



Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

**A REPORT ON AN ARCHAEOLOGICAL IMPACT ASSESSMENT FOR A
PROPOSED 4800 SOW UNIT PIGGERY ON THE FARM STEYNSBURG 7803-GS,
CLOSE TO BERGVILLE, KWAZULU-NATAL PROVINCE**

For:

***ROCK ENVIRONMENTAL CONSULTING (PTY) LTD
PO Box 40541
Moreleta Park
0044***

REPORT NO.: AE01707V

By:

***Prof. A.C. van Vollenhoven (L.AKAD.SA.)
Accredited member of ASAPA
Professional member of SASCH***

9 March 2017

Archaetnos
P.O. Box 55
GROENKLOOF
0027
Tel: 083 291 6104
Fax: 086 520 4173
E-mail: antonv@archaetnos.co.za

Member: AC van Vollenhoven BA, BA (Hons), DTO, NDM, MA (Archaeology) [UP], MA (Culture History) [US], DPhil (Archaeology) [UP], Man Dip [TUT], D Phil (History) [US]

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.

Should it be necessary to visit a site again as a result of the above mentioned, an additional appointment is required.

Reasonable editing of the report will be done upon request by the client if received within 60 days of the report date. However editing will only be done once and clients are therefore requested to send all possible changes in one request. Any format changes or changes requested due to insufficient or faulty information provided to Archaetnos on appointment, will only be done by additional appointment.

Any changes to the scope of a project will require an additional appointment.

**©Copyright
Archaetnos**

The information contained in this report is the sole intellectual property of Archaetnos CC. It may only be used for the purposes it was commissioned for by the client.

SUMMARY

Archaetnos cc was requested by Rock Environmental Consulting (Pty) Ltd to conduct an archaeological impact assessment (AIA) for a proposed piggery on the Remaining extent of the farm Steynsburg 7803-GS. This is 21 km north-west of the town of Bergville in the KwaZulu-Natal Province.

The methodology for the study includes a survey of literature and a field survey. The latter was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

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

During the survey seven sites of cultural heritage significance were identified. These are discussed and mitigation measures are proposed. After implementation of these, the proposed development may continue.

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 it also is possible that some sites may only become known later on. 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.

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.

CONTENTS

	Page
SUMMARY	3
CONTENTS	4
1. INTRODUCTION.....	5
2. TERMS OF REFERENCE.....	7
3. CONDITIONS AND ASSUMPTIONS	8
4. LEGISLATIVE REQUIREMENTS	8
5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARDS FOR CULTURAL HERITAGE ..	12
6. METHODOLOGY	13
7. DESCRIPTION OF THE ENVIRONMENT	14
8. HISTORICAL CONTEXT.....	15
9. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY ..	17
10. CONCLUSIONS AND RECOMMENDATIONS.....	24
11. REFERENCES.....	25
APPENDIX A – DEFENITION OF TERMS.....	27
APPENDIX B – DEFINITION/ STATEMENT OF SIGNIFICANCE	28
APPENDIX C – SIGNIFICANCE AND FIELD RATING.....	29
APPENDIX D – PROTECTION OF HERITAGE RESOURCES	30
APPENDIX E – HERITAGE MANAGEMENT IMPACT ASSESSMENT PHASES	31

1. INTRODUCTION

Archaetnos cc was requested by Rock Environmental Consulting (Pty) Ltd to conduct an archaeological impact assessment (AIA) for a proposed piggery on the Remaining extent of the farm Steynsburg 7803-GS. This is 21 km north-west of the town of Bergville in the KwaZulu-Natal Province (Figure 1-4).

The development entails a 4800 sow piggery to be established. It will consist of a pig housing complex including three sites as well as a manure processing plant and the feed factory.

The client indicated the areas to be surveyed and the survey was confined to these. It was done via foot.

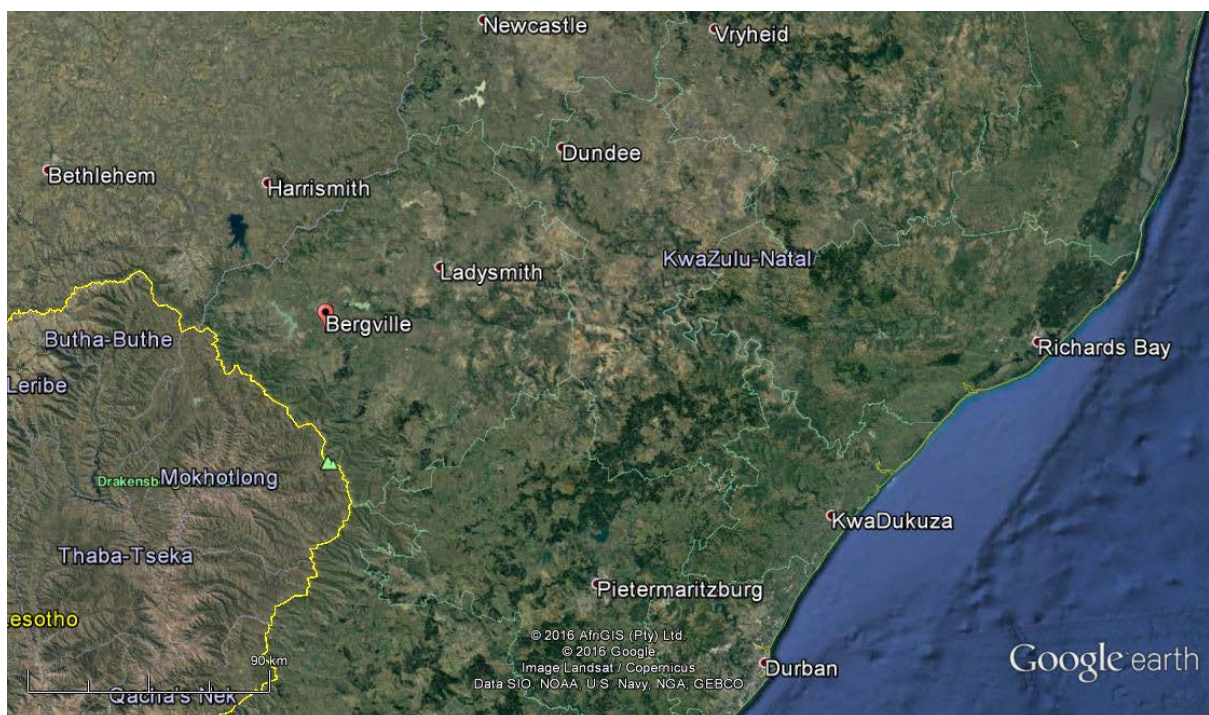


Figure 1: Location of Bergville in the KwaZulu-Natal Province.



Figure 2: Location of the project in relation to Bergville.

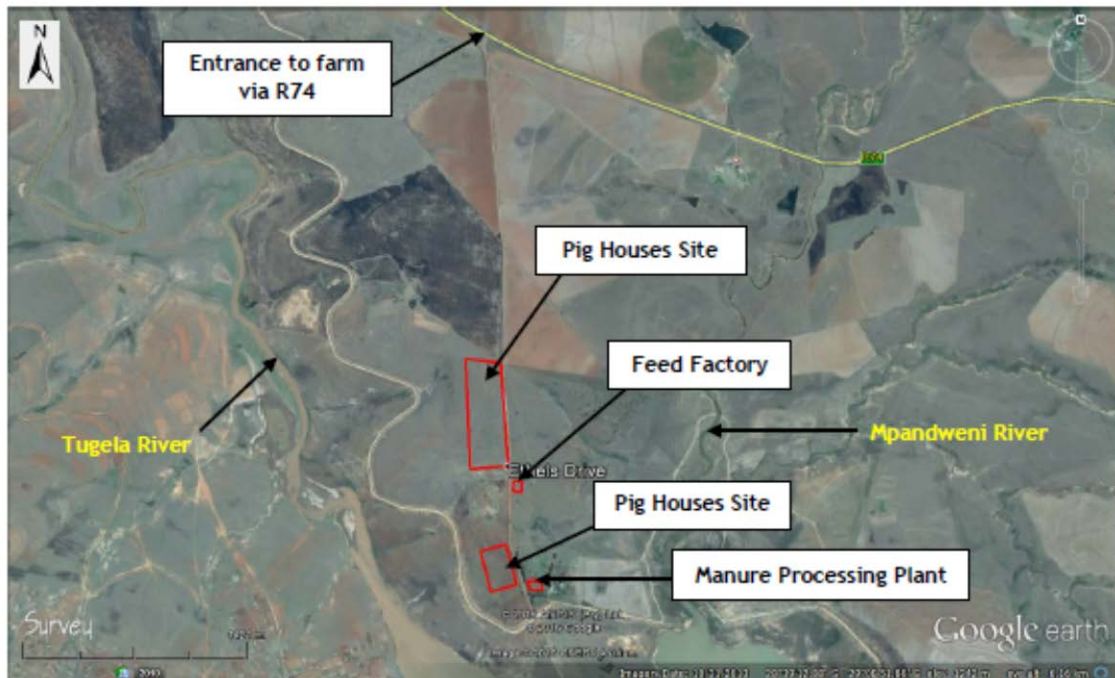


Figure 3: Project plan indicating areas of development.



Figure 4: Closer view of project area.

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 on the property (see Appendix A).
2. Document the found cultural heritage sites according to best practice standards for heritage related studies.
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. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
7. 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, structures 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. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
7. In this particular case large parts of the surveyed area consisted of long dense vegetation, making archaeological visibility limited.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999) which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998) which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

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 and can only be done by a professional archaeologist.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes required by the South African Heritage Resources Agency (SAHRA)¹, should be done by a professional palaeontologist.

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

¹ Please consult SAHRA to determine whether a PIA is necessary.

- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

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

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

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

Archaeology, palaeontology and meteorites

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

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or 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.

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 Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

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 need to be managed by not disturbing such finds and by having them 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 artifacts 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 no 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.

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)², while photographs were also taken where needed. The survey was undertaken by doing a physical survey on foot and covered as much as possible of the area to be studied (Figure 5).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The size of the surveyed area is approximately 16 Ha and the survey took 2 hours to complete.



Figure 5: GPS track of the surveyed area.

² A Garmin Oregon 550 with an accuracy factor of a few meters.

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.

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 Global Positioning System (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 ENVIRONMENT

The area that was surveyed is located along the foothills of the northern Drakensberg in KwaZulu-Natal. Accordingly it shows typical Highveld characteristics including grassland with isolated trees. The latter are mostly foreign species such as Pine, but a few indigenous trees are also found. The first mentioned are foreign species and therefore an indication of disturbance.

The vegetation cover varies from areas with reasonably low grass to areas with medium high grass cover. The under footing however is extremely dense. The latter of course has a negative effect on both the horizontal as the vertical archaeological visibility, whereas visibility is good at afore mentioned.

The surveyed site mostly seems undisturbed by recent by recent human activities. It is mainly used for grazing, but in certain areas agriculture may have been applied. The topography of the surveyed area consist of low rolling hills with a gradual fall towards the south-west. No rivers are found in the surveyed area, but towards the south-west, outside of the surveyed area, water bodies are to be found.

8. HISTORICAL CONTEXT

Seven sites of cultural heritage significance were located during the survey. Some background information is given in order to place the surveyed area and the sites found in a historical context and to contextualize possible finds that could be unearthed during construction activities. No heritage reports were written previously in the area, but this archaeological study was commissioned after an HIA was done by Marais-Botes (in preparation).

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: 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.

This geographical area is not well-known as one containing many prehistoric sites. This however definitely indicates a lack of research in the area. Archaeologists have found Stone Age sites in the vicinity of Newcastle and Dannhauser, mostly dating to the Middle Stone Age, during previous surveys (Archaeologists database).

A MSA site is known from Umhlatuzana (Mitchell 2002: 73). Stone Age sites and rock art, are also known from the Drakensberg (Phillipson 1985: 77). The latter is mostly associated with the San people of the LSA. Known LSA sites relatively close to Ixopo include Shongweni, Borchers Shelter, Strathalan and Umhlatuzana (Mitchell 2002: 127, 162).

The environment definitely is suitable for Stone Age people. There is ample water and grazing for the wild life they would have hunted. Although no caves or rock shelters were identified, there would be enough shelter since the broader geographical area include hills and mountains. Materials to use for the manufacture of stone tools are also found in abundance.

It is therefore very likely that Stone Age people did utilize and settled in the area. No such sites were however identified during the survey. The dense vegetation cover may be a contributing factor to this.

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 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.

Both Early and Late Iron Age sites are known from the Kwazulu-Natal (Zululand) area. These are associated with the predecessors of the current Zulu people in the area. During the Late Iron Age (LIA), people stayed in extensive stonewalled settlements and remains of these were identified during the current survey.

EIA sites are known from the coastal, northern and central regions of this province (Phillipson 1985: 174; Mitchell 2002: 260' 296). LIA sites are found in abundance in KwaZulu-Natal (Mitchell 2002: 346).

Iron Age people therefore definitely settled in the study area. It therefore is no surprise that such sites were identified during the survey.

8.3 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.

After 1800 the small tribes in Zululand were unified by Chaka (Bergh & Bergh 1984: 14). During the Difaqane (1820's – 1830's) the Ndebele of Mzilikazi migrated from the north-eastern parts of Kwazulu-Natal to the north and most likely passed close to the study area. On this journey they conquered other groups and caused widespread chaos (Bergh 1999: 11).

Travelers and missionaries also came to the area. By 1824 people like FG Farewell, JS King, Henry Fynn, John Cane, Henry Ogle, Alexander Biggar, WH Davis, and Thomas Halstead have settled in Port Natal. It was however only during the 1830's when the Voortrekkers moved in that white people started colonizing the area to a large extent (Venter 1985: 25-27). This led to an era of conflict ending with the Battle

of Blood River (Ncome) where the Voortrekkers ended the reign of Dingane in the area (Venter 1985: 49-52).

During the Anglo-Zulu War and the Anglo-Boer War (1899-1902) many battles were also fought in the vicinity of the study area. This includes Isandlwana and Talana (or Dundee), the latter on 20 October 1899 (Bergh 1999: 51; Pretorius 1985: 14). The British also built some forts around the town of Dundee (Pretorius 1985: 12).

9. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY

As indicated, seven sites of cultural heritage importance were identified in the surveyed area. These are divided into two groups being Late Iron Age/Historical stone walled sites and graves.

9.1 Graves

Site 6 - GPS: 28°39'55.57"S; 29°08'34.62"E



Figure 6: One of the graves at site no. 6.

The site consist of at least three stone packed graves, most likely associated with site 5 and/or 7 (Figure 6). No legible information is available since no headstone are to be found.

Site 8 - GPS: 28°40'3.41"S; 29° 8'47.47"E

This consist of one grave with a cement headstone and border (Figure 7). It is the grave of GF Kemp who dies in 1926.



Figure 7: The grave at site no. 8.

Graves always are regarded as having a high cultural significance and receives a field rating of Local Grade IIIB. It should be included in the heritage register, but may be mitigated. The graves at Site no. 6 is called unknown graves as no information is available. It should therefore be dealt with exactly as one would deal with heritage graves (older than 60 years). The grave at Site no. 8 indeed is a heritage grave.

When dealing with graves, 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. 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 development 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.

Both sites seem to be right on the edge, but outside of the zone of impact. Therefore Option 1 would suffice. It however is necessary to make sure that a buffer of at least 20 m is kept, especially during construction activities on site. Once the development has been completed no impact is foreseen.

9.2 Late Iron Age/Historical stone walling

Site 1 - GPS: 28°40'03.19"S; 29°08'40.08"E (Figure 8)

Site 2 - GPS: 28°40'05.13"S; 29°08'39.42"E (Figure 9)

Site 3 - GPS: 28°40'01.13"S; 29°08'33.22"E (Figure 10)

Site 4 - GPS: 28°39'58.38"S; 29°08'35.84"E (Figure 11)

Site 5 - GPS: 28°39'55.51"S; 29°08'32.67"E (Figure 12)

Site 7 - GPS: 28°39'55.28"S; 29°08'33.97"E (Figure 13)

All these sites consist of circular stone walling. Most of the stones have been robbed and therefore only foundations remain. The largest circle is approximately 15 m in diameter and the smallest 12 m.

Site no. 2 has one wall making a sharp corner, creating the impression that it is partially rectangular. The walling at site no. 4 is extremely thick, in fact it seems to be a double wall packed with stone. Site no.5 is the only one where more than one circle, in this case three, were identified. The graves at site no. 6 likely is associated with site no. 5, but it may also be associated with site no. 7.

Due to the long grass it was impossible to determine any link between these sites, but it actually is believed that it in fact is one large site consisting of various stone circles. Looking at Google Earth it also seems as if there may be more of these in the surrounding area. Some lower grinding stones and broken lower grinding stones were noted in the area (Figure 14-15).



Figure 8: Stone walled remains at Site no. 1.³



Figure 9: Stone walling at Site no. 2.

³ Due to the density of the grass all the photographs may not reflect a good picture of the sites.



Figure 10: Stone walling at Site no. 3.



Figure 11: Stone walling at Site no. 4.



Figure 12: Stone walling at Site no. 5.



Figure 13: Stone walling at Site no. 7.



Figure 14: Broken lower grinding stone found in the surveyed area.



Figure 15: Lower grinding stone found close to Site no. 5.

All the sites are regarded as having a medium cultural significance since it is not very unique and also not in a good state of preservation. The field rating thereof is General Protection Grade B (IV B). This means that it may be demolished, but it has to be mitigated first. Mitigation will consist of mapping the sites. During demolition a

watching brief needs to be implemented, meaning that an Archaeologist should be present on site to monitor the possible unearthing of human and cultural remains.

However, it seems as if there are enough space in the vicinity of these sites to prevent it from being demolished. Changing the project plan so that the sites are not impacted on should at least be considered. Should it be possible, the sites can remain, but it should be demarcated to prevent any impact.

10. CONCLUSION AND RECOMMENDATIONS

The survey of the indicated area was completed successfully. As indicated seven sites of cultural heritage significance was located (Figure 16).



Figure 16: Location of the sites identified during the survey.
Yellow – Late Iron Age/Historical sites
Blue - Graves

The following is recommended:

- When dealing with graves, 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. 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 development 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.

- Both grave sites (no. 6 and 8) seem to be right on the edge, but outside of the zone of impact. Therefore Option 1 would suffice. It however is necessary to make sure that a buffer of at least 20 m is kept, especially during construction activities on site. Once the development has been completed no impact is foreseen.
- The Late Iron Age/Historical sites (no. 1, 2, 3, 4, 5, 7) may be demolished, but it has to be mitigated first. Mitigation will consist of mapping the sites. During demolition a watching brief needs to be implemented, meaning that an Archaeologist should be present on site to monitor the possible unearthing of human and cultural remains.
- However, it is strongly suggested that the project plan be adapted in order to prevent these sites from being demolished. Should it be possible, the sites can remain, but it should be demarcated to prevent any impact.
- The proposed development may continue only after the mitigation measures indicated above had been implemented and approved by the Provincial heritage authority of KwaZulu-Natal (AMAFA).
- 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 it also is possible that some sites may only become known later on. 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.

11. REFERENCES

Archaetnos' database.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

Bergh, J.S. & Bergh, A.P. 1984. **Stamme & Ryke.** Cape Town: Don Nelson.

Coertze, P.J. & Coertze, R.D. 1996. **Verklarende vakwoordeboek vir Antropologie en Argeologie.** Pretoria: R.D. Coertze.

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.
- Mitchell, P. 2002. **The archaeology of Southern Africa.** Cambridge: Cambridge University Press.
- Phillipson, D.W. 1985. **African archaeology.** Cambridge: Cambridge University Press.
- Pretorius, F. 1985. **1899-1902 Die Anglo-Boereoorlog.** Cape Town: Don Nelson.
- Republic of South Africa. 1980. Ordinance on Excavations (Ordinance no. 12 of 1980). The Government Printer: Pretoria.
- Republic of South Africa. 1983. **Human Tissue Act** (Act 65 of 1983). 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. **Nation** Archaeos database. SAHRA database (SAHRIS).
- 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.
- Venter, C. 1985. **Die Groot Trek.** Cape Town: Don Nelson.

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 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)
Local Grade IIIB	should be included in the heritage register and may be mitigated (high/ medium 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.