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HERITAGE IMPACT ASSESSMENT OF SAPPI SAICCOR  
AMAKHULU EXPANSION,  
UMKOMAAS,  
KWAZULU-NATAL, SOUTH AFRICA

**Assessment and report by**



**for**

**WSP Environmental Consultants**

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## **Management summary**

eThembeni Cultural Heritage was appointed by WSP Environmental Consultants to undertake a heritage impact assessment of the proposed expansion of the Sappi Saiccor Mill near Umkomaas, in terms of the KwaZulu-Natal Heritage Act No 10 of 1997. One eThembeni staff member inspected the proposed development site on 19 October 2005 and completed a controlled-exclusive surface survey, as well as a database and literature search.

We identified no heritage resources of significance, as defined in the KwaZulu-Natal Heritage Act 1997 and the criteria contained in the Appendix to this report, on the property.

If permission is granted for development to proceed, the client is reminded that the Act requires that a developer cease all work immediately and notify Amafa aKwaZulu-Natali should any heritage resources, as defined in the Act, be discovered during the course of development activities.

We have submitted this report to Amafa aKwaZulu-Natali in fulfilment of the requirements of the KwaZulu-Natal Heritage Act. The client may contact Ms Elize Becker at Amafa's Pietermaritzburg office (telephone 033 3946 543) in due course to enquire about the Council's decision.

## Introduction

eThembeni Cultural Heritage was appointed by WSP Environmental Consultants to undertake a heritage impact assessment of the proposed Amakhulu expansion of the Sappi Saiccor Mill near Umkomaas, in terms of the KwaZulu-Natal Heritage Act No 10 of 1997. Section 27(1) of the Act requires such an assessment in case of:

- (a) construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
- (b) construction of a bridge or similar structure exceeding 50 m in length; and
- (c) any development, or other activity which will change the character of an area of land, or water –
  - (i) exceeding 10 000 m<sup>2</sup> in extent;
  - (ii) involving three or more existing erven or subdivisions thereof; or
  - (iii) involving three or more erven, or subdivisions thereof, which have been consolidated within the past five years; or
- (d) the costs of which will exceed a sum set in terms of regulations; or
- (e) any other category of development provided for in regulations.

A heritage impact assessment is not limited to archaeological artefacts, historical buildings and graves. It is far more encompassing and includes intangible and invisible resources such as places, oral traditions and rituals. In the KwaZulu-Natal Heritage Act 1997 a heritage resource is defined any place or object of cultural significance i.e. of aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This includes the following wide range of places and objects:

- (a) places, buildings, structures and equipment;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including -
  - (i) ancestral graves,
  - (ii) royal graves and graves of traditional leaders,
  - (iii) graves of victims of conflict,
  - (iv) graves of important individuals,
  - (v) historical graves and cemeteries older than 60 years, and
  - (vi) other human remains which are not covered under the Human Tissues Act, 1983 (Act No.65 of 1983 as amended);
- (h) movable objects, including -
  - (i) objects recovered from the soil or waters of South Africa including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - (ii) ethnographic art and objects;
  - (iii) military objects;
  - (iv) objects of decorative art;
  - (v) objects of fine art;
  - (vi) objects of scientific or technological interest;
  - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings; and
  - (viii) any other prescribed categories, but excluding any object made by a living person;
- (i) battlefields;
- (j) traditional building techniques.

## **Nature and description of proposed activities**

The Sappi Saiccor Mill, located in Umkomaas, KwaZulu-Natal, proposes to expand its chemical cellulose production from about 580 000 to approximately 810 000 tons per annum to meet customer demand. The global demand for chemical cellulose is increasing steadily, placing increasing pressure on Saiccor to supply its existing customer base and resulting in the announcement of several competitor capacity expansions around the world. In order to maintain its competitive position, Saiccor plans to expand its operations, and in so doing, to stimulate economic growth and job creation in the KwaZulu-Natal South Coast.

The project will involve the upgrading and introduction of a variety of components:

- Upgrading of existing chipping lines or installation of new lines and closing some existing lines,
- Using an area in the adjacent sugar cane farm for log storage over Christmas and peak overflow period,
- New internal logistics and weighbridge,
- Additions to Eskom Rayon Substation,
- A new dry solids magnesium oxide recovery boiler, wet stack, bleach plant and pulp drying machine,
- Modifications to the existing chlorine dioxide plant and conversion of some calcium digesters to magnesium digesters,
- Additional calcium washing modifications,
- A new set of magnesium digesters and associated infrastructure, including storage and cooling towers,
- New air compressors, driers, evaporator plant and turbine/generator and
- Additional workshops, stores and control rooms as required.

## **Site description and environmental issues**

The Sappi Saiccor Mill is located at 30 10 59.5S; 30 46 37.0E. Access is via the N2 freeway south of Durban. Take the Umkomaas exit and turn north onto Saiccor Road. Travel for four kilometres to a T-junction and turn right. The mill entrance is located 500 metres along this road. The proposed expansion comprises about five hectares of land that have been modified seriously by residential and industrial activities; surrounding land uses are residential and light industrial.

The proposed process changes will reduce coal demand at the mill, reducing sulphur dioxide emissions from the site. The plant changes will also reduce fugitive emissions. Extensive ambient air quality monitoring is currently undertaken around the mill. This information will be studied as part of the scoping process and if there are issues relating to air quality and the expansion, modelling of potential emissions will be undertaken as part of the Environmental Impact Assessment phase of the process.

There could be an increase in noise on the site due to the proposed additional plant. Increased road traffic will also affect surrounding noise levels. If these changes are significant, baseline noise monitoring will be undertaken. Predicted noise as a result of the expansion will then be modelled and noise emission limits identified, with consideration of the nearest sensitive receptors.

Air quality in the area is likely to improve as a result of the expansion, resulting in positive health impacts. A health assessment will be undertaken as part of the Environmental Impact Assessment phase of the project if necessary.

Traffic to the plant will increase as more timber will be delivered to and more product removed from the site. Saiccor will undertake a traffic survey and assessment as part of the project feasibility. If this assessment concludes that the expansion could affect present traffic levels significantly, a traffic impact assessment will be undertaken as part of the Environmental Impact Assessment phase of the project.

The amount of effluent produced from the mill is not expected to increase as a result of the project and the quality of the effluent will improve. Predicted changes in effluent quality and quantity will be examined as part of the Environmental Impact Assessment process if required.

No additional water will be required for the expansion and it is likely that mill's water consumption will be reduced. Between 100 and 150 permanent jobs will be available as a result of the expansion, while temporary jobs will also be created during the construction phase of the project.

## Methodology

One eThembeni staff member inspected the development area on 19 October 2005. Soil surface visibility was good and we completed a controlled-exclusive surface survey, where 'sufficient information exists on an area to make solid and defensible assumptions and judgements about where [heritage resource] sites may and may not be' and 'an inspection of the surface of the ground, wherever this surface is visible, is made, with no substantial attempt to clear brush, turf, deadfall, leaves or other material that may cover the surface and with no attempt to look beneath the surface beyond the inspection of rodent burrows, cut banks and other exposures that are observed by accident' (King 1978).

No excavations or sampling were undertaken, since a permit from Amafa aKwaZulu-Natali is required to disturb a heritage resource.

We consulted various provincial databases, including historical, archaeological and geological sources and undertook a limited literature review. Geographic coordinates were obtained with a handheld Garmin GPS72 global positioning unit.

## Background

No activities associated with the proposed development had started prior to our assessment.

The general area is one of variable heritage resource significance and the following tables provide a brief summary of archaeological time periods:

<b>E arly</b>	1.5 million to 180 000 years ago	Only stone artefacts remain from
<b>S tone</b>		this time period, including large
<b>A ge</b>		choppers, cleavers and hand axes
<b>M iddle</b>	180 000 to 35 000 years ago	Stone tools smaller than in ESA;
<b>S tone</b>		include blades and flakes; human
<b>A ge</b>		and animal remains also found
<b>L ater</b>	35 000 years ago to the time	Variety of artefacts made from
<b>S tone</b>	of European settlement	organic and inorganic materials;
<b>A ge</b>		human remains, shell middens etc

<b>E arly</b>	400 – 500 AD	Mzonjani phase
<b>I ron</b>	500 – 700 AD	Msuluzi phase
<b>A ge</b>	700 – 900 AD	Ndondondwane phase
	900 – 1200 AD	Ntshekane phase
<b>L ate</b>	1200 – 1500 AD	Settlement by Nguni speakers
<b>I ron</b>	1500 – 1700 AD	Introduction of maize
<b>A ge</b>	1700 – 1850 AD	Pre-European settlement
	1850 AD to present	Historical

Numerous Stone and Iron Age sites have been recorded in the area (Maggs 1989, Mazel 1989).

Early Stone Age stone scatters occur in raised beach gravels, eroded areas and ancient coastal dunes. No information is available on the foods eaten by the Early Stone Age people in Natal, but it can be assumed on the basis of evidence on Early Stone Age people elsewhere that their diet consisted primarily of animals and plant foods. It was also during this period that people learnt to control fire' (Mazel 1989: 3-5).

'Clear technological differences separate the Middle Stone Age from the Early Stone Age. Whereas Early Stone Age tools were generally core tools [choppers, handaxes, cleavers], Middle Stone Age tools were made of flakes and blades detached from the core [trapezoids, segments, scrapers, points, flakes, blades]. Handaxes and cleavers were absent...

'Relatively little is known about the particular types of food that the Middle Stone Age hunter-gatherers ate. Border Cave [situated in the Lebombo Mountains on the border between South Africa and Swaziland] is the only site from which information is at present available... Small quantities of a wide variety of animals were found in the Border Cave excavations. These included honey badger, dassie, Burchell's zebra, bushpig, warhog, hippopotamus, steenbok, oribi, mountain reedbuck, waterbuck, roan / sable, impala, blesbok, hartebeest / tsessebe, blue wildebeest, springbok, greater kudu, nyala, bushbuck, eland, Cape buffalo and possibly an extinct giant Cape horse (*Equus capensis*).

'A handful of seeds was also found at Border Cave, while grindstones, which may have been used in the processing of plant foods, have been recovered from the Middle Stone Age layers at Umhlatuzana Shelter [located between Durban and Pietermaritzburg]...

'Evidence of the manufacture of cultural articles from materials other than stone first appears during the Middle Stone Age. So also does evidence concerning religious practices, the final Middle Stone Age stage at Border Cave producing the earliest known burial so far attributed to the Middle Stone Age' (Mazel 1989: 6-8).

Recent excavations at Sibhudu Shelter, a near-coastal site located between the Mvoti and uMngeni rivers, promise to shed more light on the Middle Stone Age of KwaZulu-Natal.

Later Stone Age sites occur throughout the province, with high concentrations in places such as the uKhahlamba mountains where rock shelters suitable for occupation are plentiful.

'Stone artefacts are overwhelmingly the most common cultural item recovered from the excavations that have been carried out, followed by pottery (belonging to the last 2 000 years), ground, polished and shaved bone, beads and ostrich eggshell... [Stone] scrapers were probably used for removing the fat from animal skins before these were pegged out to dry. Adzes were probably used for shaving wood and, to a lesser extent, bone; while backed pieces, of which there are different types, were probably employed in hunting and cutting up carcasses.

'A great deal of information about the foods Later Stone Age hunter-gatherers ate has been obtained from animal, plant and marine and freshwater shell remains. In some cases, it has been possible to identify the remains of individual species. As small animals in particular are sensitive to environmental fluctuations, these remains can also tell us much about past environments. Botanical remains are also very useful, for seeds can indicate which fruits and berries Later Stone Age people ate. And, because fruits and berries are seasonal, they can also provide information about the months during the year when sites were occupied' (Mazel 1989: 11-12).

'One of the main themes of Later Stone Age research in South Africa, including Natal, has been that of seasonality. It has been hypothesized, on the basis of the analysis of the seasonal movements of large antelope, that the food resources of southern Natal would have been exploited on a seasonal basis by hunter-gatherers. According to this hypothesis, they would have occupied the Drakensberg in summer and the Thornveld and coastal areas during winter, traversing the Midlands along ridges rather than in the valleys.

'Recent field-work based on this hypothesis has suggested that in southern Natal during the last 3 500 years, hunter-gatherers would have occupied the Drakensberg in spring and summer (October to March), the coastal zone in winter (April / May to August), and the Midlands in autumn and late winter (March / April to September). This seasonal hypothesis...has given rise to the speculation that while they were in the Drakensberg, the hunter-gatherers would have lived in large groups and would have operated from large home-base sites.

'One of the results of the formation of these larger social units could have been an increase in ritual activity. Social organisation in the Midlands, however, would have been characterized by the small mobile groups that traversed the zone, while in the coastal zones larger groups, but not as large as those in the Drakensberg, would have been found' (Mazel 1989: 17).

One feature of the Later Stone Age in southern Africa with great academic and popular appeal is its rock paintings, concentrated particularly in the uKhahlamba / Drakensberg mountains.

'The first recordings of rock paintings in the Drakensberg were made over 100 years ago. Since then, they have been the focus of intensive research and of numerous publications. On completion of a three-year survey of painting sites in the Drakensberg in 1981, 516 sites, containing a total of 29 874 paintings, were known. Rock art occurs, but less frequently, in other areas of Natal but it has never been adequately surveyed and researched.

'A great problem lies in establishing the age of the art, but some advances have been made. The earliest dated paintings in southern Africa are from the Apollo 11 Cave in southern Namibia. Dated to about 26 000 years ago, these paintings are about as old as the earliest Palaeolithic art in western Europe [the latter is now thought to be up to 40 000 years old]. The Apollo 11 dates are based on the age of the deposits in which slabs of painted rocks were recovered. The next oldest known art in southern Africa are pieces of engraved stones from Wonderwerk Cave in the northern Cape, dated to around 11 000 years ago. An increasing number of painted and engraved stones date to within the last 10 000 years, especially the last 4 000 years, but none are from Natal.

'In the Natal Drakensberg, besides the paintings of cattle and sheep which, in all likelihood, postdate the arrival of the Iron Age farming communities 1 500 to 2 000 years ago and those of horses, wagons and whites which postdate AD 1 800, we are unable to put dates to the paintings. However, as the area is high in rainfall and experiences great temperature variations, both of which cause weathering in rocks, it is unlikely that the earliest paintings still visible on the rocks are more than a few thousand years old.

'New and improved radio-carbon dating techniques, which have been used with success in the Western Cape, offer some hope of our being able to establish the age of the wall paintings in the not too distant future.

'Interpretation of the paintings is a source of continuing controversy. There are three main theories. The first is that they were executed merely to illustrate what was seen, in other words, 'art for art's sake'. The second is that they represent a form of sympathetic magic, reflecting a belief that the painting of appropriate scenes before a hunt, or after a successful hunt, would enhance the prowess of the hunters. The third is that they are symbolic, related to hunter-gatherer religious practices, primarily trance performance, and perform important social functions.

'Hunter-gatherer historical records as well as ethnography both favour what has been loosely phrased the 'trance hypothesis', for many features of trance performance and trance vision are identifiable in the paintings. During trance dances, shamans enter trance and perform certain tasks such as the maintenance of social relations, the promotion of economic activity by, for example, guiding antelope into ambushes and controlling rain, and the maintenance of sound links between bands by means of 'out of body travel', in which they 'visit' associated bands.

'It has also been speculated that the art may have been a way of preparing novices for religious experience and an instruction for those who had not, or would not, experience trance. Thus, the shaman's art was not 'a luxury indulged in leisure time to provide pleasure and relaxation', but a 'remarkable aesthetic achievement' which lay at 'the very heart of the functioning of San society' (Mazel 1989: 17-19).

'The advent of the Iron Age saw not only the introduction of metallurgy. Of even greater significance was the introduction of agriculture, necessitating a settled, village way of life instead of the nomadic patterns of the Stone Age. It also provided for an appreciable increase in population density, as well as a more complex life-style. Richly decorated pottery is a hallmark of these early settlements. Domestic animals including cattle, sheep, goats and dogs were also a feature of the Iron Age, although current information indicates that they had already reached parts of South Africa, but apparently not Natal, during the Late Stone Age, through the agency of Khoisan herders...

'... the earliest Iron Age sites in South Africa, including Natal, relate to an eastern coastal and lowland cultural tradition with links as far north as the Kwale sites of eastern Kenya. This tradition has been named 'Matola', after a site in southern Mozambique, which provided close typological links between the Natal and eastern Transvaal sites<sup>1</sup>. [In KwaZulu-Natal] almost all of them are on the belt of ancient dunes, which would have been covered by coastal forest at the time' (Maggs 1989: 29-31).

'Most Early Iron Age sites in Natal are later than the [Mzonjani] period and are classified according to ceramic styles [refer to the table above]...By this time villages, often about eight hectares in size and probably containing a hundred or more people, had become common in the lower-lying and savannah areas, below an altitude of 1 000 metres. They were most common along the major rivers and in the coastal belt, where there was good, deep soil, sweet year-round grazing, and timber for building and fuel...

'Diet was based on agriculture and pastoralism, with a little supplementary hunting, fishing and gathering of wild plants and shellfish. Crops identified from seeds include several grains (bulrush millet, finger millet and probably sorghum), and probably the African melon... Most villages had one or more iron smelting areas and therefore produced their own requirements' (Maggs 1989: 31-32).

The beginning of the Late Iron Age marked a period of significant change in pottery styles, attributable to both socio-political and demographic factors (Maggs 1989). Settlements were no longer located in river valleys, but were built on higher ground where homesteads would benefit from cooling breezes and good views for strategic purposes.

Steep slopes, wetlands and marshy areas were used for grazing domestic animals and gathering wild food and medicinal plants. Settlements appear to have been much smaller, implying that 'society underwent a change away from the large Early Iron Age villages and towards the individual family homesteads of the historic Nguni-speaking peoples (Maggs 1989: 35).

Artefacts on Iron Age homestead sites include ceramic sherds, upper and lower grindstones and human and animal bones. Metalworking sites are often located in areas where iron ore is available and associated debris includes furnace remains, slag, bloom and ceramic sherds.

'The evidence or written sources [from shipwrecked Portuguese and other European mariners, who traversed lowland and coastal Natal on their way northwards to Mozambique] shows that, by the 1550s, while the coastal sourveld of Pondoland was thinly inhabited, coastal Natal from the Mtamvuna northwards was already well populated. A settlement of twenty hemispherical huts built of poles and thatch is described as being typical of the coast at that time. A later report confirms that such 'small villages' were the homes of kinship groups, each under the authority of a senior man. There can have been little difference between these homesteads and those of the nineteenth century in Natal and Zululand.

'The agro-pastoral economy of the Iron Age prevailed throughout the coastal regions, with cultivation typically a combination of grains, legumes and vegetables of the pumpkin-melon family. There were three types of grains, one being sorghum and another a smaller-seeded millet, specific identification being difficult to establish from the old Portuguese documents. Vegetables included beans, African groundnuts (both legumes), gourds, watermelons and pumpkins, while sorghum was cultivated for its sweet pith as well as for its seeds...There is evidence to show that tobacco was being cultivated and smoked by 1686. Cattle, sheep and goats were seen in quantities, as were chicken from southern Natal northwards' (Maggs 1989: 39).

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<sup>1</sup> This tradition is now known as Mzonjani in KwaZulu-Natal.



## **Observations and recommendations**

We identified no surface heritage resources of significance, as defined in the KwaZulu-Natal Heritage Act 1997 and the criteria contained in the Appendix to this report, within the proposed development area, due to extensive environmental alterations caused by industrial and residential activities.

### **Summary of findings in terms of the KwaZulu-Natal Heritage Act 1997 Section 27(3)**

**(a) the identification and mapping of all heritage resources in the area affected**

None.

**(b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in regulations**

Not applicable.

**(c) an assessment of the impact of development on such heritage resources**

Not applicable.

**(d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development**

Not applicable.

**(e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

The client has undertaken such consultation in terms of statutory requirements and retains the relevant documentation.

**(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives**

Not applicable.

**(g) plans for mitigation of any adverse effects during and after completion of the proposed development**

If permission is granted for the subdivision to proceed, the client is reminded that the Act requires that a developer cease all work immediately and notify Amafa should any cultural heritage remains, as defined in the Act, be discovered during the course of development activities.

## Conclusion

We have submitted this report to Amafa aKwaZulu-Natali in fulfilment of the requirements of the KwaZulu-Natal Heritage Act. According to Section 27(4) of the Act:

The report shall be considered timeously by the Council which shall, after consultation with the person proposing the development, decide -

- (a) whether or not the development may proceed;
- (b) any limitations or conditions are to be applied to the development;
- (c) what general protections in terms of this Act apply, and what formal protections may be applied to such heritage resources;
- (d) whether compensatory action shall be required in respect of any heritage resources damaged or destroyed as a result of the development; and
- (e) whether the appointment of specialists is required as a condition of approval of the proposal.

The client may contact Ms Elize Becker at Amafa's Pietermaritzburg office (telephone 033 3946 543) in due course to enquire about the Council's decision.

## References

King, T. F. 1989. The archaeological survey: methods and uses. Quoted in Canter, L. W. 1996. Environmental impact assessment. Second Edition. New York: McGraw-Hill, Inc.

Maggs, T. 1989. The Iron Age farming communities. In Duminy, A. and Guest, B. (eds) Natal and Zululand from earliest times to 1910. A new history pp. 28-48. Pietermaritzburg: University of Natal Press.

Mazel, A. 1989. The Stone Age peoples of Natal. In Duminy, A. and Guest, B. (eds) Natal and Zululand from earliest times to 1910. A new history pp. 1-27. Pietermaritzburg: University of Natal Press.

## APPENDIX

## SIGNIFICANCE AND VALUE OF HERITAGE RESOURCE SITES

The following guidelines for determining site significance were developed by the South African Heritage Resources Agency in 2003. We use them in conjunction with tables of our own formulation (see that for the Southern African Iron Age, below) when considering intrinsic site significance and significance relative to development activities, as well as when recommending mitigatory action.

Type of Resource  
Place  
Structure  
Archaeological Site  
Palaeontological Site  
Geological Feature  
Grave

Type of Significance

1. Historical Value

It is important in the community, or pattern of history

- Importance in the evolution of cultural landscapes and settlement patterns
- Importance in exhibiting density, richness or diversity of cultural features illustrating the human occupation and evolution of the nation, Province, region or locality.
- Importance for association with events, developments or cultural phases that have had a significant role in the human occupation and evolution of the nation, Province, region or community.
- Importance as an example for technical, creative, design or artistic excellence, innovation or achievement in a particular period

It has strong or special association with the life or work of a person, group or organisation of importance in history

- Importance for close associations with individuals, groups or organisations whose life, works or activities have been significant within the history of the nation, Province, region or community.

It has significance relating to the history of slavery

- Importance for a direct link to the history of slavery in South Africa.

2. Aesthetic Value

It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group

- Importance to a community for aesthetic characteristics held in high esteem or otherwise valued by the community.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.
- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

3. Scientific Value

It has potential to yield information that will contribute to an understanding of natural or cultural heritage

- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for information contributing to a wider understanding of the origin of the universe or of the development of the earth.
- Importance for information contributing to a wider understanding of the origin of life; the development of plant or animal species, or the biological or cultural development of hominid or human species.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the nation, Province, region or locality.

It is important in demonstrating a high degree of creative or technical achievement at a particular period

- Importance for its technical innovation or achievement.

**4. Social Value**

It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

- Importance as a place highly valued by a community or cultural group for reasons of social, cultural, religious, spiritual, symbolic, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

Degrees of Significance  
Rarity

It possesses uncommon, rare or endangered aspects of natural or cultural heritage

- Importance for rare, endangered or uncommon structures, landscapes or phenomena.

Representivity

It is important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects

Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.

Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, Province, region or locality.

Sphere of Significance	High	Medium	Low	
International	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
National	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Provincial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Local	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Specific Community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-----

What other similar sites may be compared to this site?

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### Southern African Iron Age

	Significance		
	- low	- medium	- high
Unique or type site			Yes
Formal protection			Yes
Spatial patterning	?Yes	?Yes	?Yes
Degree of disturbance	75 – 100%	25 – 74%	0 – 24%
Organic remains (list types)	0 – 5 / m <sup>2</sup>	6 – 10 / m <sup>2</sup>	11 + / m <sup>2</sup>
Inorganic remains (list types)	0 – 5 / m <sup>2</sup>	6 – 10 / m <sup>2</sup>	11 + / m <sup>2</sup>
Ancestral graves			Present
Horizontal extent of site	< 100m <sup>2</sup>	101 – 1000m <sup>2</sup>	1000 + m <sup>2</sup>
Depth of deposit	< 20cm	21 – 50cm	51 + cm
Spiritual association			Yes
Oral history association			Yes
➤ Research potential			High
➤ Educational potential			High

Please note that this table is a tool to be used by qualified cultural heritage managers who are also experienced site assessors.