



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A BASELINE CULTURAL HERITAGE ASSESSMENT DONE FOR  
THE PLATINUM GROUP METALS WATERBERG PROSPECTING AREA, ON  
THE FARMS BONNE ESPERANCE 356 LR AND TOO LATE 359 LR, LIMPOPO  
PROVINCE**

For:

***Platinum Group Metals (RSA) (Pty) Ltd***  
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**REPORT NO.: AE02316V**

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***2 May 2023***

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## **SUBMISSION OF REPORT**

**Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.**

**It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.**

**Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.**

## **DISCLAIMER**

**Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites are as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.**

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## SUMMARY

Archaetnos cc was requested by the Platinum Group Metals (RSA) Pty Ltd to conduct a baseline cultural heritage assessment for two farms on their Waterberg Prospecting Area. The project area lies to the west of the town of Bochum in the Limpopo Province.

The two farms that forms the study area are Bonne Esperance 356 LR and Too Late 359 LR. Although there will be no direct impact on these two farms, the possibility of blasting impact is also assessed.

The field survey for the project was conducted according to generally accepted HIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration. However, since the area is extremely large and inaccessible in some sections, the study is merely an indication of what cultural resources can be expected in the area.

A palaeontological desktop impact assessment was also done. This report indicates that the potential impact of the development on fossil heritage is moderate and low. Furthermore it is indicated that mitigation may be needed only if fossils are found. Also, the EMPr already covers the conservation of heritage and palaeontological material that may be exposed during construction activities and a chance fossil find protocol has been included.

Ten sites of cultural importance were identified on the two farms that were studied.

The following is recommended:

- Although there will be no impact from the mining activities on the Makgabeng plateau and the sites identified, the rock art sites are very vulnerable and thus mitigation is needed. One also needs to consider that there may be more sites than those identified during this study.
- Sites no. 1-7 are all rock art sites and receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted. As one can never be to certain about impact, the CMP should also address monitoring these sites at least annually to determine possible impact.
  - Since Site 4 is in danger as a result of it being close to human traffic, it may need extra steps to be taken to ensure its continuing existence. This needs to be addressed in the CMP.
- Sites no. 8-10 are all graves and falls outside of the study area. Graves are always regarded as having a high cultural significance. It should be included in

the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

- Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.
- The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

In all three cases the sites are inside of the village, which is unlikely to be impacted on. In such cases Option 2 is normally recommended. However, since it falls outside of the study area, and the graves are younger than 60 years of age, it may be left *in situ* without any additional measures needed.

- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation in certain areas it also is possible that some sites may only become known later. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- In this regard the following 'Chance find Procedure' should be followed:
  - *Upon finding any archaeological or historical material all work at the affected area must cease.*
  - *The area should be demarcated to prevent any further work there until an investigation has been completed.*
  - *An archaeologist should be contacted immediately to provide advice on the matter.*
  - *Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.*
  - *SAHRA's APM Unit may also be notified.*
  - *If needed the necessary, permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.*
  - *The removal of such archaeological material will be done by the*

*archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.*

- *Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.*

**CURRICULUM VITAE**  
**Prof. Anton Carl van Vollenhoven**

**PERSONAL INFORMATION**

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**TERTIARY EDUCATION**

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

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**Current:**

- *August 2007* – present – Managing Director for Archaetnos Archaeologists.
- *Since 2012*: Archaeologist and heritage official, Department of Environment and Agriculture, City of Tshwane
- *Since 2015*: Extraordinary Professor of History at the North-West University

**Previous:**

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archaetnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- *2014-2015*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *2020-2021*: Part-time lecturer in History at the North-West University

**OTHER**

- NRF C2 Research rating.

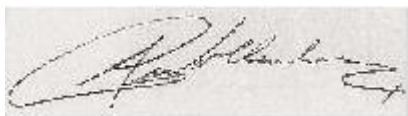
- Has published 42 peer-reviewed and 56 popular articles.
- Has written 13 books/book contributions/conference proceedings .
- Has been the author and co-author of over 1 118 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 84 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists. (Council member since 2022).
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014; 2018-2021).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member of the Provincial Heritage Resources Agency, Gauteng’s Council.
- Member of Provincial Heritage Resources Agency, Gauteng’s HIA adjudication committee (Chairperson 2012-2024).

A list of reports can be viewed on [www.archaetnos.co.za](http://www.archaetnos.co.za).

## DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:



Date: 2 May 2023

## LIST OF ACRONYMS

AIA – Archaeological Impact Assessment  
 AMP – Archaeology, Meteorites and Palaeontology unit of SAHRA  
 CMP – Cultural Management Plan  
 EAP – Environmental Assessment Practitioner  
 EIA – Environmental Impact Assessment  
 HIA – Heritage Impact Assessment  
 PIA – Palaeontological Impact Assessment  
 SAHRA – South African Heritage Resources Agency

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## 1. INTRODUCTION

Archaetnos cc was requested by the Platinum Group Metals (RSA) Pty) Ltd to conduct a baseline cultural heritage assessment for two farms on their Waterberg Prospecting Area. The project area lies to the west of the town of Bochum in the Limpopo Province (Figure 1-3).

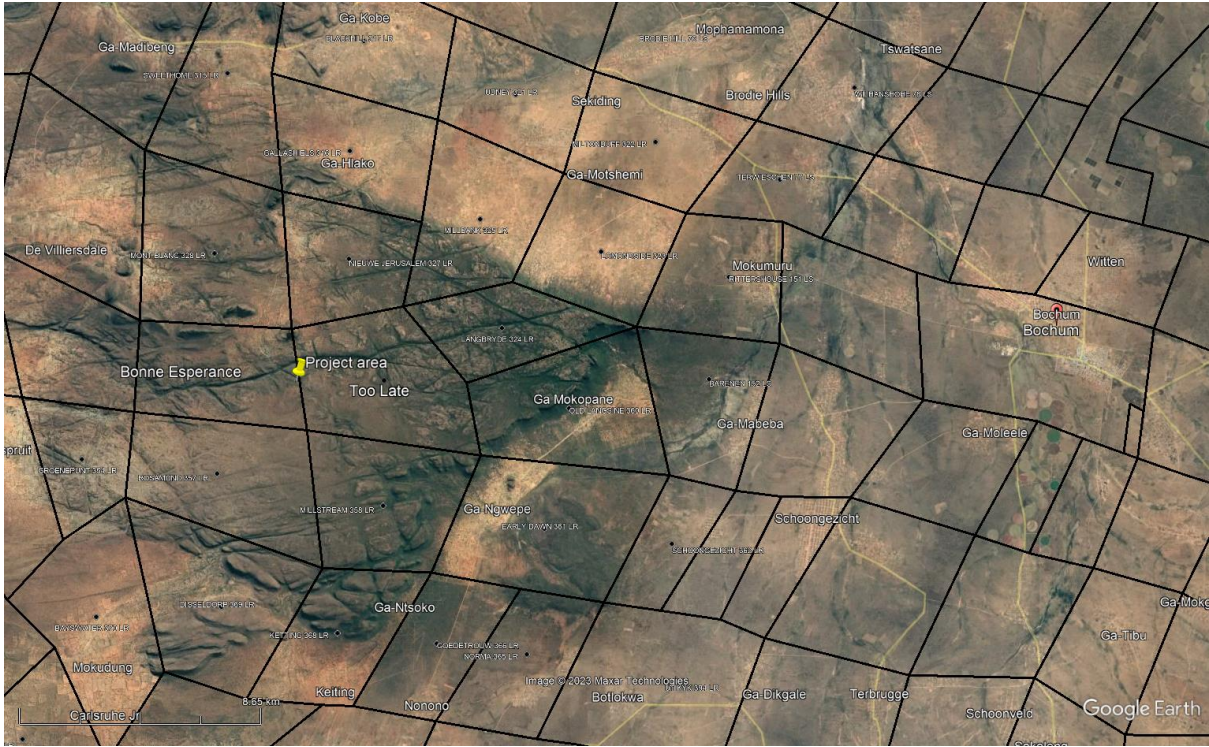
The two farms that forms the study area are Bonne Esperance 356 LR and Too Late 359 LR. Although there will be no direct impact on these two farms, the possibility of blasting impact is also assessed.

The field survey for the project was conducted according to generally accepted HIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration. However, since the area is extremely large and inaccessible in some sections, the study is merely an indication of what cultural resources can be expected in the area.

The client indicated the area to be surveyed. The field survey was confined to this area and was done via off-road vehicle and on foot.



**Figure 1: Location of the town of Bochum and the surveyed site in the Limpopo Province. North reference is to the top.**



**Figure 2: Location of the surveyed site in relation to Bochum. North reference is to the top.**



**Figure 3: Google Earth image of the project area, Bonne Esperance 356 LR and Too Late 359 LR.**

## **2. TERMS OF REFERENCE**

The Terms of Reference for the survey were to:

1. Do a baseline heritage assessment which is a broad framework of the potential heritage of the area.
2. Identify as much as possible objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
3. Study background information on the area to be developed.
4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Make recommendations as to the cultural resources identified as well as to future developments on site related to heritage resources.
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 (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 C).

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. The vegetation cover in most of the surveyed area where medium to high in height with an open under footing which had a positive effect on both the horizontal and the vertical archaeological visibility. The vegetation was densely concentrated along the river and crevasses due to the good rainy season which had a negative effect on both the horizontal and the vertical archaeological visibility.
7. The surveyed area consisted largely of hills, rock outcrops and large mountains which will take an extremely long time to fully survey. Due to the roughness of the terrain and possible danger the entire area was not surveyed.
8. 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. In this case there were certain areas where the vegetation cover was very dense which had a negative effect on archaeological visibility and dangerous areas were not investigated.

#### **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 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:

- a. Places, buildings, structures and equipment of cultural significance

- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, 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. The different phases during the HIA process are described in Appendix E. 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 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- 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 paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological 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 paleontological material or object, or any meteorite; or
- d. Bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological 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 or 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.

All graves older than 60 years are called heritage graves and should be handled by an archaeologist. This includes archaeological graves, which are older than 100 years. Unidentified/unknown graves (which refers to date of death) are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the **National Health Act (Act 61 of 2003)** and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Exhumations (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 **National Health Act (Act 61 of 2003)**.

#### **4.2 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 be 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.

### **5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE**

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities.

This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians). Possible chance finds, encountered during the project development, also needs to be managed by not disturbing it and by having it assessed by professionals.

Impacts on the cultural heritage should be minimized. This includes the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artifacts and structures need to be removed it should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may however only be considered if there are not technically or financially feasible alternatives. In considering the removal of cultural resources, it

should be outweighed by the benefits of the overall project to the affected communities. Again professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be engaged in. This entails that access to such communities should be granted to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage resources should always be done in consultation with the effected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

## **6. METHODOLOGY**

### **6.1 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.

### **6.2 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. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>1</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied. The southern section of the site was also surveyed in 2015 (Figure 4-5).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The surveyed area is 4 526 Ha in size and the survey took 32 hours to complete.

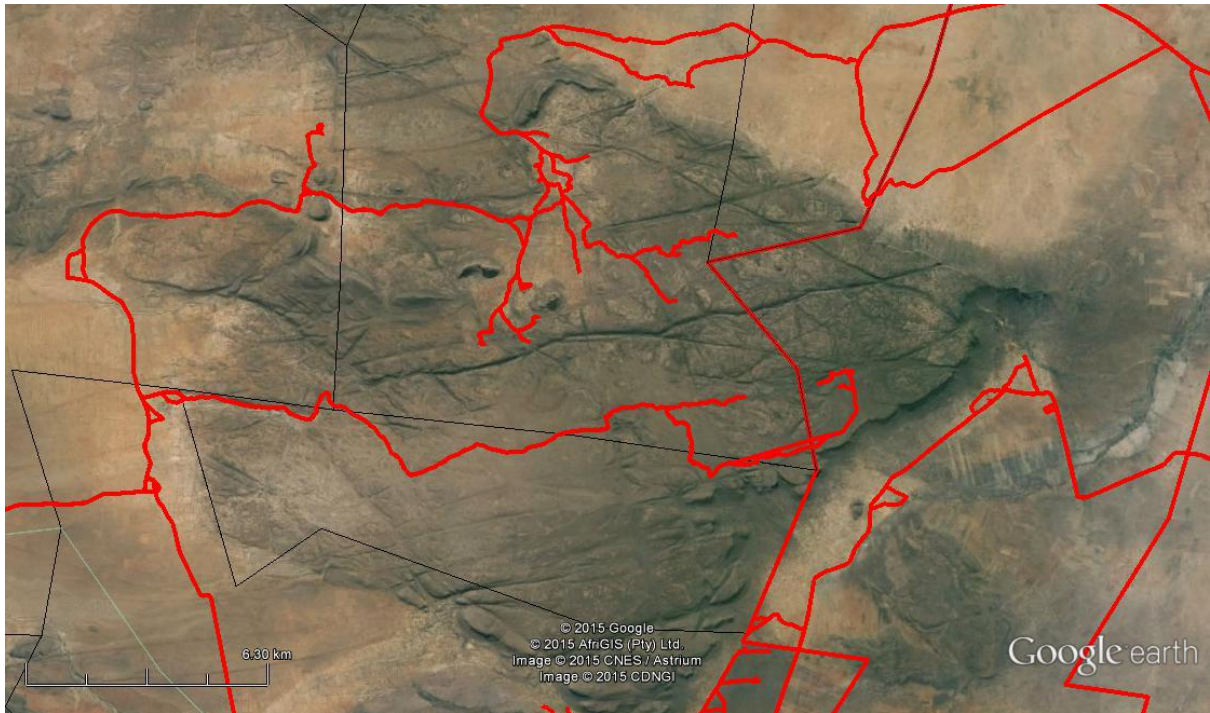
### **6.3 Oral histories**

People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

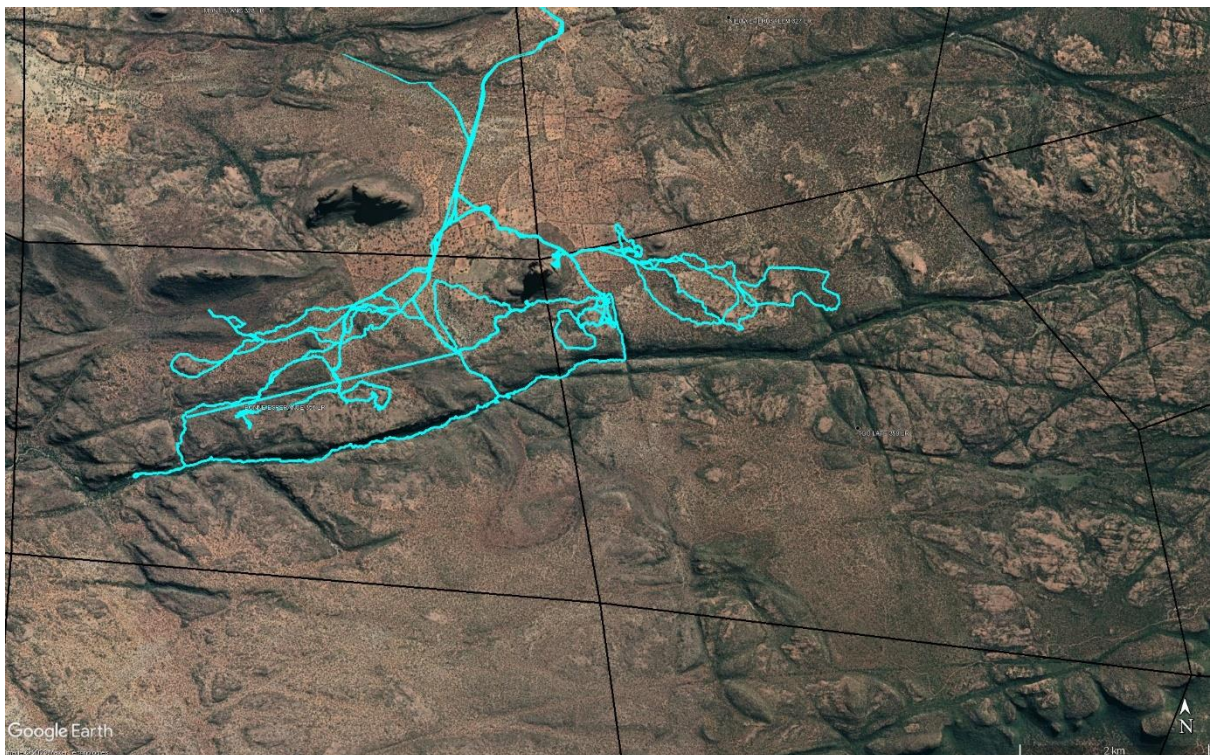
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<sup>1</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.





**Figure 4: GPS track of the surveyed area (2015 Survey).<sup>2</sup> North reference is to the top.**



**Figure 5: GPS track of the surveyed area during current survey.**

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<sup>2</sup> Two archaeologists, in radio contact, did the survey, but only one GPS unit was used.

## **6.4 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 the GPS. The information was added to the description in order to facilitate the identification of each locality.

## **6.5 Evaluation of Heritage sites**

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) 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.

## **7. DESCRIPTION OF THE AREA**

The two surveyed farms' general environmental characteristics are more or less the same. Both are mostly situated on top of the mountain. The farms consist of communal land, mostly disturbed by recent human activities in the form of animal grazing. Most of the land used for livestock has been overgrazed (Figure 6). This results in areas with little plant growth, showing trees but little grass cover and areas with pioneer species such as acacias, sickle bush and candelabra trees (Figure 7-8).

The archaeological visibility here is reasonably good, but there are areas with dense vegetation where it is less clear. Other signs of disturbance found are possible earlier prospecting or even mining activities as well as erosion.

The topography of the surveyed area consists largely of mountains and hills which are in the northern part of the surveyed area, with scattered rock outcrops across the area, and deep crevasses where non-perennial streams drain into. Flat sandy terrain span between the outstanding rock formations and deep valley (Figure 9-10).

No large rivers are found close to the project area. A few non-perennial streams do however drain the entire area.



**Figure 6: Over-grazed landscape in the surveyed area.**



**Figure 7: View of vegetation growth in the surveyed area.**



**Figure 8: View of area with dense impenetrable vegetation.**



**Figure 9: View of the mountain showing rock formations and steep slopes.**



**Figure 10: View of a steep cliff of the mountain.**

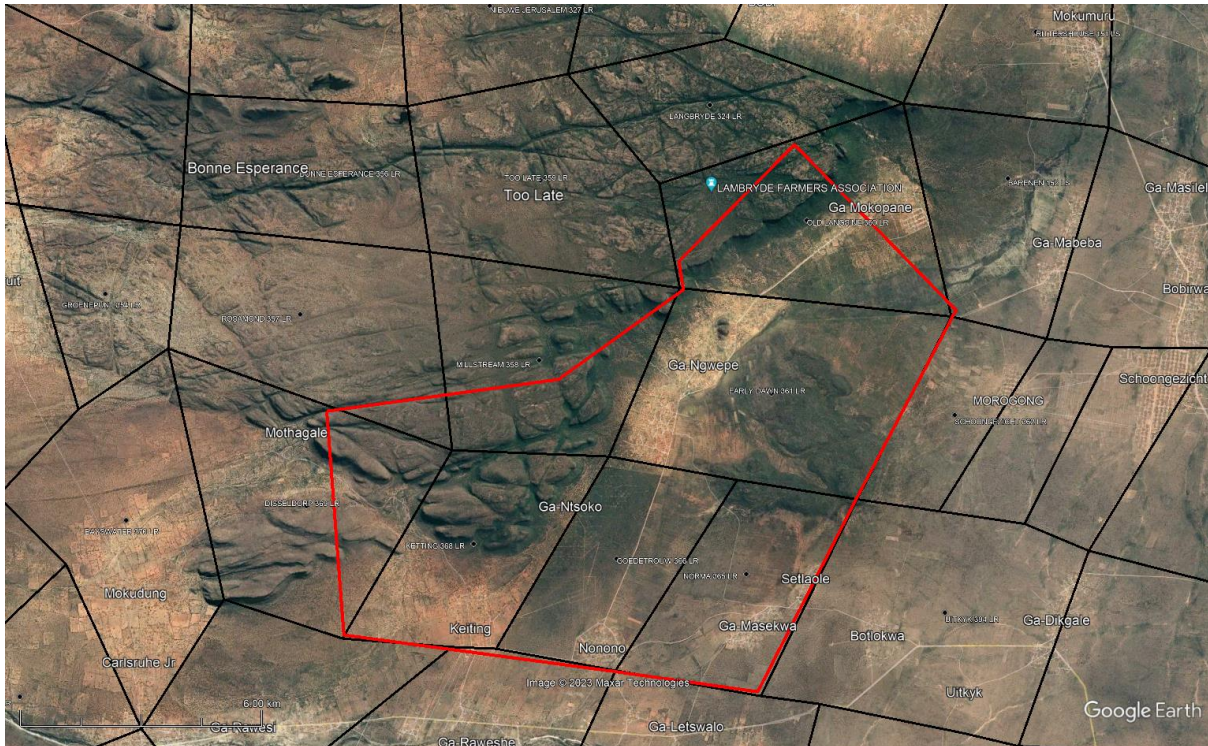
## **8. HISTORICAL CONTEXT**

Seven sites of cultural heritage significance were located during the survey. Three sites on the adjacent farm, Mont Blanc 328 LR is just north of Bonne Esperance and is therefore included here. A few heritage reports of the surrounding area were found on the SAHRA database as well as the database of Archaetnos (see reference list – Nel, Pelsler and Van Vollenhoven). Some of these were desktop studies (Pelsler 2011; Van Vollenhoven 2013 a & b), which did not provide specific information on the study area, but rather about the broader geographical environment. Many sites are also known from the surrounding environment of the surveyed area (Archaetnos database).

A few scholars (see reference list) also did archaeological research in the area. Unfortunately some of these reports are not accessible, although indicated on the SAHRIS system of SAHRA. Much of the information was however captured by Nel and Van Vollenhoven.

More than 40 sites of cultural heritage significance were identified during previous surveys in the vicinity. None of these are on the two farms that was now surveyed.

In order to place this within context and to understand possible finds that could be unearthed during construction activities, it is necessary to give a background regarding the different phases of human history in the area. It also needs to be noted that the Makgabeng Plateau is seen as being a very sensitive heritage area. However, the mining impact is limited to the plains east of the plateau (Figure 11).



**Figure 11: Indication of the area of direct impact in relation to the two farms surveyed.**

## 8.1 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) 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.

Many Stone Age sites have been identified previously in the Limpopo Province. Sites dated to the Early Stone Age were identified at Blaauwbank close to Rooiberg, at the Cave of hearths and Schoonheid close to Mokopane, at Olieboompoort to the north of Thabazimbi and at Kalkbank to the south of Schoemansdal (Bergh 1999: 4).

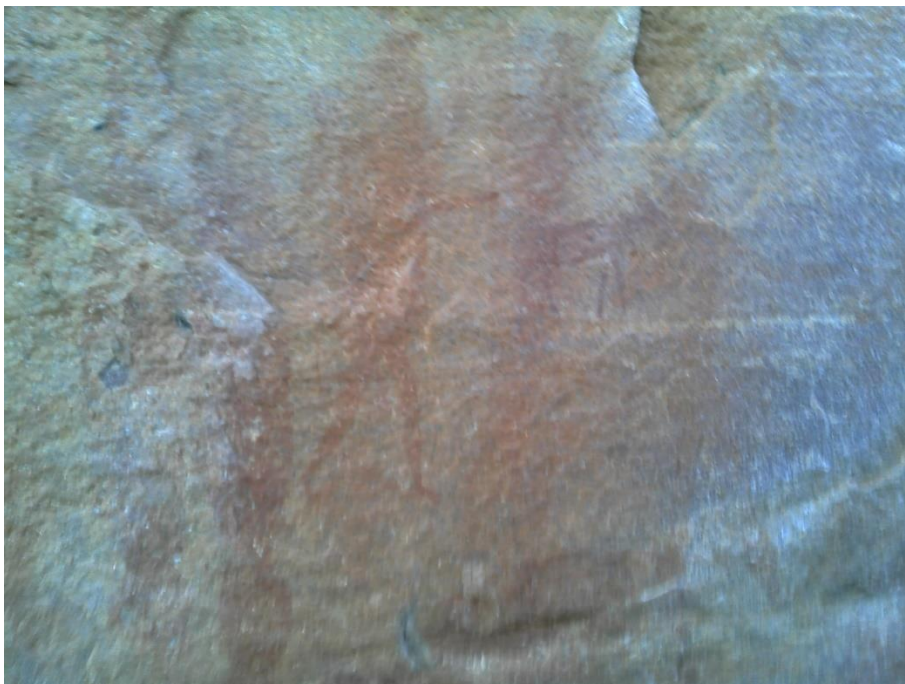
Middle Stone Age sites are known at Tuinplaats to the east of Bela-Bela, at Olieboompoort to the north of Thabazimbi, at the Cave of Hearths and Rufus Cave close to Mokopane, at Grace Dieu and Mwulu Cave close to Polokwane, at Kalkbank to the south of Schoemansdal and at Noord-Brabant and Goergap to the east of Lephalale (Bergh 1999: 4). One Middle Stone Age site is known from the farm Mont Blanc, close to the surveyed area (Sadr 2005).

Late Stone Age sites have been identified at Wellington Estates to the east of Settlers, at Modimolle, at Olieboompoort to the north of Thabazimbi, at the Cave of Hearths close to Mokopane, at Noord-Brabant close to Lephalale, at Kalkbank to the south of Schoemansdal and in the Greefswald area. Closer to the surveyed area only one Late Stone Age site is known. It is called the Makgabeng site close to Blouberg (Bergh 1999: 4).

Rock art is also associated with the Late Stone Age. Such sites were found in abundance in the Limpopo Province. Rock paintings are located along the Limpopo River, the Soutpansberg, Waterberg, Strydpoortberg and the areas in between these. Rock engravings were found along the Mogalakwena and Limpopo Rivers, and between the Olifants and Steelpoort Rivers (Bergh 1999: 4). This includes the study area.

It is clear that the mentioned sites were identified in rural areas and therefore there is a good chance of finding more Stone Age sites in this environment, especially close to rivers and mountains. These natural features create an environment suitable for human habitation.

At least one Middle Stone Age site was identified in the wider geographical area (Nel et.al 2013: 43-44). Nel et.al. (2013: 20-27) also indicates the Late Stone Age existence in the more immediate vicinity of the project area. They mention that more than 460 rock art sites have been documented in this region. However, Eastwood and Tlouamma (2006: 9) indicates that they documented more than 670 sites in the region. This includes San rock art as well as finger paintings associated with the Khoi. Rock paintings were noted on the plateau by Van Essen (2018), one of the specialists who did a bio-diversity study on the plateau (Figure 12-13).



**Figure 12: Rock painting found on the Makgabeng plateau. These are likely associated with San people (courtesy of LD van Essen).**



**Figure 13: Rock paintings in a rock shelter on the plateau. These are probably related to Iron Age people (courtesy of LD van Essen).**

Late Stone Age sites on the Makgabeng Plateau was also researched and described by Bradfield et.al. (2009: 176-183). They indicate that research has been done in the past here by Roberts (1916), Mason (1962) and Sampson (1974). Bradfield excavated a specific shelter called Mphekwane.

Although no such sites were identified during the survey, it is clear from the above mentioned that Stone Age people did utilize and settled in the broader geographical area. There however are some hiatuses due to certain farms not having been researched before. One will therefore have to be careful during mining that sites are not disturbed. These are however to expected against and on top of the Makgabeng Plateau which is adjacent to the area of impact.

Things to be on the lookout for would be caves, rock shelters, rock outcrops and areas with scattered stone tools in the open, especially close to rivers. Stone tools can be recognized by it showing definite sharp edges as well as cut and hammering marks, which would distinguish it from ordinary stones (Figure 14-16). Rock paintings may also be found in caves and rock shelters whereas large stones in the open may contain rock engravings (Figure 17-19).





**Figure 14: Example of an Early Stone Age tool found in Gauteng (Archaetnos' database).**



**Figure 15: An example of Early Stone Age (top) and a Middle Stone Age tool (bottom) from Archaetnos' collection (Archaetnos' database).**



**Figure 16: Examples of Late Stone Age tools from Archaetnos' collection (Archaetnos' database).**



**Figure 17: Rock paintings from the Limpopo Province (Archaetnos' database).**



**Figure 18: Rock engraving (pecking) from Beeshoek in the Northern Cape (Archaetnos' database).**



**Figure 19: Rock engravings from Putsonderwater, Northern Cape (Archaetnos database).**

## **8.2 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 are now 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.

Very few Early Iron Age sites have been identified. In Limpopo Province these include sites at Kommando Kop, Pont Drift, Mapungubwe and Schroda in the Limpopo Valley. Other sites are Happy Rest/ Matakoma close to Schoemansdal, Klein Afrika to the north of Louis Trichardt, the Eiland site along the upper Letaba River, Silver Leaves close to Tzaneen, at Harmonie to the south of Leydsdorp and at Diamant to the north of Thabazimbi (Bergh 1999: 6). Sites were also identified close to Burgersfort and Hoedspruit (Archaetnos database). No Early Iron Age sites are indicated in a historical atlas (Bergh 1999) close to the surveyed area.

Middle Iron Age sites include the World Heritage site at Mapungubwe as well as K2, Kommandokop and Schroda in the Limpopo Valley (Bergh 1999: 7). No Middle Iron Age sites are indicated in a historical atlas (Bergh 1999) close to the surveyed area.

Late Iron Age sites are found in abundance throughout the Limpopo Province. Pelsner (2011: 11) indicate that many such sites exist close to Alldays but does not provide any details. Known sites include those along the Sand and Levuvhu Rivers, various sites in the Kruger National Park (including Thulamela, Makahane and others), at least 58 sites near the town of Phalaborwa, 200 sites along the Lephhalala River, 35 sites to the south of Polokwane, 42 sites to the east of Mokopane, 13 smelting sites in the Strydpoort Mountains and 63 sites between Thabazimbi and Rooiberg (Bergh 1999: 7). None of these are in the surveyed area.

Specific sites relating to archaeo-metallurgy were also identified. Sites where copper smelting were identified include some to the west and south of Musina, to the north and west of Phalaborwa (including Lolwe), sites to the south of Leydsdorp, between Tzaneen and Polokwane, along the Hout River and close to Modimolle. Sites where iron were worked include those at Tshimbupfe to the east of Louis Trichardt, sites around Phalaborwa, sites between Polokwane and Tzaneen, to the north and east of Modimolle and to the east of Thabazimbi. Signs of gold working were only found at four sites namely Mapungubwe, Machedema, Makahane and Thulamela. Tin workings were identified at Blaauwbank and Rooiberg in the south-west of the province (Bergh 1999: 8). More sites known are sites on the farm Icon, Matoks, Manavela, Tavhatshena and the farm Stayt (Archaetnos database). Van Schalkwyk also indicated that iron was worked at a site on the farm Millbank (Bradfield et.al. 2009: 180).

The lack of known sites in the Study Area is merely an indication that these have not been surveyed in the recent past. Therefore, chances are good that Iron Age material and sites will be identified on some of these farms. Early Iron Age sites are usually found close to rivers. During a recent survey such sites were indeed identified on the southern side of Blouberg and the northern side of the Makgabeng Plateau. Mention is made of a number of Early Iron Age sites on farms in and close to the project area (Nel et.al. 2013: 20-23).

During the mentioned recent survey, in close proximity to the project area, Nel et.al. (2013: 20-29, 35-40, 44-46) did identify Late Iron Age sites. They also mention rock art sites, known as finger paintings, associated with Northern Sotho speaking farming communities of the Late Iron Age. These were studied by Smith & Van Schalkwyk 2002: 235-254) who indicated that a specific painting of a camel can be dated to the early 20<sup>th</sup> century.

Van Schalkwyk indicated that Iron Age farmers moved into the area during the 13<sup>th</sup> century. He also did some excavations on the farm Millbank on a 16<sup>th</sup> and 17<sup>th</sup> century LIA village (Bradfield et.al. 2009: 176).

Late Iron Age sites are normally found on the foot or against slopes of hills. These sites can be identified by extensive stone walled complexes that served as homesteads and cattle kraals (Figure 20). Sometimes these sites can be identified by only a few potsherds (Figure 21) or isolated grinding stones (Figure 22).



**Figure 20: Typical Late Iron Age stone walling (Archaetnos' database).**



**Figure 21: Typical Iron Age pottery (Archaetnos' database).**



**Figure 22: Typical Iron Age lower grinder found in the surveyed area.**

The lack of known sites closer to the project area may only indicate that no research has been done in this area. During the mentioned recent survey in close proximity to the project area, Nel et.al. (2013: 20-29, 35-40, 44-46) did identify Late Iron Age sites. They also mention rock art sites, known as finger paintings, associated with Sotho speaking farming communities of the Late Iron Age.

One such site was identified during the current survey, but since the environment is definitely suitable therefore one should be cautious. Caution should especially be taken when working in the areas close to mountains (against slopes, in saddles or on top) and rivers. On Goedetrouw, east of the surveyed area, some Iron Age remains were also noted (Van Vollenhoven 2015a).

On the farm Ketting a few sites have been identified by one of the project geologists. It includes seven Late Iron Age sites and one cave with pottery and other remains (Figure 23-26). The biodiversity specialist made mention of similar sites (Figure 27-28). These sites are important, and one will have to conduct further studies, especially on the cave site. These sites are, however, far away from the proposed infrastructure development on site.

The strategic position of some of these sites indicates that the sites were utilized during times of turmoil, e.g. the Difaquane or the wars against the former Boer republic of the ZAR. This would place it within the historical era (see below), but the characteristics of the sites are similar to that of Late Iron Age sites.



**Figure 23: Late Iron Age walling on the farm Ketting (courtesy of Geoactive Dynamic Geological Services).**



**Figure 24: Late Iron Age terraces on Ketting (courtesy of Geoactive Dynamic Geological Services).**



**Figure 25: Low stone wall in front of a cave with Iron Age remains inside (courtesy of Geoactive Dynamic Geological Services).**



**Figure 26: Ceramic pots found inside of the cave (courtesy of Geoactive Dynamic Geological Services).**





**Figure 27: Iron Age feature at cave entrance (courtesy of LD van Essen).**



**Figure 28: Iron Age pottery at a rock shelter on the Makgabeng Plateau.**

### **7.3 Historical Age**

The historical age started with the first recorded oral history in the area. It includes the moving into the area of people that were able to read and write. This era is sometimes called the Colonial era or the recent past. Due to factors such as population growth and a decrease in mortality rates, more people inhabited the area during the recent

historical past. Therefore, many more cultural heritage resources have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance.

It is known that some of the early trade routes went past the Study Area, to the east thereof (Bergh 1999: 9). At the beginning of the 19<sup>th</sup> century different indigenous groups resided here. To the north it was the Hananwa who entered circa 1820/30 and to the south the Koni of Matlala, the Moletse/Kwena and the Langa Ndebele (Bergh 1999: 10). The Hananwa are the present occupiers of the area (Bradfield et.al.2009: 179).

The only early white traveller who visited this area was Coenraad de Buys in 1821 and 1825. In fact, he settled here (Bergh 1999: 12-13). The Voortrekkers under leadership of Louis Tregard also moved through this area in 1836 (Bergh 199: 14).

White farmers settled in the Soutpansberg area during the 1840's and established the town of Schoemansdal (Bergh 1999: 14). They never settled further to the west in the project area. The white farmers were followed by the Berlin Missionaries and later other missionaries (Nel et.al. 2013: 21; Bergh 1999: 57).

In 1894 a war broke out between the Boers and the Hananwa in the Blouberg area. This was known as the Maleboch War. During the War several fortifications were erected of which some are still to be seen today (Van Schalkwyk & Moifatswane 1991: 1-17; Smith & Van Schalkwyk 2002: 237; Nel et.al. 2013: 21-22; Bergh 1999: 36). This lies north of the surveyed area. Late Iron Age/ Historical stone walled sites, linked to this period, have also been identified close to the project area (Nel et.al. 2013:31-34, 41-43). The Historical/ Late Iron Age sites identified on Ketting (see above) may also date from this period in time.

It seems as if many of the farms surveyed were only used for grazing by white farmers. By 1904 the area was however allocated to different indigenous groups (Bergh 1999: 41). It later on became part of the so-called Lebowa State (Bergh 1999: 43).

It therefore is clear that one would rather expect recent historical structures in the area than older or even prehistoric features. According to legislation everything older than 60 years can potentially be deemed as of heritage value, although one has to also consider other factors, such as uniqueness and state of the site. It would be impossible to list every heritage site older than 60 years. Sites, features and structures that are known from nearby the surveyed area are nevertheless listed below:

- Schoemansdal Voortrekker town and graveyard (Stoffberg 1988);
- ZAR fortifications at Blouberg;
- Mission stations, including Phatametsane, Khalatlolu, Bethesda, Malokong, Blauberg, Medingen, Mp'hôme, Kranspoort, Georgholtz, Ha Schewasse, Tshakoma and Valdezia;
- Battlefields from the Anglo-Boer War (1899-1902) including Fort Edward close to Louis Trichardt, Fort Klipdam and Pietersburg to the north of Polokwane and Houtboschberg to the east of Polokwane;

- The place where Louis Tregardt met Portuguese Askari's and site of the State Artillery in Louis Trichardt (Oberholster 1972; Bergh 1999).

Declared national heritage sites include the following:

- Fort Hendrina in Louis Trichardt;
- The first ore stamper for gold on the farm Eersteling close to Polokwane;
- The Louis Tregardt monument north of Polokwane;
- Schoemansdal, mentioned earlier;
- Stonehenge, a residential farm house on the farm Bergvliet close to the Soutpansberg;
- The trek route of Louis Tregardt (Oberholster 1972; Bergh 1999);
- Fort Klipdam north of Polokwane, mentioned above (Oberholster 1972; SAHRA database; Bergh 1999).

One may therefore expect to find buildings and structures of a similar age (i.e. mid-19<sup>th</sup> century) on the farms within the Study Area. This is likely to coincide with the missionaries or structures built by farmers. It however seems as if these farms were scarcely inhabited by white farmers and rather used as grazing land.

Sites found will undoubtedly include graves. In fact, grave sites have been identified on adjacent farms during previous surveys (Net et.al. 2013: 26, 29-30, 34-35, 41; Van Vollenhoven & Collins 2014; Van Vollenhoven 2015b; Van Vollenhoven 2016; Van Vollenhoven et.al. 2022). Other historical sites were also identified during the latter surveys (Van Vollenhoven 2015b; Van Vollenhoven 2016).

## **9. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY**

As indicated, seven sites of cultural importance were identified on the two farms that were studied. Three sites on a neighbouring farm already identified during a previous survey (Van Vollenhoven 2015b) is included here since it is very close to the border of the study area.

During the survey an informant guided the team to most of the rock art sites. He mentions that the sites he showed are all the rock art sites he knows of (Raseruta 2023), except for one site he could not locate, due to the area being overgrown by vegetation.

Three notice boards informing visitors about these sites and that they are entering a heritage area, is located here. It also provides information on available tour guides, opening and closing times, as well as other rules and regulations that hikers and campers needs to be aware of (Figure 29-31).



**Figure 29: Notice board indicating the border of the Makgabeng Heritage landscape and information on the rules and regulations.**



**Figure 30: Notice board indicating opening times and more rules and regulations.**



**Figure 31: Third notice board that welcomes the visitor to the area and disseminating more rules and regulations.**

### 9.1 Site 1 – Rock art

This site is a small rock shelter located close to a dirt road and water runoff. The site consists of one panel of Historical/ Iron Age rock art and depicts animals, people and a small steam train (Figure 32-33).



**Figure 32: View of rock art at site 1.**

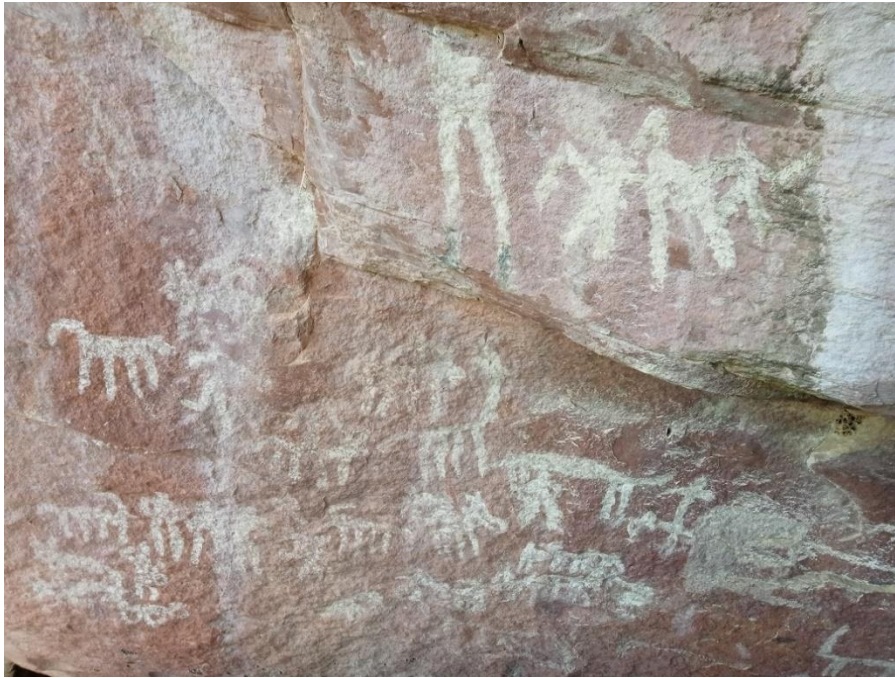


Figure 33: Close-up view of the rock art, depicting animals and people at site 1.

GPS: 23°17'16.65"S 28°51'16.47"E

**Cultural significance Table: Site 1 Rock art**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>Very High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>High</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	<b>Very High</b>
Its importance in demonstrating a high degree of creative or	N	<b>High</b>

technical achievement at a particular period		
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

**9.2 Site 2 – Rock art**

This site is a large cave located along a cliff next to a stream about 2.5 m from ground level. With no save means to ascend to the cave, only two panels was identified. The panels consists of Historical/ Iron age rock art and depicts animals, people on the left of the cave mouth and steam train with train station on the right (Figure 34-36).

**GPS: 23°17'41.71 "S 28°49'33.82"E**



**Figure 34: View of the cave at site 2.**



**Figure 35: View of rock art (steam train and station) at site 2.**





**Figure 36: View of rock art (human figures) at site 2.**

**Cultural significance Table: Site 2 Rock art**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>Very High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>High</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	<b>Very High</b>
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	<b>High</b>

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

**9.3 Site 3 – Rock art**

This site is a small rock overhang located on a rocky outcrop. The site consists of one panel of San rock art and depicts mono-colour animals and people (Figure 37-38).

**GPS: 23°16'59.57"S 28°51'59.04"E**



**Figure 37: View of rock art at site 3.**



**Figure 38: A close-up view of the rock art (antelope) at site 3.**

**Cultural significance Table: Site 3 Rock art**

A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	Y	High

Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>Very High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>High</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	<b>Very High</b>
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	<b>High</b>
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

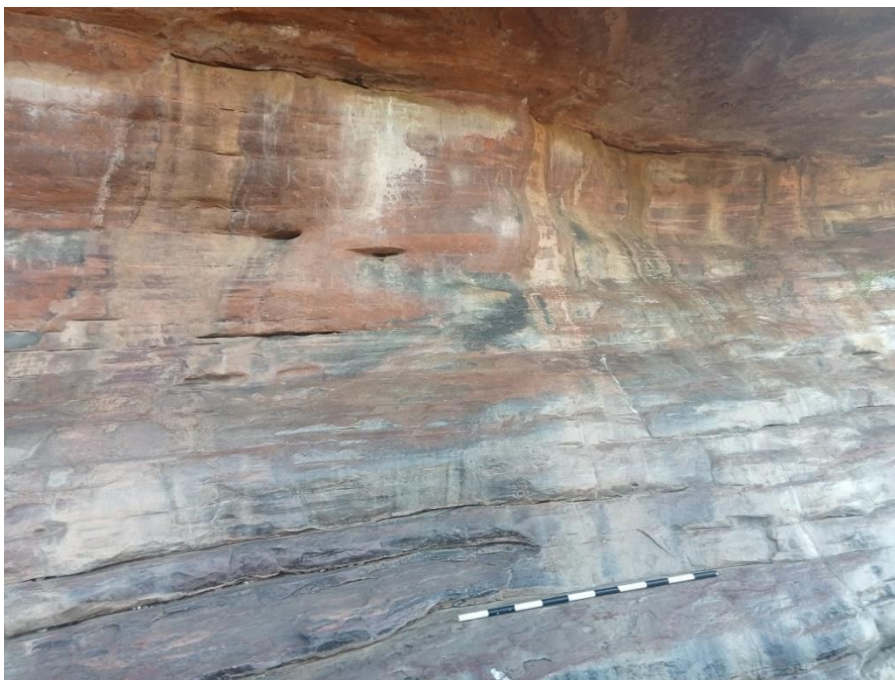
$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

#### **9.4 Site 4 – Rock art**

This site is located under a rock overhang close to a watering hole. The site consists of one barely visible San rock art and depicts mono-coloured animals. Due to its close proximity to the watering hole, it is easily assessable to people and the rock face has been engraved with graffiti. There may be more images, but it was difficult due to the bad preservation of the site (Figure 39-40).

**GPS: 23°17'21.25"S 28°50'35.12"E**



**Figure 39: View of rock art and graffiti at site 4**



**Figure 40: A close-up view of the rock art (animal) and graffiti at site 4.**

**Cultural significance Table: Site 4 Rock art**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>Very High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>High</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	<b>Very High</b>
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	<b>High</b>

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

Considering that this site is in danger of being lost extra steps may have to be taken to ensure its continuing existence.

**9.5 Site 5 – Rock art and stone wall**

This site is a large rock shelter located along a rock outcropping. There are about four panels of rock art. The panels consist of both San and Iron age rock art and depicts animals, people. The site has a stone wall surrounding it and pot shards were found on the opposite side of the rock shelter (Figure 41-43).

**GPS: 23°17'26.10"S 28°50'37.02"E**



**Figure 41: View of the cave with rock art and a stone wall at site 5.**



**Figure 42: A close-up view of a rock art (animal) at site 5.**





Figure 43: Potshards found at site 5.

Cultural significance Table: Site 5 Rock art

A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	Y	High
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	Very High
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	High
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	High
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	Very High
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	High

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 - High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

**9.6 Site 6 – Rock art**

This site is a large rock shelter along a cliff, with several panels of Historic/ Iron age rock art. The site seems to have been cleared and made accessible to visitors of the area, with a low stone wall entrance and river stone flooring (Figure 44). The panels consist of Historic/ Iron age rock art and depicts animals, people, and steam trains with trains stations (Figure 45-48).

**GPS: 23°16'50.66"S 28°51'32.45"E**



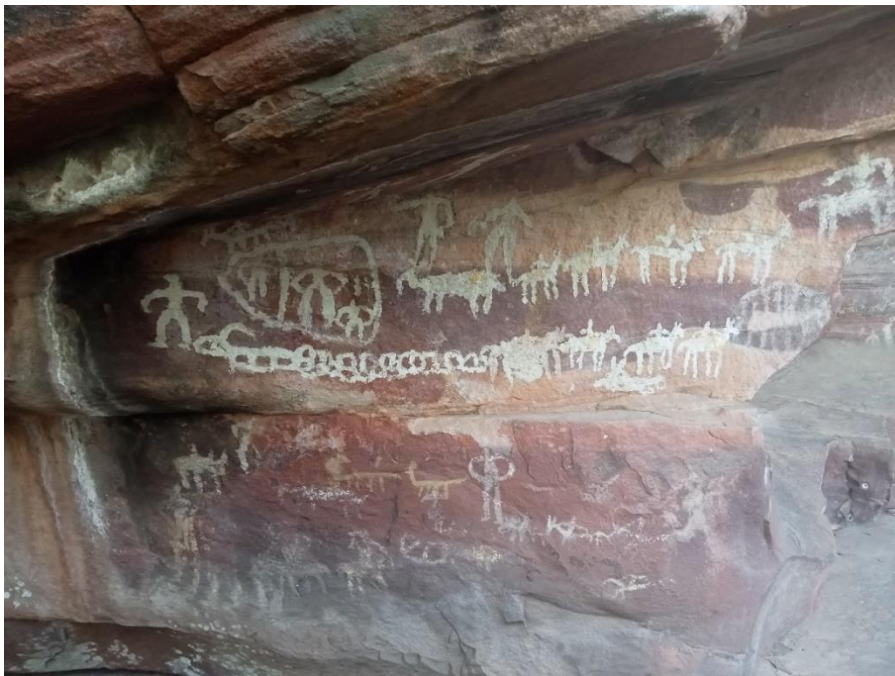
**Figure 44: Recently build low stone walling at site 6.**



**Figure 45: View of the cave and cave art at site 6.**



**Figure 46: Another view of the rock art at site 6.**



**Figure 47: A close-up view of the rock art depicting a small stream train, a train station, people, and animals at site 6.**



**Figure 48: A view of the lager rock art panel depicting a stream train, and a station with people waiting on the right, and train tracks going to the left with depictions of people herding animals at site 6.**

**Cultural significance Table: Site 6 Rock art**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>Very High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>High</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>

Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	<b>Very High</b>
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	<b>High</b>
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 - High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

**9.7 Site 7– Rock art**

This site is a large cave located along a rock outcropping. There are about eight panels of rock art. The panels consist of both San and Iron age rock art and depicts animals, people, and patterns (Figure 49-59).

**GPS: 23°17'26.61"S 28°29'44.84"E**



**Figure 49: View of the cave at site 7.**



**Figure 50: View of some of the rock art depicting people with a bow and arrows at site 7.**



**Figure 51: Another view of the rock art depicting an antelope at site 7.**



**Figure 52: Rock art depicting people, animals and fingerprints at site 7.**





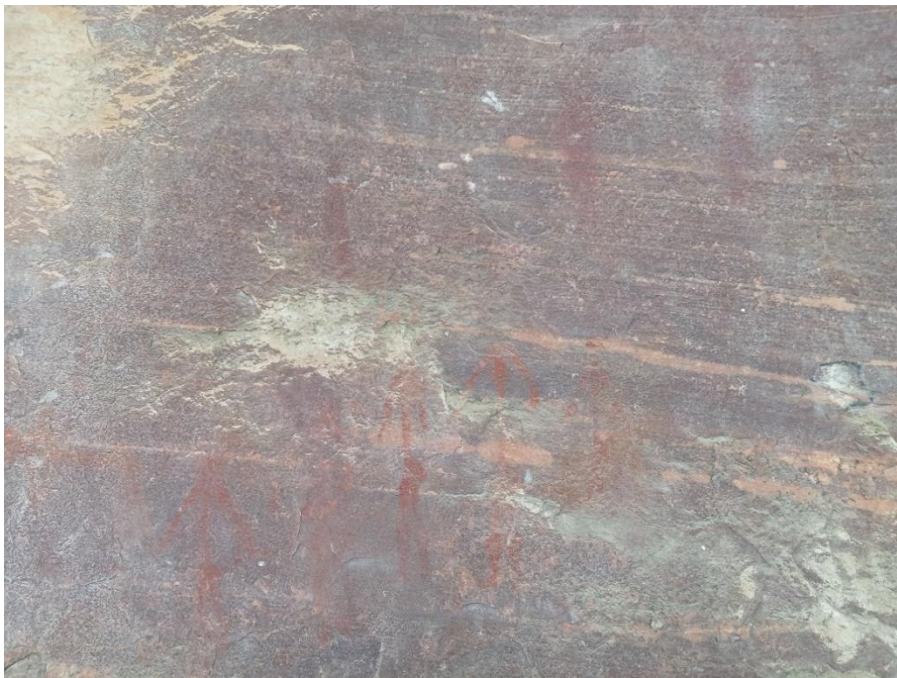
**Figure 53: A close-up view of fingerprint rock art at site 7.**



**Figure 54: Another view of rock art at site 7, depicting a zebra.**



**Figure 55: A close-up view of rock art depicting antelope at site 7.**



**Figure 56: A close-up view of rock art depicting people at site 7.**



**Figure 57: Another view of the rock art at site 7, depicting antelope and people.**



**Figure 58: A faded rock art handprint at site 7.**



**Figure 59: A close-up view of rock art depicting an animal and a human connected with a long line at site 7. (The scale is held below the line.)**

**Cultural significance Table: Site 7 Rock art**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>Very High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>High</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	<b>Very High</b>
Its importance in demonstrating a high degree of creative or	N	<b>High</b>

technical achievement at a particular period		
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	<b>Medium</b>
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 5$$

$$= 30$$

The site therefore receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted.

**9.8 Site 8 – Single grave (on Mont Blanc 328 LR)**

This is a single grave with a granite headstone and border (Figure 60). The surname identified is Raseruthe.

The date of death is 1979. The grave therefore is younger than 60 years.

**GPS: 23°16'31.3"S 28°51'13.8"E**



**Figure 60: The grave at site no. 8.**

**Cultural significance Table: Site 8 Grave**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>Medium</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 - High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 4$$

$$= 24$$

Graves are always regarded as having a high cultural significance. The field rating is Local Grade IIIB. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.

The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

The site is inside of the village, which is unlikely to be impacted on. In such cases Option 2 is normally recommended. However, since it falls outside of the study area, and the graves are younger than 60 years of age, it may be left *in situ* without any additional measures needed.

**9.12 Site 9 – Single grave (on Mont Blanc 328 LR)**

This is a single grave with a granite headstone and border (Figure 61). The surname identified also is Raseruthe.

The date of death is 2003. The grave therefore is younger than 60 years.

**GPS: 23°16'23.7"S 28°51'05.6"E**



**Figure 61: The grave at site no. 9.**

**Cultural significance Table: Site 9 Grave**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>High</b>
Its potential to yield information that will contribute to an	Y	<b>Medium</b>



understanding of South Africa's natural or cultural heritage		
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	High
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	High
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 - High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 4$$

$$= 24$$

Graves are always regarded as having a high cultural significance. The field rating is Local Grade IIIB. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.

The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

The site is inside of the village, which is unlikely to be impacted on. In such cases Option 2 is normally recommended. However, since it falls outside of the study area, and the graves are younger than 60 years of age, it may be left *in situ* without any additional measures needed.

### 9.13 Site 10 – Single grave (on Mont Blanc 328 LR)

This is a single grave with a granite headstone and border (Figure 62). The surname identified also is Raseruthe.

The date of death is 1995. The grave therefore is younger than 60 years.



Figure 62: The grave at site no. 10.

GPS: 23°16'31.8"S 28°50'59.1"E

**Cultural significance Table: Site 10 Grave**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	<b>High</b>
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	<b>High</b>
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	<b>Medium</b>
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	<b>High</b>
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	<b>High</b>
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>6 – High</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information

- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 6 \text{ (High)} \times 4$$

$$= 24$$

Graves are always regarded as having a high cultural significance. The field rating is Local Grade IIIB. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.

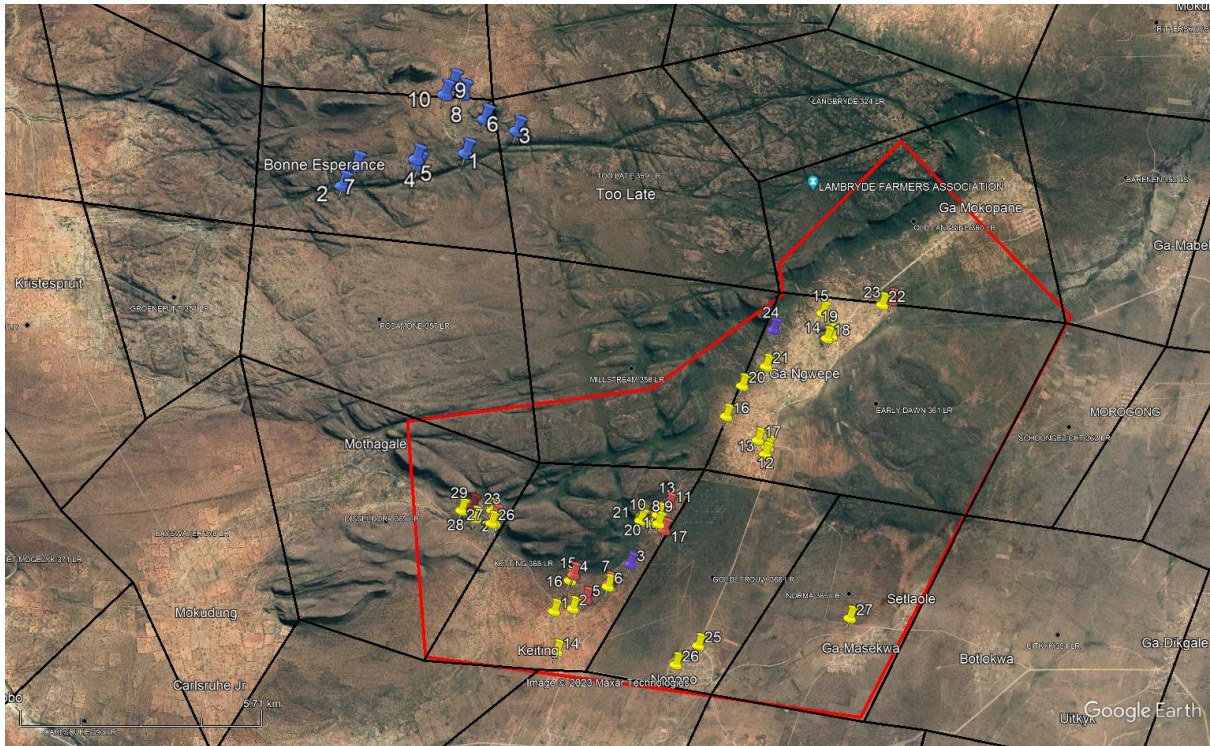
Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.

The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

The site is inside of the village, which is unlikely to be impacted on. In such cases Option 2 is normally recommended. However, since it falls outside of the study area, and the graves are younger than 60 years of age, it may be left *in situ* without any additional measures needed.

## **10. CONCLUSION AND RECOMMENDATIONS**

The survey of the indicated area was completed successfully. The previously known sites in the vicinity are indicated in Figure 63. The sites discussed in this report is indicated in Figure 64 and the seven sites identified during the survey indicated in Figure 65.



**Figure 63: Known sites in the wider geographical area (Purple – Iron Age; Red – Historical; Yellow – Graves; Blue – sites discussed in this report).**



**Figure 64: The sites discussed in this report.**



**Figure 65: Sites found during current survey.**

In order to determine possible impact from mining activities on the sites, a blasting report (Zeeman 2023) was also done. The findings of this report is as follows:

- The underground distance between the underground blasting and the Makgabeng plateau is 1200 m and deeper.
- The impact of blasting on the plateau will be less than 0.3 mm/ second, which is a low and insignificant impact.
- There will thus be no impact on the Makgabeng plateau.
- Therefore no mitigation or monitoring measures are needed.

A palaeontological desktop impact assessment was also done. This report indicates that the potential impact of the development on fossil heritage is moderate and low. Furthermore it is indicated that mitigation may be needed only if fossils are found. Also, the EMPr already covers the conservation of heritage and palaeontological material that may be exposed during construction activities and a chance fossil find protocol has been included.

The following is recommended:

- Although there will be no impact from the mining activities on the Makgabeng plateau and the sites identified, the rock art sites are very vulnerable and thus mitigation is needed. One also needs to consider that there may be more sites than those identified during this study.
- Sites no. 1-7 are all rock art sites and receives a field rating of Local Grade IIIA. It should be included in the heritage register and not be mitigated (high

significance), should be maintained in situ with a protected buffer zone and a CMP must be drafted. As one can never be too certain about impact, the CMP should also address monitoring these sites at least annually to determine possible impact.

- Since Site 4 is in danger as a result of it being close to human traffic, it may need extra steps to be taken to ensure its continuing existence. This needs to be addressed in the CMP.
- Sites no. 8-10 are all graves and falls outside of the study area. Graves are always regarded as having a high cultural significance. It should be included in the heritage register and mitigation measures must be implemented if any development activities take place in its vicinity.
  - Two possibilities exist. The first option would be to fence the graves in or demarcate the site and have a management plan drafted for the sustainable preservation thereof. This should be compiled by a heritage expert. This option is relevant when the graves are in no danger of being damaged or destroyed by the development (direct impacts). Secondary impact due to the development activities may still exist and must be managed.
  - The second option is to exhume the mortal remains and to have it relocated. This usually is relevant when the graves will be directly affected (damaged or destroyed) by the development. In this case specific procedures should be followed which includes social consultation. Graves younger than 60 years may be exhumed only by an undertaker. For those older than 60 years, and unknown graves, an undertaker and archaeologist should be appointed. Permits must be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

In all three cases the sites are inside of the village, which is unlikely to be impacted on. In such cases Option 2 is normally recommended. However, since it falls outside of the study area, and the graves are younger than 60 years of age, it may be left *in situ* without any additional measures needed.

- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation in certain areas it also is possible that some sites may only become known later. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- In this regard the following 'Chance find Procedure' should be followed:
  - *Upon finding any archaeological or historical material all work at the*

*affected area must cease.*

- *The area should be demarcated to prevent any further work there until an investigation has been completed.*
- *An archaeologist should be contacted immediately to provide advice on the matter.*
- *Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.*
- *SAHRA's APM Unit may also be notified.*
- *If needed the necessary, permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.*
- *The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.*
- *Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.*

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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/ STATEMENT OF HERITAGE 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**

### **SIGNIFICANCE AND FIELD RATING:**

#### **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 having 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

#### **Field ratings:**

National Grade I significance: The site should be managed as part of the national estate, should be nominated as Grad I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.

Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 49.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 30 and 39.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 29.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the

relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

## **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

## **APPENDIX E**

### **HERITAGE IMPACT ASSESSMENT PHASES**

- Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
- Baseline assessment – establishment of a broad framework of the potential heritage of an area.
- Phase I impact assessment – identifying sites, assessing their significance, making comments on the impact of the development and making recommendations for mitigation or conservation.
- Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
- Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
- Phase III management plan – for rare cases where sites are so important that development cannot be allowed.