



NDG AFRICA Environmental Consultants

**PHASE I DESKTOP STUDY CULTURAL HERITAGE IMPACT ASSESSMENT
STUDY FOR THE PROPOSED DEVELOPMENT OF RESIDENTIAL,
INSTITUTIONAL AND COMMERCIAL UNITS AT MADADENI AREA WITHIN
NEWCASTLE LOCAL MUNICIPALITY OF AMAJUBA DISTRICT IN
KWAZULU-NATAL PROVINCE.**

November, 2019

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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 a Master's 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), Historical Association of South Africa (HESA); Anthropology Southern Africa (ASnA); International Association for Impact Assessment (IAIAsa); International Council on Monuments and Sites (ICOMOS) and the International Council of Archaeozoology (ICAZ). He has more than fifteen years' experience in heritage management, having worked for different CRM organisations and government heritage authorities. As a CRM specialist, Munyadziwa has completed well over 1000 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.


Alvord Nhundu is a professional archaeologist who obtained his MA degree in Archaeology (2018) from the University of Pretoria (UP) focussing on the LSA-Iron Age period. He also holds a Bachelor of Science with honours degree in archaeology from the University of the Witwatersrand (2010). Alvord is an accredited member of the Association of Southern African Professional Archaeologists (ASAPA#338). He has been practising Cultural Resource Management (CRM) for more than 5 years, and has completed well over 50 Archaeological Impact Assessments (AIA) for developmental projects in the Limpopo, Mpumalanga, North-west and KwaZulu-Natal provinces of South Africa. The projects include establishment and upgrade of power substations, road construction and establishment and expansion of mines. He has also conducted the relocation of graves. His detailed CV is available upon request.

INDEPENDENCE

I, Munyadziwa Magoma declare that this report has been prepared independently of any influence as may be specified by all relevant department, institution and organization. I act as the independent specialist in this application, and will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favorable to the applicant. I declare that there are no circumstances that may compromise my objectivity in performing such work, I vow to comply with all relevant Act, Regulations and applicable Legislation. Furthermore, Vhubvo Consultancy Cc, which is a company I represent in this application, is an independent service provider and apart from fair remuneration for services rendered, it has no financial interest or vested interest in the proposed project.

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EXECUTIVE SUMMARY

Vhubvo Consultancy Cc has been commissioned by Nature and Development Group of Africa Environmental Consultants to conduct the Desktop Cultural Heritage Impact Assessment (HIA) Study for the proposed development of residential, institutional and commercial units at Madadeni area in Newcastle Local Municipality of KwaZulu-Natal Province. The aim of the survey was to investigate the availability of archaeological sites, cultural resources, sites associated with oral histories, graves, cultural landscapes, and any structures of historical significance that may be affected by the proposed infrastructural developments.

To understand the area proposed for the development of stands, a background study was undertaken and relevant institution were consulted. These studies entails review of archaeological and heritage impact assessment conducted around the proposed area thorough SAHRIS. Also examined are reviews of relevant publications. The University of Pretoria's Library was also visited. These investigations were conducted to determine if there are any known sites around the area. This report includes an impact study on potential archaeological and cultural heritage resources that may be affected by the proposed development. The findings of this report have been informed by desktop data review, consultation and impact assessment reporting. The study was conducted as part of the specialist input for the Environment Management Plan exercise. Analysis of the archaeological, cultural heritage, environmental and historic contexts of the study area predicted that archaeological sites, cultural heritage sites, historic structures, burial grounds or isolated artefacts were not likely to be present on the affected landscape.

Restrictions and Assumptions

As with any study, 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 stage, a heritage specialist monitoring the development must immediately be notified. In the mean time, no further disturbance may be made until such time as the heritage specialist has been able to make an assessment of the find in question. It is the responsibility of the contractor to protect the site from publicity (i.e., media) until all assessments are made.

Table 1: Possibility of archaeological/ Heritage materials on sites.

Landscape type	Description	Occurrence still possible	Likely occurrence
Archaeology	Early, Middle and Late Stone Age; Iron Age;	Yes Yes	Rather Unlikely Chance find
Burial and Graves	Pre-colonial burials; Graves of victims of conflict; Graves older than 100 years; Graves older than 60 years; Graves younger than 60 years;	Yes	Chance find
Built Environment	Formal public spaces; Historical structures; Area associated with social identity/ displacement;	Yes	Unlikely
Historic Farmland	Historical farm yards; Historical farm workers villages; Irrigation furrows; Historical routes; Distinctive types of planting;	Yes	Unlikely
Landscape usage	Sites associated with living heritage e.g., initiation school sites; Sites of political conflict; Sites associated with a historic event/ person;	Yes	Unlikely



Historic rural Town	Historic mission settlements;	Yes	Unlikely
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Findings

A number of sources were consulted for the desktop study, including the Archaeological Data Recording Centre database of SAHRA and the National Archive of South Africa. From this, it is evident that there are no known archaeological resources in the area, however, there appears to be graves that could be found in the proposed area.

Recommendations

In compliance with the National Heritage Legislature, there was no observable development activities associated with the proposed project.

The proposed development is going to have an all negative impact on the proposed area. Therefore, the developer should commission a full Phase I Archaeological Impact Assessment before any construction is conducted. This will ensure that no archaeological or grave materials are compromised/ disturbed.

In the event that any archaeological material are unearthed accidentally, during the course of construction, AMAFA should be alerted immediately, construction should cease and the area be demarcated by a danger tape. In the meantime, it is the responsibility of the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached. Noteworthy that any measures to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law. In the same manner, no person may exhume or collect such remains, whether of recent origin or not, without the endorsement of AMAFA.

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 uncouneted underground, and might indicate a grave or collapse stone walling.

Conclusions

The proposed development and planning of the proposed project can proceed on condition that a Phase I archaeological assessment will be conducted before any construction is assigned. Accordingly, I, as an independent archaeologist recommend that the developer proceed with the planning of the project.

Note should be taken that there is no material (s) that can be found in the proposed area that can be considered to be of such significance that can prevent the proposed development from proceeding.



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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.

Artefact: 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 artifact, structures, organic and environmental remains, as residues of past human activity.



1. Introduction

At the request of Nature and Development Group of Africa, Vhubvo Consultancy Cc conducted a Phase I Desktop Archaeological and Cultural Heritage study for the proposed development of residential and commercial stands within Madadeni area in Newcastle Municipality of KwaZulu-Natal Province. The aim of the survey was to investigate the availability of archaeological sites, cultural resources, sites associated with oral histories, graves, cultural landscapes, and any structures of historical significance that may be affected by the proposed Sports development facilities, 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). 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 of the proposed development, and also for researches that have been carried out in the wider area over the past years

2. Sites Location and Description

The proposed area is within Madadeni area in Newcastle Municipality and it measures approximately 367 hectares. It is located on a portion of Farm 15961 Madadeni. The surrounding areas is predominantly farmlands, small holdings and the densely populated township of Madadeni on the east.

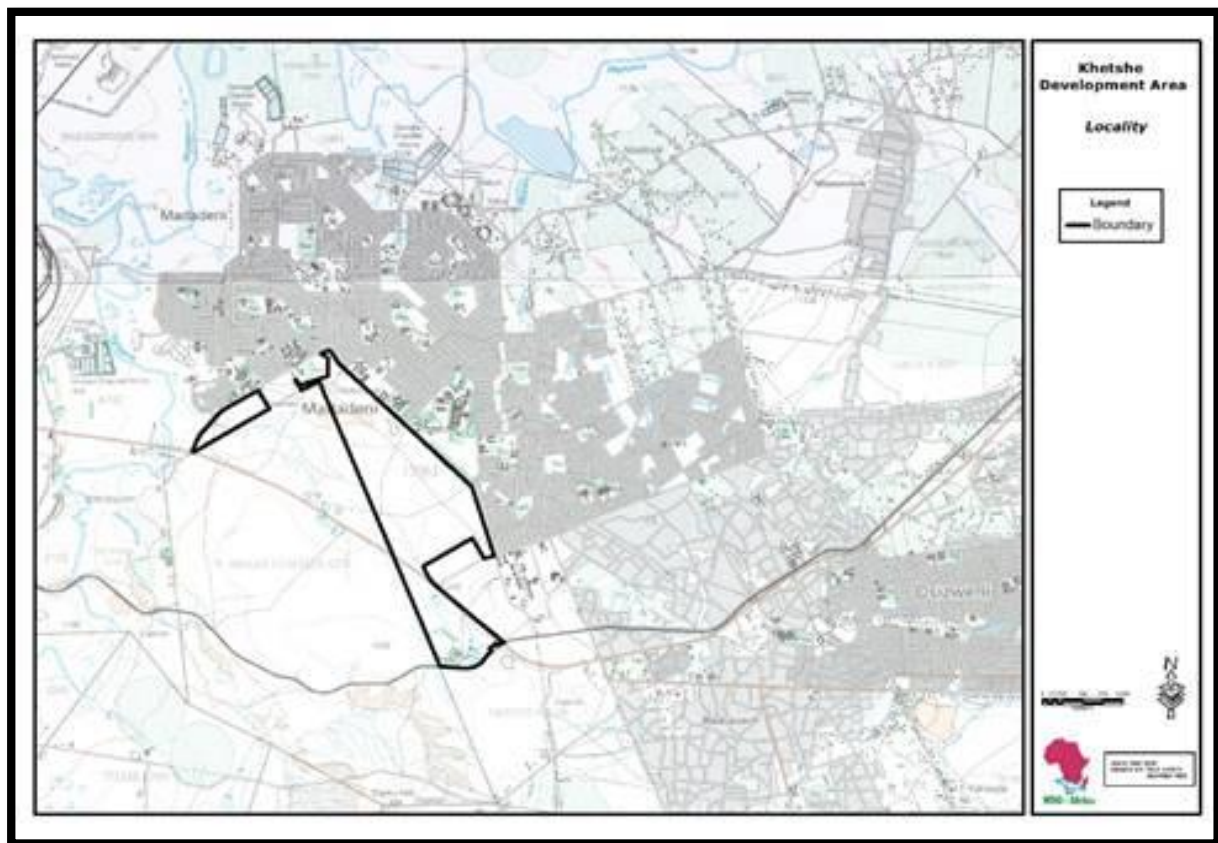


Figure 1: View of the topographical map of the proposed site.



3. Nature of the proposed project

The proposed development is a response to the ever increasing demand for accommodation. The project aims to develop suitable and affordable accommodation for the lower middle income working class within the Newcastle Municipality.

4. Purpose of the Cultural Heritage Study

The purpose of this desktop study was to investigate the possibility of any 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 development. Impact assessments highlight many issues facing sites in terms of their management, conservation, monitoring and maintenance, and the environment in and around the site.

5. Methodological Approach

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), analysis of the acquired data, leading to the production of this report.

Restrictions and Assumptions

As with any study, 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. In addition, activities related to the conduction of geo-technical service as noted on site have significantly disturbed the area, such that certain sites could have been disturbed.

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. History of the Area

The archaeology of southern Africa is divided into the Stone Age, Iron Age and Historical period. The town of Newcastle and other surrounding regions in the KwaZulu-Natal Province have a long history of occupation ranging from the Stone Age to the Historical era.

The Stone Age

In South Africa the Stone Age is divided into three periods namely; the Early Stone Age (ESA) dating to between 2 million and 250 000 years ago, the Middle Stone Age (MSA) dating to between 250 000 and 22 000 years ago, and lastly the Later Stone Age (LSA) dating to between 25 000 and 2000 years ago. The archaeological history of the KwaZulu-Natal (KZN) Province dates back to about 2 million years, marking the beginning of the Stone Age period. The first phase of the Stone Age industry is the Early Stone Age (ESA). The earliest stone tool technology of this industry is the Oldoway culture. This was developed by the early human ancestors, the genus Homo such as the Homo habilis around 2.6 million years ago (mya). It comprises of heavy and rough tools such as cobbles, cores, pebbles and choppers (Tooth & Schick 2007). These tools are regarded as the



earliest evidence of the culture in southern Africa. The Oldowan culture was replaced by the Acheulian industry. The Acheulian was first developed by the *Homo ergaster* between 1.8 and 1.65 mya and lasted until 300 000. The presence of this evidence is in abundance at Swartkraans, Sterkfontein and Kroomdrai. The most typical tools of this phase are handaxes, cleavers, choppers and spheroids. It is highly likely that the hominids used choppers and scrapers for skinning and butchering animals, and often hafted sharp ended sticks for digging up edible roots. In KZN ESA have produced very little with regards to material culture, and as a result very little is known about the ESA of the region. Olivier Davies, a pioneer archaeologist in the region being the only person to have researched on the ESA period in the province recognized different traditions of the ESA in which the traditions are characterised by heavy tools made from cores, such as scrapers, picks, handaxes and cleavers (Davies 1974; Mazel 1989). Other than the stone tools, very little has been produced from the ESA sites in the province. The information on the diet of the ESA people in the province is sketchy; however, it can be assumed that their menu consisted of animals and plant food (Mazel 1989).

The ESA is succeeded by the Middle Stone Age (MSA). The MSA culture started to appear around 250 000 years ago. The MSA technology replaced the ESA bifaces, handaxes, choppers, cleavers, and picks with smaller flake technology comprising of scrapers, blades and points. These artefacts roughly fall in the 40-100 mm size. The KZN province is widely known for its various MSA sites such as Umhlatuzana Rock Shelter (Butzer *et al.* 1978), Sibudu Cave (Wadley 1996), Border Cave (Cooke *et al.* 1945), Umbeli Belli Rock Shelter (Mitchell 1998). The MSA was replaced by the Later Stone Age (LSA), and this ranges from about 20 000 to 2000 years ago. The LSA is characterised by smaller tools compared to the ESA and MSA. Anatomically speaking, as the brain gets bigger, tools became smaller and more efficient. The LSA is associated with rock art, small stone tools popularly known as microliths, thumbnails, crescents, bladelets, bows and arrows, bored stones, grooved polished bone tools, earthenware pottery, ostrich egg shells as water containers (Deacon & Deacon 1999; Villa *et al.* 2012). Many LSA sites have been discovered in the KZN province, these include Mgede Shelter (Mazel 1988), KwaThwaleyakhe Shelter (Mazel 1993), Inkolimahashi Shelter (Mazel 1999). The LSA of the KZN Province is dominated by its amazingly beautiful rock art (Williams 1981; Wilcox 1990; Hoerle & Solomon 2004, Nhundu 2015).

Iron Age

The primary technology used by Bantu people was the iron hoe, hence the advent of the “Iron Age” to designate the period which these groups expanded and spread throughout southern Africa (Huffman 1989, 2000, 2007). Iron Age people were agro pastoralist communities that settled in places with easy access to water for them to practice both arable and pastoral farming (Mitchell 2002). According to Huffman (2007) the Iron Age can be divided into the Early Iron Age (EIA) (200-900 AD), the Middle Iron Age (MIA) (900-1300 AD) and the Late Iron Age (LIA) (1300-1840 AD). There is no Middle Iron Age in the KZN Province. It is clear in the Limpopo Province where it marks the origin of the Zimbabwe culture.

The EIA marks the settlement of farming communities in South Africa in the first millennium AD (Mitchell 2002). In terms of material culture, ceramics are a dominant and critical part of the EIA (Huffman 1989). Using ceramic typologies EIA ceramic traditions are classified into different streams in pot types and decoration which emerged in time in southern Africa (Huffman 1989). The streams are the KwaZulu Branch (east), the Nkope Branch (central) and the Kalundu Branch (west). Archaeologically speaking EIA pottery is characterised by large and prominent inverted rims, large neck areas, and fine elaborate decorations. In KwaZulu-Natal these EIA people occupied the



region from the Great Lakes region of Congo and Cameroon (Huffman 2007). When they first entered the region the climate was dry, and it only improved around AD 650 when they expanded into the interior of the region and settled in well-watered areas in the savanna or bushveld environments (van Schalywyk 2013). They preferred these environments because they were suitable for both crop production and animal husbandry; they grew sorghum and millet, and kept cattle (Maggs 1984). KZN was occupied by the Nguni speaking group of the eastern stream characterised by settlement pattern defined as the Central Cattle Pattern (CCP) (Huffman 1982, 2000). The earliest known type of settlement resembling the CCP is Moor Park which dates from the 14-16th century (Huffman 2007). In the CCP the cattle kraal was the nuclei of the settlement. The domain of man, the cattle kraal was the site of the man's court and located in the front, public and secular area. Burials were located behind the house. The worldview of these people is that they valued the role of ancestors in their daily life. Bridewealth was given in cattle as lobola, leadership was hereditarily male, and procreation followed a patrilineal ideal. In this system, crop production was exclusively for women whilst pastoralism was a man domain (For a detailed account of the CCP, see Huffman 1982 & 2001). The EIA of KZN date to around 500 and 900 AD. Basing on ceramic traditions it is divided into Msuluzi (AD 500), Ndondondwane (AD 700-800), and Ntshekane (AD 800-900).

The LIA dates from AD 1300 to 1840. Apart from changes in the ceramic styles, the LIA is also distinguished from the EIA by its massive stone wall structures. However, in this part of the world; stone walls were not common as the Nguni people used thatch and wood to build their houses (Maggs 1989; Huffman 2007). The LIA also witnessed more focus on economic growth, and also the rise of trade, both local and external. The main traded goods were grain, cattle, salt, thatch, metal goods, cloth, beads and this led to specialization of natural resources, and this is evident with iron smelting which was sporadic in the earlier times but began to occur at certain localities, and eventually contributed to the development of complex societies (Huffman 2007). Artefacts associated with this period beside pots which cut across all divides are knife-blades, hoes, adzes, awls, bone tools, glass beads and grinding stones.

The Historical era

The Historical period dates from AD 1600, and mainly deals with colonial settlement, and its impacts in southern Africa. In South Africa this period is associated with Dutch settlement in the Western Cape, early missionary stations, voortrekker routes, the Anglo-Boer war and Battle of the Blood River. The Greater Zululand was christened Natal by the Portuguese explorer Vasco da Gama in 1497. The colonial history of KZN starts around 1820 when early English ivory traders established themselves at Port Natal (Durban), at a time when Shaka king of the Zulu was firmly in charge of the area. It is argued that the kingdom he established remained the most powerful in the region throughout the 19th century (Wright & Hamilton 1989). Shaka's majesty rule came to an end in 1828 when he was assassinated by his half-brothers Dingane and Mhlangana, with Dingane eventually taking over the kingship (Wright & Hamilton 1989). In 1837 Piet Retief led the Dutch descendants, the voortrekkers into Natal (Stapleton 2017). Interestingly the old wagon road which they used in 1838 when they were trooping down the slopes of the Drakensberg mountains into Pietermaritzburg can still be seen today (Oberholser 1972). After a series of battles between the two groups, the Zulus were defeated at the Battle of the Blood River in 1838, and the Boers established a short lived republic called Natalie. In 1845 the Boer Republic of Natalie was annexed by the British. Northern and central parts of the province are strewn with sites of battles



between the Zulus, Boers and the British between 1800 and 1900s. In 1879 the British finally conquered the Zulu in the Anglo-Zulu war and acquired the area north of the Tugela River, the lands to the north of the Buffalo River were added in 1902 (Wright & Hamilton 1989).

9. Findings

A number of sources were consulted for the desktop study, including the Archaeological Data Recording Centre database of SAHRA and the National Archive of South Africa. From this, it is evident that there are no known archaeological resources in the area, however, there appears to be graves that could be found in the proposed area.

10. Recommendations

In compliance with the National Heritage Legislature, there was no observable development activities associated with the proposed project.

The proposed development is going to have an all negative impact on the proposed area. Therefore, the developer should commission a full Phase I Archaeological Impact Assessment before any construction is conducted. This will ensure that no archaeological or grave materials are compromised/ disturbed.

In the event that any archaeological material are unearthed accidentally, during the course of construction, Amafa should be alerted immediately, construction should cease and the area be demarcated by a danger tape. In the meantime, it is the responsibility of the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached. Noteworthy that any measures to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law. In the same manner, no person may exhume or collect such remains, whether of recent origin or not, without the endorsement of Amafa.

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 uncultured underground, and might indicate a grave or collapse stone walling.

11. Conclusions

The proposed development and planning of the proposed project can proceed on condition that a Phase I archaeological assessment will be conducted before any construction is assigned. Accordingly, I, as an independent archaeologist recommend that the developer proceed with the planning of the project.



Note should be taken that there is no material (s) that can be found in the proposed area that can be considered to be of such significance that can prevent the proposed development from proceeding.

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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?

