



Sustainable community development is our speciality

**PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT
FOR THE PROPOSED ECHO ACADEMY (PRIVATE SCHOOL) ON THE
REMAINDER OF THE FARM MOLENJE 204 LT WITHIN COLLINS CHABANE
LOCAL MUNICIPALITY OF VHEMBE DISTRICT, LIMPOPO PROVINCE.**

Compiled for:

Mang Geenviro Services

Block 9 Unit 2 Boardwalk Office Park
6 Eros Road, Faerie Glen, Pretoria 0004
Tel: 012 770 4022
Mobile: 072 573 2390

Compiled by:

Vhufa Hashu Heritage Consultants

25 Roodt Street
Nelspruit, 1200
P.O. Box 1856
Nelspruit, 1200
Mobile: 083 357 3669
Fax: 086 263 5671
E-mail: info@vhhc.co.za

November 2019

Executive Summary

Local Authority: Collins Chabane Municipality

Magisterial Authority: Vhembe District Municipality

Type of Development: Private School

Status of the Report: Final Report

Date of field work: November 2019

Date of report: November 2019

Purpose of the Study: The purpose of this study is to identify heritage resources within a proposed development area, assess their significance, the impact of the development on the heritage resources and to provide relevant mitigation measures to alleviate impacts to the heritage resources. An assessment of impacts on heritage resources defined in section 3 of the NHRA, heritage assessment is required in terms of section 38 of the NHRA.

Vhufa Hashu Heritage Consultants was appointed by Mang Geoviro Services to undertake a phase 1 Heritage Impact Assessment of a proposed Echo Academy (Private School) and associated structures in Molenje area under Collins Chabane Local Municipality of Vhembe District, Limpopo Province, in compliance with Section 38 of the National Heritage Resources Act 25 of 1999.

South Africa's historical, archaeological and paleontological heritage resources are unique and non-renewable as defined in section 3 of the NHRA. Heritage Resources as defined in section 3 of the NHRA are given "formal" protection in terms of section 27-29 and 31-32 of the NHRA and "general" protection in terms of sections 33,34,35,36 and 37 of the NHRA. Therefore, no damage, destruction or alteration may occur to heritage resources without a permit issued by a relevant heritage authority.

An assessment of impacts on heritage resources of a development is required in terms of section 38(1 and 8) of the NHRA. Where possible, heritage resources should be preserved *in situ* and conserved for future generations. This can be achieved through a monitoring and management plan that may be stipulated in the conditions issued on a development by an authority as per section 38(4)c of the NHRA. Where it is not possible to retain the heritage resources *in situ*, and the heritage resources are not deemed significant, the loss of information can be reduced by recording and mitigation of the heritage resources

through a process of excavation (or sampling) as a condition on the development in terms of section 38(4)d and e, after obtaining a permit from the relevant Heritage Resources Authority (HRA), at the cost of the developer. This allows us to record a part of the history of the place as part of the national inventory. Assessment and mitigation in the early phase of the development may save the developer considerable delays and related costs.

Heritage Resources Descriptions and Significance

No heritage/archaeological resources were identified within the proposed Echo Academy (Private School) site.

Conclusion

No further studies / Mitigations are recommended given the fact that within the proposed Echo Academy (Private School) site and its surrounding there are no archaeological or place of historical significance to be impacted by the gravel extraction process. From a Heritage perspective, the development should be allowed to continue.

Acknowledgements:

CLIENT NAME: Mang Geoenviro Services

CLIENT CONTACT PERSON: Mankaleme Magoro

TEL: 012 770 4022

Email: info@manggeoenviro.co.za

HERITAGE CONSULTANT: Vhufashu Heritage Consultants

CLIENT CONTACT PERSON: Richard R Munyai

.....
Archaeologist and Heritage Consultant

EXPLANATION OF ABBREVIATIONS USED IN THIS DOCUMENT

| | |
|---------------|---|
| AIA | Archaeological Impact Assessment |
| ASAPA | South African Archaeological Professional Association |
| CMP | Conservation Management Plan |
| EIA | Early Iron Age |
| EMP | Environmental Management Plan |
| ESA | Early Stone Age |
| GPS | Geographical Positioning System |
| HIA | Heritage Impact Assessment |
| HMP | Heritage Management Plan |
| ICOMOS | International Council of Monuments and sites |
| LIA | Late Iron Age |
| LSA | Late Stone Age |
| MIA | Middle Iron Age |
| MSA | Middle Stone Age |
| NASA | National Archives of South Africa |
| NHRA | National Heritage Resources Agency |
| OSBP | One Stop Border Post |
| PRHA | Provincial Heritage Resources Authority |
| SAHRA | South African Heritage Resources Agency |
| SAHRIS | South African Heritage Resources Information System |
| VHHC | Vhufa Hashu Heritage Consultants |

DEFINITIONS

“Aesthetic value” Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

„Alter” any action affecting the structure, appearance or physical properties of a place or object, whether by a way of structural or other works, by painting plastering or other decoration or any other means;

“Conservation” in relation to heritage resources, includes protection maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance

“Conservation Management Plan” A policy aimed at the management of a heritage resource and that is approved by the Heritage Resources Authority setting out the manner in which the conservation of a site, place or object will be achieved

“Cultural Significance” As defined in the NHRA means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

“Development” means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a 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 wellbeing, including-

- (a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (b) carrying out any works on or over or under a place;
- (c) subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- (d) construction or putting up for display signs or hoardings;
- (e) any change to the natural or existing condition or topography of land; and
- (f) any removal or destruction of trees, or removal of vegetation or topsoil.

“Heritage agreement” means an agreement referred to in section 42,

“Heritage Impact Assessment” A report compiled in response to a proposed development that must meet the minimum requirements set out in the NHRA and should be submitted to a heritage resources authority for consideration.

“Heritage site” means a place declared to be a national heritage site by SAHRA or site declared to be a provincial Heritage site by a PHRA

“Historic value” Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

“Improvement” in relation to heritage resources includes repair, restoration and rehabilitation of a place protected in terms of this Act.

“Interested and Affected Parties” Individuals, organisations or communities that will either be affected and/or have an interest in a development or the resulting impacts of a development.

“Management” in relation to heritage resources includes the conservation, presentation and improvement of a place protected in terms of this Act.

“Scientific value” Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period.

“Social value” Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

“Rarity” Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

“Representivity” Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or 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.

TABLE OF CONTENTS

| CONTENT | PAGE |
|---|------|
| EXECUTIVE SUMMARY | 2 |
| ACKNOWLEDGEMENTS: | 4 |
| DEFINITIONS..... | 6 |
| 1. INTRODUCTION..... | 9 |
| 2. TERMS OF REFERENCE..... | 9 |
| 3. DESCRIPTION OF THE AFFECTED AREA | 10 |
| 4. LEGISLATIVE REQUIREMENTS | 12 |
| 4.2. THE NATIONAL HERITAGE RESOURCE ACT (25 OF 1999)..... | 13 |
| 5. METHODOLOGY | 14 |
| 5.1. SOURCE OF INFORMATION..... | 14 |
| 8. BRIEF SYNTHESIS ON THE ARCHAEOLOGICAL AND HERITAGE..... | 16 |
| 9. STONE AGE SEQUENCE OF THE AREA (ESA, MSA AND LSA) | 16 |
| 10. REGIONAL SETTING: ARCHAEOLOGY, HISTORY AND HERITAGE | 18 |
| 11. ASSESMENT CRITERIA..... | 23 |
| 11.3. <i>Burial grounds and graves</i> | 23 |
| 11.4. <i>Significance valuation Burial Ground, Historic Cemeteries and Graves</i> | 24 |
| 12. THE SIGNIFICANCE OF GRAVES AND BURIAL SITES | 25 |
| 12.1 SITE SIGNIFICANCE..... | 25 |
| 12.2. IMPACT RATING | 26 |
| 12.3 CERTAINTY | 27 |
| 12.4 DURATION..... | 28 |
| 12.5 MITIGATION | 28 |
| 13. CONCLUSIONS AND RECOMMENDATIONS..... | 28 |
| 14. REFERENCE | 29 |

1. INTRODUCTION

Vhufa Hashu Heritage Consultants was appointed by Mang Geoviro Services to undertake a phase 1 Heritage Impact Assessment of a proposed Echo Academy (Private School) in Molenje area under Collins Chabane Local Municipality of Vhembe District, Limpopo Province.

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 material (section 35) graves and burial sites (section 36). In order to comply with the legislations, the Applicant requires information on the heritage resources, and their significance that occur in the demarcated area. 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. TERMS OF REFERENCE

The terms of reference for the study were to conduct heritage impact assessment for the proposed Echo Academy (Private School) in Molenje.

- ❖ the identification and mapping of all heritage resources in the area affected;
- ❖ an assessment of the significance of such resources in terms of heritage assessment criteria set out in regulations;
- ❖ an assessment of the impact of the development on heritage resources;
- ❖ an evaluation of the impact of the development on heritage resources relative to the interested parties regarding the impact of the development on heritage resources;
- ❖ if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- ❖ plans for mitigation of any adverse effects during and after completion of the proposed development.

3. DESCRIPTION OF THE AFFECTED AREA

The proposed Echo Academy (Private School) is situated on the south eastern side of Nandoni Dam and western side of Makumeke Village and road D3765 from Thohoyandou to Mutoti/Mavambe Village (GPS S22°59'31.3"E30°37'02.4") within Collins Chabane Local Municipality of Vhembe District, Limpopo Province.

The vegetation of the area and landscape features varies from low mountains, slightly to extremely irregular plains to hills. The geology and Soils is Soutpansberg Group of sandstones with lessor amounts of conglomerate, shale and basalt is mostly exposed in this area. Some Karoo Supergroup rocks are also present. Most of the area has deep sands to shallow sandy lithosols. A few limited areas with heavier soil, particularly in the B-horizon, occur near the western boundary of the Kruger National Park.

Figure 1: Locality map

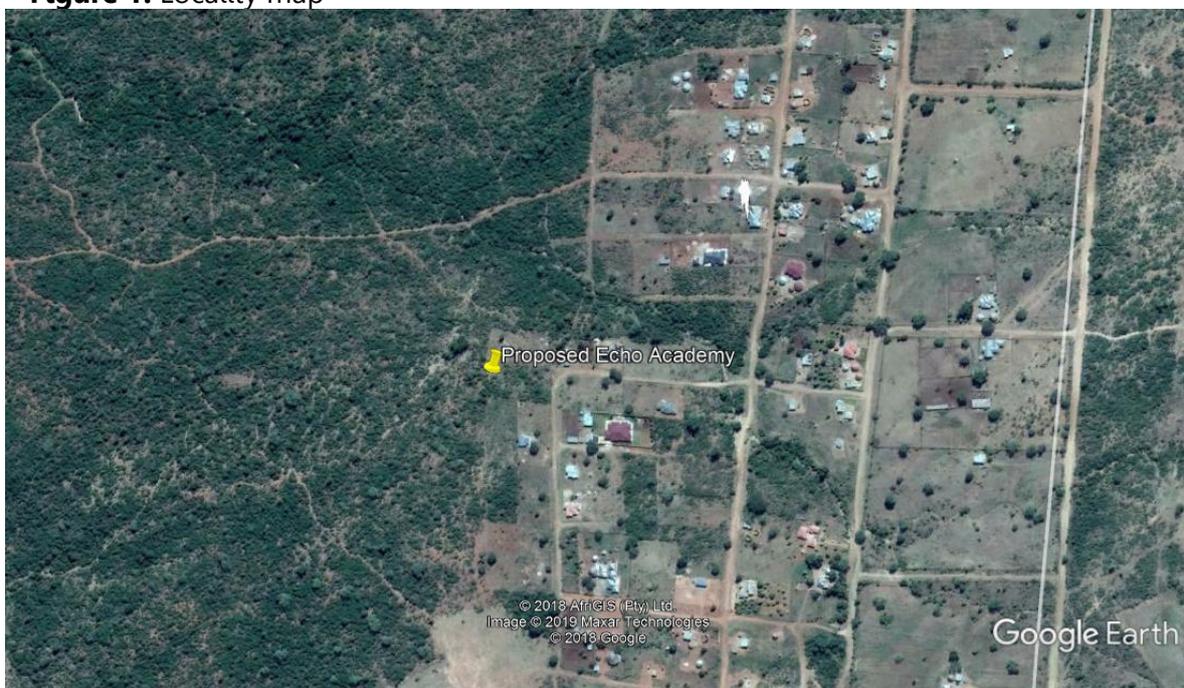


Figure 2: Arial View of the proposed site.



Figure 3: General view of the proposed Echo Academy (Private School)



Figure 4: View of the Geotech test pit.



Figure 5: View of the access road on site.

4. LEGISLATIVE REQUIREMENTS

Two sets of legislation are relevant for the study with regards to the protection of heritage resources and graves. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

4.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- Archaeological artifacts, structures and sites older than 100 years
- Ethnographic art objects (e.g. Prehistoric rock art) and ethnography
- Objects of decorative and visual arts
- Military objects, structures and sites older than 75 years
- Historical objects, structures and sites older than 60 years
- Proclaimed heritage sites
- Grave yards and graves older than 60 years
- Meteorites and fossils
- Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

- Places, buildings, structures and equipment of cultural significance

- Places to which oral traditions are attached or which are associated with living heritage
- Historical settlements and townscapes
- Landscapes and features of cultural significance
- Geological sites of scientific or cultural importance
- Sites of Archaeological and palaeological importance
- Graves and burial grounds
- Sites of significance relating to the history of slavery
- Movable objects (e.g. Archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- A construction of a bridge or similar structure exceeding 50m in length
- Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- Re-zoning of a site exceeding 10 000 m²
- Any other category provided for in the regulations of SAHRA or a provincial heritage authority.

4.2. The National Heritage Resource Act (25 of 1999)

This act established the South African Heritage Resource Agency (SAHRA) and makes provision for the establishment of Provincial Heritage Resources Authorities (PHRA). The Act makes provision for the undertaking of heritage resources impact assessments for various categories of development as determined by Section 38. It also provides for the grading of heritage resources and the implementation of a three tier level of responsibilities and functions for heritage resources to be undertaken by the State, Provincial authorities and Local authorities, depending on the grade of the Heritage resources. The Act defines cultural significance, archaeological and palaeontological sites and material (Section 35), historical sites and structures (Section 34), graves and burial

sites (Section 36) which falls under its jurisdiction. Archaeological sites and material are generally those resources older than a hundred years, while structures and cultural landscapes older than 60 years, including gravestones, are also protected by Section 34. Procedures for managing grave and burial grounds are clearly set out in Section 36 of the NHRA. Graves older than 100 years are legislated as archaeological sites and must be dealt with accordingly. Section 38 of the NHRA makes provision for developers to apply for a permit before any heritage resource may be damaged or destroyed.

4.3. The human tissues act (65 OF 1983)

This Act protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Heritage Authorities.

Graves 60 years or older fall under the jurisdiction of the National Heritage Resources Act as well as the Human Tissues Act, 1983.

5. METHODOLOGY

5.1. Source of information

5.1.1. Survey of Literature

The methodological approach used for the study is aimed at meeting the requirements of the relevant heritage legislation. As such a desktop study was undertaken followed by a survey of the impact areas. Most of the information was obtained through the site visit made on the 23 November 2019. In practice, most archaeological and historical sites are found through systematic survey of the target landscapes. The survey therefore, sought to identify cultural heritage sites including graves, burial grounds and contemporary religious or sacred ceremonial sites associated with the proposed Echo Academy (Private School). VHHC heritage specialists conducted the reconnaissance survey and impact assessment by transecting the affected landscape on foot looking for indicators of archaeological and any other cultural materials in the affected areas. In part the field officer also inspected soil profiles for potential archaeological materials that may still be trapped *in situ* in an area disturbed by human activities as well the burrowing animals.

5.1.1.2. Field Survey

Standard archaeological observation practices were followed; Visual inspection was supplemented by relevant written sources, and oral communications with local

communities from the surrounding area. In addition, the site was recorded by hand held GPS Garmin Oregon 65 and plotted on 1:50 000 topographical map. Archaeological/historical material and the general condition of the terrain were photographed with a Garmin Oregon 65 Camera.

The field assessment section of the study was conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of archaeological significance in the area of the proposed development.

5.1.1.3. Documentation

All sites, objects and features identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

6. RESULTS OF THE FIELDWORK

No cultural heritage (archaeological or historical) sites, features or objects were found. There is no structures/buildings on site which are older than 60 years.

7. CHRONOLOGICAL SEQUENCE OF THE STONE AND IRON AGE

The Stone Age is the period in human history when lithics (or stone) was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is important to note that these dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age is as follows:

| | |
|-------------------------|---|
| Early Stone Age (ESA): | Predominantly the Acheulean hand axe industry complex dating to + 1Myr yrs-250 000 yrs. Before present. |
| Middle Stone Age (MSA): | Various lithic industries in SA dating from ±250 000 yr.- 30 000 yrs. before present. |
| Late Stone Age (LSA): | The period from ±30 000-yr.to contact period with either Iron Age farmers or European colonists. |

There are no known Stone Age sites in the area including rock art. No Stone Age sites or objects were recorded during the assessment of the area.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts:

| | |
|-----------------------|---|
| Early Iron Age (EIA): | Most of the first millennium AD |
| Middle Iron Age: | 10 th to 13 th centuries AD |
| Late Iron Age (LIA): | 14 th century to colonial period. The entire Iron Age represents the spread of Bantu speaking peoples. |

8. BRIEF SYNTHESIS ON THE ARCHAEOLOGICAL AND HERITAGE.

The Archaeological and heritage studies in the region indicate that the area is of high prehistoric and heritage significance. It is in fact a cultural landscape where Stone Age, Iron Age and historical period's sites contribute the bulk of the cultural heritage of the region (Calabrese, 1996; Huffman, 2007).

9. STONE AGE SEQUENCE OF THE AREA (ESA, MSA and LSA)

The Early Stone Age spans a period of between 1.5 million and 250 000 years ago and refers to the earliest Homo sapiens predecessors began making stone artifacts. Archaeological material finger prints (Stone tool artifacts) of these earliest periods have been found at Olduvai Gorge. This Gorge is located in Tanzania; the stone artifact industry was referred to as the Olduvan Industry. Most of the stone artifacts recovered were not neatly made and they were very crude in makings. The ESA tools were simple tools which, were among other things used to chop and butcher meat, de- skin animal and probably to smash bones to obtain marrow. The presence of cut marks from animal fossil bones dating to this period has led to the conclusion by researchers that human ancestors were scavengers and not hunters (Esteyhuysen, 2007). They may have preyed on a drowned or crippled animals or shared a kill by another predator, which explains why at some ESA sites occur high bone proportions of large, dangerous game (Wadley, 2007).

The industries were later replaced by the Acheulian stone tool Industry which is attested to in diverse environments and over wide geographical areas. The Industry is characterized by large cutting tools mostly dominated by hand axes and cleavers. Bifaces emerged in East Africa more that 1.5 million years ago (mya) but have been reported from a wide range of areas, from South Africa to northern Europe and from India to the Liberian Coast. The end products were astonishingly similar across the geographical and chronological distribution of the Acheulian techno-complex: large flakes that were suitable in size and morphology for the production of hand axes and cleavers perfectly suited to the available

raw materials (Sharon, 2009). Evidence presented from Sterkfontein, Swartkrans and 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 (Esteyhuysen, 2007). Both the Oldwan and Acheulian industries are well represented in the archaeology of the Cradle of Humankind from sites at Sterkfontein and Kromdraai. These discoveries have made considerable contribution to the body of scientific knowledge in the subject of tool manufacturing in association with human evolutions. At Kromdraai site two definite Oldwan stone tools estimated to date to around 1.9 million years ago were discovered.

The Middle Stone Age dates back to about 250 000 ago ending at around 25 000 years ago. In general Middle Stone Age tools are smaller than those of the Early Stone Age period. They are characterized by smaller hand axes, cleavers, and flake and blade industries. The period is marked by the emergence of modern humans through the change in technology, behavior, physical appearance, art, and symbolism. Various stone artefact industries occur during this time period, although less is known about the time prior to 120 000 years ago, extensive systemic archaeological research is being conducted on sites across southern Africa dating within the last 120 000 years (Thompson & Marean, 2008). Surface scatters of these flake and blade industries occur widespread across southern Africa although rarely with any associated botanical and faunal remains. It is also common for these stone artifacts to be found between the surface and approximately 50-80cm below ground. Fossil bone may be associated with MSA occurrences. These stone artifacts, like the Earlier Stone Age hand axes are usually observed in secondary context with no other associated archaeological material.

An early South African Middle Stone Age stone artifact industry referred to as the Mangosian had a very wide distribution stretching across Limpopo, the eastern Orange Free State, around Cape Point and Natal (Malan 1949). This stone artifact industry, according to the period, may have represented the final development that the prepared core technique of the Middle Stone Age reached prior to its replacement by the microlithic techniques of the Later Stone Age. Malan (1949) also made mention that there are variations of Middle Stone Age assemblages throughout South Africa (Binnerman et al, 2011).

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. Residue analyses on some of the stone tools indicate that these tools were certainly used as spear heads (widely, 2007). The presence of spear heads on some of the MSA assemblages is an indication that

these group of people were hunters who targeted middle sized game such as hartebeest, wildebeest and zebra (Wadley, 2007), Some assemblages are show the presence of bone tools such as bone points. The last phase of stone tool development is associated with Late Stone tools. The period is associated with the use of micro- lithic stone tools. LSA tool have been found in the Cradle of humankind.

10. REGIONAL SETTING: ARCHAEOLOGY, HISTORY AND HERITAGE

Cultural Resource Management survey programs conducted for the development of Nandoni dam has recorded the existence of cultural material finger print remains from different periods. Archaeologically the proposed study area lies within the asserted traditional territories with density of archaeological sites most of which are located on higher elevations along the water source such as Luvuvhu River and its tributaries.

The studies shed light on the understanding of pre- history and historical part south of the Soutpansberg Mountain, aerial photographic survey and the layout of the study area showed that the region starting from the western end had major concentration of recent to historical settlements, with various scattered iron production sites along the main rivers. Recent studies classified these settlements and activity areas mainly comprised of four basic units, namely: homesteads, terraces, livestock enclosure and Iron production sites.

The general archaeology within the study area took place since the Stone Age time as represented by some remarkable scattered distribution of stone tool most found on the lower lying areas dominated by agricultural activities (Cultivated lands) and erosion gullies. The presents of stone tools in such disturbed areas is a true reflection that early humans lived here, discontinuously, for thousands of years, from the Middle to the Late Stone Age periods. Majority of these finds are classified as isolated surface occurrences, and mostly are judged to have a low significance and they require no mitigation measures. Iron Age people moved into southern Africa by c. AD 200, entering the area either by moving down the coastal plains, or by using a more central route. It seems more likely that the first option was what brought people into the study area. From the coast they followed various rivers inland. Being cultivators, they preferred the rich alluvial soils to settle on.

One of the earliest dated sites is located near Tzaneen (Silver Leaves). This sequence owes much to the work undertaken by Menno Klapwijk, in the Tzaneen area, specifically at the site referred to as the earliest site component of the Iron Age period i.e. Silver Leaves site. The site was occupied in the third century, being dated by radiocarbon to circa 280 AD. Similar dates also came from Eiland sites discovered few kilometres south east of Tzaneen

in the then Northern Transvaal. On both sites, direct evidence of cultivation was extremely limited, but impressions of *Pennisetum* millet seeds were discovered. This was the principal evidence of the earliest Iron Age penetration with the then dominant crop being brought in and introduced to the area (Klapwijk 1974). Another archaeological evidence of great significance was the discovery of an archaeological site near the present town of Lydenburg in the Mpumalanga Province. The Lydenburg archaeological assemblage consists of the remains of the well-known seven terracotta heads (Lydenburg heads). The site was radiocarbon dated AD 470 becoming the oldest African Iron Age artwork ever found below the equator (Inskeep & Maggs 1975). Iron Age occupation of the region seems to have taken place on a significant scale and at least three different phases of occupation have been identified. Sites dating to the Early Iron Age are found in the Luvuvhu River valley. These settlements seem to have been followed at a slightly later date by settlements linked to the Eiland Phase of the EIA (c. AD 1000). The last period of pre-colonial occupation consisted of Vha- Venda who settled on stone-walled, sites at the foot on the mountains. At present it is not clear, but, judged on the pottery found here; these sites might even date to early historic times. As this was a period of population movement, conflict and change, in large part set the scene for the current population situation within the study area. Considering the time period that they were occupied, they also feature in the early historic period. Approximately 69 archaeological sites were recorded alongside the Luvuvhu river valley, during the impact assessment program of the proposed Nandoni dam 1993-1997. Sites location and distributions varied considerably, some were geo-referenced on promontory hills, ridges while others were noted on flat flood plains. One of the interesting site excavated in the study area, was Mut2/2 site, an Early Iron Age site located on river bluff, promontory ridge situated approximately 600m west of the current dam wall. Archaeological excavations yielded evidence of the early traded pieces of porcelain.

Research analysis shows that Porcelain pieces originated in Mesopotamia, unfortunately the early trade route network is not known, with possibilities link to Middle East via Mozambique ports. Another site with extra ordinary information was MUT26 ;(iron smelting site) excavated on rocky granite out crop on the bank of the Mahebe River, characterized by dry stone walls with livestock enclosures, archaeological excavations revealed that this site, was occupied more than one period, from the early iron smelting to historical period. Archaeological evidence from this site was represented by exposed hut floors, grain bin foundation and lapa floor with burnt dark brown and gray soil, and high slag concentration. Archaeological excavation of MUT26 exposed remnants of smelting

furnace roughly triangular in shape with three tuyere inlets on three corners. Similar furnaces have been found elsewhere in the Phalaborwa area (Mathoho 2012). The site (MUT26) was destroyed by the proposed concrete quarry activities for the proposed dam construction.

To attain more understanding of relative chronology of these archaeological sites, a description of classifying ceramics in southern Africa is that of Huffman (2007) which combines different shape profiles with decoration techniques and motifs. Due to heavy vessel fragmentation and the small number of samples from our sites, general descriptions of the ceramics were given. Although largely descriptive, this approach identifies and characterises ceramic traditions making it possible to relate ceramics from our sites to sequences established elsewhere in northern South Africa. The ceramic analysis revealed that sites excavated ranged from the Early Iron Age to the Historical period. The ceramics from Mut 26 (Dovheni iron production site) were highly fragmented making it difficult to reconstruct the shape profiles. When cleaned, it became clear that some of the pottery fragments were decorated with designs formed by red ochre and graphite burnishing, cross hatched and fine lines of incisions which appeared on some of the recovered potsherds. These designs are typical of Letaba facies which have been dated elsewhere to between AD1600 and 1840 (Huffman 2007).

A large representative sample of undiagnostic and diagnostic ceramics were retrieved from surface collection at Mut2/2 site on the Luvuvhu River, on average, the pots were well made and fired. The decoration techniques include punctures on the rim and multiple bands in the neck. The decoration is placed on the rim, the neck and on the shoulders/body. The decoration on the potsherds from Mut 2/2 closely resembles that observed on Early Iron Age sites in the region, particularly the Garonga phase of Silver Leaves (see Mathoho 2012). According to Huffman (2007: 133), Garonga ceramics combine the features of Mzonjani and Happy Rest. Huffman also places Garonga (AD750-900) third in a sequence that starts with Silver Leaves (AD300-450) and Mzonjani (AD450-750). The excavations yielded numerous and diverse materials of importance. The excavated ceramics were described and compared to the established typologies of Huffman (2007). For our area, the descriptions revealed the existence of not only Early Iron Age sites but also Late Iron Age and historical period ones. Given that the ceramics for early and later periods are different.

There is no doubt that some of the archaeological sites found here belong to the pre-Vha-Venda nation, unfortunately the Vha-Venda history is so complex and subject of unending dispute amongst different parties and dynastic groups that inhabit the territory.

Writings of the early 1930s has placed Vha- Venda as composite people, who don't see themselves as cultural homogenous or political united nation. Oral traditions suggest that most of the important migrations to the territory known today as Venda came from the north of the Limpopo River among these migrations two are particularly significant in the history of the area (Stayt 1968, Loubser 1991). Vha-Venda of today are descendants of various groups and previous studies coupled with old traditions agrees that there was at one stage an aboriginal population in the region called Vhangona whether this group had chief or tribal cohesion it is not recorded in the history, it was previously rare for a person prepared to admit that they are descendent of this despised race. The historic period started c. 1840s, with the arrival of the first white settlers. Elephant hunting and the ivory trade were the most important economic activities of Zoutpansbergers, who depended increasingly on African marksmen as elephant herds retreated north into the tsetse belt. Thus many African hunters were equipped with Guns while on expedition to raid settlement for black ivory. Negotiations between the trekkers and vha-Venda resulted in certain areas south of the Soutpansberg becoming the border between cultural groups as influenced by the early trade routes system via Mozambique. Later, tension developed between these cultural groups, giving rise to armed conflict.

One of the better known incidents is the so-called the black ivory and indenture system and slavery in the Soutpansberg between 1848 to 1869, where young children were classed as inboekenlinge (the so called 'apprentices' another name of slavery) were acquired and traded most of which were captive from African villages distributed among Boer themselves. These captives were produced by wars waged to open up certain areas of the far north for white settlement. Therefore the clashes resulted mainly from African resistance to attempts by the Boers to enforce their newly acquired authority by demanding labor and tribute among vha-Venda chiefs. According to Boeyens (1994) Soutpansberg was, after all, an open frontier where the authorities of the whites was continually challenged, resulting in regular clashes and war with local communities. Children were taken as spoils of war because they had export market value (slavery), because of this process Venda children's who were regarded as spoils of war from different Venda chiefdoms were displaced as far as Pretoria is concerned. The Soutpansberg was known from the coast as the major source of white ivory and other game products. Under the indenture system many such labour were obtained through capture or trade. According to instruction report received by Lydenburg military officers in November 1851, only children's who were found helpless at least half a day after a military clash could be taken and indentured, children from opposing African village chiefs,

orphaned as a result of combat where taken by the Boers. Indenture system was disguised from slavery, in order not to transgress the legal aspects of the ZAR and confront the quilt question. Even president M.W. Pretorius, who took a strong public stand against slavery, participated occasionally in the illegal trade in African children. For example Soutpansberg commandant J.H Jacobs led a patrol against Rasikhuthuma, son of the Venda chief Ramabulana, in 1855 after Joao Albasini had accused Rasikhuthuma of stock theft. In the attack on Tshitungulu, Rasikhuthuma strongholds subjects were shot and 76 cattle's, 108 sheep's and goats as well as 13 young African were captured and divided amongst the Boers commander. In the same year (November 1855) L.M. Bronkhorst raided Ramabulana where eleven people were killed and five children were taken and divided amongst the burgers. In 1860 J. du Plessies led a commando against chief Mashau, because reportedly he was disobedient, livestock's, women and children were taken as spoils of war. From this point raids were confined almost entirely to African from whom the Boers claimed tribute which is equated with indentured children. In October 1863, Albasini dispatched Va-Tsonga force under Munene against Chief Rambuda, because he refused to pay tribute to the burgers and had closed the hunting trails through his territory. Munene force fails to defeat Rambuda but they managed to kill seventy-seven and abducted a number of women and children's.

On 15 July 1867 Schoemansdal was evacuated following a protracted conflict with the Vha- Venda. For two years the ZAR government tried to subdue the Vha-Venda by diplomatic and military means but abandoned their attempt at the end of 1869, the Boers were forced to assemble in laagers for their own protection, especially during the hunting season when many men were away in quest of ivory. One visitor reported that the number of white population within the soutpansberg region being 1800 between 1855-1856, with 260 families, but archaeological findings show that no more than 100 families, this show that the number decreases due to African resistance and conflict. Some of the African Chief such as Madzie, a Venda chief whose capital was situated in the mountains above Schoemansdal, he was reported to have been a regular supplier of labour to the white community. After the death of the Venda chief, Ramabulana, whites were involved in the succession dispute between his sons, Makhado and Davhana, caused conflict that spread to other part of the Soutpansberg. In August 1865, the Venda chief Magoro, who occupied a strong hold south of the Klein Letaba river, was besieged and attached by Va-tsonga, and the Boers who claimed that Magoro had colluded with Makhado, there by killing Chief Magoro and his subjects (Boeyens 1994).

11. ASSESMENT CRITERIA

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites were 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.

11.1. Archaeological

No archaeological materials were found in the study area.

11.2. Historical

No historical sites/materials found on site.

11.3. Burial grounds and graves

No graves were identified on site

The legislation also protects the interests of communities that have an interest in the graves: they should be consulted before any disturbance takes place. The graves of victims of conflict and those associated with the liberation struggle are to be identified, cared for, protected and memorials erected in their honor.

Graves older than 60 years, but younger than 100 years, fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissue Act (Act 65 of 1983) and are under the jurisdiction of the South African Heritage Resources Agency (SAHRA). The procedure for Consultation regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorization as set out for graves younger than 60 years, over and above SAHRA authorization.

In terms of the Section 36 (3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) no person may, without a permit issued by the relevant heritage resources authority:

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume or 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

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment, which assists in the detection or recovery of metals.

Therefore, in addition to the formal protection of culturally significance graves, all graves which are older than 60 years and which are not already located in a cemetery (such as ancestral graves in rural areas), are protected. Communities, which have an interest in the graves, must be consulted before any disturbance can take place. The graves of victims of conflict and those associated with the liberation struggle will have to be included, cared for, protected and memorials erected in their honor where practical. Regarding graves and burial grounds, the NHRA distinguishes between the following:

- Ancestral graves
- Royal graves and graves of traditional leaders
- Graves of victims of conflict
- Graves of individuals designated by the Minister by notice in the Gazette
- Historical graves and cemeteries
- Other human remains, which are not covered in terms of the Human Tissue Act, 1983 (Act No.65 of 1983).

11.4. Significance valuation Burial Ground, Historic Cemeteries and Graves

The significance of burial grounds and gravesites is closely tied to their age and historical, cultural and social context. Nonetheless, every burial should be considered as of high significance. Should any grave previously unknown be identified during construction, every effort should be made not to disturb them.

11.5. Previously unidentified burial sites/graves –

Although the possibilities of this occurring are very limited, should burial sites outside the NHRA be accidentally found during the proposed development, they must be reported to the nearest police station to ascertain whether or not a crime has been committed. If there is no evidence for a crime having been committed, and if the person cannot be identified

so that their relatives can be contacted, the remains may be kept in an institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities give their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

12. THE SIGNIFICANCE OF GRAVES AND BURIAL SITES

The significance of burial grounds or graves has been indicated by means of stipulations derived from the National Heritage Resources Act (Act No 25 of 1999)

| | | |
|-----------------------|---|--------------------------------|
| Heritage Significance | : | GP.A; High/Medium Significance |
| Impact | : | Negative |
| Impact Significance | : | High |
| Certainty | : | Probable |
| Duration | : | Permanent |
| Mitigation | : | C |

- *Informal graves and Formal grave yards (Cemeteries)*

Informal and formal grave yards (Cemeteries) can be considered to be sensitive remains of high significance and are protected by various laws. Legislation with regard to graves includes the National Heritage Resources Act (no 25 of 1999) this act applies whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regards to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on exhumation (Ordinance no 12 of 1980) and the Human Tissue Act (Act no 65 of 1983 as amended).

12.1 Site significance

The site significance classification standards as prescribed 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 as guidelines in determining the site significance for the purpose of this report.

| FIELD RATING | GRADE | SIGNIFICANCE | RECOMMENDED MITIGATION |
|------------------------------|--------------|----------------------------|--|
| 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 |

Grading and rating systems of heritage resources

12.2. 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 fairly 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 fairly 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 a fairly 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 as a result 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.

12.3 CERTAINTY

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

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

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

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

12.4 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

12.5 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

13. CONCLUSIONS AND RECOMMENDATIONS

No further studies / Mitigations are recommended given the fact that within the proposed Echo Academy (Private School) area and its surrounding there are no archaeological or place of historical significance to be impacted by the proposed project process. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed construction of Echo Academy (Private School) and associated structures. We recommend to the Provincial Heritage Resource Agency, South African Heritage Resource Agency to approve the project as planned.

14. REFERENCE

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,

Huffman, T.N. (2007). *Handbook to the Iron Age: The archaeology of pre-colonial farming societies in southern Africa*, Scottsville, South Africa, University of Kwazulu Natal Press.

Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik

Klapwijk, M. 1973. An Early Iron Age site near Tzaneen North eastern Transvaal. *South African Journal of Science*, vol.69, pp.324.

Inskeep, R. R & Maggs, T.M. O'C. 1975. Unique objects in the Iron Age of the Transvaal, South Africa. *Archaeological Bulletin* vol. 30, pp. 114-134.

Mason, R.J. 1962. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.

Mönnig, H.O. 1967. *The Pedi*. Pretoria: J.L. van Schaik.

Van Warmelo, N J. 1935. *Preliminary survey of the Bantu Tribes of South Africa*. Ethnological Publications No. 5. Pretoria: Government Printer.