



Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

**A REPORT ON AN ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE
PROPOSED DEVELOPMENT OF FIVE FOOTBRIDGES TO VILLAGES
(MONONTSHA), QWA-QWA, FREE STATE PROVINCE**

For:

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REPORT NO.: AE02119V

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5 May 2021

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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. Arrangements can however be made if necessary.

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 is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Access to certain areas is also sometimes limited. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof. Any additional sites identified can be visited and assessed afterwards and the report amended, but only upon receiving an additional appointment.

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EXECUTIVE SUMMARY

Archaetnos cc was appointed by Spatial Solutions Inc. to conduct an Archaeological Impact Assessment (AIA) for the proposed building of five footbridges to villages in Qwa-Qwa. This is in the Maluti-a-Phofung Local Municipality, Free State Province.

This project entails the construction of a pedestrian footbridges in Monontsha (QwaQwa). A total of 5 locations have been identified. This project is essential to provide this community with access to much needed public facilities.

The client indicated the area to be surveyed. The field survey was confined to this route.

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located in the surveyed area.
2. Study background information on the area to be developed.
3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, and aesthetic and tourism value.
4. Describe the possible impact of the proposed project on these cultural remains, according to a standard set of conventions.
5. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed project.
6. Review applicable legislative requirements.

A survey of the available literature was undertaken in order to obtain background information regarding the area. This was followed by the field survey, which was conducted according to generally accepted HIA practices, aimed at locating all possible objects, sites and features of cultural significance in the area of the proposed development.

The heritage survey of the indicated area was completed successfully. Three sites were identified, although it is noted that some historical buildings and other sites may be found in towns along the pipeline route or in rural areas.

The following is recommended:

1. Sites no. 1, 2 and 3 are graves, the cultural significance of sites is High with a Field rating of Local Grade IIIB. There are two ways of dealing with graves.

- The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the building of the bridges.
- The second option is to exhume and relocate the mortal remains. This usually is done when the graves are in the area to be directly affected by the mining activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist are needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy. Since the graveyard is outside of the area of direct development, and already fence in, it should remain as such.

Option 1 is recommended for the grave sites. Option 2 is thus not recommended, but care should be taken that sites is not impacted directly. The developer however needs to ensure this remains the case.

2. It should nevertheless be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site immediate cease and 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 in order 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.*

It is also important to take cognizance that it is the client's responsibility to do the submission of this report via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

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

EMPLOYMENT HISTORY

- *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
- *Since 2015*: Extraordinary Professor of History at the Mahikeng campus of the Northwest University

OTHER

- Has published 39 peer-reviewed and 45 popular articles.
- Has written 11 books/book contributions/conference proceedings .
- Has been the author and co-author of over 1021 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 75 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.

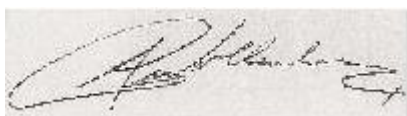
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014; 2018-2021).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member 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.

DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management. The report complies with the SAHRA 2007 Minimum Standards for *Archaeological Components of Impact Assessment Reports*.

Signed:



Date: 5 May 2021

LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment
 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 appointed by Spatial Solutions Inc. to conduct an Archaeological Impact Assessment (AIA) for the proposed building of five footbridges to villages in Qwa-Qwa. This is in the Maluti-a-Phofung Local Municipality, Free State Province (Figure 1-2).

This project entails the construction of a pedestrian footbridges in Monontsha (QwaQwa). A total of 5 locations have been identified (Figure 3) within the rural areas where movement of the local communities is currently subjected by seasonal weather conditions. The pedestrian bridges are proposed over tributaries of the Elands River. These tributaries include the Metsi-matsho-, Mphukojwane- and Kgotjwane River. The bridges will connect Monotsha with other surrounding settlements located in the QwaQwa / Phuthaditjhaba district.

This project is essential to provide this community with access to much needed public facilities. During the rainy seasons, many rivers are subject to flooding at which times the rural areas become isolated and cut off. Many rural communities are often forced to attempt an unsafe river crossing or face a long, time consuming, detour to access service amenities such as trading stores, schools, clinics and hospitals. Construction of additional footbridges may be the community's only access to these amenities, making this project essential for the socioeconomic upliftment of the area.

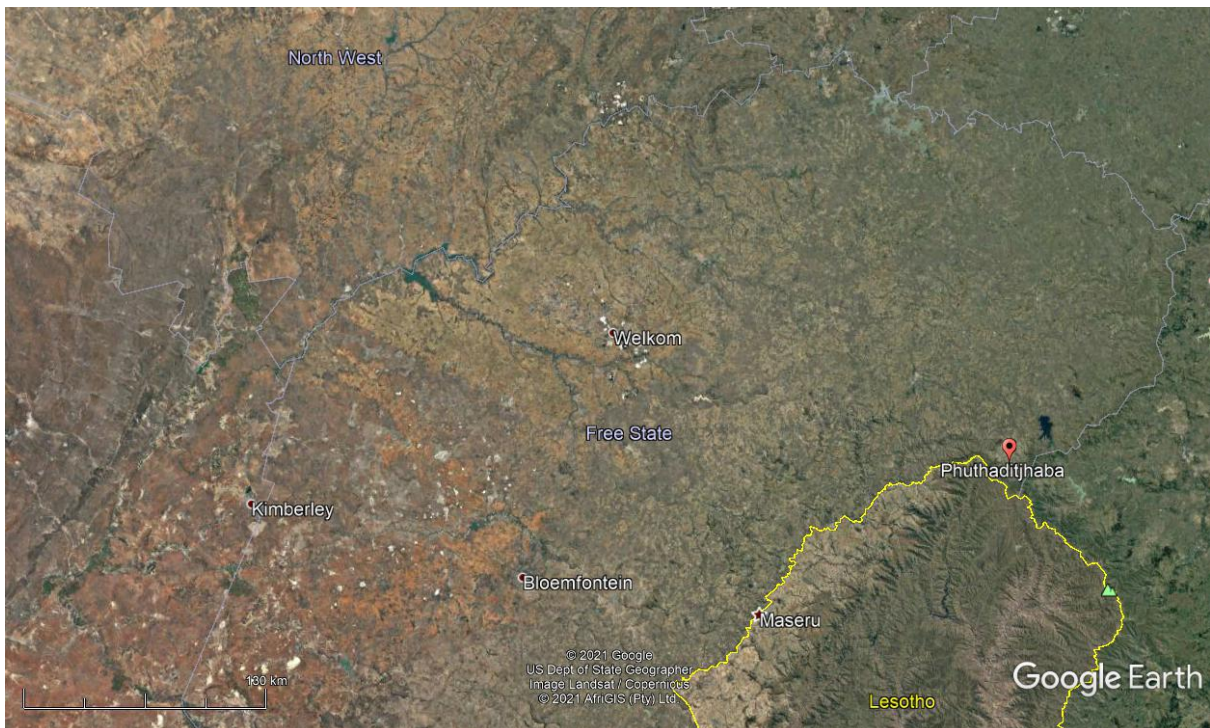


FIGURE 1: LOCATION OF PHUTHADIDJABA IN THE FREE STATE PROVINCE.



FIGURE 2: LOCATION OF MONONTSHA IN RELATION TO PHUTHADITJHABA.

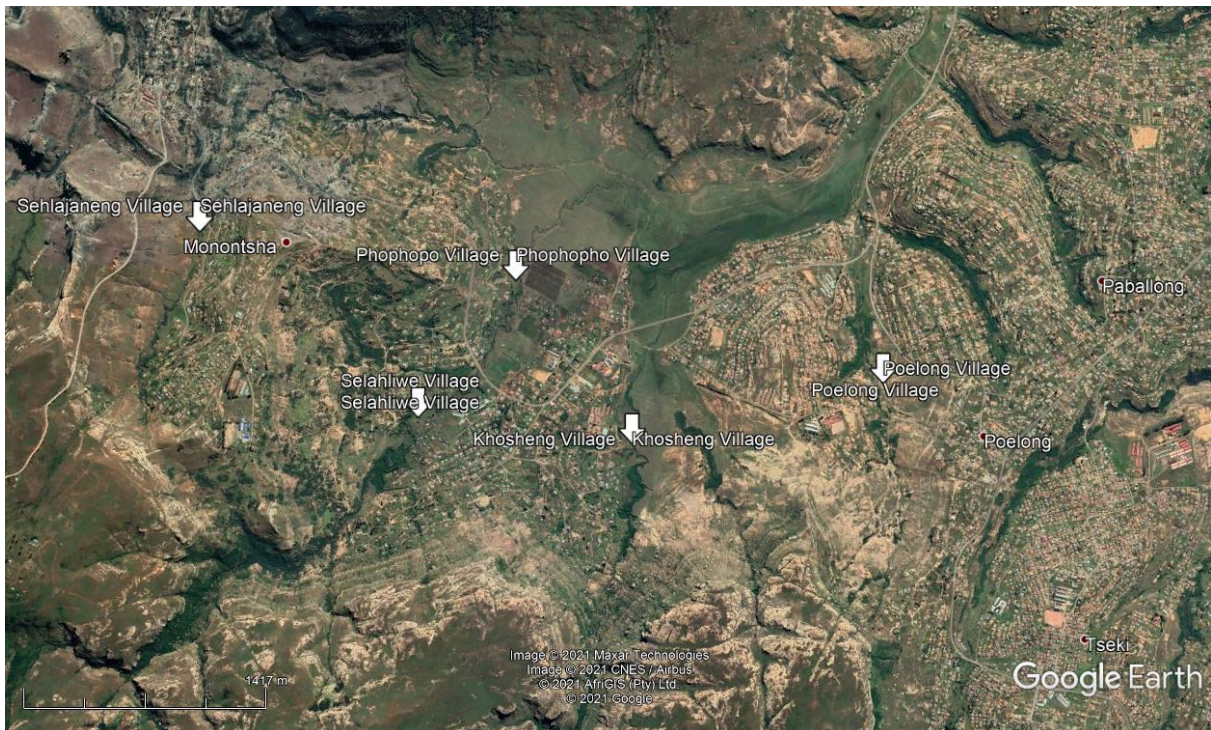


FIGURE 3: LOCATION OF THE FIVE SITES.

The client indicated the area to be surveyed. The field survey was confined to these and was done via foot on off-road vehicle. Currently the project is in a BAR phase. Central coordinates for the five bridges are as follows:

Sehlajaneng Village - 28°33'33.54"S; 28°43'12.78"E

Phophopho Village - 28°34'9.15"S; 28°43'59.46"E

Selahliwe Village - 28°33'42.39"S; 28°44'21.10"E

Khosheng Village - 28°34'14.29"S; 28°44'46.99"E

Poelong Village - 28°34'2.51"S; 28°45'42.92"E

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located in the surveyed area (see Appendix A).
2. Study background information on the area to be developed.
3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, and aesthetic and tourism value (see Appendix B).
4. Describe the possible impact of the proposed project on these cultural remains, according to a standard set of conventions.
5. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed project.
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 artefacts 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 artefacts 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. 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 this report should make it clear how to handle any unexpected other finds that might occur.
7. The surveyed areas are largely disturbed by human activity, as these are close to or right next to housing, roads, and old footbridge infrastructure. Two sites, Khosheng Village and Monontsha are actively used for grazing areas.
8. The vegetation is low to medium in height and consists mostly of grasses. Closer to the rivers taller vegetation is present. Resultingly both the vertical as the horizontal archaeological visibility varied between good and reasonable. However, due to the disturbances the project areas are regarded as being of low risk to contain heritage sites.

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 artefacts, 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 (AIA) 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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

The applicable subsection in this case is 'c'.

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;
- 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, or
- 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.

Unidentified/unknown graves 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 Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e., where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **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 are made.

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

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 include 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 artefacts and structures need to be removed is 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 effected 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.

This was however limited to broad background information on the history of the area. No information relation to any of the villages was found on the SAHRIS information system of SAHRA, but some was found around Phuthaditjhaba, approximately 12 km north-east of the surveyed area.

6.2 Field survey

The survey was conducted according to generally accepted AIA/HIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. Since it was a basic assessment, the aim was only to get a good idea of the heritage in the area. One sometimes looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration. In this case a radius of 100 m around each site was surveyed.

Where required, the location/position of any site was determined by means of a Global Positioning System (GPS)¹, while photographs were also taken where needed. The survey was undertaken by doing a physical survey via foot and off-road vehicle (Figure 4-9). Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

The length of the five footbridges is not yet known, but an area of 100 m radius were investigated around each. The survey took about 8 hours to complete.

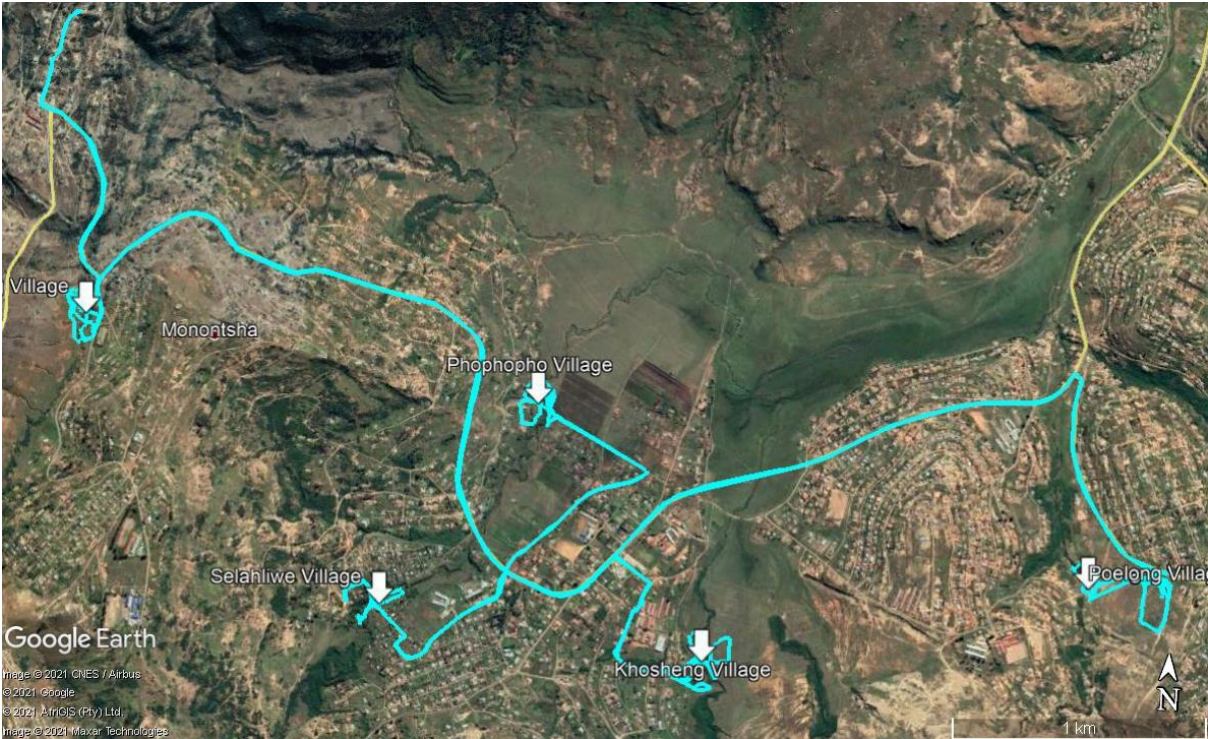


FIGURE 4: GPS TRACK OF THE SURVEY.

¹ A Garmin E Trex 550 with an accuracy factor of a few meters.



FIGURE 5: GPS TRACK FOR POELONG VILAGE AREA.



FIGURE 6: GPS TRACK FOR KOSHENG VILLAGE.



FIGURE 7: GPS TRACK FOR SELAHLIWE VILLAGE.



FIGURE 8: GPS TRACK FOR PHOPHOPHO VILLAGE.



FIGURE 9: GPS TRACK FOR SEHLAJANENG VILLAGE.

6.3 Other specialist reports

Other specialist studies are currently under investigation.

6.4 Social Consultation

This has not yet been done.

6.5 Documentation

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

6.6 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 ENVIRONMENT

All five proposed areas are disturbed due to recent human activities, in the form of grazing areas for animals and dirt roads. All the surveyed sites are situated within a 200m radius of houses, with some of the sites having housing right up to the river edge.

The vegetation at all the sites were low to medium in height with a visibility of 100 to 200 m consisting mostly out of grasses and pioneer vegetation, again an indication of disturbance. This visibility was only influenced by some steep inclines and taller vegetation growing next to the river edge, including black wattle and poplar trees. However, the surveyed areas have a low possibility of having heritage sites, due to disturbances, but it always is possible that heritage features, e.g. pot shards, stone tools etc. may be unearthed during the proposed work necessary to build the bridges.

- Poelong Village



FIGURE 10: VIEW OF PROPOSED BRIDGE AREA FOR PEOLONG VILLAGE.

The site for the Poelong Village bridge has shot grass with a thick under footing (Figure 10). Poplar trees are growing next to the river edge to the north. The site has a small footbridge made from concrete, which is at the proposed location (Figure 11). The soil is loos and sandy. The topography of the surveyed slopes towards the

river with sloping and steep embankments (Figure 12). Housing is located to the southwest of the proposed bridge area and open grassland to the east.



FIGURE 11: OLD FOOTBRIDGE AT THE POELONG VILLAGE BRIDGE SITE.



FIGURE 12: EMBANKMENTS AND VEGETATION GROWTH AT THE POELONG VILLAGE BRIDGE SITE.

- **Khosheng Village**



FIGURE 13: VIEW OF PROPOSED BRIDGE AREA FOR KHOSHENG VILLAGE.

The site for the Khosheng Village bridge has shot grass with a thick under footing (Figure 13). Popular trees are growing next to the river edge. The site has a small water control dam made from concrete is already at the proposed location (Figure 14). The soil is loose and sandy. The topography of the surveyed slopes towards the river and with steep embankments to the south and becomes lower towards the north of the site (Figure 15). Housing is located to the west of the proposed bridge area with open fields to the east that is used for animal grazing.



FIGURE 14: SMALL WATER CONTROL DAM AT THE KHOSHENG VILLAGE BRIDGE SITE.



FIGURE 15: EMBANKMENTS AND VEGETATION GROWTH AT THE KHOSHENG VILLAGE BRIDGE SITE.

- **Selahliwe Village**



FIGURE 16: VIEW OF PROPOSED BRIDGE AREA FOR SELAHLIWE VILLAGE.

The site for the Selahliwe Village bridge has shot grass with a thick under footing (Figure 16). Popular and black wattle trees are growing next to the river edge. There are signs of clay harvesting in the form of claypits (Figure 17). The soil is clay and is compacted. The topography of the surveyed slopes towards the river with steep embankments to the south and becomes lower towards the north of the site (Figure 18). Housing is located to the north and south of the proposed bridge area.



FIGURE 17: CLAYPIT AT THE SELAHLIWE VILLAGE BRIDGE SITE.



FIGURE 18: EMBANKMENTS AND VEGETATION GROWTH AT THE SELAHLIWE VILLAGE BRIDGE SITE.

- **Phophopho Village**



FIGURE 19: VIEW OF PROPOSED BRIDGE AREA FOR PHOPHOPHO VILLAGE.

The site for the Phophopho Village bridge has shot grass with a thick under footing (Figure 19). Popular trees are growing next to the river edge. The site has the remnants of a small footbridge made from concrete at the proposed location (Figure 20). The soil is loos and sandy. The topography of the surveyed slopes towards the river and with steep embankments (Figure 21). Housing is located to the west and southeast of the proposed bridge area with open agricultural field to the northeast.



FIGURE 20: REMNANTS OF SMALL FOOTBRIDGE AT THE PHOPHOPHO VILLAGE BRIDGE SITE.



FIGURE 21: EMBANKMENTS AND VEGETATION GROWTH AT THE PHOPHOPHO VILLAGE BRIDGE SITE.

- **Sehlajaneng Village**



FIGURE 22: VIEW OF PROPOSED BRIDGE AREA FOR SEHLAJANENG VILLAGE.

The site for the Sehlajaneng Village bridge has short grass with an open under footing (Figure 22). Black wattle trees are growing next to the river edge. The soil is loos and sandy. The topography of the surveyed slopes towards the river and with steep embankments (Figure 23). Housing is located to the east of the proposed bridge area and hilly grassland to the west used as grazing land (Figure 24).



FIGURE 23: EMBANKMENTS AND VEGETATION GROWTH AT THE SEHLAJANENG VILLAGE BRIDGE SITE.



FIGURE 24: GRAZING ACTIVITIES CLOSE TO THE SEHLAJANENG VILLAGE BRIDGE SITE.

8. HISTORICAL CONTEXT

Three sites of cultural heritage significance were located within the surveyed area during the survey. Some background information is given in order to place these and the surveyed area in a historical context and to contextualize possible finds that could be unearthed during construction activities.

One heritage report was done in the area (SAHRIS database). This report (Tomose 2013) was done in the Phuthaditjhaba area and several sites were identified, consisting of graves and historical structures (SAHRIS database). The closest site to the proposed development is 12 km, thus the development will not have any impact on sites found at Phuthaditjhaba. Unfortunately there also is limited information available on the historical and prehistoric sites in the area. The area is mostly terra incognita as far as heritage sites are concerned, due to a lack of research.

7.1 Stone Age

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

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

Information as to the Stone Age in this area is very limited, probably due to a lack of research. The nearest ESA site is one at Florisbad, but this is far towards the south-west (Mitchell 2002: 61). At this site MSA material was also found. The nearest MSA site to the study area is Rose Cottage Cave, but even this is relatively far towards the south-west. The closest MSA site in the Drakensberg is Sehonghong (Mitchell 2002: 73, 110, 138).

LSA sites close to the study area include a few in Lesotho, namely Ntloana Tsoana and Ha Makotoko. The nearest however is at Nkupe (Mitchell 2002: 138). The latter still is more than 100 km south of the study area.

Many Early Stone Age sites are known from the area around the Vaal River. In the Vredefort Dome, to the north-west of the project area, scattered finds of Middle and Late Stone Age tools have been recorded and at Florisbad and Voigtspost Late Stone Age material was uncovered (Mitchell 2002: 73, 110, 138).

Rock art sites are found in abundance in the Drakensberg (see for instance Willcox 1984a), with Maquonqo in Kwa-Zulu-Natal the nearest (Mitchell 2002: 193). These are usually associated with the Late Stone Age. It is known that the San was around this area at least since the early 1700's (Willcox 1984b: 132).

No Stone Age sites were indicated in the heritage report that have been found on SAHRIS and done in the Phuthaditjhaba area (SAHRIS database). However, the environment definitely would be supportive to Stone Age activities. The nearby water sources would lure animals to the area and these people would therefore at least have hunted here. One should therefore be on the lookout for stone tools as Stone Age people probably would have moved through the area.

7.2 Iron Age

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

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

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

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

No Early Iron Age sites have been recorded in the project area. Again this probably only relates to the lack of research as the environment definitely is suitable for human habitation.

The occupation of the larger geographical area (including the study area) did not start much before the 1500s. This resulted from the fact that 16th century the climate became warmer and wetter, creating condition that allowed Late Iron Age (LIA) farmers to occupy areas previously unsuitable, for example the Witwatersrand and the treeless, windswept plains of the Free State and the Mpumalanga Highveld (Van Schalkwyk 2014: 8).

A large number of Late Iron Age sites have previously been identified in the larger geographical area of the study site. Huffman (2007: 167,179) indicates that Late Iron Age people lived here between AD 1450 and 1650 and again between AD 1700 and 1840. During a survey done by Maggs (1976: 27) many Late Iron Age sites were also identified in the broader geographical area.

These sites are usually located close to high lying hills. The environment is very suitable for Iron Age people, but due to the disturbance of the study area one may perhaps merely find isolated cultural artifacts, such as potsherds. No Iron Age sites were identified by the heritage report that have been done in the Phuthaditjhaba area (SAHRIS database).

7.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. 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 country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era 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. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

In the northern Free State the historic period started with the arrival, in the late 18th century by Korana raiders in the area. Armed Qriqua and Korana raiders on horseback were active in the Northern Cape and Orange Free State by about 1790. The Xhosa were raiding across the Orange River about 1805 (Van Schalkwyk 2014: 8). The area was then settled by the Tlhaping. They were an indigenous group, which are of Tswana descent and moved here from the Transvaal area between 1826 and 1828 (Venter n.d.: 2).

Early white travelers also moved through this area. The first to cross the Gariep (Orange) River was John Melvill and GA Kolbe in 1828 (Schoeman 2003: 30). The northern parts of the Free State were visited by WC Harris in 1836 (Bergh 1999: 13; Schoeman 2003: 96).

The conflict between the Basotho (Tlhaping) people and white farmers in what is now the Free State/ Lesotho area, consisted of three wars (1858-1868). The purpose of these three wars was the maintenance of territorial rights in the area between the Caledon and Orange Rivers; from present day Wepener to Zastron, and the area north of the Caledon River, which includes present day Harrismith and the area further westwards.

The Basotho wars were preceded by the mass migration of several Nguni groups. This migration occurred during the reign of the Zulu King Shaka, who conquered several Nguni groups, which were absorbed into the Zulu kingdom. Other Nguni tribes fled and settled in other areas during this time, which is known as the Mfecane period.

In 1818, King Moshoeshe, who was the son of the chief of the Bakotela branch of the Koena/Kwena (Crocodile) clan, gained power over smaller fugitive and displaced clans. In 1820, Moshoeshe became chief of a larger unit of Southern Sotho groups, who had fallen under his centralized authority due to competition for resources, which was intensified by a drought. This competition for resources caused these larger groups to seek protection from other marauding groups, and Moshoeshe and his people retreated to the mountain fortress of Thaba Bosiu in 1824. Moshoeshe

gave assistance to his defeated enemies by giving them land, which led to the establishment of the Basotho nation.

In the late 1820s, a group of Kora (a group of Khoikhoi settlers also known as the Korana) and Dutch speaking people of mixed descent arrived in the vicinity of Moshoeshoe's kingdom. As they were mounted on horseback and armed with guns, the Basotho retreated. This also led to Moshoeshoe deciding to arm his people and give them horses.

The arrival of white settlers in the area, due to the Great Trek, was initially useful to Moshoeshoe, as the settlers created a buffer between the Basotho and the Kora. These people, known as Boers, crossed the Orange River from the Cape Colony in the mid-1820s. Although these settlers allegedly asked for his permission to settle there, Moshoeshoe's view was that he only had lent it to them. However, in 1845 a treaty was signed, which recognised the settlement of Boers in the area. Unfortunately no boundaries were drawn between the area of the Boers and Moshoeshoe's kingdom. This dispute led to inevitable border clashes and a discernible boundary became necessary.

The British, who then controlled the area between the Orange and Vaal Rivers (the Orange River Sovereignty) eventually proclaimed the Warden line (after Major Warden). This line divided territory between British territory and the Basotho under Moshoeshoe and stretched from Cornetspruit and the Orange River through Vechtkop to Jammerbergdrift on the Caledon.

The Warden line caused much resentment, as the fertile Caledon River Valley served as a vital area in terms of agriculture for both the British and the Basotho. This border line was therefore not acceptable to Moshoeshoe, and hostility followed, which led to conflict between the Basotho and the British, who were defeated by Moshoeshoe at the battle of Viervoet in 1851. In this year Moshoeshoe also offered Andries Pretorius an alliance against the British in the sovereignty.

As punishment to the Basotho, Sir George Cathcart then brought troops to the Mohokane River, and Moshoeshoe was ordered to pay a fine. When he did not pay the fine in full, a battle broke out on the Berea Plateau in 1852, where the British suffered heavy losses due to the armed Basotho cavalry. This sealed the fate of the sovereignty, even though Cathcart was initially in favour of withdrawal. By 1854 the cost of maintaining the sovereignty became too much for the British and they therefore handed over the territory to the Boers through the signing of the Sand River Convention. The Boers therefore claimed the land beyond the Caledon River, naming it the Republic of the Orange Free State (OFS). This began further conflict over land and undefined boundaries with the Basotho, who regarded themselves as the rightful owners, and who continued to use the land for grazing (Heydenrych 1986: 143-150; SA History Online; Wepener 1934: 9-81).

Quaqua, or Qwaqwa, was a homeland created for the Southern Sotho people from a reserve in the Orange Free State (OFS) that had been granted to the followers of a relative of Moshoeshoe. It was only 655 square kilometres big and bordered on Lesotho. The capital was Phuthaditjhaba and initially about 180 000 Sesotho

speaking Basotho people lived within its borders. By 1960 there were 20 000 residents, which increased to 300 000 in 1980 and more than a million in 1990.

The population of the homeland increased as more people were evicted from the Orange Free State, as a result of the Natives Land Act. The land in the region was Mountainous and unsuitable for cultivation so most of the men had to leave their homes to become part of the migrant labour force.

Quaqua, or Qwaqwa, means "whiter than white" in the San language and referred to the Sandstone Hills of the Drakensberg Mountains, where the Homeland was situated. The area had originally been the home of the Bakwena and Batlokoa groups and when they united in 1969 the region was called KwaKwa, which changed to Quaqua in the same year (SA History Online).

One may therefore expect to find Historical Late Iron Age settlements linked to the indigenous people here. Other possibilities are buildings, graves and objects linked to the Basotho people. Indeed, thirty-three historical sites were identified via the heritage report that have been done into the Phuthaditjhaba area and of these, four are not considered to not be of historical importance (SAHRIS database). Five are identified as grave sites (Figure 25), one is identified as ceramic fragments (Figure 26) and twenty-four sites area identified as historic (Figure 27).



FIGURE 25: KNOWN GRAVE SITES IN THE SURROUNDING AREA OF THE SURVEYED SITES.



FIGURE 26: KNOWN SITE WHERE CERAMIC FRAGMENTS WERE IDENTIFIED.

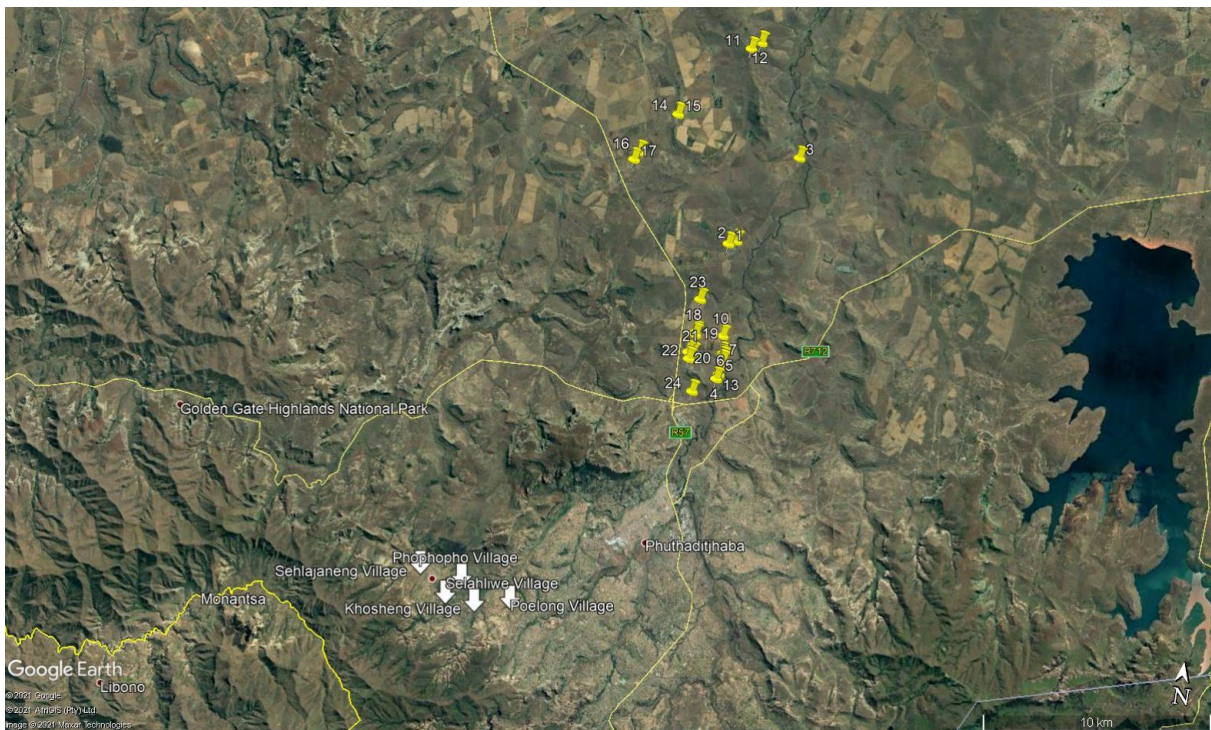


FIGURE 27: KNOWN HISTORIC SITES IN THE SURROUNDING AREA OF THE SURVEYED SITES.

9. DISCUSSION OF HERITAGE RESOURCES IDENTIFIED DURING THE SURVEY

Three sites were identified and are discussed below.

9.1 Graves: Site 1, 2 and 3

Cultural significance Table: Site 1,2 and 3

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	N	
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	N	
Its importance in exhibiting particular aesthetic characteristics valued by a community or 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	Y	High

reasons		
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	
Reasoned assessment of significance using appropriate indicators outlined above:		High

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(High) x 4
= 24

The site therefore receives a field rating of Local Grade IIIB. It means that these should be included in the heritage register and may be mitigated (high/ medium significance), if needed. Mitigation is subject to a permit application lodged with the relevant heritage authority.

Two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert in order to comply with heritage protocols. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the activities of the development.

The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the mining activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

Option 1 is recommended for all the grave sites. Option 2 is thus not recommended, but care should be taken that sites are not impacted directly. The developer however needs to ensure this remains the case.

Site no. 1:

This is a graveyard of about 200 m long and about 100 m wide at Poelong. It is in an open area of land with a dirt road running along its borders. There is no fence is surrounding the site. The graveyard is still in use. It lies 190 m southeast of proposed area and will not be directly affected by the development. The graves are orientated east to west. Grave good are sparsely distributed around the graves (Figure 28-29).

GPS: 28°34'02.58"S 28°45'54.12"E

The headstones are made of granite, natural stone and cement and the grave dressings are made of natural stones, granite, cement/concrete, gravel and iron. Total number of graves is approximately 1750. No graves of 60 years and older were found, about 1225 graves are younger than 60 years and about 525 unmarked graves were found. The oldest grave belongs to Petrus Mpeteng Motsoeneng – 16/12/1984 and the youngest grave is that of Nozintwasa Alinah Miyah 07/04/2021.

The following legible information was noted:

Sampie Bota Motaung 06/06/1996

Makhanya Sanna More 21/01/1996

The most common surname at the graveyard seems to be Moloji.



FIGURE 28: GRAVEYARD AT SITE 1.



FIGURE 29: EXAMPLE OF GRAVES FOUND AT SITE 1.

Site no. 2:

This is a graveyard of about 42 m long and about 23 m wide at Khosheng. It is located on an embankment next to a runoff stream. No fence is surrounding the graves. The graveyard is still in use. It lies 70m southwest of proposed area and care should be taken as the graves are hidden in between popular trees. It should also be noted that the graves fall within the 100 m radius of proposed development area and might be affected by the development. The graves are orientated east to west. Grave good are sparsely distributed around the graves (Figure 30-31).

GPS: 28°34'16.32"S 28°44'44.87"E

The headstones are made of granite, natural stone and cement and the grave dressings are made of natural stones, granite, cement/concrete, bricks, gravel, and earth. The graveyard seems to still be in use. Total number of graves is approximately 49. No graves of 60 years and older was found, 7 graves are younger than 60 years and 42 unmarked graves were found. The oldest grave belongs to Meshack Mhlupheki 22/07/1985 and the youngest grave is that of Mmalejakane paulina "Mankgabu" Lebona 16/01/2021.

The following legible information was noted:

Johanes Felleng Mokoena 02/09/2009

Nnihi Aletta Mosia 18/03/2017

Thokozile Antonia Khumalo 05/03/1994



FIGURE 30: GRAVEYARD AT SITE 2.



FIGURE 31: EXAMPLE OF GRAVES FOUND AT SITE 2.

Site no. 3:

This is a graveyard of about 48 m long and about 42 m wide at Sehlajanengngon. It is on an open patch of land with no fence is surrounding the graveyard. It lies 66 m north of the proposed area, thus falling within the 100 m and might be affected by the development. The graves are orientated east to west. Grave good are sparsely distributed around the graves (Figure 32-33).

GPS: 28°33'31.67"S 28°43'10.60"E

The headstones are made of granite, natural stone and cement and the grave dressings are made of natural stones, tiles, granite, cement, and gravel. The total number of graves are approximately 117. No graves of 60 years and older was found, 56 graves are younger than 60 years and 61 unmarked graves were found. The oldest grave belongs to Petrose Mohoalali 01/03/1979 and the youngest grave is that of Manko Beta Maliloane 21/09/2016.

The following legible information was noted:

Mamphane Jakkals Mokoena 10/03/1978

Puleng Anna Pule 30/11/1982

Matjale Belinah Mlangeni 17/03/2010



FIGURE 32: GRAVEYARD AT SITE 3.



FIGURE 33: EXAMPLE OF GRAVES FOUND AT SITE 3.

10. CONCLUSION AND RECOMMENDATIONS

The heritage survey of the indicated area was completed successfully. Three sites were identified during the survey (Figure 34). It is noted that some historical buildings and other sites may be found in villages or in rural areas along the proposed development, but these will not be impacted.

The proposed developments are mapped together with the sites in the vicinity (12 km from the surveyed area). Graves are indicated by red, historic structures are indicated by yellow and loose ceramics fragments are indicated by green (Figure 35).



FIGURE 34: SITES IDENTIFIED IN THE SURVEYED AREA.

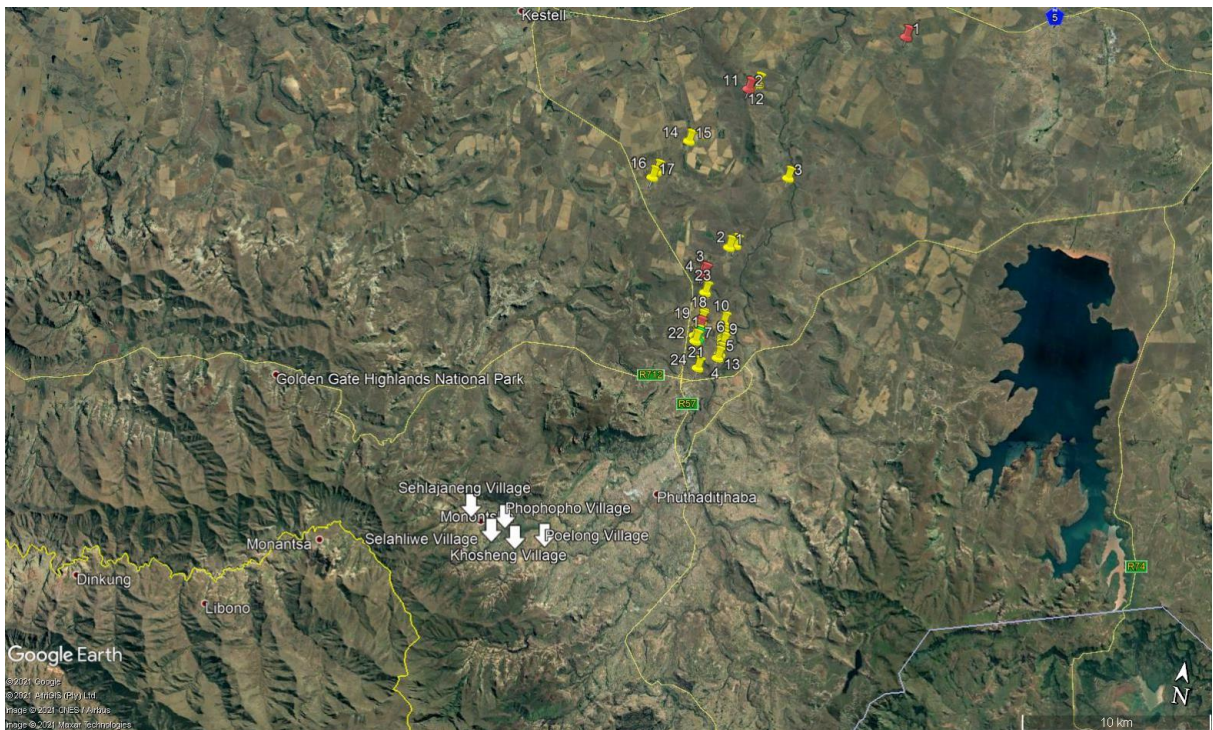


FIGURE 35: KNOWN SITES IN THE VICINITY OF THE CURRENT SURVEY.

The following is recommended:

1. Sites no. 1, 2 and 3 are graves, the cultural significance of sites is High with a Field rating of Local Grade IIIB. There are two ways of dealing with graves.
 - The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the building of the bridges.
 - The second option is to exhume and relocate the mortal remains. This usually is done when the graves are in the area to be directly affected by the mining activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist are needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy. Since the graveyard is outside of the area of direct development, and already fence in, it should remain as such.

Option 1 is recommended for the grave sites. Option 2 is thus not recommended, but care should be taken that sites is not impacted directly. The developer however needs to ensure this remains the case.

2. It should nevertheless be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a distinct possibility. Care should therefore be taken when development commences that if any of these are discovered, work on site immediate cease and 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 in order 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.*

11. REFERENCES

- Archaetnos database.
- Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Coertze, P.J. & Coertze, R.D. 1996. **Verklarende vakwoordeboek vir Antropologie en Argeologie.** Pretoria: R.D. Coertze.
- Heydenrych, D.H. 1986. Die Boererepublieke, 1852-1881. In Cameron, T. & Spies, S.B. (eds.). **Nuwe geskiedenis van Suid-Afrika in woord en beeld.** Cape Town: Human & Rousseau.
- <https://www.sahistory.org.za/article/basotho-wars-1858-1868>, accessed on 29 April 2021. 2020.
- Huffman, T.N. 2007. **Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa.** Scottsville: University of KwaZulu-Natal Press.
- International Finance Corporation. 2012. **Overview of performance standards on Environmental and Social Sustainability. Performance Standard 8, Cultural Heritage.** World Bank Group.
- Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.
- Korsman, S.A. & Meyer, A. 1999. Die Steentydperk en rotskuns. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Maggs, T.M. O'C. 1976. **Iron Age communities of the Southern Highveld.** Pietermaritzburg: The Natal Museum.
- Mitchell, P. 2002. **The archaeology of Southern Africa.** Cambridge: Cambridge University Press.
- Republic of South Africa. 1980. **Ordinance on Excavations** (Ordinance no. 12 of 1980). The Government Printer: Pretoria.
- Republic of South Africa. 2003. **National Health Act** (Act 61 of 2003). The Government Printer: Pretoria.
- Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.
- Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.
- SAHRA database.
- Tomose, N. 2013. **A fase 1 heritage impact assessment study for the proposed 132kV lines Sorata-Witsieshoek, Phuthaditjhaba, Free State Province, South Africa.** (Unpublished report, NGT Projects and Heritage Consultants).
- Schoeman, K. 2003. **Early white farmers in the Transgariep 1819-1840.** Pretoria: Protea Bookhouse.
- Van der Ryst, M.M. & Meyer, A. 1999. Die Ystertydperk. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Van Schalkwyk, J.A. 2014. **Cultural heritage impact assessment for the rehabilitation and upgrade of National route 1, section 16, between**

- Winburg** interchange (KM 78.8) and the intersection to Winburg station (KM 89.0), Free State Province. (Unpublished report, Monument Park).
- Venter, T. n.d. **Tlhaping**. Research document.
- Wepener, F.D.J. 1934. **Louw Wepener. Die oorloë van die Oranje-Vrystaat met Basoetoland**. Pretoria; J.H. de Bussy.
- Willcox, A.R. 1984a. **The Drakensberg Bushmen and their art**. Durban: Colorgraphic.
- Willcox, A.R. 1984b. **The rock art of Africa**. Johannesburg: MacMillan South Africa.

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 artefacts, 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: Artefact (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 of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

National Grade I significance	should be managed as part of the national estate
Provincial Grade II significance	should be managed as part of the provincial estate
Local Grade IIIA	should be included in the heritage register and not be mitigated (high significance)
General protection A (IV A)	site should be mitigated before destruction (high/medium significance)
General protection B (IV B)	site should be recorded before destruction (medium significance)
General protection C (IV C)	phase 1 is seen as sufficient recording and it may be demolished (low significance)

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

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. 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.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.