

**FIRST PHASE CULTURAL HERITAGE IMPACT
ASSESSMENT OF THE PROPOSED PHINDA
WATER PIPELINE NEAR MKHUZE, NORTHERN
KWAZULU-NATAL.**



ACTIVE HERITAGE cc.

For: Green Door

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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at UNISA.. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the then University of Natal. He assisted many post-graduate students with projects relating to the cultural heritage of South Africa. He also taught post-graduate courses on qualitative research methodology to honours students at the Psychology

Department, University of Natal. During this period he served on the editorial boards of the *South African Journal of Field Archaeology* and *Natalia*.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. He also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukhahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18th month period.

Frans left SEF and started his own heritage consultancy called “Active Heritage cc” in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 600 heritage conservation and management reports for various clients since the inception of “Active Heritage cc”. Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA’s) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa’, with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he is has done background research and conceptualization of the proposed Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province.

During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed world heritage site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. Frans has produced more than forty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. Frans has a wide experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwatya San Heritage Centre. Frans is also the co-founder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

Declaration of Consultants independence

Frans Prins is an independent consultant to Green Door and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.



Frans Prins

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 the proposed Phinda Water Pipeline near Mkuze in northern KwaZulu-Natal located one archaeological site adjacent to the pipeline. This Stone Age site is in open-air context and contains little archaeological residue. It has a low rating and there is no need for mitigation. The greatest section of the proposed pipeline trajectory follows existing farm roads and no heritage features occur within 50m on either side of the proposed pipeline. Attention, however, 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 threatens to expose and damage graves as well other heritage features should cease immediately, pending evaluation by the provincial heritage agency or the heritage consultant.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for Green Door
Type of development:	<p>Details of proposed water pipeline includes the following:</p> <ul style="list-style-type: none"> • Approx 45 km long. • Is not permitted to be located within Road Servitude. It will mainly run adjacent to the existing road servitude (approx 15m from the centre point of road), but will follow fence lines and existing tracks on the southern properties. • The pipeline will feed into Sutton dam. • The pipeline will be 260mm in diameter. • It will carry 600 kilo litres / day. • It will traverse a train track, which is currently being widened. • It also crosses many drainage lines, and one main river which is currently crossed by a bridge. This bridge is currently being widened, to permit both another lane of traffic, and the railway line. Thus we are not currently sure of the crossing point. • The pipeline will supply Phinda, as well as a number of other farms and lodges in the area: <ol style="list-style-type: none"> 1. Bayala Lodge 2. Banhoek 3. Sungulwane 4. Nkonko 5. Sutton 6. Zuka lodge and homestead 7. Phinda staff Accom. 8. Plus 5 Phinda lodges <ul style="list-style-type: none"> • 50 kilo litres will be provided to the Nqoboghasi Community and 50 kilo litres will be provided to the Makasa Community. They will contribute R 2 million each to the pipeline. • The servitude will be 7.5 m wide.

	<ul style="list-style-type: none"> Phinda is not currently proclaimed – but other areas nearby are (St. Lucia and Mkuze) – not sure about other ones. The pipeline will start at the Senekal irrigation point (most northern point) which gets water from Pongola Dam. There are approx 20 land owners affected by the alignment of the pipeline.
Rezoning or subdivision:	Not applicable
Terms of reference	Conduct a Phase One Heritage Impact Assessment
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)

1.1. Details of the area surveyed:

The proposed pipeline is roughly situated between the town of Mkuze in the north and Phinda Private Game Reserve in the south and the N2 on the west and the Umonbo Mountains in the east (Fig 1). It covers a distance of approximately 45km. Most of the proposed trajectory runs through private farms adjacent to existing farm roads. The GPS coordinates of the proposed pipeline are as follows:

Start: S 27° 53' 08.79" E 32° 14' 08.01

End: S 27° 38' 53.90 E 32° 02' 13.03

2 HERITAGE OF THE GREATER MAPUTALAND AND PROJECT AREA

2.1 Background

The project area is situated within Maputaland in the north eastern section of KwaZulu-Natal between Mkhuze in the north and Phinda Private Nature Reserve in the south. 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, 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 as well as the flat lands to the immediate west of the Lebombo Mountains, by contrast, appears to have a smaller percentage of 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 to the immediate east of the project area, is well endowed with archaeological sites. The provincial heritage data base of the KwaZulu-Natal Museum lists twenty nine sites in the greater Ubombo and Mkhuze areas. These include Early Stone Age, Middle Stone Age, Later Stone Age and Later Iron Age sites. Nevertheless, more recent surveys on the coastal plain by members of the then Natal Museum as well as by independent heritage contractors, such as Umlando and eThembeni, located numerous sites. Only one site, consisting of one Middle Stone Age and one Early Stone Age tool, has been recorded in the actual project area. However more Middle and early Stone Age occurrences has been recorded along the Mkhuze River approximately 4km to the north of the proposed pipeline.

Based on typological criteria it can be speculated that the known Early Stone Age sites in the greater Maputaland 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 150km to the north-west of the project area, 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 of 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. Archaeological excavations at Border Cave recently produced the oldest known assemblage of typical San (Bushmen) bone arrow points and associated later Stone Age material in southern Africa. These were dated to approximately 40 000 years ago. Later Stone Age occurrences closer to the coastal zone, and by implication the study area, consists mostly of stone tool surface scatters. It is often difficult to date such occurrences and to obtain contextual information.

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 greatest portion of Maputaland was occupied in more recent centuries times by the Thembe-Thonga or their immediate ancestors only a few archaeological sites belonging to this period have so far been identified. Nevertheless the present African inhabitants of the area, the Thembe-Thonga and some Nguni peoples, 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
- The grave site of King Dingane
- 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 project 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). Maputaland is named after this influential chief Mabudu. 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) directly adjacent to the project area.

During the early 1800s similar processes of political centralisation were taking place within the project area and further south amongst the Ndwandwe, Mthetwa, and later the Zulu chiefdoms. This period of great instability and upheaval among indigenous groups is commonly referred to as the Mfecane or Difaqane. The Zulu eventually defeated the other groups and established themselves as the dominant power in south-east Africa (Wright & Hamilton 1989, Laband 1995). In fact, the project area is centrally located within the area dominated by the Ndwandwe, a powerful polity that for many years posed as the main political threat to Shaka Zulu.

2.2 The Ndwandwe

The long-held belief that the increased militarization of the Zulu under Shaka was solely responsible for this state of conflict has now been revised, with research pointing to multiple factors contributing to the instability. These include pressure on natural resources, population expansion, drought, increased social stratification, attempts to control trade routes and, to some extent, European-sponsored slave-raiding among local groups (Eldredge 1992; Gump 1989 and Wylie 2006). Indian Ocean trade contributed to changes in the socio-political structures of many groups, including that of the Ndwandwe: imported beads became part of bride-wealth/lobola currency, increased demand for meat and grain from east coast ships necessitated more control of agricultural labour, cattle-raids etc, and even influenced the evolution of the amabutho (age-set regiments) system. Ivory, hides, slaves, grain and metal hoes were exchanged for incoming commodities such as beads and cloth (Mitchell & Whitelaw 2005: 228; Huffman 2007: 77-80). It was amid the ensuing power struggles between politically complex chiefdoms that the Mthetwa, Ndwandwe in the north and the Qwabe in the south emerged as prominent role-players. The Ndwandwe kingdom was the dominant force in the east from 1750 to 1820. However, this kingdom's role has been neglected because its history has been overshadowed by the successor Zulu state.

Zwide kaLanga (1758–1825) was the King of the Ndwandwe (Nxumalo) nation from about 1805 to around 1820. He was the son of Langa KaXaba, a Nxumalo king. Legend has it that Zwide's mother, Queen Ntombazi, was a sangoma. Around the time Zwide became King, the Nxumalo were growing in military power. Ambitious in expanding Nxumalo supremacy, Zwide was a prominent rival to King Dingiswayo of

the Mthethwa and his famous general and protégé, Shaka kaSenzangakhona, usurper to the Mthethwa throne. Warfare erupted, and two kingdoms battled for control of resources. Both kingdoms became more centralized and militarized, their young men banded together in age regiments that became the basis for standing armies, and their kings became more autocratic as they fought for survival. The Ndwandwe appeared victorious in 1818 when Dingiswayo was killed and his forces scattered. He also destroyed and overran the neighbouring Khumalo Kingdom and executed their King Mashobana KaMangethe. Mashobana's son and heir Mzilikazi escaped from the Nxumalo and sought refuge with Shaka of the Zulu-clan. Knowing this, Zwide planned to destroy the Zulu Empire to secure Ndwandwe domination of Zululand.

When Dingiswayo was killed, Shaka with his military machine avenged his mentor's death, destroying the Ndwandwe in battle. The Battle of Gqokli Hill was fought between the forces of King Shaka and King Zwide of the Ndwandwe in 1818. Although he faced a numerically superior enemy, King Shaka's military tactics won the day and he scored a huge victory. However, the Ndwandwe remained a political force and a continuous threat to the expanding Zulu Kingdom. In 1820, Zwide led his army into battle against the Zulu at the Battle of Mhlatuze River. His forces were caught crossing halfway across the Mhlatuze River when the Zulu forces attacked, and the Nxumalo army was scattered. Zwide escaped with a remnant of his clan across the Pongola River. After Zwide and his clansmen escaped, the Zulu attacked the rest of his people, killing many at Mome Gorge, a desolate place. The Zulu also attacked the Ndwandwe capital, KwaNongoma. The Zulu victory was the beginning of the Mfecane or the scattering. Zwide's generals fled north, where they established their own kingdoms, such as the Shangane Kingdom in Gaza, formed by General Soshangane (Bruton et al 1980).

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. Aerial photographs of the project area was scrutinized in order to locate potential Iron Age and Historical-era sites and structures. 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 northern KwaZulu-Natal was also consulted. The consultant visited the study area on the 25 May 2017. A ground survey following standard and accepted archaeological procedures was conducted. A zone of 50m was surveyed on either side of the proposed pipeline trajectory.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

No obvious 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

Municipality: Zululand District Municipality

Towns: Nongoma and Mkhuze

4.2 Description of heritage resources located during the survey.

4.2.1 Background

The project area consists of farmlands used for beef and game farming. It is covered by indigenous bush and grasses. Some areas have been cleared thus allowing for better heritage site visibility. The proposed pipeline trajectory follows existing farm roads for most of the way. These are sandy dirt roads that appears to have been in use for many years.

Despite the abundance of heritage sites in the greater Maputaland region only one was recorded within the actual project area. According to the SAHRIS fossil sensitivity map the area is demarcated as blue with a low paleontological sensitivity and no paleontological studies would be required. The single archaeological site observed consists of two stone tools and it has a low rating (see below). The project area covers the lands historically inhabited by the Ndwande people but no sites relating to this period occurs adjacent to the proposed pipeline trajectory. This could be related to the fact that the greatest portion of the proposed pipeline follows the existing road reserves that is located on the flats to the west of the Ubombo Mountains. Proportionally more archaeological sites occur in the foothills of the Ubombo Mountains to the immediate east of the project area (Fig 2). Archaeological sites have also previously been recorded in the Mkuze River basin to the immediate north of the project area. These are mostly Early Stone Age sites that typically occurs near permanent water sources. In terms of Ndwande history, however, it is important to note that the well-known Tshaneni (Ghost Mountain) grave, battle and living heritage site is situated approximately 3km to the north of the northern section of the proposed pipeline. Although not situated on the footprint (Fig 3) it visible as a prominent landmark from various vantage points on the proposed pipeline trajectory.

4.2.2 Tshaneni (Ghost Mountain)

Looking east from Mkuze two very pronounced features rise out of the Ubombo range, on the left Gaza and on the right the Tshaneni at S 27° 37' 26.65" E 32° 04' 53.91" (Figs 3 & 5). A section of the Ndwandwe tribe, headed by the Gaza family, had their home beneath the Tshaneni during the first two decades of the 19th century. However, with the destruction of the Ndwande Kingdom by Shaka Zulu in 1820 the head of this clan Soshongane, fled with his followers into Mozambique, where he founded the Gaza state.

From early times it had become customary to bury the bodies of Gaza chiefs on the Tshaneni. High on its slopes there is a taboo cave, used as a tomb by generations of the Gaza family. Soshongane and his descendants, although they lived many miles away in Mozambique, were carried back to Tshaneni when they died. Their bodies, mummified and wrapped in the black bull skins, had to be transported by bearers who travelled by night and hid during the day to avoid detection by the Zulus. Local inhabitants maintain that strange lights and flickering fires are often seen among the

fissures and cliffs of the summit. Weird noises and strange sounds are also heard thus adding to the mystique and living heritage values of the mountain.

After the Anglo Zulu War in 1879, when the British tried to rule Zululand by dividing it into 13 separately ruled states, there was a period of chaotic rivalry, feuding and fighting. The two principal rivals were Prince Dinuzulu, the son of the deposed Zulu King Cetshwayo, and his Usuthu warriors, and Zibhebhu, head of the powerful Mandlakazi section of the Zulu nation.

In a series of bloody fights, Zibhebhu gained the upper hand. Dinuzulu, in desperation, enlisted 600 Boers and Germans, led by Louis Botha (later General Louis Botha, who was also to become the first Prime Minister of The Union of South Africa), who were promised rewards of farms for their help. In June 1884 Dinuzulu's army of Zulus and Europeans invaded Zibhebhu's territory. Zibhebhu was a resolute leader and his Mandlakazi section was considered to be made up of the finest warriors, and although he also had a handful of white supporters, including the famous frontiersman, Johan Colenbrander, he had little chance against the opposition. Zibhebhu made a fighting retreat to the Mkuze River Pass through the Lebombo, and on the 5th of June, in this rugged gorge beneath Tshaneni, there was a vicious struggle known as the Battle of Tshaneni. The Mandlakazi fought stubbornly, but heavy rifle fire from Dinuzulu's army mowed them down and they broke and fled into the dense forest country of Tongaland. The battlefield was littered with thousands of bodies, and of this the late Col. Reitz makes mention in his book "Trekking On", where he claims that in the early 1920's he journeyed through skeletons that were still strewn about on the slopes of the Ghost Mountain (Bruton et al 1980).

Mitigation:

Although Tshaneni is visible from the northern section of the proposed pipeline trajectory it is situated more than 3km from the footprint (Figs 3 & 6). This site is therefore not threatened by the proposed development and there is no need for mitigation.

4.2.3 Stone Age Site

4.2.3.1 Background

An open air Stone Age site occurs approximately 50m to the west of the proposed pipeline where it crosses the Msunduzi River. This site was located by Professor Oliver Davies in the 1951 and revisited in 1967. It is and is listed in the provincial archaeological data base as 2732 CC 001. Davies only located two stone tools, an Early Stone Age chopper, and a rolled Middle Stone Age flake at the south bank of the Msunduzi River. The site was revisited by the consultant in 2017 and only one Middle Stone Age flake was found on the northern bank of the Msunduzi River (Fig 4).

4.2.3.2 GPS co-ordinates:

The GPS coordinates for this site are: S 27° 46' 24.68" E 32° 8' 10.67".

4.2.3.3 Rating and Mitigation:

The singular stone tool was found in an open-air situation and it is out of context and has little scientific and research value (Table 2). It is therefore rated as of low significance (Table 3). Given the low rating together with the fact that it is situated more than 40m from the proposed pipeline there is no need for mitigation. The proposed pipeline development does not pose any threat to this site.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

The Stone Age site is rated as of low significance (Table 2).

Table 2. Evaluation and statement of significance of the Stone Age Site adjacent to the footprint..

Significance criteria in terms of Section 3(3) of the NHRA		
	Significance	Rating
1.	Historic and political significance - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	Low
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	Low
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	Low
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
6.	Scientific significance – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	Low
7.	Social significance – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	None.
8.	Historic significance – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.	None.
9.	The significance of the site relating to the history of slavery in South Africa.	None.

Table 3. Field rating and recommended grading of sites (SAHRA 2005)

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

6 RECOMMENDATIONS

The proposed Phinda Water Pipeline may proceed from a general heritage perspective. However, northern KwaZulu-Natal has a rich archaeological history. Construction work and excavations may yield archaeological and/or cultural material as well as graves. 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 agent.

7 MAPS AND PHOTOGRAPHS

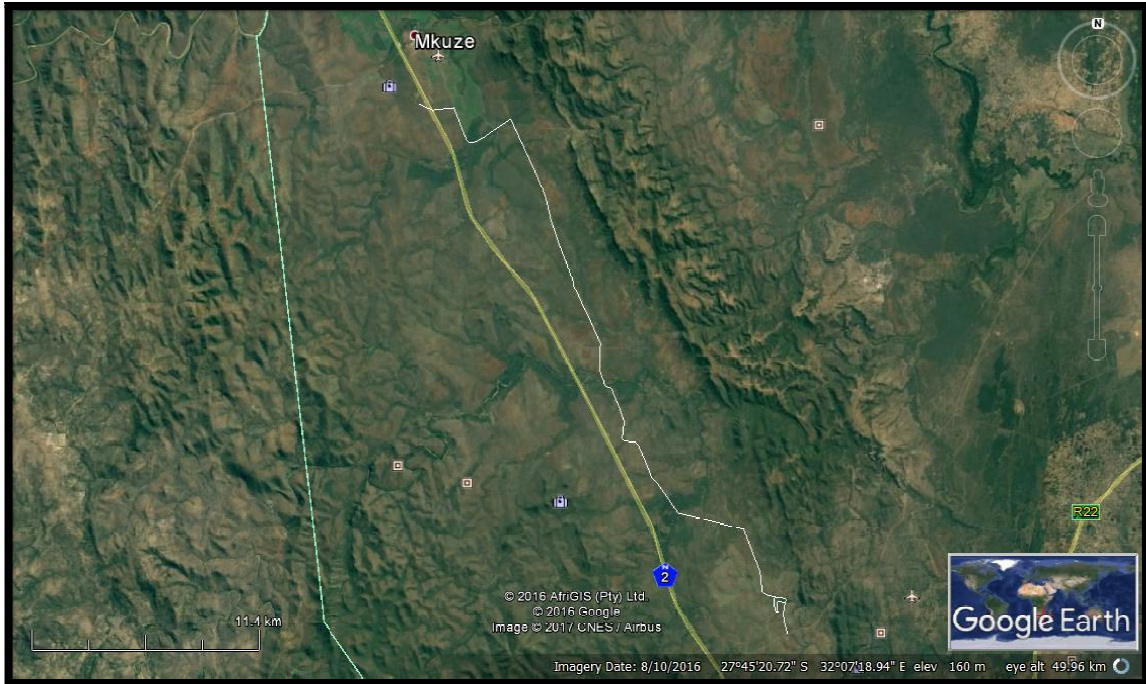


Figure 1. Google aerial photograph showing the location of the proposed Phinda Water Pipeline near the N2 in northern KwaZulu-Natal.

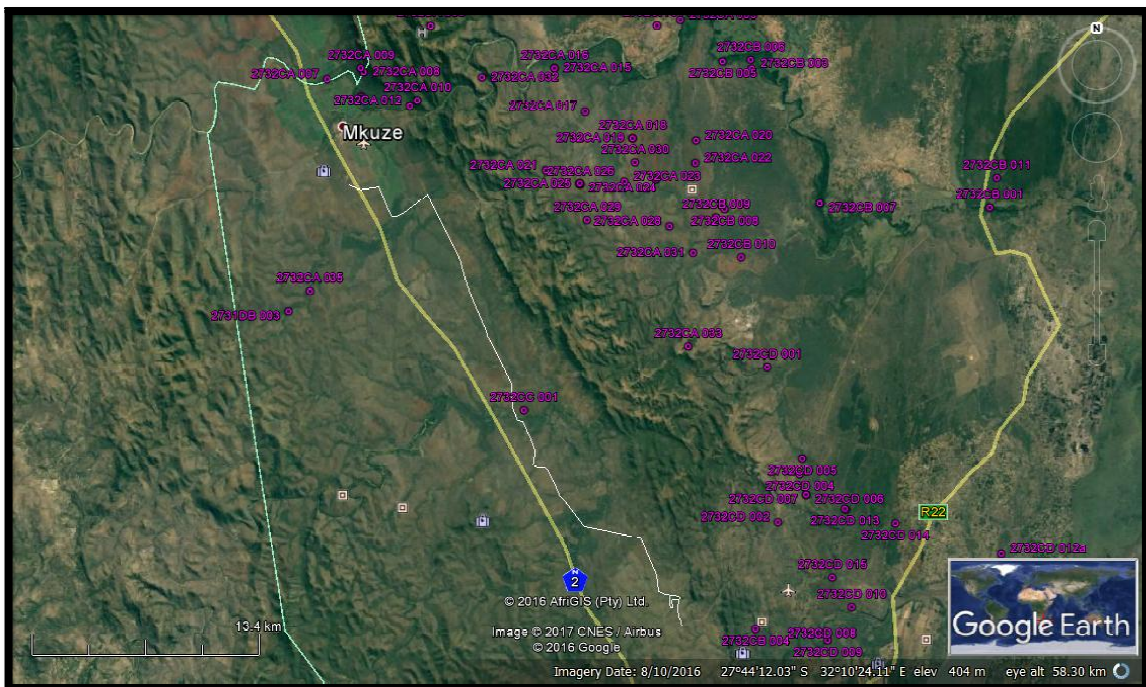


Figure 2. Google aerial photograph showing the location of known archaeological sites in the greater Mkuze and Ubombo areas. The archaeological sites are indicated by the purple polygons.

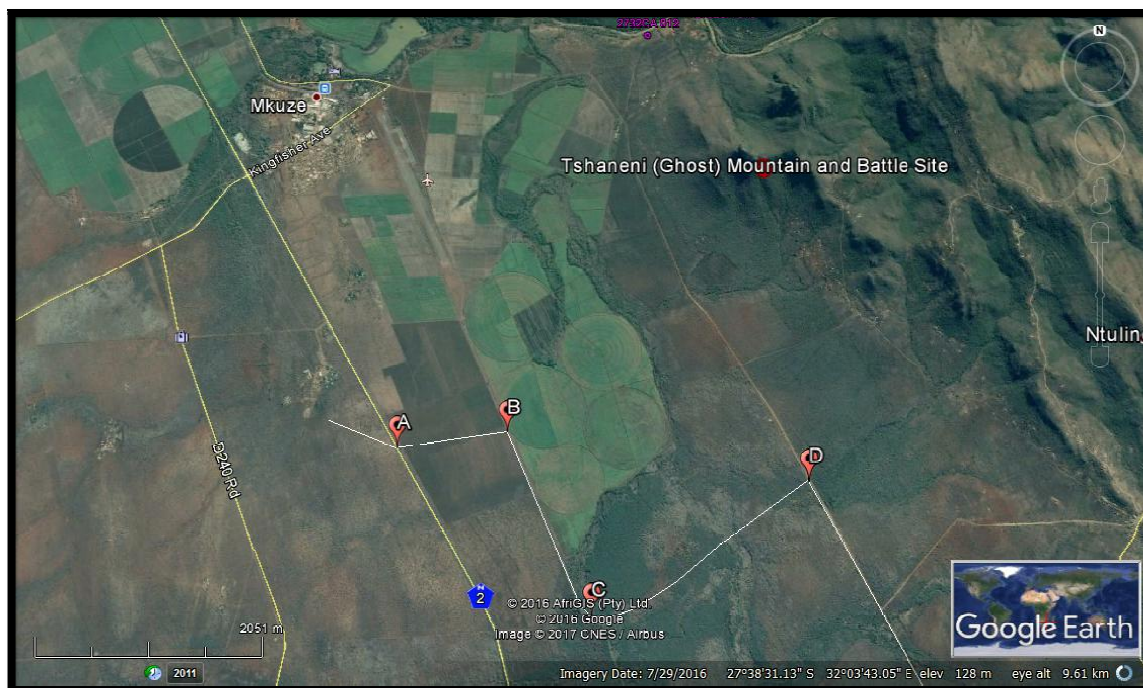


Figure 3. Google aerial photograph showing the location of Tshaneni (Ghost Mountain) relative to the proposed pipeline located more than 2km to the south.

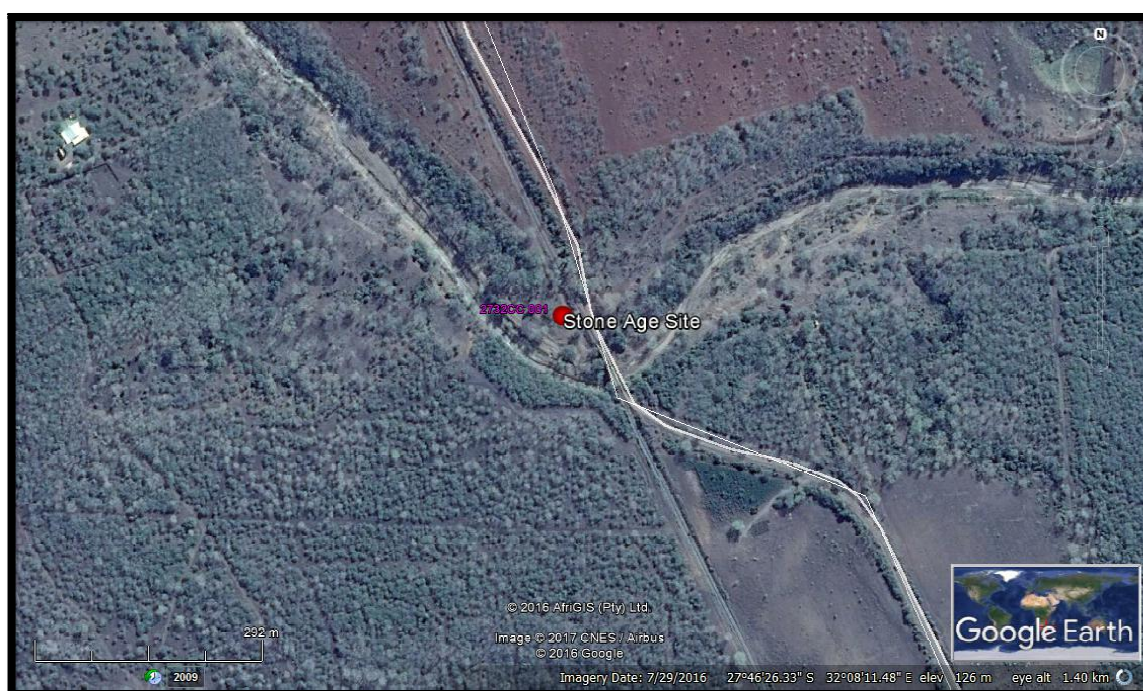


Figure 4. Google aerial photograph showing the location of the Stone Age site adjacent to the Msunduzi River.

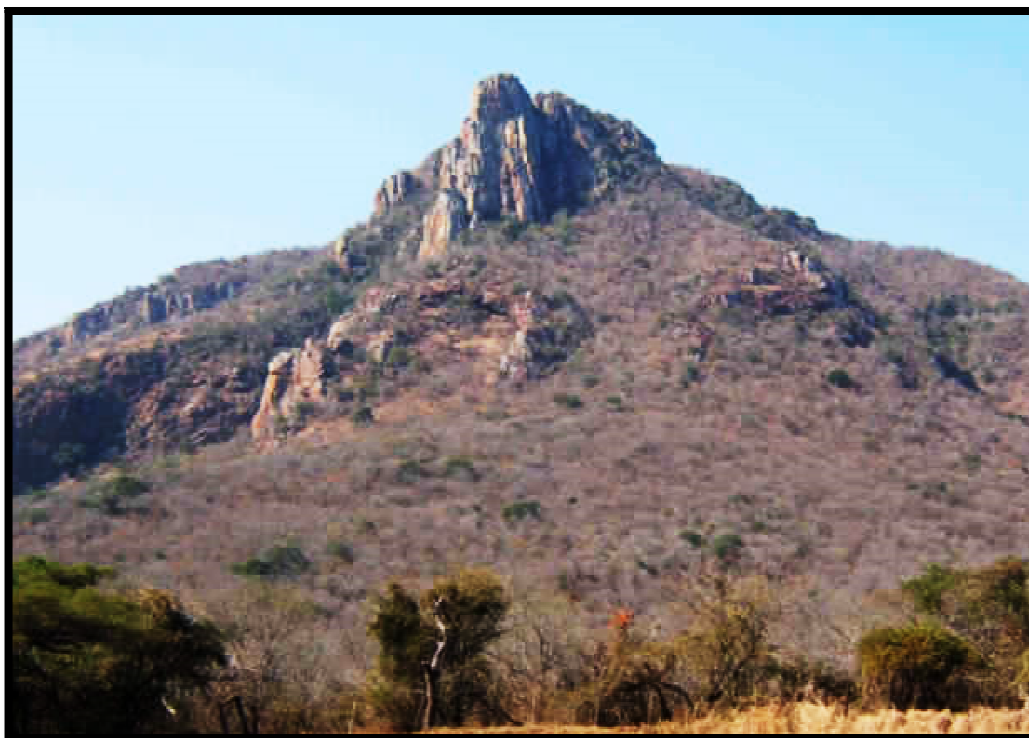


Figure 5. Tshaneni (Ghost) Mountain.



Figure 6. A Middle Stone Age tool found adjacent to the Msunduzi River.

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