



Archaetnos Culture & Cultural  
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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE  
PROPOSED ELANDSDRIFT EMPR, NEAR MOOINOOI, NORTHWEST  
PROVINCE**

For:

***PRESCALI ENVIRONMENTAL CONSULTANTS (PTY) LTD***

REPORT: **AE838**

by:

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## SUMMARY

Archaetnos cc was requested by Prescali Environmental Consultants (Pty) Ltd to conduct a cultural heritage impact assessment for a proposed Elandsdrift opencast mine. This is located close to Mooinooi in the Northwest Province.

The fieldwork undertaken revealed six sites of cultural heritage significance on the property. These will be impacted upon by the development and therefore suitable mitigation measures are recommended.

**The proposed development can only continue after these have been implemented.**

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## **1. INTRODUCTION**

Archaetnos cc was requested by Prescali Environmental Consultants (Pty) Ltd to conduct a cultural heritage impact assessment for the proposed Elandsdrift opencast mine, close to Mooinooi, Northwest Province. The client indicated the area where the proposed development is to take place, and the survey was confined to this area.

## **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. Recommend suitable mitigation measures should there be any sites of significance that might be impacted upon by the proposed development.
6. Review applicable legislative requirements.

## **3. CONDITIONS & 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. 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 vegetation was found to be very dense in certain areas. As a result these could not be walked through and archaeological visibility was therefore affected negatively.

#### **4. 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).

##### **4.1 The National Heritage Resources Act**

According to the above-mentioned law 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 or scientific or technological value.

##### **Archaeology, palaeontology and meteorites**

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

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment 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.

### **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.

## **4.2 The National Environmental Management Act**

This act 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.

## 5. METHODOLOGY

### 5.1 Survey of literature

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

### 5.2 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 on foot.

### 5.3 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 the Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

## 6. DESCRIPTION OF THE AREA

The proposed development area is located on portions 63, 64, 65, 69, 87, 88, 89, 90 and 111 of the farm Elandsdrift, north of the town of Mooi-nooi in the Northwest Province (Figure 1).



Figure 1 Locality map indicating the surveyed area.

The area where the development is to take place covers a long narrow strip running from east to west. Most of the area has been disturbed by farming and earlier mining activities (Figure 2). Remains of old mine dumps and other waste material was found throughout the area. On the eastern side the remains of an old hostel was found (Figure 3). These features are in a very bad state and therefore it may be demolished during further activities on the site.

On portion 65 the grass has been burned making archaeological visibility reasonably easy. In the other areas however the grass was long and dense bush, existing of medium and large thorn and candelabra trees made archaeological visibility difficult.

Some small hills, throughout the area were mainly used for grazing and the disturbance thereon was therefore less. However other farming and mining activities, such as buildings and other infrastructure has caused some disturbance here. The eastern boundary of the property is formed by a river and the topography runs slightly down to this side.



Figure 2      Remains of an old retaining wall from previous mining activities on the site.





Figure 3 Old hostel on the eastern side of the surveyed area.

## 7. DISCUSSION

During the survey six sites of cultural heritage significance were located on the property. This report indicates suitable mitigation measures in this regard.

In order to enable the reader to better understand these objects, it is necessary to give a background regarding the different phases of human history. The found objects will be integrated with this discussion.

### 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.

The closest known Stone Age in the vicinity of Mooinooi is known as the Magaliesberg Research Area. It consists of nine sites including rock shelters in the Magaliesberg Mountain. These date back to the Middle and Late Stone Age (Bergh 1999: 4; Korsman & Meyer 1999: 94-95).

The area does not contain shelters or any other indication of living areas. One can therefore assume that Stone Age people would have stayed somewhere in the hills and would have passed this area during their hunting and gathering activities.

Stone Age material is frequently found close to rivers, but none was found during this survey.

## **7.2 Iron Age**

The Iron Age is the name given to the period of human history when metal was mainly used to produce 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.

Late Iron Age sites have been identified in the area around the town of Mooiooi. In a band stretching roughly from Brits in the east to Zeerust in the west many Iron Age sites have been discovered previously (Bergh 1999: 7-8). These all belong to the Later Iron Age (Bergh 1999: 8-9). A copper smelting site was identified along the Hex River to the northwest of the surveyed area (Bergh 1999: 8).

During earlier times the area was inhabited by a Tswana group, the Fokeng. In the 19<sup>th</sup> century and even today, this group still inhabits this area with other Tswana groups, the Kwena and the Po (Bergh 1999: 9-10). During the Difaquane these people moved further to the west, but they returned later on (Bergh 1999: 11).

A large Iron Age complex was found during the survey.

## **7.3 Historical Age**

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write.

Early travelers have moved through this part of the Northwest Province. This included David Hume in 1825, Robert Scoon and William McLuckie in 1829 and Dr Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Dr Andrew Smith in 1835 (Bergh 1999: 13, 120-121). In 1836 William Cornwallis Harris visited the area. The well known explorer Dr David Livingston passed through this area between 1841 and 1847 (Bergh 1999: 13, 119-122).

The area around Mooinooi, including the surveyed area was inhabited by white pioneers as early as 1839 (Bergh 1999: 15). Some sites found during the survey date to the historical age.

#### 7.4 Discussion of sites identified during the survey

##### Site 1

This site consists of two old farm buildings probably used as storage areas (Figure 4-5).

GPS: 25°43'53"S  
27°32'26"E

The cultural significance of the buildings is **low**. Although they may be older than 60 years they are not unique and have been changed many times so that the original fabric is almost lost completely.

The development will have a direct impact on the two buildings. This report is however seen as ample mitigation in this regard and it may be demolished during development activities.



Figure 4 One of the old farm sheds at site no 1.



Figure 5 The second farm building at site no 1.

### Site 2

This site hosts the foundations of at least five farm labourers houses (Figure 6). These consist of no more than a few rocks packed in a rectangle indicating that it belongs to the historical age.

GPS: 25°43'54"S  
27°32'10"E

The cultural significance of the site is **high**. Although many similar remains are found during surveys these ones seem to be part of a large Iron Age site (no 3). It probably represents the latest phase of people staying on the site.

The development will have a direct impact on this site. It should therefore be mitigated before any mining activities may commence. This would include mapping the site as well as doing test excavations in order to obtain basic information about it. Within the context of the larger site, it might be the best not to disturb these remains.



Figure 6 Remains of farm workers houses that may be linked to the large Iron Age site (no 3).

### Site 3

This is a very large Late Iron Age complex. The site almost covers the entire surveyed area against the lower slopes of the hills indicated. It also runs across different portions of the farm (Figure 7-8).



Figure 7 A section of the stone walling of the Late Iron Age complex found.



Figure 8 A lower grinder next to another wall of site no 3.

Many different GPS coordinates were taken for this site (Figure 9). These are:

- 25°43'47" S  
27°32'10" E
- 25°43'42" S  
27°32'08" E – at lower grinding stone
- 25°43'43" S  
27°32'15" E
- 25°43'42" S  
27°32'27" E – at rectangular features
- 25°43'44" S  
27°31'20" E – at large refuse midden
- 25°43'45" S  
27°31'15" E
- 25°43'45" S  
27°31'09" E
- 25°43'45" S  
27°31'02" E
- 25°43'51" S  
27°31'10" E
- 25°43'52" S  
27°31'09" E – at rocks on top of hill which shows signs of having been used (as gongs?)
- 25°43'50" S  
27°31'16" E

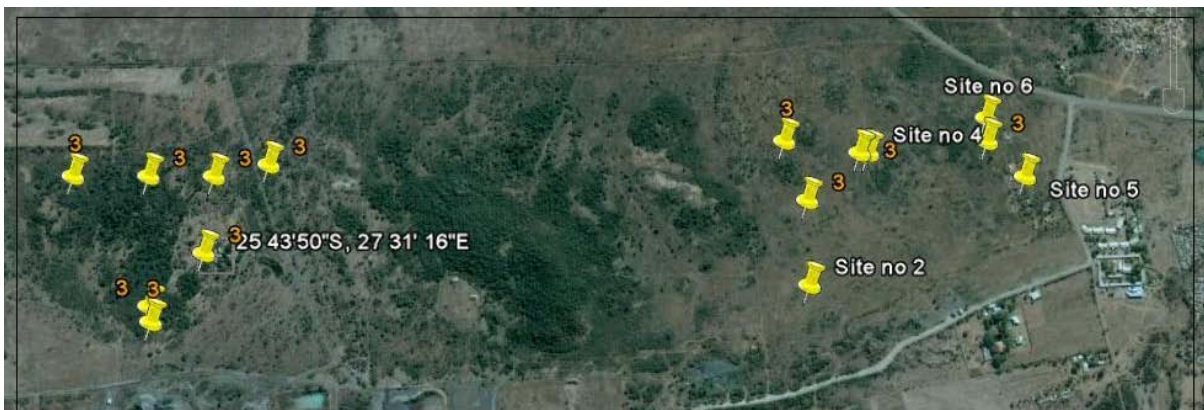


Figure 9 This image shows more or less the extent of site no 3 as well as sites probably associated with it. The hiatus in the middle is the part of the farm we were not allowed access to. However it is clear that the site also runs through this area.

The site includes hut circles, cattle enclosures, grain storage platforms, refuse middens, pottery, faunal material, grinding stones, etc. The cultural deposit seems to be reasonably thick. Rectangular structures are found on the outskirts of the settlement and these probably belong to the latest phase of settlement just before the site was abandoned.

The cultural significance of the site is **high**. It is an extremely large site and it will undoubtedly contain important scientific information.

The development will have a direct impact on this site. The site may not be demolished. It is possible that certain parts on the outskirts of the site may be removed. However this may only be done after the entire site has been mapped and test excavations conducted. A management plan will be needed to ensure the preservation of the site.

#### Site 4

This site consists of the foundation of rectangular structures, which probably were former workers dwellings. It may even form part of the later phases of site no 3 (Figure 10).

GPS: 25°43'43"S  
27°32'17"E



Figure 10 Foundations found at site no 4.

The cultural significance of the site is **high**. Although many similar remains are found during surveys these ones seem to be part of the mentioned Iron Age site (no 3). It probably represents the latest phase of people staying on the site.

The development will have a direct impact on this site. It should therefore be mitigated before any mining activities may commence. This would include mapping the site as well as doing test excavations in order to obtain basic information about it. Within the context of the larger site, it might be the best not to disturb these remains.

### Site 5

This site also consists of the foundation of rectangular structures, which probably were former workers dwellings. It also may form part of the later phases of site no 3.

GPS: 25°43'45"S  
27°32'30"E

The cultural significance of the site is **high**. Although many similar remains are found during surveys these ones seem to be part of the mentioned Iron Age site (no 3). It probably represents the latest phase of people staying on the site and may even be of a very recent age (20<sup>th</sup> Century).

The development will have a direct impact on this site. It should therefore be mitigated before any mining activities may commence. This would include mapping the site as well as doing test excavations in order to obtain basic information about it. Within the context of the larger site, it might be the best not to disturb these remains.

### Site 6

This is a graveyard consisting of at least 20 graves (Figure 11). The vegetation is very dense and one can assume that there most probably are more graves.



Figure 11 Graves at site no 6.

Only one grave has a headstone. It is made of granite and reads Rosta S Maseko who died on 1 October 1974. The grave is also fenced off. The other graves are all stone packed. Although the graveyard is right next to the Iron Age site, it seems as if the graves may be much more recent.



GPS: 25°43'40"S  
27°32'27"E

The cultural significance of the site is **high**. Graves are always of a high significance even if they are not older than 60 years. Unknown graves should be handled as if older than 60 years and most of these are currently unknown.

The development will have a direct impact on this site. Mitigation is therefore needed. With regards to the graves this could mean the exhumation of the remains. This however is a complex process of social consultation and obtaining permission. If possible, it seems as if in this case it would be better to fence the site off and allow access to possible descendants.

## 8. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it can be stated that the assessment of the area was conducted successfully. Most of the cultural heritage sites identified are highly significant. Suitable mitigation measures are therefore needed. The final recommendations are as follows:

- Site no 1 has been mitigated via this report and may therefore be demolished.
- Sites no 2, 4 and 5 seems to be part of site no 3, but it represents the latest phase of settlement. These sites needs to be mitigated with site no 3 and may only then be demolished. A destruction permit from the South African Heritage Resources Agency (SAHRA) will be needed.
- Site no 3 is of high cultural importance and should be left in tact. Mitigation recommended is that of doing test excavations and mapping the site. Sites 2, 4 and 5 should be included in this process. Through this process the importance of the site will become clear. This will lead to recommendations that may include demolishing certain parts of the site in future.
- A management plan is necessary to ascertain the preservation of the site.
- It would probably be best for the graves at site no 6 to be preserved in situ. The necessary measurements should be taken to ensure the safeguarding of the cemetery and to keep it in a good state by fencing it off. Access to descendants should be allowed.
- Should it not be possible to keep these graves in situ, it may be exhumed and relocated. However the proper legislative processes should be followed.
- One of the land owners indicated that another graveyard exists on the property. However he could not find it again. The developer should take note of this as well as of other possible grave sites. These should be handled in a similar fashion as site no 6.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility. Care should therefore be taken when development work commences that if any of these are accidentally discovered, a qualified archaeologist be called in to investigate.

## 9. REFERENCES

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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**

### 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.