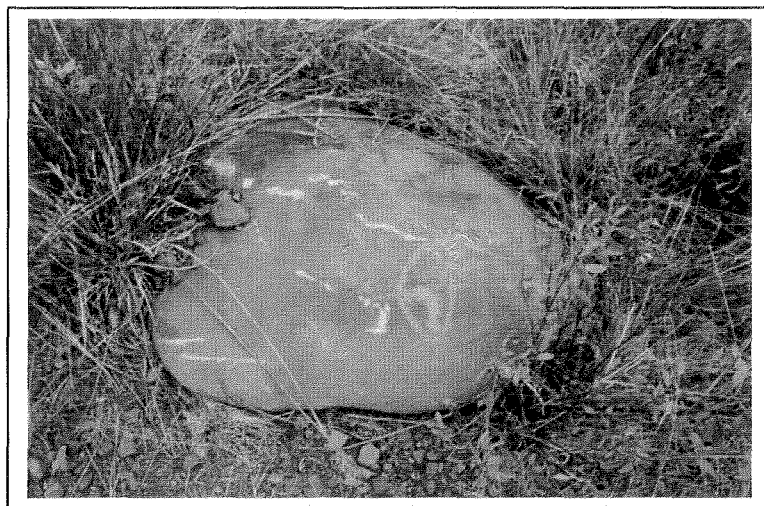
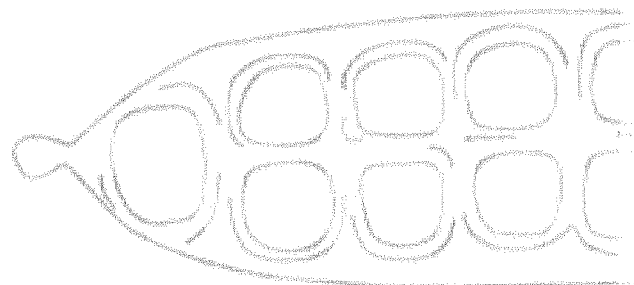
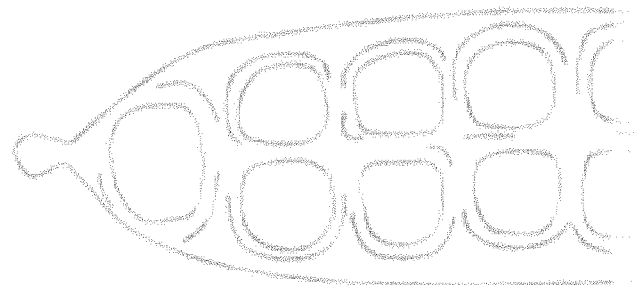


Figure 8: Engraving from Site 3 damaged by road-making



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ADDENDUM B. SAHRA MINIMUM STANDARDS



SOUTH AFRICAN HERITAGE
RESOURCES AGENCY

MINIMUM STANDARDS: ARCHAEOLOGICAL AND PALAEOLOGICAL COMPONENTS OF IMPACT ASSESSMENT REPORTS

111 H ARRINGTON STREET, CAPE TOWN, 8001
PO BOX 4637, CAPE TOWN, 8000
TEL: 021 462 4502 FX: 021 462 4509

1. GENERAL INFORMATION

WHAT ARE ARCHAEOLOGICAL AND PALAEOLOGICAL IMPACT ASSESSMENTS?

South Africa's unique and non-renewable archaeological and palaeontological heritage sites are 'Generally' protected in terms of the National Heritage Resources Act (Act No 25 of 1999, section 35) and may not be disturbed at all without a permit from the relevant heritage resources authority.

As many such heritage sites are threatened daily by development, both the environmental and heritage legislation require impact assessment (IA) reports by qualified professionals that identify all heritage resources including archaeological and palaeontological sites in the area to be developed, and that make recommendations for protection or mitigation of the impact of the sites.

Where possible archaeological and palaeontological sites should be saved, but where this is not possible, the loss of information about our heritage resources can be mitigated against or minimised through a process of excavation (or sampling) and dating of a representative sample of the evidence from the site. This allows us to record at least part of the history of the place. Experience has shown that early assessment and mitigation minimises the negative effects of development and often saves the developer considerable delays and related costs.

HOW DO IMPACT ASSESSMENTS FIT INTO PLANNING?

Archaeological Impact Assessments (AIAs) and Palaeontological Impact Assessments (PIAs), are most often specialist reports that form part of the wider heritage component of:

Environmental Impact Assessments (EIAs) required in terms of the National Environmental Management Act or of the Environment Conservation Act by the provincial Department of Environment Affairs; or

Environmental Management Plans (EMPs) required by the Department of Minerals and Energy.

These specialist reports may also form part of:

Heritage Impact Assessments (HIAs) called for in terms of Section 38 of the National Heritage Resources Act, Act No. 25, 1999 by a heritage resources authority.

The legislation¹ requires that all heritage resources, that is, all places or objects of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures over 60 years, living heritage and the collection of oral histories, historical settlements, landscapes, geological sites, palaeontological sites and objects.

The archaeological and palaeontological components discussed here therefore form only part of the heritage resources that the law requires heritage authorities to assess. Specialists must acknowledge this and ensure that if they do not have the capacity to assess other heritage components they team up with heritage practitioners who do, or, at least, refer heritage components for which they do not have expertise to appropriate specialists or draw the attention of consultants and developers to the need for assessment of other heritage components.

In this sense, Archaeological (or Palaeontological) Impact Assessments that are part of Heritage Impact Assessments are similar to specialist reports that form part of the EIA process.

The minimum standards discussed below for archaeological and, where applicable, for palaeontological specialist assessments should be adhered to during the compilation of any Heritage Resources Impact Assessment Report.

The process of assessment, for the archaeological (AIA) or palaeontological (PIA) specialist components of heritage impact assessments, usually involves:

An initial pre-assessment (scoping) phase, where the specialist establishes the scope of the project and terms of reference for the developer. This is not discussed further here.

A Phase 1 Impact Assessment/ Specialist Report, which identifies the sites and their significance and makes recommendations for their management OR:

A Letter of Recommendation for Exemption (if there is no likelihood that any sites will be impacted).

Phase 2 Mitigation: usually this involves planning of the protection of significant sites or excavation or collection (in terms of a permit) at sites that may be lost.

A 'Phase 3' Heritage Site Management Plan (for heritage conservation), may be required in rare cases where the site is so important that development will not be allowed. Developers may also choose to, or be encouraged to, enhance the value of the sites retained on their properties with appropriate interpretive material or displays.

STAGES OF ASSESSMENT

Phase 1 Impact Assessments

Phase 1 Archaeological Assessments generally involve the identification of sites during a field survey, an assessment of their significance and the impact of development, and recommendations. The report will include:

¹ National Heritage Resources Act (Act No. 25 of 1999, section 35) and KwaZulu-Natal Heritage Act (No. 10 of 1997, section 27)

Location of the sites that are found;

Short description of the characteristics of each site;

Short assessment of how important each site is, indicating which should be conserved and which mitigated;

Assessment of the potential impact of the development on the site/s;

In some cases, a shovel test, to establish the extent of a site, or collection of material might be required to identify the associations of the site. (A pre-arranged permit is required); and

Recommendations for conservation or mitigation.

The report is intended to inform the client about the legislative protection of heritage resources and their significance and make appropriate recommendations. It is essential that it also provides the heritage authority with sufficient information about the sites to enable it to assess with confidence:

Whether or not it has objections to a development;

What the conditions are upon which such development might proceed;

Which sites require permits for mitigation or destruction;

Which sites require mitigation and what this should comprise;

Whether sites must be conserved and what alternatives can be proposed that may re-locate the development in such a way as to conserve other sites, for example, by incorporating them in a wilderness area, or under a parking space; and

What measures should/can be put in place to protect the sites that should be conserved.

Phase 1 Palaeontological Assessments should follow a similar process in order to characterise, date and record the fossil record in the area. However Palaeontological Phase 1 assessments may also involve collecting of material in this initial phase and the heritage resources authority will require that the practitioner hold a valid permit for this.

When a Phase 1 is part of an EIA, wider issues such as public consultation and assessment of the spatial and visual impacts of the development may be undertaken as part of the general study and may not be required from the archaeologist. If however the Phase 1 forms a major component of an HIA it will be necessary to ensure that the study addresses such issues and complies with section 38 of the National Heritage Resources Act.

Phase 1 Specialist Reports (AIAs) will be assessed by the relevant heritage resources authority. If the decision is that sites are of low significance, they may, after recording, be destroyed to make way for development. The final decision about this should be taken by the heritage resources authority, which should give formal permission for the destruction.

In the case of AIAs that are part of EIAs or EMPs, the heritage resources authority will issue a record of decision (ROD) that may be forwarded to the consultant or developer, relevant government department or heritage practitioner and where feasible to all three.

When a property is either very disturbed (e.g. has been quarried or mined) or is very small and the archaeologist can see that it is highly unlikely that any archaeological remains will be found, a

letter of "Recommendation for Exemption" from a full Phase 1 report may be supplied. This must be accompanied by a map and photograph indicating landscape features. (Remember: *Absence of evidence is not necessarily evidence of absence* and use this option with caution).

Phase 2 Archaeological Mitigation

If sites that cannot or need not be saved from development carry information of significance about the past, the archaeologist will recommend a Phase 2 Archaeological Mitigation. The heritage resources authority will require a permit for any disturbance of the site.

Artefacts may be collected from the surface, or there might be excavation of representative samples of the artefactual and faunal and possibly botanical material to allow characterization of the site and dating. It may be necessary to record or even rescue rock art. The purpose is to obtain a general idea of the age, significance and broader cultural meaning of the site that is to be lost and to store a sample that can be consulted at later date for research, education and promotion of our cultural heritage at large.

Should further material be discovered during the course of development this must be reported to the archaeologist or to the heritage resources authority and the developer may need to give the archaeologist sufficient time to assess and document the finds and if necessary rescue a sample.

In situations where the area is considered archaeologically sensitive (e.g. coastal settings) the archaeologist must monitor all earth-moving activities.

Provincial Heritage Authorities may have further special requirements.

Permission for the development to proceed can be given only once the heritage resources authority has received and approved a Phase 2 report and is satisfied that measures are in place to ensure that the archaeological sites will not be damaged by the impact of the development and/or that they have been adequately recorded and sampled. Careful planning can minimize the impact of archaeological surveys on development projects by selecting options that cause the least amount of inconvenience and delay.

This process allows the rescue of information relating to our past heritage for present and future generations. It balances the requirements of developers and the conservation and protection of our cultural heritage as is required of SAHRA and the heritage resources authorities.

Phase 3

On occasion, a Phase 2 mitigation process may be followed by a Phase 3 programme involving the modification or conservation of the site (or parts of it) or the incorporation of the site into the development itself as a site museum or display. When sites are of public interest the development of interpretative material is recommended and adds value to the development. A Heritage Site Management Plan is required for sites that are to be retained to ensure that arrangements are made for the long term maintenance and management of the site(s) so that

their heritage value and significance may be preserved. Where possible these should be legally tied into Homeowners Associations or some body that can maintain the sites.

REQUIREMENTS FOR PERMITS

There are three points during development at which SAHRA or the relevant heritage resources authority may be approached for permission to disturb a site during the impact assessment process.

'Shovel-Test Permits': in special cases 'shovel-test' permits are being issued for archaeological sites on request prior to or immediately after a Phase 1 survey (e.g. for testing the extent of coastal middens or collecting restricted ceramic samples for identification from Iron Age sites).

'Mitigation Permits': these are generally issued for excavation or collection of samples and assess sites that will be impacted by the development. These are issued to the specialist for the Phase 2 study, and after assessment of the Phase 1 report.

'Destruction Permits/Permission' and/or **'Interpretation Permits':** these are generally issued to the developer after assessment of the Phase 2 report (but are usually filled in by the archaeologist!). 'Interpretation Permits' refer to situations where the addition of boardwalks or notice boards may impact on the site and the permitting process allows for the proposed actions to be discussed and possibly modified to better protect the site(s).

The specialist should explain the process to the developer and should generally apply for the permit. Permission from the owner must be obtained and this is better done at the beginning of the process.

Policy relating to permit applications is explained in the *General Guidelines to Archaeological Permitting Policy* (available from SAHRA) and the applicant should also consult the legislation (including the *Government Gazette*²).

WHAT ABOUT THE PALAEOLOGICAL COMPONENT?

Palaeontological Impact Assessments are also required wherever palaeontological resources are threatened. This is especially necessary where there is disturbance of sedimentary strata or gravels that may include palaeontological remains.

Although the details of the Phase 1 Minimum Standards discussed below (s. 7.1) may not apply directly where these are specifically archaeological, these standards can be used as a general guide to what is needed in Phase 1 palaeontological reports. The minimum standards for Phase 2 reports discussed below (s.8.1) are more generic and apply to both archaeology and palaeontology.

As indicated above palaeontological collection may take place in the Phase 1 process and the practitioner should ensure that they have a valid permit for this. The development should not proceed until the heritage authority has approved the report.

AIAS AND PIAS AND THE NATIONAL INVENTORY

² *Government Gazette* Vol. 240, No. 21239.

Phase 1 and Phase 2 AIAs and PIAs are very often the last opportunity we will ever have to record the remaining of the evidence of people who lived in this country before us or the fossil record at that site. These records are immensely important to our understanding of the past and as such they form an important part of our National Estate. SAHRA is building up a national archive of these reports, in hard copy and where possible electronically.

Developers or specialists are required to submit a copy of the report that goes to the relevant Provincial Heritage Resources Authority (PHRA) to the SAHRA provincial office. SAHRA will require a copy of these documents either from the specialist or the PHRA for record as part of the national inventory.

It is important that the quality of these reports is high, that they characterize and date the sites meaningfully and reflect best practice in terms of the identification, assessment, interpretation and management of our archaeological and palaeontological heritage.

II. MINIMUM STANDARDS

PHASE 1 AIA REPORTS: MINIMUM STANDARDS

Every Archaeological Impact Assessment Report must include:

A. Title Page with:

A **Title** that identifies this report. It should give the name and geographical location of the site(s) and/ or project, including property or farm name (and magisterial district) and province;

Author(s) surname(s) and details, company name and contact details;

Developer and consultant name (who commissioned the report);

Date of report.

B. Executive Summary including:

The **purpose** of the study;

A brief summary of the **findings**;

The **recommendations**; and

Any **stakeholders** or people responsible for decisions and actions.

C. Table of Contents, for reports longer than 10 pages.

D. Background Information on the Project with:

Whether the report is part of a scoping report/ EIA/ HIA or not;

Type of development (e.g. low cost housing project, mining);

Whether re-zoning and/or subdivision of land is involved;

Developer and consultant and owner and name and contact details;

Terms of Reference;

Legislative requirements.

E. Background to the Archaeological History of the area with,

Literature review or archival research sufficient to place the sites located in archaeological/historical context;

Reference to museum or university databases and collections;
Previous relevant impact assessment reports for the area.

This background is required in part to anticipate or predict the kinds of heritage resources that might occur, and in part to gauge the regional significance of findings made during the current assessment.

F. Description of the Property or Affected Environment its setting and heritage resources, with:

Details of the area surveyed including;

Full **Location Data** for Province, Magisterial District/Local Authority and property (e.g. farm/erf) name and number, etc.;

Location Map(s)/ orthophotos of the general area. These must include the map name and number (e.g. 3318DC Bellville). Maps must include at least a 1:50 000 and (if available) also a 1:10 000 (i.e. most detailed possible). They should be preferably at least A4 in size.

Either the Location Map or the Site Map (see 7.1G below) must have the polygon of the **area surveyed** marked on it and full geographical co-ordinates for all relevant points and, where applicable, indication of the area to be developed (footprint).

Description of the methodology used including:

How the area was searched (e.g. a three-person team for two days, and whether on foot or not!) and what, if any, sampling techniques were used;

What the restrictions to the study were, for example:

visibility affected by high grass or bush or vegetation cover, walls or concrete surfaces;

physical or other impediments (e.g. vlei) to the assessment of the area;

How the data was acquired, and details of research equipment.

G. Description of Sites identified and mapped with:

Details of the **location of the sites** including:

Site Map or aerial photograph of the specific area showing the location of all sites (at least A4 size. Make it clear how this relates to the Location Map described above (7.1F).

GPS readings with the model and datum used (WGS 84 is considered the most useful). Please comment on the accuracy. If co-ordinates are read off the 1:50 000 map, please indicate this.

Wherever possible the GIS track actually surveyed should be mapped.

An adequate **description of each site** including:

Type of site (e.g. open scatter; shell midden, cave/shelter);

Site categories (e.g. Earlier Stone Age, Late Iron Age);

Context (i.e. primary or secondary);

Cultural affinities, approximate age and significant features of the site;

Estimation or measurement of the extent (maximum dimensions) and orientation of the site(s);

Depth and stratification of the site (where shovel test permits have been given), both in the text and through photographs of the sections;

Possible sources of information about past environments, such as stalagmites/ stalagmites, flowstone, dassie middens, peat or organic rich deposits.

Photographs and diagrams, of good quality, with a centimetre scale (e.g. for artefacts) or metre scale (e.g. for large scale village plan) and a caption. Include a 'wide angle' photo of the sites.

Threats or sources of risk and their impact on the heritage resources (e.g. earth moving, traffic of vehicles or humans, erosion).

If the sites are in KwaZulu-Natal or the Northern Cape please apply to the old Archaeological Data Recording Centres at the Provincial Museums for **National Site Numbers** (for sites that will be conserved, excavated or collected).

H. Description of the Artefacts, Faunal, Botanical or Other Finds and Features for each site.

Record meaningful information and consider supplying:

Raw material, type, maximum dimensions and relative frequency of and significant attributes of stone tools observed on the surface;

Basic description of ceramics, other artefacts and occurrences such as rock art;

Description of features (e.g. hearths, bedding, walling);

Basic description of faunal or botanical taxa and estimated frequencies;

Adequate photographic and graphic representations with scale in centimetres; and cross-reference photographs with a map showing where the objects in the photographs were found;

Location of the repository at which photographs, rock art tracings and field records are kept.

I. Clear Description of Burial Grounds and Graves with:

Clear written and photographic description of any graves;

Exact or estimated age and affinities of the burials;

Clear discussion for the client of the legal implications (include reference to both the Act and the regulations for s.36³ and particularly the public participation process and whether this should be done by the archaeologist or may be better done by a social consultant).

J. Statement of Significance (Heritage Value) describing the significant archaeological heritage value of each site in terms of the legislation (NHRA, section 3 (3)) and give reasons.

K. Field Rating (Recommended grading or field significance) of the site:

While **grading** is actually the **responsibility of the heritage resources authorities**, all reports should include **Field Ratings** for the site(s) discussed (proposals for grading), to comply with section 38 of the national legislation, for example:

National: This site is considered to be of Field Rating/Grade I significance and should be nominated as such (mention should be made of any relevant international ranking);

Provincial: This site is considered to be of Field Rating/Grade II significance and should be nominated as such;

³ National Heritage Resources Act (Act No. 25 of 1999) and the permit regulations (*Government Gazette* Vol. 240, No. 21239).

Local: this site is of Field Rating/Grade IIIA significance. The site should be retained as a heritage register site (High significance) and so mitigation as part of the development process is not advised;

Local: this site is of Field Rating/Grade IIIB significance. It could be mitigated and (part) retained as a heritage register site (High significance);

Generally Protected A (Field Rating IV A): this site should be mitigated before destruction (generally High/Medium significance);

Generally Protected B (Field Rating IV B): this site should be recorded before destruction (generally Medium significance);

Generally Protected C (Field Rating IV C): this site has been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (generally Low significance).

L. Recommendations including:

An **assessment of the potential impact of the development on these sites**, relative to sustainable social and economic benefits;

Proposals for **protection or mitigation** relating to:

Possible alternatives in the development that might allow the protection and conservation of the sites; or

The need for mitigation of adverse impacts; or

The need to conserve certain sites because of their heritage value.

Detailed recommendations with regard to **burial grounds and graves**. This must inform the client about the full process and enable the heritage authority to make decisions about permits.

This must include:

Recommendations for protection of the grave(s) during the development and in the long term, e.g. fencing and plans for maintenance (mini-management plan); OR

Recommendations for relocation of the grave(s), or both.

An indication of what must be done at each site:

If the site is of Low⁴ Significance (see Kg above) the recommendation may be that the site must be mapped, documented and then destroyed (with a permit / letter of permission / Record of Decision from the heritage authority);

If the site is of Medium⁵ Significance the recommendation may be for a measure of mitigation after which the site may be destroyed. Mitigation usually involves a requirement to collect or excavate a sample of the cultural and other remains that will adequately allow characterization and dating of the site. (The archaeologist will require a permit for the excavation and collection. If, after this mitigation significant archaeological residues or parts of sites remain, the archaeologist should request the developer to apply for a permit for destruction or fill in the

⁴ or in rare circumstances Medium

⁵ or in rare circumstances High

application for them to sign! In this way the heritage resources authority can help the archaeologist ensure that the recommended mitigation takes place;

If the site is of High Significance the recommendation may be that it be nominated as a heritage resource and conserved (e.g. provision of boardwalks, fencing, signage, guides) and protected as a heritage resource (either being listed on the Heritage Register or being declared as a Provincial or National Heritage Site).

If sites are to be protected a Site Management Plan should be required. For mini-plans, where small sites are incorporated into developments, this must include an indication of who is responsible for maintenance and how this process will be monitored.

M. Conclusions.

N. Bibliography detailing citations in the text of the report. Remember that all sources should be adequately acknowledged (even the web).

O. Appendices if any.

Phase 1 Archaeological Reports: General Comments

Take into account:

That ephemeral sites may not be unimportant as they may represent the only trace on the landscape of a particular people or period and must be adequately sampled and described so as to supply important information about human settlement patterns.

That bush clearing and construction work may have a strong negative impact on sites.

That assessment should include access roads, etc.

That specialists are expected to assess the whole property or to indicate why only part of the property is to be affected by short term and long term effects of the development.

Indicate the location of any significant extra documentation or photographic material not included in the report itself.

Provide information and recommendations to the client including the scope of the heritage legislation that applies; the need to apply for permits in good time before disturbing sites in any way; and the need for approval of the heritage authority before the destruction of sites that have been recorded.

Give the Heritage Resources Authority enough information to assess with confidence whether those recommendations should be approved or modified and whether to issue permission for destruction of sites.

Make it clear to the developer that the final decisions rest with the heritage authority and that permission is required for destruction.

Phase 1 Reports on Particular Types of Archaeological Sites

SAHRA and Heritage Western Cape are working independently (with experienced practitioners) on minimum standards and recommendations for particular types of sites or concerns. SAHRA has drafted recommendations for Shell Midden Sites and Suburban and Historic Sites and HWC has

finalized recommendations for Early Stone Age sites and Dating. In time these will be added as appendices.

PHASE 2 PERMIT MITIGATION REPORTS: MINIMUM STANDARDS

Every Archaeo(/Palaeonto)logical Phase 2 Permit Report must include:

A. Title Page with:

A **Title** that indicates the name and geographical location of the site(s), including property name (possibly magisterial district) and province (please include key names already used in Phase 1 reports and permit applications!);

Author(s) name(s) and details, company name and contact details;

Developer / consultant name (if applicable);

Date (and month);

Permit Number (NB!).

B. Executive Summary including:

The purpose of the work;

A brief summary of the findings;

The recommendations for the future of the site.

Stakeholders.

C. Table of Contents, for reports longer than 10 pages.

D. Background Information on the Project (as applicable, see section 7.1.D above):

E. Background to the Archaeological/ Palaeontological History of the area,

A literature review, archival research;

Previous relevant work done in the area.

F. Name and Geographical Location of the Site(s) including:

Name of site and full location data for property (e.g. farm/erf) name and number, etc., Magisterial District and Province;

Location Map(s)/Orthophotos of the general area. These must include the map name and number (e.g. 3318DC Bellville). Maps must include at least a 1:50 000 and (if available) also a 1:10 000 (i.e. most detailed possible). They should be preferably at least A4 in size.

Site Map(s) or aerial photograph(s) of the specific area showing the location of all sites (at least A5 size);

GPS readings with the model and datum used (WGS 84 is considered the most useful); and with the accuracy attained.

G. Description of the Work Done:

Site description (see also section 7.1 above).

Methodology used (including number of people and their responsibilities. [Note: Spits must not be used in archaeological excavations if stratigraphy can be detected. No spits should be >100mm in depth, in the case of M/LSA excavations!]

A written assessment of the work done including discussion of:
features and object(s), graves or fossils excavated or removed;
conclusions reached regarding the site and its cultural (or, if palaeontological, its stratigraphic) affinities, approximate age and significant elements.

Suitable illustration including:

A detailed site plan on which excavated or collected areas are marked;

Table(s) categories of artefacts, fauna / fossils etc, excavated or removed;

Accurate scale drawings of the stratigraphy;

Photographs with a centimetre scale and a caption. Include a 'wide angle' photo and avoiding high contrast situations.

Name of the Repository, that is, the institution curating the material and the field notes and records.

H. Description of Artefacts, Faunal, Botanical, Other Remains / or Fossils (see s. 7 above).

I. Recommendations including:

Possible declaration as a heritage site;

Conservation requirements for the site, e.g. fences boardwalks, etc (and the need for a permit);

The need for Site Management Plan;

Plans for or the need for interpretation and signage at the sites

Any other recommendations pertaining to site.

J. Conclusions.

K. Bibliography detailing citations in the text of the report.

L. Appendices if any.

Phase 2 Permit Reports: General Comments

Remember that the objectives of Phase 2 Mitigations include:

Investigation of each potentially important site to establish significance and so determine the future of the site;

Rescue of representative material from the site to allow us to record the nature of each site and establish its age before it is destroyed and to make samples accessible for future research;

Interpreting the evidence recovered to allow for education of the public and promotion of heritage (which may form part of a Phase 3 project).

Every permit holder must submit to the relevant Heritage Authority:

Annual '**Interim**' or progress Phase 2 permit report(s) which should be as comprehensive as possible and must: reflect the full details about the location of the site and its setting; the archaeological/palaeontological background; a description of the work done (with photos, maps and diagrams); and results to date.

A systematic '**Final**' **Phase 2 permit report** (within one year of the expiry of a permit) including: the above data; and full details of the excavation, collection, removal, analysis and interpretation of the material.

Researchers are requested to remember that copies of all publications, reports and theses relating to material acquired in terms of a permit (even if the work is done by other researchers and students, and even if the final report is in) must be sent to the relevant heritage authority for assessment. Ultimately reports are required by SAHRA for the national heritage library.



ADDENDUM C. CHRONOLOGY OF THE ARCHAEOLOGY & HISTORY AT MOOPLAATS

