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PHASE I ARCHAEOLOGICAL AND CULTURAL HERITAGE IMPACT ASSESSMENT SPECIALIST REPORT FOR THE PROPOSED CONSTRUCTION OF TUGELA (KHOMFINI) RIVER VEHICULAR BRIDGE LOCATED IN THE AREA OF MSINGA WHICH IS WITHIN THE JURISDICTION OF MSINGA LOCAL MUNICIPALITY, UMZINYATHI DISTRICT. KWAZULU NATAL PROVINCE.

November, 2015

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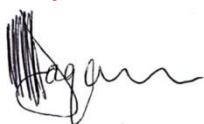
DECLARATION

ABILITY TO CONDUCT THE PROJECT

Munyadziwa Magoma is a professional archaeologist, having obtained his BA degree in Archaeology and Anthropology at University of South Africa (UNISA), an Honours degree at the University of Venda (UNIVEN), and an Masters degree at the University of Pretoria (UP). He is an accredited Cultural Resource Management (CRM) member of the Association for southern African Professional Archaeologists (ASAPA) and Amafa aKwaZulu-Natali. Munyadziwa is further affiliated to the South African Archaeological Society (SAAS), the Society of Africanist Archaeologists (SAfA), and the International Council of Archaeozoology (ICAZ). He has more than seven years' experience in heritage management, having worked for different CRM organisations and government heritage authorities. As a CRM specialist, Munyadziwa has completed well over hundred Archaeological Impact Assessments (AIA) for developmental projects situated in several provinces of the Republic of South Africa. The AIAs projects he has been involved with are diverse, and include the establishment of major substation, upgrade and establishment of roads, establishment and extension of mines. In addition, he has also conducted Heritage Impact Assessments (HIAs) for the alteration to heritage buildings and the relocation of graves. His detailed CV is available on request.

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EXECUTIVE SUMMARY

Introduction and background

Vhubvo Archaeo-Heritage Consultant Cc has been requested by Isolendalo Environmental Consulting to conduct Archaeological and Cultural Heritage for the proposed construction of Tugela (Khomfini) River Vehicular Bridge, which according to the demarcation board is within Msinga Local Municipality of Umzinyathi District in the Kwazulu Natal Province. The aim of the study was to entirely identify and document archaeological sites, cultural resources, sites associated with oral histories, graves and cultural landscapes that may be affected by the proposed construction of the bridge, these will in turn assist the developer in ensuring proper conservation measure in line with the National Heritage Resource Act, 1999 (Act 25 of 1999) and KwaZulu-Natal Heritage Act, 1997 (Act 10 of 1997).

The findings of this study have been informed by desktop study and field survey. The desktop study was undertaken through SAHRIS for previous Cultural Heritage Impact Assessments conducted in the region, these include work by Gaigher 2014; Prins and Hall 2014; Magoma 2014; Wahl and Van Schalkwyk 2014, etc. Also examined are reviews of relevant publications, such as Bryant 1965; Clegg 1979; Carruthers 1990; Derwent 2006; Krige 1936; Mazel 1989; Mthembu 1994; Van Schalkwyk 1994; Van Schalkwyk *et al.* 1997.

Survey and receiving environment

The proposed development will impact two sides of the river. The eastern side is currently used for low scale farming activities, while the western section of the river has an existing access road which has significantly cause erosion on section of the road. In general, the proposed bridge will traverses on an area which is extensively disturbed by activities related to agriculture and access road, such that if any archaeological sites existed in the past, it might have been completely disturbed or destroyed. The field survey was conducted on the 26th of October 2015, as well as on the 21st November 2015. One archaeologist from Vhubvo conducted the survey. The survey covers the entire area proposed for the bridge, as well as the area proposed for access roads. As a supplement to the survey, oral interview was initiated with local communities of the two villagers. The oral interviews aim to understand the cultural landscapes and/ or intangible heritage in the area, as well as possibility of known graves.

Brief background study

The archaeology of KwaZulu-Natal dates back to millions of years, and began with the period referred to as Stone Age which is divided into three periods, namely, Early Stone Age (ESA), Middle Stone Age (MSA), and the Later Stone Age (LSA). Although no ESA tools have been identified in the area, some implements related to this period have been reported in the province. Contrary to the availability of ESA



in the region, sites dating to the MSA have been recorded in the province and include those found in Sibudu Cave, Umhlatuzana Cave and Border Cave. Compared to the ESA and MSA, more is known about the LSA, and there are several sites related to this period in the wider area of Msinga, mostly in the form of rock art. None of these known sites will be negatively impacted by the proposed development.

About two thousand years ago, new people referred to as Iron Age arrived in the area. Event that describe these people are divided into two periods, namely, Early Iron Age (EIA) and Late Iron Age (LIA). Another period, Middle Iron Age (MIA) has been suggested, especially in the northern part of South Africa. Several sites dating to the Iron Age are known in the area, the closest to the proposed development is Ndongondwane, Mamba and Woshi (Van Schalkwyk 1994; Van Schalkwyk *et al.* 1997). There are also other sites related to the Nguni people which were recorded by Magoma (2014) in the wider area of the proposed development. Note should however be taken that none of the known sites will be impacted by the proposed development.

Finally, in the 1800s, the wider area of the proposed development was visited by people of European descent, their arrival resulted in conflict of interest which resulted in battles, such as Battle of Isandlwana, Battle of Intombe, Battle of Hlobane, Battle of Kambula, Battle of Gingindlovu, Battle of Eshowe, and Battle of Ulundi. The area was also susceptible to inter-tribal wars between locals, this includes amongst others those between the aBathembu and amaChunu tribes, and also aBathembu and aMabaso (Mthembu 1994). None of the materials related to these battles will be affected by the propose development.

Restrictions and Assumptions

As required by legislature, no subsurface investigation were undertaken, since a permit from Amafa is required to do so, as a result, archaeological materials may be under the surface and therefore unidentifiable to the surveyor until they are exposed once construction resume. Should any archaeological/ or grave site be observed during construction, a heritage specialist must immediately be notified. Public consultation process undertaken as part of the Environmental Impact Assessment is considered sufficient and does not require repetition as part of this study.

Survey findings

The Phase I Archaeological and Cultural Heritage Impact Assessment for the proposed construction of Tugela (Khomfini) River has identified no significant impacts to archaeological material that will need to be mitigated prior construction.



Recommendations

It is recommended that Amafa approve the proposed development to proceed without further archaeological assessment. It is the responsibility of the developer to notify contractors and workers about archaeological material (e.g., pottery, stone tools, remnants of stone-walling, graves, etc) and fossils that may be located underground. Thus, unavailability of archaeological material does not mean absence, archaeological material might be hidden underground, as such the client is reminded to take precautions during construction.

Pre-construction education and awareness training

Prior to construction, contractors should be given training on how to identify and protect archaeological remains that may be discovered during the project. The pre-construction training should include some limited site recognition training for the types of archaeological sites that may occur in the construction areas. Below are some of the indicators of archaeological site that may be found during construction:

- ✚ Flaked stone tools, bone tools and loose pieces of flaked stone;
- ✚ Ash and charcoal;
- ✚ Bones and shell fragments;
- ✚ Artefacts (e.g., beads or hearths);
- ✚ Packed stones which might be uncounted underground, and might indicate a grave or collapse stone walling.

Conclusions

The proposed construction can proceed without further archaeological or cultural heritage assessment. This report is void without approval from Amafa.



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ACRONYMS AND ABBREVIATIONS

| | |
|-------|---|
| AIA | Archaeological Impact Assessment |
| EMP | Environmental Management Plan |
| HIA | Heritage Impact Assessment |
| LIA | Late Iron Age |
| MIA | Middle Iron Age |
| EIA | Early Iron Age |
| HMP | Heritage Management Plan |
| LSA | Late Stone Age |
| MSA | Middle Stone Age |
| ESA | Early Stone Age |
| NASA | National Archives of South Africa |
| NHRA | National Heritage Resources Act |
| PHRA | Provincial Heritage Resources Authority |
| SAHRA | South African Heritage Resources Agency |



GLOSSARY OF TERMS

The following terms used in this Archaeology are defined in the National Heritage Resources Act [NHRA], Act Nr. 25 of 1999, South African Heritage Resources Agency [SAHRA] Policies as well as the Australia ICOMOS Charter (*Burra Charter*):

Archaeological Material: remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artifacts, human and hominid remains, and artificial features and structures.

Artifact: Any movable object that has been used, modified or manufactured by humans.

Conservation: All the processes of looking after a site/heritage place or landscape including maintenance, preservation, restoration, reconstruction and adaptation.

Cultural Heritage Resources: refers to physical cultural properties such as archaeological sites, palaeontological sites, historic and prehistorical places, buildings, structures and material remains, cultural sites such as places of rituals, burial sites or graves and their associated materials, geological or natural features of cultural importance or scientific significance. This include intangible resources such religion practices, ritual ceremonies, oral histories, memories indigenous knowledge.

Cultural landscape: “the combined works of nature and man” and demonstrate “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 internal and external”.

Cultural Resources Management (CRM): the conservation of cultural heritage resources, management, and sustainable utilization and present for present and for the future generations

Cultural Significance: is the aesthetic, historical, scientific and social value for past, present and future generations.



Chance Finds: means Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

Compatible use: means a use, which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

Conservation means all the processes of looking after a place so as to retain its cultural significance.

Expansion: means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased.

Grave: A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place.

Heritage impact assessment (HIA): Refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, plan, programme or policy which requires authorisation of permission by law and which may significantly affect the cultural and natural heritage resources. The HIA includes recommendations for appropriate mitigation measures for minimising or avoiding negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

Historic Material: remains resulting from human activities, which are younger than 100 years, but no longer in use, including artifacts, human remains and artificial features and structures.

Impact: the positive or negative effects on human well-being and / or on the environment.



In situ material: means material culture and surrounding deposits in their original location and context, for instance archaeological remains that have not been disturbed.

Interested and affected parties Individuals: communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are concerned with a proposal or activity and its consequences.

Interpretation: means all the ways of presenting the cultural significance of a place.

Late Iron Age: this period is associated with the development of complex societies and state systems in southern Africa.

Material culture means buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Mitigate: The implementation of practical measures to reduce adverse impacts or enhance beneficial impacts of an action.

Place: means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

Protected area: means those protected areas contemplated in section 9 of the NEMPAA and the core area of a biosphere reserve and shall include their buffers.

Public participation process: A process of involving the public in order to identify issues and concerns, and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of NEMA refers to: a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to specific matters.



Setting: means the area around a place, which may include the visual catchment.

Significance: can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgments and science-based criteria (i.e. biophysical, physical cultural, social and economic).

Site: a spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.



1. Introduction

At the request of Isolendalo Environmental Consulting, Vhubvo Archaeo-Heritage Consultant Cc conducted an Archaeological and Cultural Heritage for the proposed construction of Tugela (Khomfini) River Vehicular Bridge, which according to the demarcation board is within Msinga Local Municipality of Umzinyathi District in the Kwazulu Natal Province. The survey was conducted in accordance with the SAHRA Minimum Standards for the Archaeology and Palaeontology. The minimum standards clearly specify the required contents of the report of this nature.

2. Sites location and description

The proposed development is located in the Local Municipality of Msinga located in the Umzinyathi District in the Kwazulu Natal Province. The proposed development will impact two sides of the river. The eastern side is currently used for low scale farming activities, while the western section of the river has an existing access road which has significantly cause erosion on section of the road. In general, the proposed bridge will traverses on an area which is extensively disturbed by activities related to agriculture and access road, such that if any archaeological sites existed in the past, it might have been completely disturbed or destroyed. The field survey was conducted on the 26th of October 2015, as well as on the 21st November 2015. One archaeologist from Vhubvo conducted the survey. The survey covers the entire area proposed for the bridge, as well as the area proposed for access roads. As a supplement to the survey, oral interview was initiated with local communities of the two villagers. The oral interviews aim to understand the cultural landscapes and/ or intangible heritage in the area, as well as possibility of known graves.

Summary of Project Location Details

| | |
|------------------------|-----------------------------------|
| Province: | Kwazulu Natal |
| Local Municipality: | Msinga |
| District Municipality: | Umzinyathi |
| Proposed development: | Establishment of Vehicular Bridge |





Figure 1: An overview of the area proposed for the bridge.



Figure 2: Aerial overview of the proposed site of the bridge as indicated in red.





Figure 3: View of the western section proposed for construction of the bridge.



Figure 4: View of section of the eastern section proposed for the bridge.





Figure 5: Overviews of the environs' of section of the eastern section where access roads will be constructed.



Figure 6: Overviews of the environs' of section of the western section which will be used as access roads.

3. Nature of the proposed project

The Department of Transport (KZN) is proposing to construct a new vehicular bridge linking the communities along each side of the river in the Msinga area. The specifications of the construction are as follows:



- Total length - 222m
- Total width - 8,5m
- Total columns – 16
- Distance between columns – 13,9m

The proposed construction will see the construction of a vehicular bridge which crosses over the Tugela River and proceeds to meet road L661. This proposed bridge consists of 16 concrete columns extending from the outer edge of each side of the river bank to the centre of the river. The vertical columns constructed as support structure for the bridge will be equally spaced with each column being 13,9m apart. The proposed bridge columns will be equal in relation to the current impedance found in the watercourse. At this moment, there is no bridge that could assist the community, and during heavy rains the area crossing becomes blocked making it difficult for communities and general public to cross over.

4. Purpose of the Cultural Heritage Study

The purpose of this Archaeological and Cultural Heritage study was to entirely identify and document archaeological sites, cultural resources, sites associated with oral histories, graves, cultural landscapes, and any structure of historical significance that may be affected by the proposed construction of the bridge, these will in turn assist the developer in ensuring proper conservation measure in line with the National Heritage Resource Act, 1999 (Act 25 of 1999). Impact assessments highlight many issues facing sites in terms of their management, conservation, monitoring and maintenance, and the environment in and around the site. Therefore, this study involves the following:

- Identification and recording of heritage resources that maybe affected by the proposed bridge,
- Providing recommendations on how best to appropriately safeguard identified heritage sites. Mitigation is an important aspect of any development on areas where heritage sites have been identified.



5. Methodology

Background study introduction

The methodological approach is informed by the 2012 SAHRA Policy Guidelines for impact assessment. As part of this study, the following tasks were conducted: 1) literature review, 2), consultations with the developer and appointed consultants, 3), completion of a field survey and 5), analysis of the acquired data, leading to the production of this report.

Physical survey

The walk down of all the area proposed for the bridge and servitudes was conducted successfully, emphases were directed on potential area that can yield archaeological and graves sites. The walk down therefore constitutes walking the wider area. For the purpose of this report, the general overview has been given in pictograph. The field survey was conducted on the 26th October 2015, as well as on the 21st November 2015. One Archaeologist from Vhubvo conducted the survey.

Documentation

The general project area was documented. This documentation included taking photographs using cameras a 10.1 mega-pixel Sony Cybershort Digital Camera. Plotting of finds was done by a Garmin etrex Venture HC.

Oral interview

Oral interview was initiated with community members. The oral interviews aim to understand the cultural landscapes and/ or intangible heritage of the area.

Restrictions and Assumptions

As with any survey, archaeological materials may be under the surface and therefore unidentifiable to the surveyor until they are exposed once construction resume. As a result, should any archaeological/ or grave site be observed during construction, a heritage specialist must immediately be notified.

6. Applicable heritage legislation

Several legislations provide the legal basis for the protection and preservation of both cultural and natural resources. These include the National Environment Management Act (No. 107 of



1998); Mineral Amendment Act (No 103 of 1993); Tourism Act (No. 72 of 1993); Cultural Institution Act (No. 119 of 1998), and the National Heritage Resources Act (Act 25 of 1999). Section 38 (1) of the National Heritage Resources Act requires that where relevant, an Impact Assessment is undertaken in case where a listed activity is triggered. Such activities include:

- (a) *the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) *the construction of a bridge or similar structure exceeding 50 m in length; and*
- (c) *any development or other activity which will change the character of an area of land, or water -*
 - (i) *exceeding 5 000 m² in extent;*
 - (ii) *involving three or more existing erven or subdivisions thereof; or*
 - (iii) *involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
 - (iv) *the costs of which will exceed a sum set in terms of regulations by SAHRA or a Provincial Heritage Resources Authority;*
- (d) *the re-zoning of a site exceeding 10 000 m² in extent; or*
- (e) *any other category of development provided for in regulations by SAHRA or a Provincial Heritage Resources Authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

Section 3 of the National Heritage Resources Act (25 of 1999) lists a wide range of national resources protected under the act as they are deemed to be national estate. When conducting a Heritage Impact Assessment (HIA) the following heritage resources have to be identified:

- (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 natural features of cultural significance*
- (e) *Geological sites of scientific or cultural importance*
- (f) *Archaeological and paleontological sites*
- (g) *Graves and burial grounds including-*
 - (i) *ancestral graves*
 - (ii) *royal graves and graves of traditional leaders*
 - (iii) *graves of victims of conflict*
 - (iv) *graves of individuals designated by the Minister by notice in the Gazette*
 - (v) *historical graves and cemeteries; and*
 - (vi) *other human remains which are not covered by in terms of the Human Tissue Act,1983 (Act No. 65 of 1983)*
- (h) *Sites of significance relating to the history of slavery in South Africa*
- (i) *moveable objects, including -*
 - (i) *objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens*
 - (ii) *objects to which oral traditions are attached or which are associated with living heritage*
 - (iii) *ethnographic art and objects*
 - (iv) *military objects*
 - (v) *objects of decorative or fine art*



(vi) objects of scientific or technological interest; and
 (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Section 3 of the National Heritage Resources Act (No. 25 of 1999) also distinguishes nine criteria for places and objects to qualify as ‘part of the national estate if they have cultural significance or other special value ...’ These criteria are the following:

- (a) *Its importance in the community, or pattern of South Africa’s history*
- (b) *Its possession of uncommon, rare or endangered aspects of South Africa’s natural or cultural heritage*
- (c) *Its potential to yield information that will contribute to an understanding of South Africa’s natural or cultural heritage*
- (d) *Its importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects*
- (e) *Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group*
- (f) *Its importance in demonstrating a high degree of creative or technical achievement at particular period*
- (g) *Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons*
- (h) *Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and*
- (i) *Sites of significance relating to the history of slavery in South Africa.*

Other sections of the Act with a direct relevance to the AIA are the following:

Section 34(1) *No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.*

Section 35(4) *No person may, without a permit issued by the responsible heritage resources authority:*

- *destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite*

Section 36 (3) *No person may, without a permit issued by SAHRA or a provincial heritage resources authority:*

- *destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside formal cemetery administered by a local authority; or*
- *bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.*



7. Degree of significance

This category requires a broad, but detailed knowledge of the various disciplines that might be involved. Large sites, for example, may not be very important, but a small site, on the other hand, may have great significance as it is unique for the region.

Significance rating of sites

(i) High

(ii) Medium

(iii) Low

This category relates to the actual artefact or site in terms of its actual value as it is found today, and refers more specifically to the condition that the item is in. For example, an archaeological site may be the only one of its kind in the region, thus its regional significance is high, but there is heavy erosion of the greater part of the site, therefore its significance rating would be medium to low. Generally speaking, the following are guidelines for the nature of the mitigation that must take place as Phase 2 of the project.

High

- This is a ‘do not touch’ situation, alternative must be sought for the project, examples would be natural and cultural landscapes like the Mapungubwe Cultural Landscape World Heritage Site, or the house in which John Langalibalele resided.
- Certain sites, or features may be exceptionally important, but do not warrant leaving entirely alone. In such cases, detailed mapping of the site and all its features is imperative, as is the collection of diagnostic artefactual material on the surface of the site. Extensive excavations must be done to retrieve as much information as possible before destruction. Such excavations might cover more than half the site and would be mandatory; it would also be advisable to negotiate with the client to see what mutual agreement in writing could be reached, whereby part of the site is left for future research.

Medium

- Sites of medium significance require detailed mapping of all the features and the collection of diagnostic artefactual material from the surface of the site. A series of test trenches and test pits should be excavated to retrieve basic information before destruction.



Low

- These sites require minimum or no mitigation. Minimum mitigation recommended could be a collection of all surface materials and/ or detailed site mapping and documentation. No excavations would be considered to be necessary.

In all the above scenarios, permits will be required from the South African Heritage Resources Agency (SAHRA) or the appropriate PHRA as per the legislation (the National Heritage Resources Act, no. 25 of 1999). Destruction of any heritage site may only take place when a permit has been issued by the appropriate heritage authority. The following table is used to grade heritage resources.

Table 2: Grading systems for identified heritage resources in terms of National Heritage Resources Act (Act 25 of 1999).

| Level | Significance | Possible action |
|---------------------------------|----------------------------|---|
| National (Grade I) | Site of National Value | Nominated to be declared by SAHRA |
| Provincial (Grade II) | Site of Provincial Value | Nominated to be declared by PHRA |
| Local Grade (IIIA) | Site of High Value Locally | Retained as heritage |
| Local Grade (IIIB) | Site of High Value Locally | Mitigated and part retained as heritage |
| General Protected Area A | Site of High to Medium | Mitigation necessary before destruction |
| General Protected Area B | Medium Value | Recording before destruction |
| General Protected Area C | Low Value | No action required before destruction |

8. Discussion of (Pre-) History of South Africa

The prehistoric period during which humans widely used stone for tool-making, stone tools were made from a variety of different sorts of stone. For example, flint and chert were shaped for use as cutting tools and weapons, while basalt and sandstone were used for ground stone. Stone Age can be divided into Early, Middle and Late, it is argued that there are two transitional period. The time frame used for Stone Age period is an approximate and differ from researcher to researcher (see Korsman and Meyer 1999, Mitchell 2002, Robbins *et al.* 1998).



Stone Age

Although a long history of research on the Early Stone Age period of southern Africa has been conducted (Mason 1962, Sampson 1974, Klein 2000, Chazan 2003), it still remains a period where little is known about. These may be due to many factors which includes, though not limited to retrieval techniques used, reliance on secondary, at times unknown sources, and the fact that few fauna from this period have been analysed (Chazan 2003). According to Robbins *et al.* (1998) the Stone Age is the period in human history when stone was mainly used to produce tools. This period began approximately 2.5 million years ago and ended around 200 000 years ago.

The Middle Stone Age overlap with the EIA and possibly began around 100 000 to about 200 000 years ago and extends up to around 35 000 years ago. This period is marked by smaller tools than in ESA. MSA people made a wide range of stone tools from both coarse- and fine-grained rock types, and included prepared cores, parallel-sided blades and triangular points hafted to make spears. During this period there is also evidence of seeking shelters in caves by MSA people, suggesting enduring or semi-enduring settlement in caves, there possibility of making fire in some of these caves have also been suggested.

Later Stone Age period began around 35 000 and extend to the later 1800 AD, during this period humans were classified as *Homo sapiens* which means this people had thinking capabilities equal to that of modern people. According to Deacon (1984), LSA is a period when human being refined small blade tools, conversely abandoning the prepared-core technique. Refined artefacts such as convex-edge scrapers, borers and segments are associated with this period, as well as large quantity of art and ornaments and the practice of purposeful burials with ornaments. The bearer of the rock art sites are probably the ancestors of the San people and are found throughout southern Africa, including KwaZulu-Natal wherein paintings and engravings are eminent. Due to poor preservation, open air sites are mostly less found as compared to rock shelters, which are chiefly well preserved.

Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce artefacts. Recently, they have been a debate about the use of the name. Other archaeologist have argued that the word “Iron Age” is problematic and does not precisely



explain the event of what happen in southern Africa, as such, the word farming communities has been proposed (Segobye 1998). Nonetheless, in southern Africa this period can be divided into two phases. Early (200 - 1000 A.D) and Late Iron Age (1000 - 1850 A.D). Huffman (2007) has indicated that a Middle Iron Age (900 - 1300 A.D) should be included. According to Huffman (2007:361), until the 1960s and 1970s most archaeologists had not yet recognised a Middle Iron age. Instead they began the Late Iron Age at AD 1000. The Middle Iron Age (A.D. 900 - 1300) is characterised by extensive trade between the Limpopo Confluence and the East Coast of Africa. This has been debated, with other researchers, arguing that the period should be restricted to Shashe-Limpopo Confluence.

Historical Period

Since the arrival of the white settlers - c. AD 1800s - in this part of the country, these settlers were largely self-sufficient, relying on cattle/sheep farming and also hunting. Few towns were established and farming remains the most dominant economy.

9. (Pre-) History of the Area around the proposed site

Stone Age

Thousands of years before the arrival of black people in the area, the San used to wonder in the area around Kwazulu Natal (KZN) including the proposed area. Few Early Stone Age (EIA) sites have been documented in KZN, most of the reference of this period is in the form of scatters found mostly in ancestral coastal dunes. The scarcity of EIA sites appears to be correlated in that most of these sites are the remains of open camps, often by the sides of rivers and lakes, and disturbances is imminent in such areas. Several Middle Stone Age site have been documented in the KZN, and includes Sibudu Cave, Umhlatuzana Cave and Border Cave. All these sites provided impressive evidence for fine resolution data and detailed stratigraphy (Wadley 2005, Wadley and Jacobs 2006). Finally, is the Late Stone Age sites, these sites are well reference in KZN and elsewhere in South Africa, most of these are found in caves and thus well preserved, and easy to identify. The uKhahlamba Drakensberg Mountain Range bear testimony to this. It is now accepted that rock art sites were sacred sites to the San, as much as churches are to Christians. The paintings at these sites have been regarded as the finest in the world (Pager 1971). There are over 500 painted rock art shelters



in the Drakensberg and well over 50 000 individual painted images (Ndlovu 2009), LSA are also found in the form of refined tools that stand amongst the rest.

Iron Age and Historical era

Although the earliest agricultural sites in KwaZulu-Natal date to between AD 400 and 550, there is no sites dating to the Early Iron Age (EIA) that have been found in the area around the proposed site. Evidence of the first farmers in the area point to around the 14th century, these Later Iron Age sites were most probably inhabited by Nguni-speaking segments (Bryant 1965). The Iron Age structural features that characterised this region include stone wall structures. The earliest known site in this region is known as Moor Park and it dates from 14th century (Huffman 2007). After about 1800, the wider study area is known to have been characterised by wars and battles, particularly between Zulu clans, Zulu's and the Boers /and British, and British and the Boers.

In the 1846, Natal was divided into eight Districts referred to as Native Reserves. Msinga which form part of the proposed development was one of the Native Reserves. It was established in 1849. Although several segments are known to exist in the area, the most notably are the Sithole, aBathembu and amaChunu. Although there was tension amongst these tribes, which ultimately resulted in wars, the most well-known battle in the area is that termed Anglo-Zulu War. This war entails conflict between the British Empire and the Kingdom of Zululand, and it took place taking place starting in 1879. It comprises a series of eight battles (Battle of Isandlwana, Battle of Intombe, Battle of Hlobane, Battle of Kambula, Battle of Gingindlovu, Battle of Eshowe, and Battle of Ulundi), beginning with the Battle of Isandlwana, at which Zulu defeated the British. The Zulu will go on to win the first three wars. However, the British began to strategise and won the last four battles. As a result, the British subjugated the Zulus, and the Zulu Kingdom lost its independence and became part of British Colony. Nonetheless, the battle of Isandlwana which took place about 40km north of the proposed area is according to Mthethwa (2002), important in the history of South Africa, and can be compared to what the American's suffered in the hands of Vietnam and also French's defeat at Dien Bien Phu. Accordingly, these battles symbolise hope and determination in the fight by indigenous people against foreign domination (Moeller 2005).



10. Survey findings

The Phase I Archaeological and Cultural Heritage Impact Assessment for the proposed construction of Tugela (Khomfini) River has identified no significant impacts to archaeological material that will need to be mitigated prior construction. Henceforth, no archaeological or cultural heritage remains were documented during the study.

11. Recommendations and Conclusions

It is recommended that Amafa approve the proposed development to proceed without further archaeological assessment. It is the responsibility of the developer to notify contractors and workers about archaeological material (e.g., pottery, stone tools, remnants of stone-walling, graves, etc) and fossils that may be located underground. Thus, unavailability of archaeological material does not mean absentee, archaeological material might be hidden underground, as such the client is reminded to take precautions during construction.

Pre-construction education and awareness training

Prior to construction, contractors should be given training on how to identify and protect archaeological remains that may be discovered during the project. The pre-construction training should include some limited site recognition training for the types of archaeological sites that may occur in the construction areas. Below are some of the indicators of archaeological site that may be found during construction:

- ✚ Flaked stone tools, bone tools and loose pieces of flaked stone;
- ✚ Ash and charcoal;
- ✚ Bones and shell fragments;
- ✚ Artefacts (e.g., beads or hearths);
- ✚ Packed stones which might be uncounted underground, and might indicate a grave or collapse stone walling.

The proposed construction can proceed without further archaeological or cultural heritage assessment. This report is void without approval from Amafa.



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APPENDIX 1: SITE SIGNIFICANCE

The following guidelines for determining site *significance* were developed by SAHRA in 2003. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

(a) Historic value

- Is it important in the community, or pattern of history?
- Does it have strong or special association with the life or work of a person, group or organization of importance in history?
- Does it have significance relating to the history of slavery?

(b) Aesthetic value

- Is it important in exhibiting particular aesthetic characteristics valued by a community or cultural group?

(c) Scientific value

- Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage?
- Is it important in demonstrating a high degree of creative or technical achievement at a particular period?

(d) Social value

- Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?

(e) Rarity

- Does it possess uncommon, rare or endangered aspects of natural or cultural heritage?

(f) Representivity

- Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects?
- What is the importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class?



- Is it important in demonstrating the principal characteristics 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?

