



**PHASE 1**

**ARCHAEOLOGICAL IMPACT ASSESSMENT**

**RELATING TO THE PROPOSED REATLEGILE LODGE NEAR JANE FURSE,  
WITHIN THE MAKHUDUTHAMAGA LOCAL MUNICIPALITY OF THE  
SEKHUKHUNE, LIMPOPO PROVINCE, SOUTH AFRICA**



*Compiled by:* Millennium Heritage Group (PTY) LTD

*For:* Tshanduko Environmental Engineering (PTY) LTD

P.O. Box 2796

The Reeds

Centurion, 0158

Email: [gauteng@tshanduko.co.za](mailto:gauteng@tshanduko.co.za)/[info@tshanduko.co.za](mailto:info@tshanduko.co.za)

6 February 2021

**i. Technical and Executive Summaries**

<b>Property details</b>	
Province	Limpopo Province
Magisterial District	Sekhukhune District
Topo-cadastral map	2429 DA
Coordinates	S 24 <sup>0</sup> . 45. 37. 05 and E 29 <sup>0</sup> .51.15.01
Closest town	Jane furse
Farm name	N/A

<b>Development criteria in terms of Section 38 (1) of the NHR Act 25 of 1999</b>	<b>Yes</b>	<b>No</b>
Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length		No
Construction of bridge or similar structure exceeding 50m in length		No
Development exceeding 5000 sqm	Yes	
Development involving three or more existing erven or subdivisions		No
Development involving three or more erven or divisions that have been consolidated within past five years		No
Rezoning of site exceeding 10 000 sqm		No
Any other development category, public open space, squares, parks, recreation grounds		No

<b>Development</b>	
Description of development	Establishment of a lodge and related infrastructures.
Project name	Reatlegile Lodge
Developer	Dirane Trading PTY(LTD)
Heritage Consultant	Mr. Mathoho Ndivhuho Eric, Millennium Heritage (Pty) Ltd
Purpose of the study	Heritage Impact Assessment to identity and assess significance of sites (if any) to be impacted by the proposed development.

<b>Land use</b>	
Previous land use	Vacant stand
Current land use	Residential sites

## **ii. Executive Summary**

Dirane Trading (PTY) LTD owns a stand, located north east of the Vergelegen dam, the area is positioned (2) kilometres west of Jane furse Central Business District (CBD), the area is located within Makuduthamaga local Municipality of the Sekhukhune District in the Limpopo Province. Large section on the front part of the demarcated stand is dominated by wetland and a perennial stream.

Mr. Thabang Selala of the Dirane Trading (PTY)LTD seeks to apply for environmental authorization for the proposed Reatlegile lodge. The objective behind this development is to provide accommodations while creating job opportunities to the local people. The site is situated at an ideal location currently encircled by residential and business sites with an ample space dominated by a wetland. The study area is positioned in proximity to Jane furse, hospital and town. As part of the application process and good corporate citizenship, Archaeological Impact Assessment or Heritage Impact Assessment study was conducted as part of a broader Basic Assessment (BA) study to investigate the impacts of the proposed development on the receiving environment including heritage resources. In place of a Basic Assessments (BA), the applicant is required by law to obtain Environmental Authorization (EA) in line with the Environmental Impact Assessment (EIA) Regulation published in Government Notice R 982 of 4 December 2014 under Section 24(5) of the National Environmental Management Act No. 107 of 1998 (NEMA) as amended in 2017. An application for Basic Assessments has been lodged with Department of Economic Development Environment and Tourism Limpopo province.

As part of the application process, Tshanduko Environmental Engineering (PTY) LTD were appointed to facilitate the environmental application process where they requested Millennium Heritage Group (Pty) Ltd, an independent heritage Consulting company to assess the heritage sensitivity of the study area. A multi-stepped methodology was used to address the terms of reference. To begin with, a desktop study was carried out to identify any known heritage sites and their significance in the surrounding environment. This involved consulting contract archaeology and paleontological reports filed on SAHRIS, research reports and academic publications (See desktop studies for more detail). Finally, the study was guided by the National Heritage Resources Act of 1999 and SAHRA Minimum Standards for impact assessment.

There are no written documents on the previous archaeological investigations of the site from the South African Heritage Resources database, however several investigations were conducted in and

around the region and there exist enormous data on the antiquity and heritage of the area. The study reached the following conclusions and recommendations:

- The proposed development is scheduled to take place on an already existing stand within a built-up area (surrounded by existing town house flats and a shopping complex).
  - Ground truthing of the area found no important cultural heritage resource, archaeological materials or graves
  - Although no archaeological remains were found, it is possible that some significant features may be buried beneath the ground. Should buried archaeological materials and burials be encountered during the process of development, the following must apply:
    - Work must stop immediately
    - A professional archaeologist or nearest heritage authority must be contacted.

**iii. ACKNOWLEDGEMENTS:**

**CLIENT NAME:** Tshanduko Environmental Engineering

**CONTACT PERSON:** Tshinane Mutshatshi

**Email:** gauteng@tshanduku.co.za/info@tshanduku.co.za

-----

**CONSULTANT:** Millennium Heritage Group (PTY) LTD

**REPORT AUTHOR:** Ndivhuho Eric Mathoho (PhD)

-----

**Declaration of Independence and CV**

I Eric Ndivhuho Mathoho declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed development, application or appeal in respect of which I am appointed other than fair remuneration for work performed about the activity, application or appeal. There are no circumstances that compromise the objectivity of me performing such work.

Signed:



Ndivhuho Eric Mathoho, BA General (Univen) BA (Hons) in Archaeology (Univen) MPhil. PhD in  
Archaeology (UCT)  
ASAPA Member 312,  
Archaeologist and Heritage Expert

## TABLE OF CONTENTS

---

CONTENT	PAGE
<b>I. TECHNICAL AND EXECUTIVE SUMMARIES .....</b>	<b>2</b>
<b>II. EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>III. ACKNOWLEDGEMENTS:.....</b>	<b>5</b>
<b>CONSULTANT: MILLENNIUM HERITAGE GROUP (PTY) LTD .....</b>	<b>5</b>
<b>TABLE OF FIGURES .....</b>	<b>8</b>
<b>1. INTRODUCTION .....</b>	<b>9</b>
<b>2. RELEVANT LEGISLATION.....</b>	<b>10</b>
<b>2.1. THE NATIONAL HERITAGE RESOURCE ACT (25 OF 1999) .....</b>	<b>11</b>
<b>2.2. THE HUMAN TISSUE ACT (65 OF 1983) .....</b>	<b>13</b>
<b>3. TERMS OF REFERENCE .....</b>	<b>13</b>
<b>4. TERMINOLOGY .....</b>	<b>14</b>
<b>5. METHODOLOGY .....</b>	<b>15</b>
5.1. SOURCE OF INFORMATION .....	15
(i) DESKTOP STUDIES .....	15
(ii) FIELD SURVEYS .....	16
(iii) ASSUMPTION AND LIMITATIONS .....	16
<b>6. ASSESSMENTS CRITERIA .....</b>	<b>16</b>
6.1 SITE SIGNIFICANCE.....	17
6.2 IMPACT RATING.....	18
6.3 CERTAINTY .....	19
6.4 DURATION .....	19
6.5 MITIGATION.....	19
<b>7. HISTORICAL BACKGROUND A BRIEF SYNTHESIS OF THE ARCHAEOLOGY AND HERITAGE OF THE STUDY AREA. ....</b>	<b>20</b>
7.1.1. THE STONE AGE PERIOD .....	20
7.1.2. FARMING COMMUNITIES AND RECENT HISTORIES .....	21
7.1.3. COLONIAL PERIOD.....	21
<b>8. SITE LOCATION AND PROJECT DESCRIPTION .....</b>	<b>23</b>

**9. ASSESSMENT OF SITES AND FINDS ..... 26**

**10. CONCLUSION AND RECOMMENDATIONS..... 27**

**11. GOOGLE EARTH MAP AND DEVELOPMENT PLAN DRAWINGS ..... 28**

**ADDENDUM 1: DEFINITIONS AND ACRONYMS ..... 37**

**ADDENDUM 2: TYPES AND RANGES AS OUTLINED BY THE NATIONAL HERITAGE  
RESOURCE ACT (ACT 25 OF 1999) ..... 39**

**Table of figures**

Figure 1: Google earth map of the study area. ....9

Figure 2: vacant demarcated stand .....24

Figure 3: Vacant stand.....25

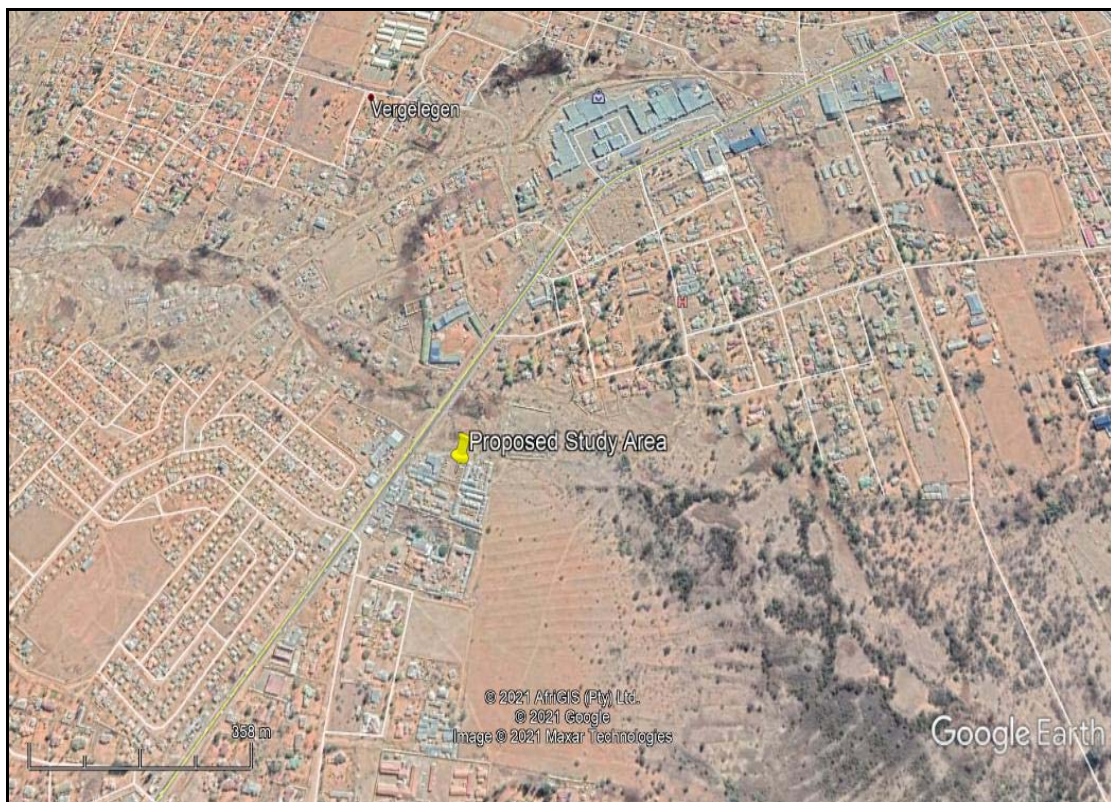
Figure 4: Wetland surface disturbances .....25

Figure 6: Wetland covered by overgrown vegetation .....26



## 1. INTRODUCTION

The proposed study area is situated roughly 2 kilometers west of the Jane Furse Central Business District (CBD), the area is located south of the main tarred road (D2219) from Stoffberg/Phokwane to Jane furse. The site is positioned west of a perennial stream and watershed area (wetland).



**Figure 1:** Google earth map of the study area.

The proposed development falls within the domain of listed Activities as described in Government gazette Notice1, GNR 983 promulgated on 4 December 2014 of the Regulation compiled in terms of section 24 (5) read with section 44 of the National Environmental Management Act (Act 107 of 1998). The proposed activities form part of the development process, where application for Environmental Assessment Authorization must be completed. As part of Basic Assessments process, a NEMA application form was submitted to the Department of Economic Development

Environment and Tourism Limpopo Province. Archaeological Impact Assessment (AIA) report form part of a series of appendices prepared for a Basic Assessment (BA) pursued in accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the National Heritage Resources Act 25 of 1999.

To comply with relevant legislations, the applicant Dirane Trading (PTY) LTD requires information on the heritage resources that occur within or near the proposed site and their heritage significance. The objective of the study is to document the presence of archaeological and historical sites of significance to inform and provide guidance on the proposed development activities. Apart from contributing towards the preservation of the heritage resources, the studies provide information and awareness of the types of archaeological and heritage sites that occur within the proposed study area. The document enables the developer to align their functions and responsibilities to advance development activities and at the same time minimizing potential impact on archaeological and heritage sites. The study is conducted in line with the National Heritage Resources Act of 1999 (Act No. 25 of 1999). The Act protects heritage resources through formal and general protection. The Act provide that certain developmental activities require consents from relevant heritage resources namely South African Heritage Resources Agency (SAHRA). In addition to heritage legislations, the South African Heritage Resources Agency (SAHRA) has developed minimum standards used in impact assessment, while these local standards, are operational they are strengthened by the International Council of Monuments and Sites (ICOMOS) published guideline for assessing impacts. The Burra Charter of 1999, requires a cautious approach to the management of sites; it sets out firmly that the cultural significance of heritage places must guide all decisions.

The National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (Section, 34), archaeological sites and materials (Section 35) and graves and burial sites (Section, 36). To comply with the legislation, the applicant requires information on the heritage resources, that occur in the area proposed for development and their significance. This will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources.

## **2. RELEVANT LEGISLATION**

Two sets of legislation are relevant for the purposes of this study in as far as they contain provisions for the protection of tangible and intangible heritage resources including burials and burial grounds.

## **2.1. The National Heritage Resource Act (25 of 1999)**

This Act established the South African Heritage Resource Agency (SAHRA) as the prime custodian of the heritage resources and makes provision for the undertaking of heritage resources impact assessment for various categories of development as determined by section 38. It also provides for the grading of heritage resources (Section, 7) and the implementation of a three-tier level of responsibly and functions from heritage resources to be undertaken by the State, Provincial and Local authorities, depending on the grade of heritage resources (Section, 8)

In terms of the National Heritage Resource Act 25, (1999) the following is of relevance:

### **Historical remains**

**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.

### **Archaeological remains**

**Section 35(3)** Any person who discovers archaeological and paleontological materials and meteorites during development or agricultural activity must immediately report the find to the responsible heritage resource authority or the nearest local authority or museum.

**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 paleontological site or any meteorite;
- destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- trade in, sell for private gain, export or attempt to export from republic any category of archaeological or paleontological material or object or any meteorite; or
- bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment which assist with the detection or recovery of metal or archaeological material or object or such equipment for the recovery of meteorites.

**Section 35 (5)** When the responsible heritage resource authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or paleontological site is underway, and where no application for a permit has been submitted and no heritage resource management procedures in terms of section 38 has been followed, it may

- serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order
- carry out an investigation for obtaining information on whether an archaeological or paleontological site exists and whether mitigation is necessary;
- if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and
- recover the cost of such investigation from the owner or occupier of the land on which it is believed an archaeological or paleontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.

**Subsection 35(6)** the responsible heritage resource authority may, after consultation with the owner of the land on which an archaeological or paleontological site or meteorite is situated; serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

### **Burial grounds and graves**

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

- (i) 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 a formal cemetery administered by a local authority; or
- (ii) bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.

**Subsection 36 (6)** Subject to the provision of any person who during development or any other activity discover the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resource authority which must, in co-operation with the South African Police service and in accordance with regulation of the responsible heritage resource authority-

- (I) carry out an investigation for obtaining information on whether such grave is protected in terms of this act or is of significance to any community; and
- if such grave is protected or is of significance, assist any person who or community which is a direct descendant to decide for the exhumation and re-interment of the contents of such

grave or, in the absence of such person or community, make any such arrangement as it deems fit.

### **Cultural Resource Management**

Section 38(1) Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development\*...

- must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

**development** means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including:

- (i) Construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (ii) Any change to the natural or existing condition or topography of land, and
- (iii) Any removal or destruction of trees, or removal of vegetation or topsoil;

**place** means a site, area or region, a building or other structure

**structure** means any building, works, device or other facility made by people and which is fixed to the ground.

## **2.2. The Human Tissue Act (65 of 1983)**

This act protects graves younger than 60 years, these falls under the jurisdiction of the National Department of Health and the Provincial Health Department. Approval for the exhumation and reburial must be obtained from the relevant provincial MEC as well as relevant Local Authorities.

## **3. TERMS OF REFERENCE**

The terms of references for the study were to undertake an Archaeological Impact Assessment relating to the proposed development and submit a specialist report, which addresses the following:

- Executive summary
- Scope of work undertaken
- Methodology used to obtain supporting information
- Overview of relevant legislation

- Results of all investigations
- Interpretation of information
- Assessment of impact
- Recommendation on effective management measures
- References

#### **4. TERMINOLOGY**

The Heritage Impact Assessment (HIA) referred to in the title of this report includes a survey of heritage resources as outlined in the National Heritage Resources Act, 1999 (Act No 25 of 1999). Heritage resources, (Cultural resources) include all human-made phenomena and intangible products that are result of the human mind. Natural, technological or industrial features may also be part of heritage resources, as places that have made an outstanding contribution to the cultures, traditions and lifestyle of the people or groups of people of South Africa.

The term ‘pre-historical’ refers to the time before any historical documents were written or any written language developed in a area or region of the world. The historical period and historical remains refer, for the project area, to the first appearance or use of ‘modern’ Western writing brought South Africa by the first colonist who settled in the Cape in the early 1652 and brought to the other different part of South Africa in the early 1800.

The term ‘relatively recent past’ refers to the 20<sup>th</sup> century. Remains from this period are not necessarily older than sixty years and therefore may not qualify as archaeological or historical remains. Some of these remains, however, may be close to sixty years of age and may soon, qualify as heritage resources.

It is not always possible, based on the observation alone, to distinguish clearly between archaeological remains and historical remains or between historical remains and remains from the relatively recent past. Although certain criteria may help to make this distinction possible, these criteria are not always present, or when they are present, they are not always clear enough to interpret with great accuracy. Criteria such as square floors plan (a historical feature) may serve as a guideline. However circular and square floors may occur together on the same site.

The ‘term sensitive remains’ is sometimes used to distinguished graves and cemeteries as well as ideologically significant features such as holy mountains, initiation sites or other sacred places. Graves are not necessarily heritage resources if they date from the recent past and do not have head stones that are older than sixty years. The distinction between ‘formal’ and ‘informal’ graves in

most instances also refers to graveyards that were used by colonists and by indigenous people. This distinction may be important as different cultural groups may uphold different traditions and values regarding their ancestors. These values should be recognized and honored whenever graveyards are exhumed and relocated.

The term 'Stone Age' refers to the prehistoric past, although Late Stone Age people lived in South Africa well into the historical period. The Stone Age is divided into an Early Stone Age (3 Million years to 150 000 thousand years ago) the Middle Stone Age (150 000 years ago to 40 years ago) and the Late Stone Age (40 000 years to 200 years ago).

The term 'Early Iron Age' and Late Iron Age respectively refers to the periods between the first and second millenniums AD.

The 'Late Iron Age' refers to the period between the 17<sup>th</sup> and the 19<sup>th</sup> centuries and therefore includes the historical period.

Mining heritage sites refers to old, abandoned mining activities, underground or on the surface, which may date from the pre-historical, historical or relatively recent past.

The term 'study area' or 'project area' refers to the area where the developers wants to focus its development activities (refer to plan)

Phase I studies refer to survey using various sources of data to establish the presence of all possible types of heritage resources in each area.

Phase II studies include in-depth cultural heritage studies such as archaeological mapping, excavating and sometimes laboratory work. Phase II work may include documenting of rock art, engravings or historical sites and dwellings; the sampling of archaeological sites or shipwrecks; extended excavation of archaeological sites; the exhumation of bodies and the relocation of grave yards, etc. Phase II work may require the input of specialist and require the co-operation and the approval of SAHRA.

## **5. METHODOLOGY**

### ***5.1. Source of information***

#### ***(i) Desktop studies***

A desktop study was performed to gain information on the heritage resources in the proposed study area and its receiving environment. The region boost its diverse archaeology and heritage which stretch back to Stone and Iron Ages. Different types of stone artefacts have been discovered scattered on the surface of gullies and rills formed by soil erosion. Generally, the current understanding on the presence of Early Iron Age sites in this region is well known to exist in the

larger Steelpoort Valley area (Pistorius 2008), while Later Iron Age stone-walled sites are also known and have been archaeologically studied in the larger geographical area in the past (Van Schalkwyk 2013; Pelser 2013). These Iron Age farming communities, whose settlements have been recorded on amongst others Hendriksplaats 281 and Derde Gelid 278, were related to Early Iron Age communities who, contemporaneously occupied these sites, from AD500 to AD900. Other settlement have been recored towards the east in the Lydenburg Valley. The historical period in the Steelpoort Valley is associated with the second millennium AD when a predominantly Northern Sotho-speaking population occupied the Steelpoort. These people are part of a larger Northern Sotho-speaking community who occupy a vast area between the Limpopo River in the north (Pelser 2019).

***(ii)Field surveys***

To identify sites on the ground and to assess their significance, a dedicated field survey was performed to the site for the proposed development. The fieldwork was performed by a team of six individuals on the 06 February 2021. The fieldwork followed systematic inspections of predetermined linear transects which resulted in the maximum coverage of the proposed 5 ha footprint. The sampling method selected was the stratified random technique. The proposed sites for development were taken as strata with random field walking around them. Standard archaeological observation practices were followed; visual inspection was supplemented by relevant written source, and oral communications with local communities from the surrounding area. Identified sites were recorded by hand held GPS- (Garmin Montana 650) and plotted on 1:50 000 topographical maps. Archaeological/historical material and the general condition of the terrain were photographed with a Canon 1000D Camera.

***(iii)Assumption and Limitations***

It must be pointed out that heritage resources can be found in the unexpected places, it must also be borne in mind that survey may not detect all the heritage resources in each project area. While some remains may simply be missed during surveys (observation) under tall grass and vegetational cover, others may occur below the surface of the earth and may be exposed once development (such as the construction of the proposed facilities) commences. High vegetation cover, bush encroachment and grass cover limited the survey since it was very hard to discern what was on the surface.

**6. ASSESSMENTS CRITERIA**

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites was determined based on the following criteria:



- The unique nature of a site.
- The amount/depth of the archaeological deposit and the range of features (stone walls, activity areas etc.).
- The wider historic, archaeological and geographic context of the site.
- The preservation condition and integrity of the site.
- The potential to answer present research questions.

### **6.1 Site Significance**

The site significance classification standards as prescribed in the guidelines and endorsed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used in determining the site significance for this report. The classification index is represented in the Table below that show grading and rating systems of heritage resources in South Africa.

<b>FIELD RATING</b>	<b>GRADE</b>	<b>SIGNIFICANCE</b>	<b>RECOMMENDED MITIGATION</b>
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium Significance	Recording before destruction

Generally Protected C (GP.C)	Grade 4C	Low Significance	Destruction
---------------------------------	-------------	------------------	-------------

## **6.2 Impact Rating**

### **VERY HIGH**

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or cultural) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

**Example:** The loss of a species would be viewed by informed society as being of VERY HIGH significance.

**Example:** The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with VERY HIGH significance.

### **HIGH**

These impacts will usually result in long term effects on the social and /or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long-term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

**Example:** The loss of a diverse vegetation type, which is common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

**Example:** The change to soil conditions will impact the natural system, and the impact on affected parties (e.g. farmers) would be HIGH.

### **MODERATE**

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by the public or the specialist as constituting a unimportant and usually short-term change to the (natural and/or social) environment. These impacts are real, but not substantial.

**Example:** The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

**Example:** The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

### **LOW**

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by society as constituting an important and usually medium-term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

**Example:** The temporary changes in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.

**Example:** The increased earning potential of people employed because of a development would only result in benefits of LOW significance to people living some distance away.

### **NO SIGNIFICANCE**

There are no primary or secondary effects at all that are important to scientists or the public.

**Example:** A change to the geology of a certain formation may be regarded as severe from a geological perspective, but is of NO SIGNIFICANCE in the overall context.

### **6.3 Certainty**

**DEFINITE:** More than 90% sure of a fact. Substantial supportive data exist to verify the assessment.

**PROBABLE:** Over 70% sure of a fact, or of the likelihood of an impact occurring.

**POSSIBLE:** Only over 40% sure of a fact, or of the likelihood of an impact occurring.

**UNSURE:** Less than 40% sure of a fact, or of the likelihood of an impact occurring.

### **6.4 Duration**

**SHORT TERM :** 0 – 5 years

**MEDIUM:** 6 – 20 years

**LONG TERM:** more than 20 years

**DEMOLISHED:** site will be demolished or is already demolished

### **6.5 Mitigation**

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be classified as follows:

- ✓ **A** – No further action necessary
- ✓ **B** – Mapping of the site and controlled sampling required
- ✓ **C** – Preserve site, or extensive data collection and mapping required; and
- ✓ **D** – Preserve site

## **7. Historical background a brief synthesis of the Archaeology and heritage of the study area.**

### ***7.1.1. The Stone Age Period***

The North-West Province is a palimpsest of human activities, stretching from the Early Stone Age almost three million years ago to recent times. Typical Early Stone Age sites contain characteristic tools including hand axes and cleavers. Nevertheless, a general account of the nature of the Stone Age can be provided. Conventionally speaking, the Stone Age period has been divided into the Early Stone Age (ESA) (3.5 million and 250 000 BP), the Middle Stone Age (MSA) (250 000 – 25000 BP) and the Later Stone Age (25000 – 2000 BP) (Phillipson 2005). Early Stone Age stone tool assemblages are made up of the earlier Oldowan and later Acheulian types. The Oldowan tools were very crude and were used for chopping and butchering. These were replaced by Acheulian ESA tools dominated by hand axes and cleavers which are remarkably standardized (Wadley, 2007; Sharon, 2009). Evidence presented from Makapansgat caves shows that the first tool making hominids belong to either an early species of the Homo or an immediate ancestor which is yet to be discovered here in South Africa (Phillipson 2005; Esterhuysen, 2007). Both the Oldowan and Acheulian industries are well represented in the archaeology of northern South Africa as shown by studies in the Makapansgat valley (Kuman et al. 2005; Sumner and Kuman 2014). There is also sufficient evidence for the presence of Middle Stone Age people who left their distinctive stone tool industries. Middle Stone Age people were succeeded by Later Stone Age populations who authored rock art and made microlithic tools. Early in the first millennium AD, ancestors of the modern African farmers settled in the area leaving their imprints tool.

The Middle Stone Age dates to between 250 000 ago and 25 000 years ago. In general, Middle Stone Age tools are characterized by a size reduction in tools such as hand axes, cleavers, and flake and blade industries. The period is marked by the emergence of modern humans and was accompanied by change in technology, behavior, physical appearance, art, and symbolism (Phillipson 2005). A variety of MSA tools includes blades, flakes, scraper and pointed tools that may have been hafted onto shafts or handles and used as spear heads. Surface scatters of these flake and blade industries occur widespread across southern Africa (Klein 2000; Thompson & Marean, 2008). Residue analyses on some of the stone tools indicate that these tools were certainly used as spear heads (Wadley, 2007). From about 25 000 BP, stone tool assemblages generally attributed to the Later Stone Age emerged. This period is marked by a reduction in stone tool sizes. Typical stone tools include microliths and bladelets. Later Stone Age stone tools were recovered in the Soutpansberg and well known sites of the Mapungubwe National Park. This period is also associated with the development of rock art whose distribution is known across southern Africa (Deacon and Deacon 1999; Phillipson 2005).

### ***7.1.2. Farming communities and recent histories***

Generally, sites dating to the farming communities have been documented in the Steelpoort Valley. These sites are generally smaller or medium or large settlements, but the archaeological visibility may in most cases be difficult owing to the organic nature of the homesteads (Pelser, 2019). Throughout southern Africa, traditional settlements were made to last a lifetime. Iron Age communities lived in permanent settlement consisting of features such as houses, raised grain bins, underground storage pits, burial grounds and animal kraals. The houses structures were made of thatch or pole and mud, with a smooth daga rested on a thick compacted base. Grain may also be stored in underground pits smeared with dung and then sealed with stones. U-shaped underground storage pits filled with faunal remains has been uncovered during the establishment of the Lebalelo bulk water supply pipeline project (Huffman and Schoeman 2011).

In the recent past grain pits were often dug into the cattle kraal. Studies show that these Iron Age people kept live stocks (Cattle, sheep and goats). The presence of livestock is represented by the presence of dung deposits, over time cattle dung turns white and white mounds can mark 1000 years old kraal. Sometime the dung ignites and vitrifies and turns into glass. Evidently, the dung needs to be at least a meter thick before verification can take place (Denbow, 1979). Two different dung deposits (Cattle and Goats) can also be separated based on plant residue, known as Phytoliths. These microscopic silica formations are characteristic of grasses, sedges and herbs and occur in much greater abundance in kraals than elsewhere in a settlement. Within the southern Africa, similar features provide a background to the study of Iron Age settlement, and have been recorded, in the early, middle and late Iron Age sites (Huffman 2007).

### ***7.1.3. Colonial Period***

Historical archaeology refers to the last 500 years when European settlers and colonialism entered southern Africa. Movement into the interior was closely linked with the change from farming to stock farming. The movement of Boer into the interior got underway when Wilhelm Adrien van der Stel began to issue free grazing permits in 1703. The exoduses went hand in hand with hunting expeditions into the interior which not only provided the farmers with meat, but also enable them to learn more about the resources of the hinterland. British government made its laws which undermine the freedom of the Boers. The mounting conflict between African and white stock farmers played the dominant part. This led to the general dissatisfaction and a feeling of insecurity among the Afrikaner. The frontier wars of 1834/35 caused the frontier farmers to suffer heavy

losses. To aggravate matters, land prices rose sharply during the 1820 and 1830 and drought was a serious problem. These conditions threatened the pastoral lifestyle. There was no land for the younger generations. They opted to migration in search of land and grazing in the interior.

The 18<sup>th</sup> century's period is marked by the presence of white, where land was taken from African chiefs and redistributed to the Boers; this was followed by demarcation of portions of land into farms. Appearance of the European in the Steelpoort region is associated with the last 500 years when colonialism entered southern Africa. The driving force into the interior was closely the mounting conflict between African and white stock farmers played the dominant part. This led to the general dissatisfaction and a feeling of insecurity among the Afrikaner. The frontier wars of 1834/35 caused the frontier farmers to suffer heavy losses. To aggravate matters, land prices rose sharply during the 1820 and 1830 and drought was a serious problem. These conditions threatened the pastoral lifestyle. There was no land for the younger generations. They opted to migration in search of land and grazing in the interior.

During the great trek into the interior they were already acquainted with conditions of the interior and with the main trek routes. They got available information from travelers, hunters and missionaries. The foremost Voortrekker, Louis Tregardt and Hans van Rensburg were the pioneer of the Transvaal Lowveld left in 1835. Andries Hendrik Potgieter, the conservative founder of the Transvaal, emigrated towards the end of 1835. By 1836 the vanguard of Potgieter trek had crossed the Vaal River. When the white entered the Transvaal, the plains were restricted by Africans for grazing purposes, while occupying the high altitude and mountains.

Historical data suggest that during the period from AD1700 to AD1826 Ba- Pedi took political control over the territory with the Pedi chiefdom reached its peak during the reign of Thulare 1790-1820. One of the major reason was that the area had excellent good pastures and landscape. During those years' cluster of groups who shared the totems such as Tau, Kolobe, Kwena and others were incorporated into the larger Ba- Pedi group. Pedi oral traditions posit that king Thulare maneuvered to the top through his superb military tactics and became undisputed paramount chief of the region.

Thulare died in 1824, soon after his death, the empire was disrupted by the difaqane (AD1822 to AD1828) Mzilikazi attacked the Pedi from the southeast in 1826 and in 1827/1828. This caused large-scale depopulation of the southern part of the Northern-Sotho territory. The Pedi sought refuge in the Soutpansberg in 1822 and only returned in 1828. In 1828 the new Ba- Pedi King Sekwati had return to the area and over the next ten years rebuilt the Ba -Pedi stronghold.

After the war with Mzilikazi, the arrival of the Voortrekkers in the Steelpoort area in the late 1840's was not welcome. King Sekwati resisted and several armed struggles between the Voortrekkers and the Pedi ensued (Pistorius 2013: 19-20). The famous battle was fought at Phiring in 1838 where King Sekwati defeated the Boer commandos. Later Sekwati moved from Phiring to Thaba Mosega, where he established a fortified village, Tjate on the eastern slope of Lulu mountain (Esterhysen & Smith 2007). Sekwati died in 1862 and was succeeded by his son who came to power by force. King Sekhukhune- named Matsebe. Sekhukhune was a nickname awarded to him due to his outstanding fighting tactics against the Boers.

The 18<sup>th</sup> century's period is marked by the presence of white, where land was taken from African chiefs and redistributed to the Boers; this was followed by demarcation, subdivision, surveyed and mapped of portions of land into farms in 1880s. The first white farms were established along the rivers and tributaries, close to springs consequently the banks of River were well populated at the early stage. This development was also associated with the development of gravel roads and later towns. Other towns that emanated from these settlements were Polokwane, Marabastad, Schoemansdal and Ohringstad. Thus, they possess a large corpus of information with regarding to the area and its history (Van Schalkwyk, 2011). An important factor which determines the initial settlement pattern was the desire to have access to a harbor to break the economic isolation of the Transvaal.

## **8. SITE LOCATION AND PROJECT DESCRIPTION**

The proposed study area is situated roughly 2 kilometers west of the Jane Furse Central Business District (CBD) sited south of the main tarred road (D2219) from Stoffberg/Phokwane to Jane Furse. The site is positioned west of a perennial stream and watershed area (wetland). Towards the west and north west the area borders well established rental flats, to the north there exist a shopping complex. The area in front of the proposed sites show evidence of surface soil disturbances, well signified by open excavation adjacent to the main road, furthermore this section is currently used as garbage refusal site that encroached the existing wetland. The area covers approximately 700sq meters currently covered by grass cover with no existence of shrubs or trees. The area was previously fenced with steel palisades. The proposed site is located at the following Global Positioning System co-ordinates (GPS S24°45. 37.05 " & E 29°51. 15. 01"). No infrastructures exist on the property, however a gravel road which connect the main D2219 transverse in proximity to the site connecting nearby newly demarcated stands within the wetland area. Subsequently the eastern boundary of the site has been formed by gravel access road, and existing wetland with a perennial stream situated roughly 400meters east of the site.

Generally, the study area fall within the Central sandy bushveld complex dominating low undulating areas, sometimes between mountains, and sandy plains and catena's, supporting tall, deciduous trees such as *Terminalia sericea* and *Burkea Africana*, on deep sandy soils with former often, dominant on the lower slopes of sandy catena (Acocks 1975; Mucina & Rutherford, 2016). Geologically, the area is underlain by granite of the Lebowa granite suite and some granophyre of the Rashoop granophyre suite. Common rocks in this geology include sand stone, conglomerates and siltstone of the Alma formation. Well- drained, deep Hutton at the top to cloverly on the lower slopes; shallow, skeletal glenrosa soils also occur. Some of the identifiable plant taxa in this region include, *Acacia burkei*, *A. Robusta* ,*Sclerocarya birrea*, *Burkea africana*, *combretum apiculatum*, *Tereminalia sericea*, *grewia bicolor* etc.

The proposed project entails the construction of a hotel infrastructure with over forty-five (45) en suite accommodation rooms, visitors parking bays, guard rooms and a manmade water themed park.



**Figure 2:** Vacant demarcated stand





**Figure 3:** Vacant stand



**Figure 4:** Wetland surface disturbances



**Figure 5:** Wetland covered by overgrown vegetation

**9. ASSESSMENT OF SITES AND FINDS**

There are no primary or secondary effect at all that are important to scientist or the public that will be impacted by the proposed project activities.

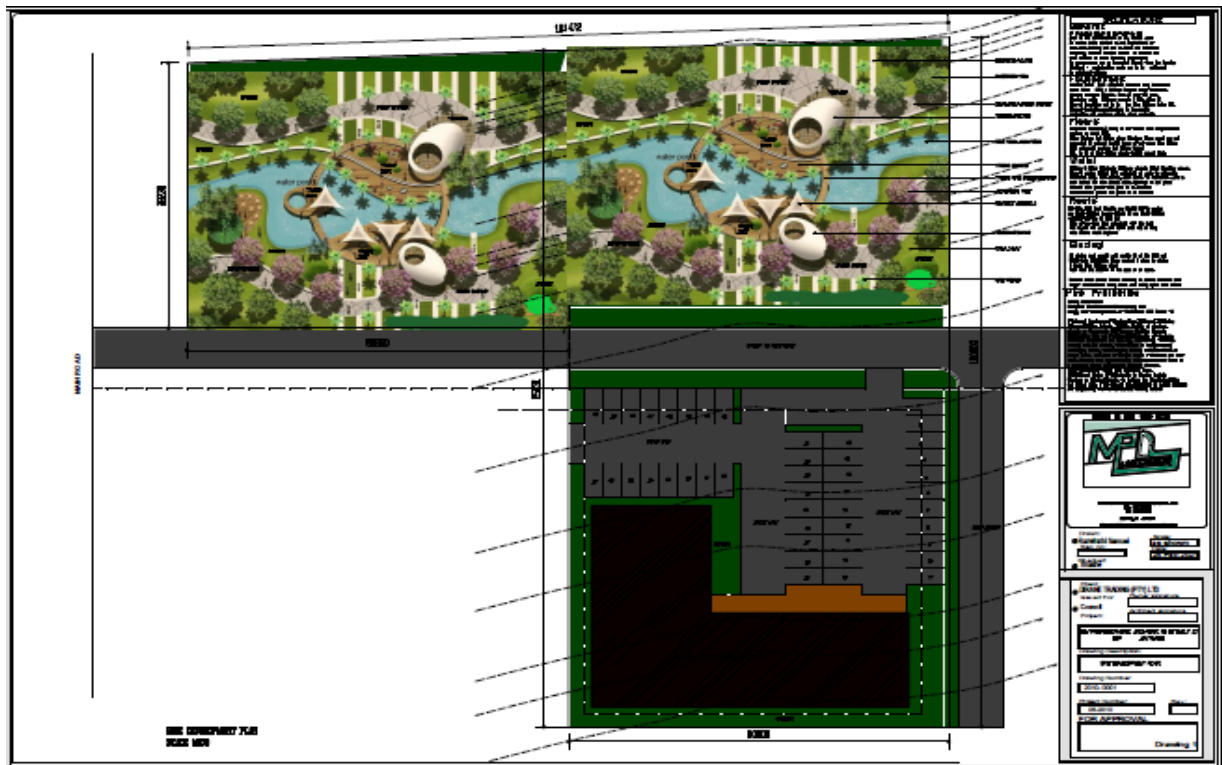
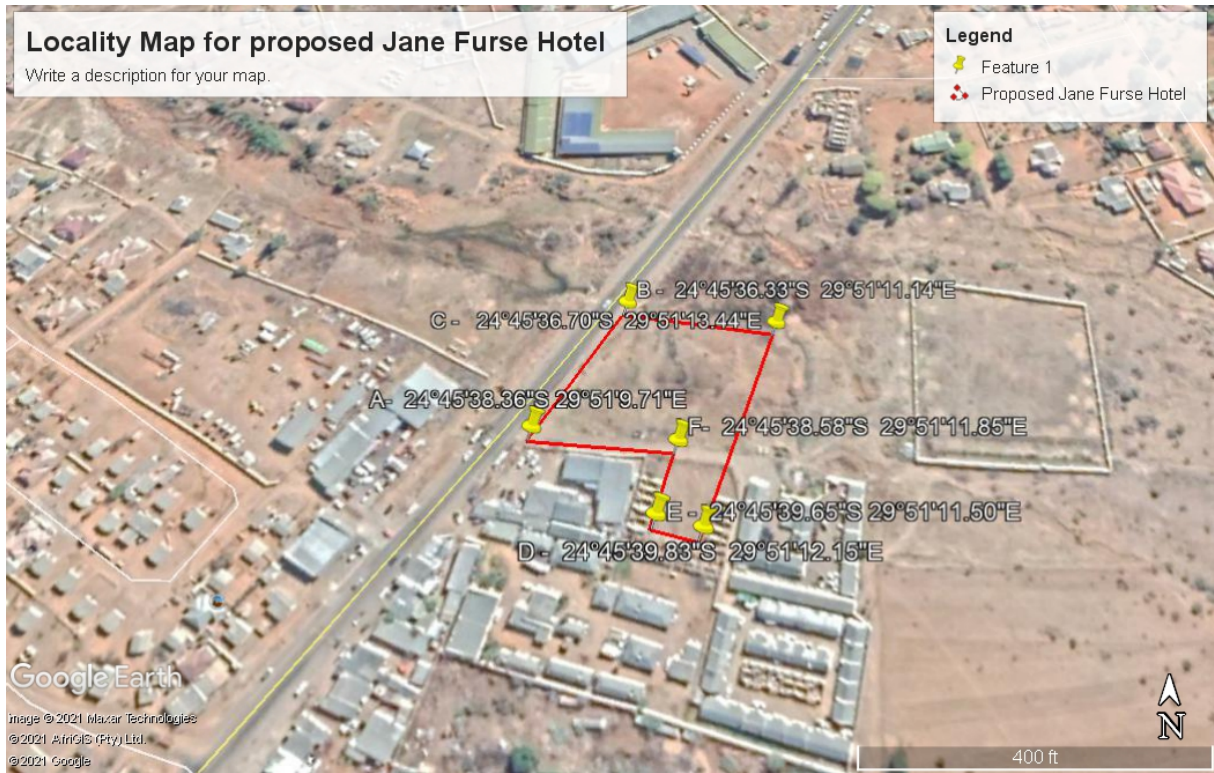
- Heritage Significance:* No significance
- Impact:* Negative
- Impact Significance:* High
- Certainty:* Probable
- Duration:* Permanent
- Mitigation:* A

## **10. CONCLUSION AND RECOMMENDATIONS**

The study reached the following conclusions and recommendations:

- The proposed development is scheduled to take place on already existing stand within a built-up area.
  - Ground truthing of the area found no important cultural heritage resource, archaeological materials or graves
  - Although no archaeological remains were found, it is possible that some significant features may be buried beneath the ground. Should buried archaeological materials and burials be encountered during the process of development, the following must apply:
    - Work must stop immediately
    - A professional archaeologist or nearest heritage authority must be contacted.

# 11. GOOGLE EARTH MAP AND DEVELOPMENT PLAN DRAWINGS



## 12. REFERENCE

- Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No.40. Pretoria: Botanical Research Institute.
- Deacon, J. 1997. Report: Workshop on Standards for the Assessment of Significance and Research Priorities for Contract Archaeology. *South African Association of Archaeology*. No. 49,
- Buchan, J. 1903. *The African colony, studies in the reconstruction*, London
- Bulpin, T.V. 1969. *Lost Trails of the Transvaal*, Cape Town.
- Dicke, B.H. 1941. The northern Transvaal voortrekker (Argief jaarboek, jrg 4. deel. pp81-127.
- Esterhuysen, A., 2007. The Earlier Stone Age. In Bonner, P., Esterhuysen, A., Jenkins, T. (eds.): *A Search for Origins: Science, History and South Africa's (Cradle of Humankind)*, Johannesburg: Wits University Press. Pg 110 -121.
- Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik
- Huffman, T. N., 2007. The Early Iron Age at Broederstroom and around the 'Cradle of humankind'. In Bonner, P., Esterhuysen, A., Jenkins, T. (eds.): *A Search for Origins: Science, History and South Africa's (Cradle of Humankind)* Johannesburg: Wits University Press. Pg 148 -161.
- Huffman, T.N. & Schoeman, A.M.H. 2011. Lebalelo: Early Iron Age pits near Burgersfort, South Africa. *The South African Archaeological Bulletin*.
- Mason, R.J. 1962. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.
- Maggs, T. 1984. The Iron Age south of the Zambezi, in Klein, R. G 1984. *South African Prehistory and Paleoenvironments*. A.A. Balkema/Rotterdam
- Maggs, T. 1986. The early History of the Black people in southern Africa, in Cameroon. T. & S.B. Spies. 1986. *An illustrated history of south Africa*, Jonathan Ball Publisher, Johannesburg.
- Mathoho, N.E. 2020. Heritage Impact Assessment relating to the proposed upgrade and renovation of Ga-Malekana Steel Bridge across the Steel port river, within the greater Tubatse local Municipality of the Sekhukhune district, Limpopo Province
- Mitchell, P. 2002. *The archaeology of South Africa*. Cambridge: Cambridge University Press.
- Mitchell, P. & G. Whitelaw. 2005. The Archaeology of southernmost Africa from c.2000 BP to the Early 1800s: A review of Recent Research: *The journal of African History*, Vol 46, No2, pp 209-241.
- Philipson, D.W. 1976. The Early Iron Age in eastern and southern Africa critical re appraisal. *Azania* 11.1-23
- Philipson, D.W. 1977. *The later Prehistory of Eastern and Southern Africa*. Heinemann Publication, London.
- Philipson, D.W. 1993. *African archaeology*, Cambridge University Press
-

- Philipson, D.W. 2005. *African archaeology*, Cambridge: 3<sup>rd</sup> edition, Cambridge University Press
- SAHRA, 2005. *Minimum Standards for the Archaeological and the Palaeontological Components of Impact Assessment Reports*, Draft version 1.4.
- Tobias. P.V 1985. *Hominid evolution- past present and future*, New York
- Tobias. P.V. 1986. *The last million years in southern Africa*. In Cameroon. T. & S.B. Spies. 1986. *An illustrated history of South Africa*, Jonathan Ball Publisher, Johannesburg.
- Van Schalkwyk, J. A. 2006. *Investigation of archaeological features in site A of the proposed Pumped Storage Power Scheme, Lydenburg district, Mpumalanga*. Unpublished report 2006KH78. Pretoria: National Cultural history museum.
- Van Warmelo, N. J. 1935. *Preliminary survey of the Bantu Tribes of South Africa*. Ethnological Publications No. 5. Pretoria: Government Printer.
- Wadley. L., 2007. *The Middle Stone Age and Later Stone Age*. In Bonner, P., Esterhuysen, A., Jenkins, T. (eds.): *A Search for Origins: Science, History and South Africa's 'Cradle of Humankind'*. Johannesburg: Wits University Press. Pg122 -135. Strategic

### **Addendum 1: Definitions and Acronyms**

**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 artefacts, human and hominid remains, and artificial features and structures.

**Chance Finds** 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.

**Cultural Heritage Resources** Same as Heritage Resources as defined and used in the South African Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and paleontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or *graves* and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible resources such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

**Cultural Significance** The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

**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. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery.

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

**In Situ material** *Material culture* and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

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

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

**Site** A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

<b>Acronyms:</b>	
<b>AIA</b>	Archaeological Impact Assessment
<b>EIA</b>	Environmental Impact Assessment
<b>EIA</b>	Early Iron Age
<b>EMP</b>	Environmental Management Plan
<b>MHG</b>	Millennium Heritage Group (PTY)LTD
<b>NEMA</b>	National Environmental Management Act, 1998 (Act No.107 of 1998)
<b>NHRA</b>	National Heritage Resources Act, 1999 (Act No.25 of 1999)
<b>SAHRA</b>	South African Heritage Resources Agency
<b>ESA</b>	Early Stone Age
<b>MSA</b>	Middle Stone Age
<b>LSA</b>	Late Stone Age
<b>IA</b>	Iron Age
<b>LIA</b>	Late Iron Age
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>WHC</b>	World Heritage Conventions of 1972



**ADDENDUM 2: Types and ranges as outlined by the National Heritage Resource Act (Act 25 of 1999)**

The National Heritage Act (Act No 25 of 1999, Art 3) outlines the following types and ranges of the heritage resources that qualify as part of the national estate, namely:

- (a) Places, buildings structures and equipment of cultural significance;
- (b) Places to which oral tradition are attached or which are associated with living heritage;
- (c) Historical settlement and townscapes
- (d) Landscape and natural features of cultural significance;
- (e) Geological sites of scientific or cultural importance
- (f) Archaeological and paleontological sites
- (g) Graves and burial ground including-
  - (I) Ancestral graves
  - (II) Royal graves and graves of traditional leaders
  - (III) Graves of victim 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) movable objects, including-
  - (I) object recovered from 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) object of scientific or technological interest; and
  - (VII) books, records, documents, photographs, positive and negatives, graphic, film or video material or sound recording, excluding those that are public records as defined in section1(xiv) of the National Archives of South Africa Act,1996(Act No 43 of 1996).

The National Heritage Resource Act (Act No 25 of 1999,Art 3)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 a 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 organization of importance in the history of South Africa
- (i) Sites of significance relating to the history of slavery in South Africa.