FIRST PHASE CULTURAL HERITAGE IMPACT ASSESSMENT OF NDUMO ROAD (PROJECT 3) IN NORTHERN KWAZULU-NATAL.



ACTIVE HERITAGE cc.

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Active Heritage for Jeffares and Green

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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
IIA	Intermediate Iron Age
ISA	Intermediate Stone Age
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A cultural heritage survey of a proposed upgrade and realignment of the road from Ndumo to eKuhlehleni (D1841, D1842 and D1884), northern KwaZulu-Natal located six heritages sites on the footprint. These include two Stone Age surface scatters and four Grave Sites. It is proposed that the developer maintain a buffer of at least 35m around these sites. This would be possible by alternating the road trajectory slightly in the near vicinity of the grave sites. Alternatively, a phase two heritage impact assessment may be instituted in order to relocate the relevant graves. In addition, a section of the proposed road upgrade is situated in a cultural landscape where age old subsistence strategies and relationships with the land and natural environment is still being maintained. It is suggested that the developer avoids fields, fields, pans, and trees with cultural significance in this area. No new access roads may be constructed without a phase two heritage impact assessment in this region. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Consultant:	Frans Prins (Active Heritage cc) for Jeffares & Green		
Type of development:	The project proposes the upgrade and realignment of the road from Ndumo to eKuhlehleni (D1841, D1842 and D1884) in northern KwaZulu-Natal This road provides a link between the eKuhlehleni Pass and Ndumo via eManyiseni.		
Rezoning or subdivision:	Not applicable		
Terms of reference	To carry out a Heritage Impact Assessment as subcontracted by Jeffares & Green.		
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)		

Table 1. Background information

1.1. Details of the area surveyed:

The majority of the route will include upgrades to the existing rural roads and tracks. This will include upgrades to existing structures such as box culverts and watercourse crossings. The road reserve will be a minimum of 30m wide which will enable the widening of the existing road in places to accommodate the deeper cuttings, higher fills and larger intersections. Upon completion of the upgrades the road will have a width varying between 8m and 9m. The existing gravel road will be black topped upon completion.

The GPS coordinates for the footprint is as follows:

Start 26° 52' 52.837" S 32° 00' 27.420" E Middle 26° 55' 15.345" S 32° 06' 24.408" E End 26° 55' 28.816" S 32° 15' 00.342" E

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Maputaland is endowed with heritage sites of various traditions and periods spanning the Stone Ages, Iron Ages and the historical period. However, the majority of these occur to the west of the Phongola River in the foothills of the Lebombo Mountains. A second large concentration occurs adjacent to and on the dune gordon along the coastline. The coastal plain, by contrast to the rest of Maputaland, is devoid of known archaeological sites. Oliver Davies, an archaeologist who conducted pioneered research and surveys in northern KwaZulu Natal in the 1960's and 1970's, commented that the coastal plain was unpromising for archaeological research due to its being covered by superficial sands and bush coverage which affect preservation and visibility (Avery 1980). By contrast, the foothills of the Lebombo in the vicinity of Ingwavuma is well endowed with archaeological sites. The provincial heritage data base of the KwaZulu-Natal Museum lists twenty nine sites in the Ingwavuma magisterial district. These include Early Stone Age, Middle Stone Age, Later Stone Age and Later Iron Age sites.

Based on typological criteria it can be speculated that the known Early Stone Age sites in the greater Ingwavuma area most probably dates back to between 300 000 and 1.7 million years ago. Some of the stone tools have been identified as belonging to the Acheulian tradition and it is therefore possible that these sites were occupied by an early hominin such as *Homo erectus* or *Homo ergaster*. Middle Stone Age Sites dates back to ca. 40 000 - 200 000 BP. These sites relate to the first anatomically modern people in the world namely *Homo sapiens sapiens*. Most of the Middle Stone Age sites in the greater Maputaland are open air stone tool scatters with little archaeological context. However, some notable cave deposits do occur. The world renowned Border Cave Site, situated approximately 65km to the north of the town of Ingwavuma, is a good example. Humans lived at Border Cave over a period of 200 000 years. The human skeletal remains found in the cave are believed to be some of the oldest evidence of anatomically modern human beings. Various radiometric-dating techniques suggest that Middle Stone Age people were living at Border Cave more than 110 000 years ago. More than a million stone artefacts have been excavated in the cave and an enormous amount if animal material has been recovered from the site as well (Derwent 2006).

Only a handful of Later Stone Age sites have been recorded in the greater Maputaland. These relate to San hunter-gatherers or their immediate ancestors. The stone tool technology are smaller and more diverse and specialised than those made during the Middle Stone Age.

The Early Iron Age of the coastal zone in Maputaland contains ceramic fragments identified as belonging to the Matola phase. The Matola phase sites can be identified with the very first Bantu-speaking agriculturists that entered KwaZulu-Natal approximately 1 600 years ago from Eastern Africa (Maggs 1989). Although oral history indicate that the area was occupied in more recent centuries times by the Thembe-Thonga or their immediate ancestors archaeological sites belonging to this period have not yet been identified. Nevertheless the present African inhabitants of the area, the Thembe-Thonga and the Swazi, have a rich oral history and culture relating to their intimate relationship with the environment spanning many centuries. Aspects of their cultural heritage identified by community representatives as being important include the following:

- Relationship of the local community with the physical environment
- Traditional fishing practises (fonya basket fishing)
- The indawo spirit possession cult
- Wild fruit utilisation
- The significance of the mothers brother in Thembe-Thonga social organisation
- Settlement rules and history
- Thonga language
- Issues relating to cross border identities
- Trade across the border
- History of various traditional authorities in the area
- Occupation of some areas by refugees of the Zulu wars

• Influence on local customs by refugees of the Mozambican War of 1975-1990

The conventional view is that that the historical occupants of Maputaland, the Tembe-Thonga, migrated from Karanga in the present day Zimbabwe in the middle of the seventeenth century Junod (1962:23). However, the theory that the African societies of south-east Africa migrated there in fixed ethnic units, as in the case of the Tembe-Thonga, has been questioned by archaeological research and recent research on oral traditions of Zululand and Natal (Maggs 1989). Instead of migrating there in fixed ethnic groups, it is now argued that the African societies of south-east Africa emerged locally from long established communities of diverse origins and diverse cultures and languages. Nevertheless, whether the Tembe came from Karanga to establish their authority over the people of south-east Africa, or whether they emerged locally, reports from Portuguese sailors indicate that a chief Tembe was in control of the ruling chiefdom in the Delagoa Bay hinterland in the mid-1600s (Wright & C. Hamilton 1989:46-64 and Kuper 1997:74). Tembe and his followers gradually established their authority over the people who lived in this hinterland including the area to the immediate east of the study area. Due to the abilities of their strong and charismatic leaders, the Tembe-Thonga remained a unified chiefdom and gradually extended their influence. This unity was upset in the middle of the eighteenth century when a split in the ruling lineage led to the fragmentation of the chiefdom. The division came after the death of Silamboya in 1746. The descendants of Silamboya's oldest son, Muhali, settled west of the Maputo River and north of the Usuthu River. This group, the senior branch of the Tembe-Thonga, became known as the Mututwen-Tembe. The other part of the Tembe-Thonga followed a junior son of Silamboya, Mangobe, and settled east of the Maputo River. This branch would later become known as the Mabudu or Maputo (Bryant 1965:290). The imposed international border of 1875 bisected the area where the Mabudu branch settled. Being unable to control the vast area under his control, the chief of the junior branch, Mangobe, placed his sons in strategic positions so as to ensure his control. When Mangobe died, his first son, Nkupo, was named chief. However, his younger son, Mabudu, soon established himself as the stronger leader and took the chieftainship from his older brother (Hedges 1978:137). With the army now at his disposal Mabudu was able to dominate all trade between Europeans who landed at Delagoa Bay and local people living in the hinterland. Through this domination the Mabudu became, by the middle of the eighteenth century, the strongest political and economic unit in south-east Africa (Smith 1972:178-184). The people under his authority, which gradually increased, became known as the abakwaMabudu or the people of Mabudu's land (Webb and

Wright 1979:157). By the early 1800s the Mabudu chiefdom stretched from the Maputo River in the west to the Indian Ocean in the east, and from Delagoa (Maputo) Bay in the north to as far south as Lake St. Lucia (Felgate 1982:1). This extensive area included the present-day Ingwavuma..

During the early 1800s similar processes of political centralisation were taking place amongst the Mthetwa, Ndwandwe and later the Zulu chiefdoms to the immediate south east of Ingwavuma. The Zulu eventually defeated the other groups and established themselves as the dominant power in south-east Africa (Wright & Hamilton 1989:67 and Laband 1995). The Mabudu were never attacked by, nor directly involved in any war with the Zulu. They were, however indirectly affected by wars of conquest the Zulu waged in the northern part of Zululand in the first half of the nineteenth century (Omer-Cooper 1975:57). Various groups of refugees passed through the Mabudu chiefdom during the reign of Shaka. Many of them settled among the Mabudu. The people who crossed the southern boundary of the Mabudu chiefdom brought with them languages and customs foreign to the Mabudu. Over time, Mabudu identity became less distinctive as people adopted many customs of those living south of them (Bryant 1964:292). As more and more people from the southern chiefdoms crossed into the Mabudu chiefdom, an increasing amount of prestige was attached to being Zulu and speaking isiZulu, since the Zulu were the dominant political force. The Zulu cultural influence in the greater Ingwavuma area was however not complete. People who fled the onslaught of the Zulu only stayed in the area for a short period before they moved on (Felgate 1982:11). Furthermore, in exchange for tribute paid, the Zulu recognised the Mabudu as leaders of a vast territory. This, to an extent, secured their sovereignty (Bradley 1974). The relationship between the Mabudu and the Zulu differed markedly from that which the Zulu instituted with other chiefdoms. Ballard (1978) states that although the Mabudu paid tribute to the Zulu kings and cooperated on a military and economic level, they enjoyed much greater independence than the chiefdoms south of St. Lucia. Despite the Zulu influence, Maputaland, remained politically and culturally distinct from areas to the north, south and west. The people of the area spoke a unified language - xiRonga (Thonga). With some exceptions, notably the Ngubane and Khumalo, they accepted the rule of Mabudu chiefs (Felgate 1982:11). They practised customs that were unique to the area and differed from those of their Zulu, Swazi and Tsonga neighbours (Webster 1991:250). Nevertheless, many siSwati-speaking people crossed the nearby border and settled at Ingwavuma. Today a large percentage of the inhabitants in the immediate

vicinity of Ingwavuma are Swazi people with social and political ties to Swaziland in the west.

During the colonial period the area was frequented by hunters, traders, and later missionaries (Bruton et al 1980). However, sites and structures associated with these activities need to be identified and placed in an inventory. Likewise during the more recent past many refugees of Mozambique crossed the international border and settled in the area (Klopper 2004). Sites belonging to this more recent "struggle era history" are also protected by national heritage legislation and needs to be surveyed and placed in an inventory.

Apart from human history the greater Maputaland also has extensive fossil deposits and geomorphology dating back to the Cretaceous, Tertiary and Quaternary periods. The Cretaceous fauna yielded by sequences includes ammonites, bivalves, gastropods, and nautiloids in abundance. Vertebrates are uncommon, only fish and reptiles being noted so far. Plant remains are relatively abundant in the form of logs and lignite chips. The Tertiary limestone deposits contain marine macro-fossils, calcareous nanno-fossils and planktic foraminifers (Avery 1980). Shell imprints have been found imprinted in concretions to the immediate south of Thembe Elephant Park and may therefore palaeontological significance (Anderson 2008).

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted to obtain information on past heritage surveys in the area and on heritage site particulars. In addition, the available archaeological literature covering the greater Ingwavuma area was also consulted. A ground survey of the footprint, following standard and accepted archaeological procedures, was conducted. An area of 30m was surveyed on either side of the existing road D1851.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good although the vegetation was dense at places. It must also be mentioned that Anderson (2008) found various heritage sites buried below sand in the greater Maputaland area. He noted that these sites would have been archaeologically invisible has it not been that the developers excavated a long and deep trench that exposed some of these deposits. It is therefore entirely possible those archaeological sites may also be covered in sand in the study area and that they are invisible due to geomorphological factors.

3.2.2 Disturbance

No disturbance of any potential heritage features was noted.

3.3 Details of equipment used in the survey

GPS: Garmin Etrek Digital cameras: Canon Powershot A460 All readings were taken using the GPS. Accuracy was to a level of 5 m.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal Town: Ndumo

4.2 Description of heritage resources located during the survey.

The greatest portion of the footprint consists of an existing dirt road. Rural homesteads occur along the road and some of these do contain family graves within the homestead spatial unit. However, the vast majority of these occur well beyond the 30m ground survey mark from the existing road. Four grave sites, however, have been observed along the proposed trajectory of the new road section planned. A more detailed description of them is provided in Table 2.

Two archaeological sites occur in the close environs of the footprint. These are stone tool scatters of the Later Stone Age and Middle Stone Age periods. However, both sites occur more than 100m from the proposed road upgrade and they are therefore not threatened by the proposed development.

Apart from these heritage sites a section of the proposed road upgrade also runs through a cultural landscape. This has implications from a heritage perspective (see below).

N O	Heritage site category	Brief description	Significance (Table 3)	Mitigation	GPS Latitude and Longitude
1	Grave Site 1 (Figs 2 & 5)	This Grave Site is situated within the trajectory of the proposed extension of the existing road. (Fig 2). It is not associated with any contemporary homestead and appears to be older than 60 years old. The Grave Site is indicated by an unmarked soil heap.	The Grave Site appears to be older than 60 years. It is rated as of medium significance locally (Table 3).	Strictly maintain a 30m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. In order to allow for this buffer zone it is also suggested that the developer shift the proposed road trajectory in order to avoid damaging the Site. Alternatively a second phase heritage impact assessment by a grave relocation expert will have to be initiated. This exercise will also entail a prolonged community consultation process (Appendix 1).	S 26° 55' 7.01" E 32° 9' 11.44"

Table 2. Heritage sites located during the ground survey.

2	Grave Site 2 (Figs 2 & 6)	This Grave Site is situated within the trajectory of the proposed extension of the existing road. (Fig 2). It is not associated with any contemporary homestead and appears to be older than 60 years old. The Grave Site is indicated by an unmarked soil heap	The Grave Site appears to be older than 60 years. It is rated as of medium significance locally (Table 3).	Strictly maintain a 30m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. In order to allow for this buffer zone it is also suggested that the developer shift the proposed road trajectory in order to avoid damaging the Site. Alternatively a second phase heritage impact assessment by a grave relocation expert will have to be initiated. This exercise will also entail a prolonged community consultation process (Appendix 1).	S 26° 55' 25.43" E 32° 8' 28.85"
3	Grave Site 3 (Figs 2 & 7)	This Grave Site is situated within the trajectory of the proposed extension of the existing road. (Fig 2). It is not associated with any contemporary homestead and appears to be older than 60 years old. The Grave Site is indicated by an unmarked soil heap	The Grave Site appears to be older than 60 years. It is rated as of medium significance locally (Table 3).	Strictly maintain a 30m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. In order to allow for this buffer zone it is also suggested that the developer shift the proposed road trajectory in order to avoid damaging the Site. Alternatively a second phase heritage impact assessment by a grave relocation expert will have to be initiated. This exercise will also entail a prolonged community	S 26° 55' 26.21" E 32° 8' 28.35"

				consultation process (Appendix 1).	
4	Grave Site 4 (Figs 2 & 8)	This Grave Site is situated within the trajectory of the proposed extension of the existing road. (Fig 2). It is not associated with any contemporary homestead and appears to be older than 60 years old. The Grave Site is indicated by an unmarked soil heap	The Grave Site appears to be older than 60 years. It is rated as of medium significance locally (Table 3).	Strictly maintain a 30m buffer zone around the Grave Site. No disturbance is allowed within the buffer zone. In order to allow for this buffer zone it is also suggested that the developer shift the proposed road trajectory in order to avoid damaging the Site. Alternatively a second phase heritage impact assessment by a grave relocation expert will have to be initiated. This exercise will also entail a prolonged community consultation process (Appendix 1).	S 26° 55' 31.11" E 32° 8' 13.23"
5	Stone Age tool scatter (Figs 2 & 3).	A small Stone Age surface tool scatter. The site is situated approximately 400m to the north of the proposed road trajectory. It consists mostly of Later and Middle Stone Age flakes. There are no bones or archaeobotanical remains. The site is out of context and has little research value.	The Site is out of context. It is rated as low significance (Table 3)	Maintain a buffer of 30m around this site. As the Site is situated more than 400m to the north of the proposed road trajectory it is not in any danger and the buffer zone could be easily enforced.	S 26° 55' 14.93" E 32° 8' 10.07"
6	Stone Age tool scatter (Figs 2 & 4).	A small Stone Age surface tool scatter. The site is situated	The Site is out of context. It is rated as	Maintain a buffer of 30m around this site. As the Site is situated	S 26° 55' 59'60" E 32° 9' 0.71"

value.

4.3 The Cultural Landscape

Although not officially declared and nominated as such it can be argued that large portions of the communal land in the environs of Ndumo in northern KwaZulu-Natal constitutes a cultural landscape that is communally owned and managed (Appendix 2). This landscape sustains the unique livelihood of the Thembe Thonga people, reflecting seasonal patterns that have persisted for a millennium - if not longer. Archaeological indications are that the Early Iron Age people who preceded the Thembe-Thonga utilised the landscape of this area in a very similar manner. The Thembe Thonga settled some centuries ago in this area which was, on the whole, low-lying, inclement and unhealthy, and not well-suited to stock farming or extensive agriculture. As a result, they explored other ways of making a living. They hunted and snared wild game, made extensive use of indigenous fruits and vegetables, and fished extensively in the coastal lagoons, lakes, rivers and pans, which is unusual amongst the southern Bantu-speaking populations of South Africa. The fabric of their society is therefore closely interwoven with the seasonal and diet availability of natural resources, and they have developed a remarkable knowledge and understanding of natural principles and processes". They actively collect and utilise plants with socio-economic and medicinal values and have a strong oral tradition associated with different places and attributes of the landscape (Bruton & Cooper 1980; Felgate 1982). Cultural landscapes are recognized as a heritage feature by UNESCO (Appendix 2) and by SAHRA (www.sahris.co.za). It is therefore also locally recognised as a heritage feature that needs protection and appropriate management.

The greatest portion of the road to be upgraded already exists and is therefore superimposed on this cultural landscape. The consultant cannot foresee that the upgrading of the existing portion of the road may pose any threat to the integrity of the surrounding cultural landscape. However, it is suggested that the developer do not construct any new access roads on the footprint before more detailed heritage surveys of the area has been conducted.

New Road

However, the developer is also planning to construct a completely new road (D1841) as part of the footprint at the following coordinates (Fig 1):

Start: S 26° 85' 25.24" E 32° 05' 08.91"

End: S 26° 55' 05.81" E 32° 09' 24.56"

This newly proposed road runs through existing fields, grave sites, and large fruit bearing indigenous trees said to be the property of adjacent homesteads. In addition, it may disturb the unique local subsistence economy and scar the landscape forever. This area is particularly sensitive from a cultural landscape perspective as it has been left untouched by recent developments in the greater Ndumo area. It is suggested that the developers avoid all fields, pans, large indigenous fruit bearing trees, homesteads and graves in the plotting of an alternative route through this area. Once this alternative route has been plotted there should be a community consultation process involving both owners and other indigenous stakeholders.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

Six heritage sites have been located during this survey. The four grave sites have been rated as of medium significance locally (Table 3). The two Stone Age sites have been rated as low to medium significance locally (ibid). It is more challenging to rate the

cultural landscape surrounding the proposed road upgrade. However, it is seen to be of medium to high significance locally.

Level	Details	Action	
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA	
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority	
Local Grade IIIA This site is considered to be of HIGH significance locally		The site should be retained as a heritage site	
Local Grade IIIB This site is considered to be of HIGH significance locally		The site should be mitigated, and part retained as a heritage site	
Generally Protected A High to medium significance		Mitigation necessary before destruction	
Generally Protected B	Medium significance	The site needs to be recorded before destruction	
Generally Protected C Low significance		No further recording is required before destruction	

Table 3. Field rating and rece	ommended grading of sites (SAHRA 2005)
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6 **RECOMMENDATIONS**

The proposed upgrading of the road from Ndumo to Ekhuhlehleni (D 1851, D1842 & D1884) may proceed in terms of heritage values, however, the following rules must be adhered to:

- Strictly maintain a buffer zone of 30m around the two Stone Age Sites. No development or removal of artefacts may take place within this zone.
- Strictly maintain a buffer zone of 35m around the grave sites identified in this study area. Should the developer decide to translocate graves then a Phase Two Heritage Impact Assessment by a grave relocation expert must be initiated. A process of community consultation and negotiation must be initiated to facilitate such a process (Appendix 1).
- It must also be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing graves as well as archaeological and historical residues should cease immediately pending an evaluation by the heritage authorities.

Avoid all fields, pans, graves, large indigenous trees, and homesteads when plotting an alternative route for a new road between S 26° 85' 25.24" E 32° 05' 08.91" and S 26° 55' 05.81" E 32° 09' 24.56" (D1841). Arrange for a Phase Two Living Heritage Assessment, for this section of the study area that will also entail an elaborate community consultation process.

7 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Maputaland has a rich archaeological history. Construction work and excavations may yield archaeological and/or cultural material. If any heritage features are exposed by construction work then all work should stop immediately and the provincial heritage agency, Amafa, should be contacted for further evaluation. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency. In addition, the footprint is located on a cultural landscape and it is imperative to avoid all homesteads, graves, fields, pans, and large indigenous fruit bearing trees.

8 MAPS AND PHOTOGRAPHS

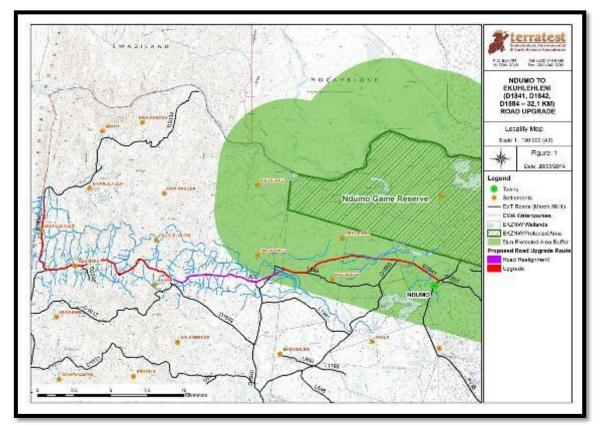


Figure 1. Locality Map showing the extent of the proposed road upgrade (Source: Jeffares & Green).



Figure 2. Google aerial photograph showing the location of the Stone Age Sites and Grave Sites adjacent to the proposed D 1841



Figure 3. Middle and Later Stone Age flakes occur on the surface in a disturbed context approximately 400m to the north of the proposed road upgrade.



Figure 4. Middle and Later Stone Age flakes in disturbed context approximately 600m to the south of the proposed road upgrade.



Figure 5. Grave Site 1



Figure 6. Grave Site



Figure 7. Grave Site 3



Figure 8. Grave Site 4

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APPENDIX 1

RELOCATION OF GRAVES

Burial grounds and graves are dealt with in Article 36 of the NHR Act, no 25 of 1999. Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.
- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.

- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave

APPENDIX 2

CULTURAL LANDCAPES

History and Terminology

In 1992 the World Heritage Convention became the first international legal instrument to recognize and protect cultural landscapes. The Committee at its 16th session adopted guidelines concerning their inclusion in the World Heritage List.

The Committee acknowledged that cultural landscapes represent the "combined works of nature and of man" designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.

The term "cultural landscape" embraces a diversity of manifestations of the interaction between humankind and its natural environment. Cultural landscapes often reflect specific techniques of sustainable land-use, considering the characteristics and limits of the natural environment they are established in, and a specific spiritual relation to nature. Protection of cultural landscapes can contribute to modern techniques of sustainable land-use and can maintain or enhance natural values in the landscape. The continued existence of traditional forms of land-use supports biological diversity in many regions of the world. The protection of traditional cultural landscapes is therefore helpful in maintaining biological diversity.

Categories and Subcategories

Cultural landscapes fall into three main categories:

The most easily identifiable is the **clearly defined landscape designed and created intentionally by man**. This embraces garden and parkland landscapes constructed for aesthetic reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.

The second category is the **organically evolved landscape**. This results from an initial social, economic, administrative, and/or religious imperative and has developed its

present form by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features.

They fall into two sub-categories:

- a relict (or fossil) landscape is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form.
- continuing landscape is one which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time it exhibits significant material evidence of its evolution over time.

The final category is the **associative cultural landscape**. The inclusion of such landscapes on the World Heritage List is justifiable by virtue of the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent.