

Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

**DRAFT REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT
FOR THE PROPOSED CHANGE OF LAND USE TO BANANA
PLANTATIONS OF THE FARMS VYEBOOM 414 JT PORTIONS 7 AND 9
AND MARLOTHI 524 JI IN THE TENBOSCH AREA, MPUMALANGA
PROVINCE**

For:

UMSINSI ENVIRONMENTAL SPECIALIST

REF: 11127

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December 2011

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Signed



Date 31 December 2011

Archaetnos cc was requested by Umsinsi Environmental Specialist to conduct a cultural heritage impact assessment (HIA) for the proposed cultivation of virgin land on the farms Vyeboom 414 JT, portions 7 and 9 and Marlothi 524 JI in the Tenbosch area in the Mpumalanga Province. The area to be cultivated for banana production cover approximately 500 hectares.

The client indicated the areas where the proposed development is to take place and the survey was confined to this area. A survey of the available literature was also undertaken in order to obtain background information regarding the area.

During the survey no area of cultural heritage significance was located in the indicated areas, due to impenetrable vegetation.

The proposed development may only continue after proper implementation of the additional measures to mitigate for possible heritage resources has been implemented.

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1. INTRODUCTION

Archaetos cc was requested by UmSinsi Environmental Consultants to conduct a cultural heritage impact assessment for the proposed cultivation of land for banana plantations. This is to be located in the Tenbosch area (fig 1) in the Mpumalanga Province. The N4 road runs in the middle of the surveyed areas, some of the proposed plantation areas borders the N4.

The area to be cultivated consists of several portions totaling 500 hectares (figures 2 & 3).

The client indicated the areas where the proposed development is to take place and the survey was confined to this area.

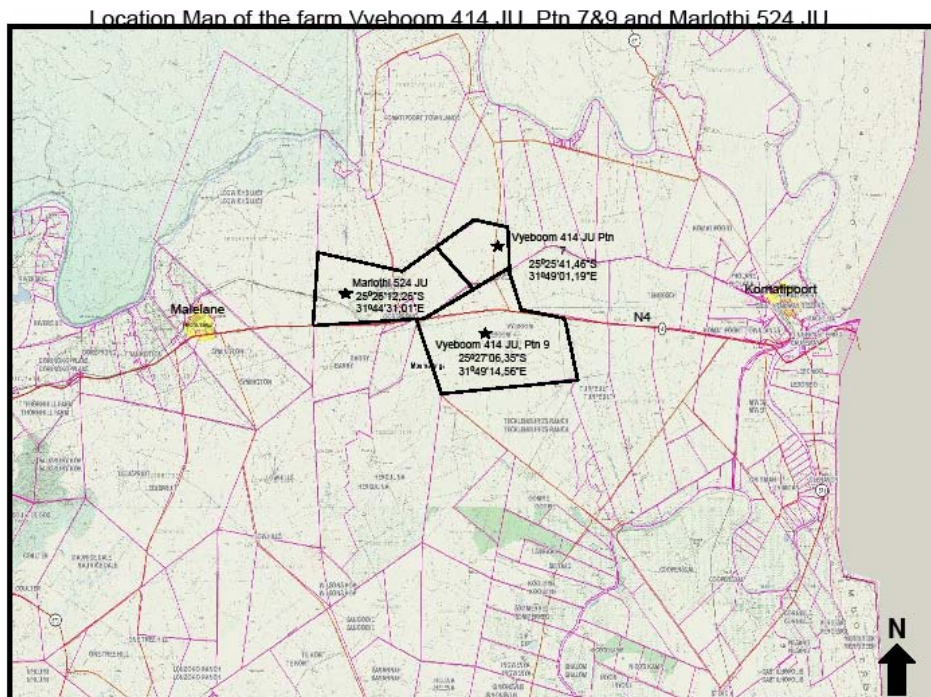


Figure 1 Location of the Tenbosch area, Mpumalanga

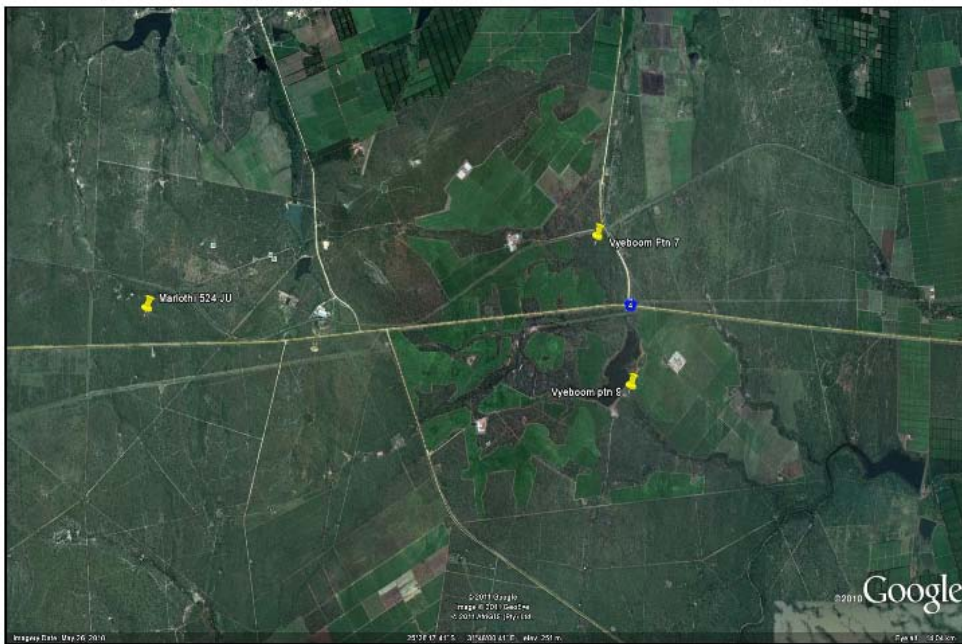


Figure 3 Map indicating the area of the proposed development.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.
5. Review applicable legislative requirements.

3. METHODOLOGY

3.1. Survey of literature

A survey of the available literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

3.2. Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed.

The survey was undertaken by vehicle and on foot as far as the vegetation permitted it.

3.3. Oral histories

People from local communities have been consulted in depth (Fisher *et al* 2001) during a large scale consultation process dealing with the unsuccessful Greater Tenbosch lands claim. A study and subsequent report (Fisher *et al* 2001), as part of the claims process, by the anthropologist, Dr. Fisher, has identified no ancestral graves and other sites of community importance.

3.4. Documentation

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities were determined by means of a Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

3.5. Evaluation of Heritage sites

The evaluation of heritage sites is done by using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

4. CONDITIONS AND ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix B).
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
7. It should be noted that in this particular case the grass cover in certain areas was very dense making archaeological visibility extremely difficult.
8. Although care was taken to give a comprehensive background on the history of the area, it has to be stated that it is impossible to give a complete indication on human activities of the past as sources are not always readily available. The information given in the report should however give a fair reflection of the past.

5. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

5.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The national estate (see Appendix D) includes the following:

- b. Places, buildings, structures and equipment of cultural significance
- c. Places to which oral traditions are attached or which are associated with living heritage
- d. Historical settlements and townscapes
- e. Landscapes and features of cultural significance
- f. Geological sites of scientific or cultural importance
- g. Archaeological and palaeontological importance
- h. Graves and burial grounds
- i. Sites of significance relating to the history of slavery
- j. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof

- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves

- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

5.2 The National Environmental Management Act

This act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

6. LOCATION AND DESCRIPTION OF THE AREA

The proposed development is located on the farms Vyeboom 414 JT, portions 7 and 9 and Marlothi 524 JI. It is in the Tenbosch Region, 15km from Hectorspruit, between Malelane and Komatipoort. The proposed site on Vyeboom portion 7 & 9 was used for grazing of cattle and game and is considered virgin land currently. The farm Marlothi has houses in a specific area and it seems as if it was once used for tourism activities.

Umbhaha Estates falls within Savanna Biome and the Crocodile River catchment. The vegetation (figure 4 & 6) is thick and dense and typical of this area, and includes various types of acacias and *Aloe marlothi*. The entire area is flat.



Figure 4 General view of the surveyed area

7. DISCUSSION

During the survey no areas of cultural heritage significance were identified, except for large areas (visible on most of the roads in Vyeboom portion 9) containing disturbed stone tool scatterings (Figure 5). This is due to the impenetrable nature (Figure 4 and 6) of the vegetation. This area is well known for its thick bush. The area is called Tenbosch, a historical name that refers to the thick bush (Bornman pers comm). The same issue of dense vegetation was encountered by Radford & Van Vollenhoven (2011) during a HIA survey near the Nkomati River. Very little historical settlement has thus occurred in this area. All available roads were accessed by a 4X4 vehicle and attempts were also made to access off road areas (Figure 5). Game paths were followed on foot until vegetation made it impossible to continue. The vegetation also made visibility of sites extremely difficult. This report indicates suitable mitigation measures to address the issue of access and visibility.

In order to enable the reader to better understand the possible occurrence of heritage resources, it is necessary to give a background regarding the different phases of

human history.



Figure 5 View of areas accessible by 4x4 vehicle



Figure 6 Example of a large scatter of Early and Middle Stone Age tools



Figure 7 Example of the impenetrable vegetation of the survey area

7.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

- Early Stone Age (ESA) 2 million – 150 000 years ago
- Middle Stone Age (MSA) 150 000 – 30 000 years ago
- Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

No Stone Age sites have been previously identified in this area. This is however probably due to a lack of research in this area and not necessary a lack of sites. (Radford & Van Vollenhoven 2011:16). During this survey a large area (Figure 5) containing Stone Age tools were found. The tools were however not found in a primary context, that is, exactly where the user left them. Most of the tools have either been eroded out of dongas or washed down a perennial stream.

7.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

- Early Iron Age (EIA) 200 – 1000 A.D.
- Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however, indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.
Middle Iron Age (MIA) 900 – 1300 A.D.
Late Iron Age (LIA) 1300 – 1840 A.D.

Bantu-speaking farmers had migrated, at the beginning of the 5th century, down the eastern lowlands and settled in the Mpumalanga Lowveld (Esterhuizen and Smith 2006). Subsequently, farmers continued to move into and between the Lowveld and Highveld of Mpumalanga until the 12th century. These Early Iron Age sites tend to be found in similar locations. Sites were found within 100m of water, either on a riverbank or at the confluence of streams. The close proximity to streams meant that the sites were often located on alluvial fans. The nutrient rich alluvial soils would have been favoured for agriculture. The availability of floodplains and naturally wetter soils would have been important for the practice of dry land farming.

A fairly large Early Iron Age site was identified nearby on the floodplain of the Komati River by Radford & Van Vollenhoven (2011) during an HIA for an anthracite mine. Preliminary analysis of the small sample of decorated potsherds identified seems to indicate that it may be from the Mzonjani facies of the Urewe tradition (Personal communication: A. Pelsler). Huffman (2007: 127-129) states that this facies is dated to AD 450 to 750.

Plug (1989) surmised that the poor soils in this area (Lowveld Early Iron Age sites were situated high on riverbanks above what suitable alluvial soils existed) meant that potential for agriculture and herding would have been limited. The areas surveyed are approximately 5kms from the Crocodile River and only contains perennial streams, suggesting that the area would not have been used by people during the Early Iron Age.

Late Age sites have been recorded in the area and include the area referred to by Bergh (1999) is the Pretoriuskop/Malalane sites and the Crocodile River Sites.

In the 1850s-60s King Mswati established a royal villages at Mjindini (west of Barberton) and Mekemeke (eastern Barberton) beginning the Swazi influence in the area (Delius 2006). This led to a phase of conflict with local groups where these groups moved into shelters and caves in an attempt to hide from the Swazis. The topography of the area excludes the presence of any such “refugee sites” (Delius 2006) from this period. That said metal working sites (Bergh 1999) from this period have been recorded at Malelane, Kaapmuiden, Kaalrug and Three Sisters. Evidence of iron smelting includes artefacts such as the remains of furnaces, tuyères, slag, iron implements and charcoal. Other activities included the mining and trading of red ochre from sites at Malelane, Three Sisters and Hectorspruit.

The Crocodile River area is also known for its “Bokoni” sites (Coetzee & Schoeman 2011), with gorges being more populated than open areas. These pre-colonial people controlled the trade networks in the river’s vicinity. Rivers were important routes for traders as it provided water, freeing them from carrying a supply with. Thus more trade goods could be carried.

No Iron Age sites were identified during the survey.

7.3 Historical Age

The Historical Age started with the first recorded oral histories in the area. It includes the in-migration of people that were able to read and write.

One of the first Europeans to enter this area was De Cuiper (Bergh 1999: 12, 116) who travelled in this area in 1825. The area was of special importance during historical times because of the booming trade in ivory and other products of the hunt and the relationship of these areas to long-established trade routes and their proximity to ports under Portuguese rather than British control. The main footpath to and from Delagoa Bay crossed both the Nkomati and Crocodile Rivers before heading north towards the Sabi River (Bergh 1999). The survey area falls between these two rivers. The first record of a Voortrekker following this route was the survey by Andries Potgieter in 1843 when he followed the Crocodile River to Delagoa Bay (Bergh 1999). The Crocodile River was the link between Lydenberg and Delagoa Bay (Bergh 1999). This route was initially not suitable for ox wagons as used by the Voortrekkers, but eventually both foot paths and wagon routes existed in this area with route points including the nearby Nelmapiusdrift.

It was only with the over-hunting and retreat of elephants that crop production and stock farming increased in importance while intervening belts of tsetse fly and malaria made close connection to the Mozambiquan coast impossible.

The area fell under the Lydenberg district in 1845 (Bergh 1999). By 1899 the Eastern Railway was built along the Crocodile River and the towns of Malelane, Hectorspruit and Komati established. In 1902 the area fell under the Barberton District and in 1930 it moved to the Nelspruit District.

The town of Komatipoort played a major role during the Anglo-Boer War (1899-1902) (Tempelhoff 1982: 9-11). The British volunteer regiment Steineackers Horse was active in this area during the Anglo-Boer War (1899-1902). The British march of Lt Gen. Pole-Carew, from Pretoria, reached Komatipoort on 24 September 1900, a week after Louis Botha and Gen. Viljoen turned their retreat at Hectorspruit on 17 September. By July 1901 the area along the railway formed part of a blockhouse line (Van Vollenhoven 2010: 83).

A report by Fischer *et al* (2001) relating to a land claim, states that none of the land claimants could identify any ancestral graves or other sites of cultural importance. It must be noted that this only refers to the last hundred years and that there is still the possibility of older sites and/or graves being present.

8. CONCLUSION AND RECOMMENDATIONS

The area of the proposed cultivation, Tenbosch, was not surveyed successfully. The area is characterised by extremely dense vegetation that severely hampered access and visibility. It is thus not possible to confirm or deny the presence of any heritage

resources. As such the following is recommended:

- Bush clearance takes place before the preparation of the area for agriculture. Before such clearance all workers and managers involved attend a short training course where they are informed on what possible resources might be exposed during clearance and what procedure to follow if they do come upon any such resources.
- A watching brief under the supervision of a qualified archaeologist or team of archaeologists must be implemented during the de-bushing of the areas to identify and mitigate when any sites are found. The de-bushing will take around 30 days in total and a 1-2 days a week rota is suggested for the watching brief.
- The out of context Stone Age scatterings does not require any further mitigation.
- The proposed development may only continue after implementation of the indicated mitigation measures.

It should be mentioned that the Eastern Railway pass through the area to be developed, but it is situated next to the current line and falls inside the railroad servitude. Associated structure such as a bridge and demolished rail workers houses also falls inside the servitude and will not be impacted upon.

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APPENDIX A

Definition of terms:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

Definition of significance:

- Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
- Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
- Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
- Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
- Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or 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.

APPENDIX C

Cultural significance:

- Low A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III Other heritage resources of local importance and therefore worthy of conservation

APPENDIX D

Protection of heritage resources:

- Formal protection

National heritage sites and Provincial heritage sites – grade I and II

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

- General protection

Objects protected by the laws of foreign states

Structures – older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials