



Thikho Consulting and Projects

**ARCHAEOLOGICAL IMPACT ASSESSMENT STUDY REPORT FOR THE
PROPOSED DEVELOPMENT OF A RESIDENTIAL TOWNSHIP ON
REMAINDER OF THE FARM FOURIESTRUST 2525 DISTRICT IN THE
MANGAUNG METROPOLITAN MUNICIPALITY OF FREE STATE
PROVINCE.**



October, 2016

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DECLARATION

ABILITY TO CONDUCT THE PROJECT

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

I, Mr. Munyadziwa Magoma, declare that this report has been prepared independently of any influence as may be specified by all relevant department, institution and organization.

CO-AUTHOR AND CONTACT DETAILS:

Munyadziwa Magoma,



Cell: 082 535 6855

Tel: 011 312 2878

Fax: 086 566 8079

E-mail: munyadziwa@vhubvo.co.za

CLIENT CONTACT DETAILS:

 Thikho Consulting and Projects

Ms. Marcia Mphaphuli,

Cell: 076 480 0802

Fax: 086 613 1063

E-mail: thikhocp@gmail.com



EXECUTIVE SUMMARY

Introduction

Vhubvo Archaeo-Heritage Consultant Cc was appointed by Thikho Consulting and Projects to conduct an Archaeological Impact Assessment (AIA) for the proposed establishment of a residential township on Remainder of the Farm Fouriestrust 2525 District in the Mangaung Metropolitan Municipality of Free State Province. The aim of the study was to investigate the site for archaeological sites, cultural resources, sites associated with oral histories, graves, cultural landscapes, and any structure of historical significance that may be affected by the proposed development, these will in turn assist the developer in ensuring proper conservation measure in line with the National Heritage Resource Act, 1999 (Act 25 of 1999). The findings of this study have been informed by desktop study. The desktop study was undertaken through SAHRIS for previous Cultural Heritage Impact Assessments conducted in the region of the proposed development, and also for researches that have been carried out in the wider area over the past years. In addition, historical background research was also done with National Archive and Surveyor General.

Need of the project

The proposed development entail establishment of a township on a 15 Hectares portion of land.

Visibility, survey success and impact statement

The field survey lasted one day of the 16th of October 2016. One archaeologist from Vhubvo conducted the survey. The visibility was very good emancipating in the successful survey. The survey was aimed at remainder of the Farm Fouriestrust 2525 District. The proposed area can only be accessed by an appointment, and is currently deserted. Notwithstanding that, there are some people who are currently residing in the area. In general, the area was extensively used for activities related to cultivation, and sign of cultivation are prevalent throughout (see Figure 6). The topography is fairly flat. The probability of locating any important archaeological remains dating to the Stone or Iron Age during construction of the project is rated as low due to the disturbances caused by decades of cultivation. However, section of the proposed area was found to be intact to some extent. It appears the farmer decided to demarcate the undisturbed area, and refrain from farming it. It is hear wherein certain resources of cultural significant where noted.

Brief background study

This region has evidence of Stone Age hunter-gatherers, specifically dating from the middle to the later period. Surface scatters of Later Stone Age and Middle Stone Age artefacts have been documented by



previous archaeological studies in the region. However, up to so far, only one Stone Age site have been identified in the wider area, this site dated to the Later Stone Age (Ouzman, 1996), and is situated on the southern bank of the Vaal River. It is mainly known for its rock art engravings on the natural boulders scattered throughout the area. These engravings include images of the indigenous animals as well as geometric motifs. According to Ouzman (1996), this site also presented LSA lithics, although they have a low concentration. There was no material dating to this period which was noted on the proposed area, the area is disturbed to yield any Stone Age materials. According to Huffman (2007), Iron Age sites which are found in this part of the Free State are represented by Middle Iron Age sites of the Moloko branch - Urewe tradition. These sites date to AD 1500 - AD 1700. Conversely, Late Iron Age sites are represented by the Thabeng facies of the Moloko branch - Urewe tradition. These sites date to AD 1700 - AD 1840. The area is vehemently disturbed and there was no Iron age artefacts or settlement noted on the proposed site. This finding is synonymous with other studies in the region.

Restrictions and Assumptions

Thikho Consulting and Projects submitted maps, and all relevant materials related to the locality and extent of the area proposed for development, and this was assumed to be relevant. Affected properties were marked in the map provided by Thikho Consulting and Projects. As with any survey, archaeological materials may be under the surface and therefore unidentifiable to the surveyor until they are exposed once construction resume. As a result, should any archaeological/ or grave site be observed during construction, a heritage specialist must immediately be notified.

Discussion of survey findings

The phase 1 Cultural Heritage Impact Assessment for the proposed residential township on remainder of the Farm Fouriestrust 2525 District revealed no archaeological (Stone and Iron Ages) resources in the proposed site. However, several graves dating to the historical era, as well as historical structures were noted in the area proposed for development. The houses that are in the proposed area are three in numbers and date to the 1940s and 1950s. All these structures, irrespective of their conditions, are protected against any form of alteration by legislature. Accordingly, Section 34(1) of the National Heritage Resource Act, 1999 (Act 25 of 1999) protect these structures. In respect to Section 34(1) of the National Heritage Resource Act, 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, in this case, the Free State Provincial Heritage Resource Authority (FSPHRA). However, none of these structures can be considered to be of such significance that can prevent the proposed development from proceeding. In fact, if the noted structures cannot be reused, they can be demolished



after they have been recorded in detailed, in which case FSPHRA must issue a permit for their demolition.

The noted informal graveyard is consisted of about 15 graves. Different types of grave dressing were found, these being stones, bricks, granite and some form of cement. The area where these graves are located is disturbed by the movement of cattle. The manner on which cattle moves, may move stones around the site, and because of this, stones will lose their place of origin. Hence, the number of graves is an estimate. It was thus not possible to authentically count the number of these graves. Nevertheless, all these graves have no inscription on them. According to legislature, unknown graves are handled similarly to those older than 60 years. These graves are thus protected by Section 3 of the National Heritage Resource Act, 1999 (Act 25 of 1999). Section 36 (3) of the same Act further protects these graves against any form of alterations. The recommendation below should be considered with responsiveness as they are inspired by the National Heritage Resource Act.

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

Landscape type	Description	Occurrence still possible	Likely occurrence
Archaeology	Early, Middle and Late Stone Age	Yes	Unlikely
	Early and Late Iron Age	Yes	Likely
Burial and Graves	Pre-colonial burials Graves of victims of conflict Graves older than 100 years Graves older than 60 years Graves younger than 60 years	Yes	Unlikely
Built Environment	Formal public spaces Historical structures Places associated with social identity/ displacement	Yes	Unlikely
Historic Farmland	Historical farm yards Historical farm workers villages Irrigation furrows Historical routes Distinctive types of planting	Yes	Unlikely
Landscape usage	Sites associated with living heritage e.g., initiation school sites, Sites of political conflict Sites associated with a historic event/person	No	No
Historic rural town	Historic mission settlements	No	No

Recommendations and Discussions

Graves are directly associated with human being and are thus accorded a high value (Local Grade III B). This means they should be included in the heritage catalogue (see Table 2). However, they can be mitigated if serious need arise. There are two possibilities on how graves can be mitigated. Firstly and mostly preferred is to fence the graves and compile a management plan to ensure their continuous conservation. This should be completed by a heritage specialist, and is done when graves are not in



direct jeopardy by the proposed development. The second and last option is Phase-2 mitigation (relocation of graves). This procedure entails social consultation, and application of permits for those older than 60 years and unknown graves, while those less than 60 years of age, authorisation should be requested with respective departments. The former is thus recommended, this being to properly fence the graves and compile a management plan to ensure their continuous conservation. Considering that the area of some of the graves is not comprehensive, the management plan should be aimed on the entire site as indicated by the yellow demarcation on Figure 2. Further to this recommendation, the developer should ensure that the descendant of the graves are sought, and notified about this proposed development which might have an impact (directly or indirectly) on their graves. No stone robbing or removal of any material is allowed. Any disturbance or alteration on this graveyard would be illegal and punishable by law, under section 36 (3) of the National Heritage Resources Act (Act 25 of 1999). Furthermore, the developer should maintain a reasonable buffer zone around the identified graveyards (approximately 25 metres). No dumping of construction material is allowed within this buffer zone and no alteration or damage on this site (buffer) may occur.

The noted structures are viewed to have a medium significance on a regional level. In terms of Section 7 of the National Heritage Resource Act, all these structures are evaluated to have Grade III significance (see Table 1). If the developer aims to demolish some of the features of the noted buildings or structures, it is strictly recommended that a second phase heritage impact assessment is conducted by a heritage specialist. This should be done before the commencement of the proposed development, and it will entail proper documentation of these structures, as well as application for the permit to demolish (or renovate) with the FSPHRA as stipulated by the legislature. Alternatively, these structures can be integrated into the proposed development, in such instances, the developer will have to plan around these structures and include them in the layout plan. The current occupants of these houses are of important in the planning of the project. Conversely, the views of the occupants of these houses are crucial in planning for the potential resettlement plan.

Should any archaeological material be unearthed accidentally during the course of construction, SAHRA should be alerted immediately and construction activities be stopped within a radius of at least 10m of such indicator. The area should then be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately. In the mean time, it is the responsibility of the Environmental officer and the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached. It is mandatory to report any incident of human remains encountered to the South African Police Services, SAHRA staff member and professional archaeologist. Any measure to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law under Section 35(4) and 36(3) of the National Heritage Resources Act (Act 25 of



1999). The developer should induct field worker about archaeology, and steps that should be taken in the case of exposing archaeological materials.

Conclusions

From a cultural heritage resources perspective, it is recommended that the proposed project proceed on condition that the suggested recommendation measures are successfully adhered to.



Acknowledgements

The author and the team of Vhubvo would like to acknowledge Thikho Consulting and Projects and the people who reside in the locale for their assistance in relation to the completion of this project, also Google earth and Wikipedia. In particular, the staffs of NASA and Surveyor General are also thanked greatly.



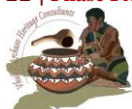
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ACRONYMS AND ABBREVIATIONS

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



GLOSSARY OF TERMS

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

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

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

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

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

Cultural landscape: “the combined works of nature and man” and demonstrate “the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both internal and external”.

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

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



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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

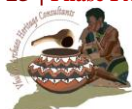
Public participation process: A process of involving the public in order to identify issues and concerns, and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of NEMA refers to: a process in which potential interested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



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

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

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



1. Introduction

At the request of Thikho Consulting and Projects, Vhubvo Archaeo-Heritage Consultant Cc conducted the Archaeological Impact Assessment (AIA) for the proposed establishment of a residential township on Remainder of the Farm Fouriestrust 2525 District in the Mangaung Metropolitan Municipality of Free State province. The survey was conducted in accordance with the SAHRA Minimum Standards for the Archaeology and Palaeontology. The minimum standards clearly specify the required contents of the report of this nature.

2. Sites location and description

The field survey lasted one day of the 16th of October 2016. One archaeologist from Vhubvo conducted the survey. The visibility was very good emancipating in the successful survey. The survey was aimed at remainder of the Farm Fouriestrust 2525 District. The proposed area can only be accessed by an appointment, and is currently deserted. Notwithstanding that, there are some people who are currently residing in the area. In general, the area was extensively used for activities related to cultivation, and sign of cultivation are prevalent throughout. The topography is fairly flat. The probability of locating any important archaeological remains dating to the Stone or Iron Age during construction of the project is rated as low due to the disturbances caused by decades of cultivation. However, section of the proposed area was found to be intact to some extent. It appears the farmer decided to demarcate the undisturbed area, and refrain from farming it. It is hear wherein certain resources of cultural significant where noted.

Summary of Project Location Details

Province:	Free State
Municipality:	Mangaung
Farm Names:	Fouriestrust 2525 District
Proposed development:	Solar Power Station
Gps Co-Ordinates:	See map below
Extent:	±15ha



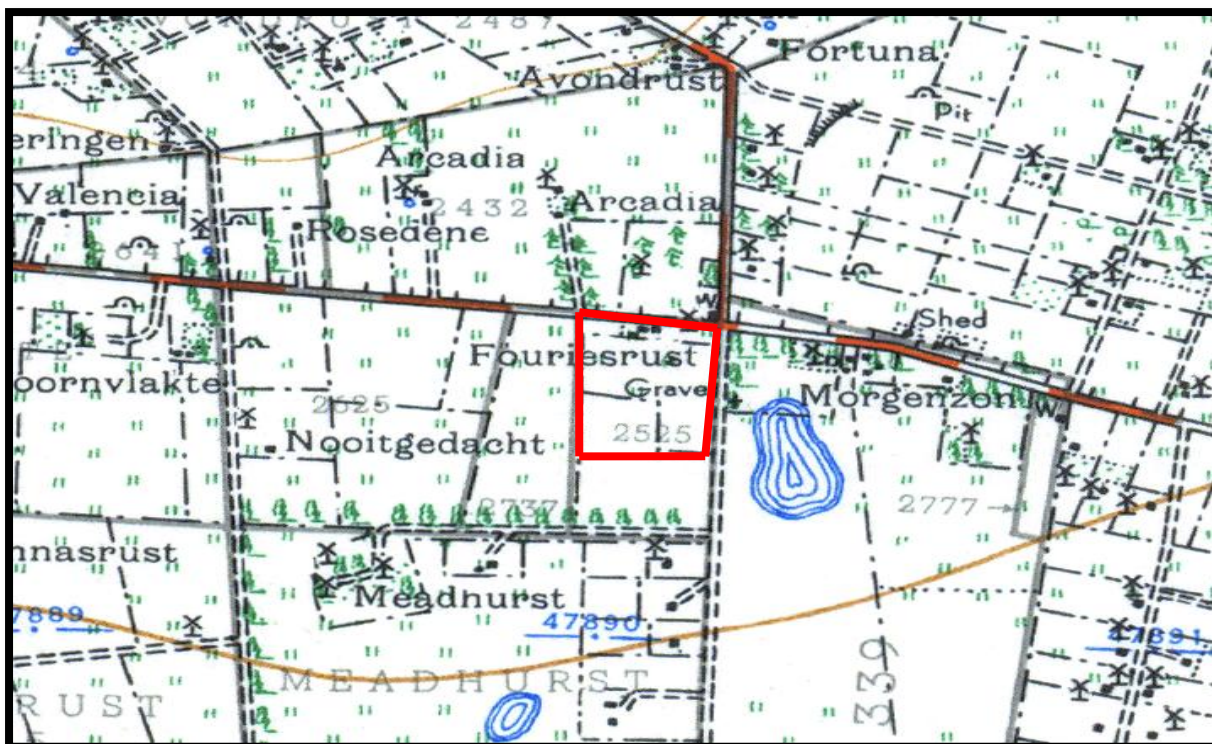


Figure 1: Historical topographical map of the proposed area as demarcated by red, note the indication of the graves and farm house in the map (S-General/1949).

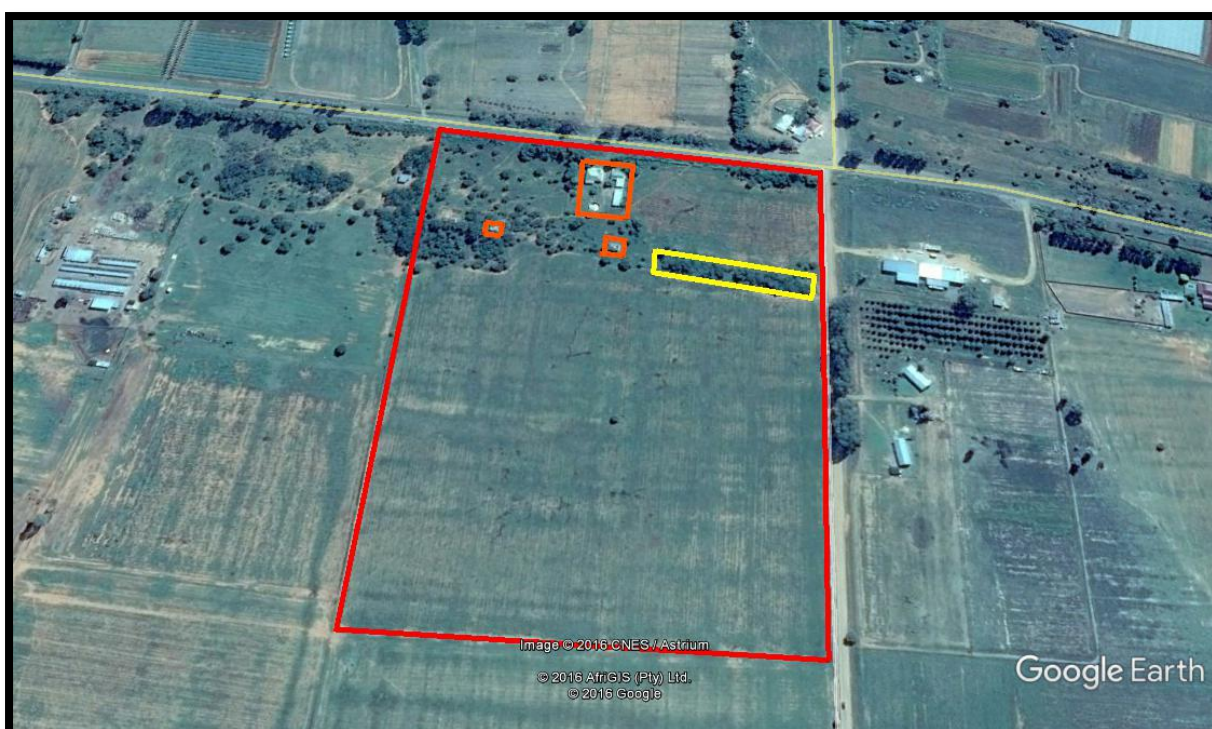


Figure 2: Google earth view of the proposed area, the yellow colour is an indication of the grave site, while the orange indicate site of houses (Courtesy Google Earth).





Figure 3: An overview of section of the northern section of the proposed area.



Figure 4: View of the western section of the proposed site.

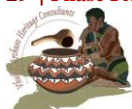




Figure 5: An overview of the eastern section of the proposed area.



Figure 6: View of some of the instruments noted on site which relate to the utilisation of the site for agriculture purposes.



3. Nature of the proposed project

The proposed development entail establishment of a township on a 15 Hectares portion of land. The proposed zonings are the following:

- 2 hectares: sectional title;
- 2, 5 hectare business complex (including admin block);
- 7 stands - 2100 square metres;
- 3 stands - 3000 square metres;
- 1 stand - 5000 square metres;
- 1 park - 5000 square metres

The remainder space - 1500 square metres stands and roads (number of stand subject to space consumed by the roads). It is important to note that the roads sizes still are still to be negotiated with the client.

4. Purpose of the cultural heritage study

The purpose of this Archaeological Impact Assessment (AIA) study was to conduct a heritage survey, enabling us to have an understanding of the archaeological, cultural, and general heritage sensitivity of the area proposed for a Township. Impact assessments highlight many issues facing sites in terms of their management, conservation, monitoring and maintenance, and the environment in and around the site. Therefore, this AIA involves the following:

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

5. Methodology and Approach

The study method refers to the SAHRA Policy Guidelines for impact assessment, 2012. As part of this study, the following tasks were conducted: 1) literature review, 2), consultations with the developer and appointed consultants, 3), completion of a field survey and 5),



analysis of the acquired data, leading to the production of this report. To understand the archaeology of the developing area, a background study was undertaken and relevant institutions were consulted. These studies entails review of archaeological and heritage impact assessment studies that have been conducted around the proposed area thorough SAHRIS. In addition, E-journal platforms such as J-stor, Google scholars and History Resource Centre were searched. The University of Pretoria's Library collection was also pursued, as well as Surveyor General and NASA. These investigations were fundamental in shading light about the archaeology of the proposed area, as well as compilation of this report.

Restrictions and Assumptions

Thikho Consulting and Projects submitted maps, and all relevant materials related to the locality and extent of the area proposed for development, and this was assumed to be relevant. Affected properties were marked in the map provided by Thikho Consulting and Projects. As with any survey, archaeological materials may be under the surface and therefore unidentifiable to the surveyor until they are exposed once construction resume. As a result, should any archaeological/ or grave site be observed during construction, a heritage specialist must immediately be notified.

6. Applicable heritage legislation

Several legislations provide the legal basis for the protection and preservation of both cultural and natural resources. These include the National Environment Management Act (No. 107 of 1998); Mineral Amendment Act (No 103 of 1993); Tourism Act (No. 72 of 1993); Cultural Institution Act (No. 119 of 1998), and the National Heritage Resources Act (Act 25 of 1999). Section 38 (1) of the National Heritage Resources Act requires that where relevant, an Impact Assessment is undertaken in case where a listed activity is triggered. Such activities include:

- (a) *the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) *the construction of a bridge or similar structure exceeding 50 m in length; and*
- (c) *any development or other activity which will change the character of an area of land, or water -*
 - (i) *exceeding 5 000 m² in extent;*
 - (ii) *involving three or more existing erven or subdivisions thereof; or*
 - (iii) *involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
 - (iv) *the costs of which will exceed a sum set in terms of regulations by SAHRA or a Provincial Heritage Resources Authority;*



- (d) *the re-zoning of a site exceeding 10 000 m² in extent; or*
 (e) *any other category of development provided for in regulations by SAHRA or a Provincial Heritage Resources Authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

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

- (a) *Places, buildings structures and equipment of cultural significance*
 (b) *Places to which oral traditions are attached or which are associated with living heritage*
 (c) *Historical settlements and townscapes*
 (d) *Landscapes and natural features of cultural significance*
 (e) *Geological sites of scientific or cultural importance*
 (f) *Archaeological and paleontological sites*
 (g) *Graves and burial grounds including-*
 (i) *ancestral graves*
 (ii) *royal graves and graves of traditional leaders*
 (iii) *graves of victims of conflict*
 (iv) *graves of individuals designated by the Minister by notice in the Gazette*
 (v) *historical graves and cemeteries; and*
 (vi) *other human remains which are not covered by in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983)*
 (h) *Sites of significance relating to the history of slavery in South Africa*
 (i) *moveable objects, including -*
 (i) *objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens*
 (ii) *objects to which oral traditions are attached or which are associated with living heritage*
 (iii) *ethnographic art and objects*
 (iv) *military objects*
 (v) *objects of decorative or fine art*
 (vi) *objects of scientific or technological interest; and*
 (vii) *books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).*

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

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

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

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



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

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

7. Degree of significance

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

Significance rating of sites

(i) High

(ii) Medium

(iii) Low

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

High

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



Medium

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

Low

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

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

Table 1: Grading systems for identified heritage resources in terms of National Heritage Resources Act (Act 25 of 1999).

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

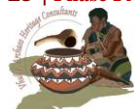


8. History of the Region

South Africa has one of the longest sequences of human development in the world. The prehistory and history of South Africa span the entire known life span of human on earth. It is thus difficult to determine exactly where to begin, a possible choice could be the development of genus *Homo* millions of years ago. South African scientists have been actively involved in the study of human origins since 1925 when Raymond Dart identified the Taung child as an infant halfway between apes and humans. Dart called the remains *Australopithecus africanus*, southern ape-man, and his work ultimately changed the focus of human evolution from Europe and Asia to Africa, and it is now widely accepted that humankind originated in Africa (Robbins *et al.* 1998). In many ways this discovery marked the birth of palaeoanthropology as a discipline. Nonetheless, the earliest form of culture known in South Africa is the Stone Age. These prehistoric period during which humans widely used stone for tool-making, stone tools were made from a variety of different sorts of stone. For example, flint and chert were shaped for use as cutting tools and weapons, while basalt and sandstone were used for ground stone. Stone Age can be divided into Early, Middle and Late, it is argued that there are two transitional period. Noteworthy that the time frame used for Stone Age period is an approximate and differ from researcher to researcher (see Korsman and Meyer 1999, Mitchell 2002, Robbins *et al.* 1998).

Stone Age

Although a long history of research on the Early Stone Age period of southern Africa has been conducted (Mason 1962, Sampson 1974, Klein 2000, Chazan 2003), it still remains a period where little is known about. These may be due to many factors which includes, though not limited to retrieval techniques used, reliance on secondary, at times unknown sources, and the fact that few fauna from this period has been analysed (Chazan 2003). According to Robbins *et al.* (1998) the Stone Age is the period in human history when stone was mainly used to produce tools. This period began approximately 2.5 million years ago and ended around 200 000 years ago. During this period human beings became the creators of culture and was basically hunters and gatherers, this era is identified by large stone artefacts. In the Free State, the earliest known Early Stone Age (ESA) phase is the 'Victoria West Industry' which had also been noted in Northern Cape. From as early as the 1900s stone artifacts which



were of peculiar character had been recorded in the area by Reginald Smith and they included hand axes and what had been referred by Smith as '*Tortoise Cores*' (Smith 1919).

The Middle Stone Age overlap with the EIA and possibly began around 100 000 to about 200 000 years ago and extends up to around 35 000 years ago. This period is marked by smaller tools than in ESA. Many MSA sites have evidence for control of fire, prior to this, rock shelters and caves would have been dangerous for human habitation due to predators. MSA people made a wide range of stone tools from both coarse – and fine-grained rock types. Sometimes the rocks used for tools were transported considerable distances, presumably in bags or other containers; as such tool assemblages from some MSA sites tend to lack some of the preliminary cores and contain predominantly finished products like flakes and retouched pieces.

Microlithic Later Stone Age period began around 35 000 and extend to the later 1800 AD. According to Deacon (1984), LSA is a period when human being refined small blade tools, conversely abandoning the prepared-core technique. Thus, refined artefacts such as convex-edge scrapers, borers and segments are associated with this period. Moreover, large quantity of art and ornaments were made during this period. Very few Stone Age sites are known to exist in the area. This might have been as a result of few researches that have been done on the larger region. As such, few published papers and studies are available. Most of the Stone Age sites known in the area dates to the Late Iron Age and vary from cave sites to open sites. An example will be rock painting which are located on the shelter of the hill in the region of the town of Warden. Scatters of Late Iron Age tools have also been noted by other AIA studies. Research into LSA ethnography (as KhoiSan history) has revolutionized our understanding of both painted and engraved (Deacon and Dowson 2001). Paintings are concentrated in the Maluti mountains, the eastern Free State, the Cape Fold Mountains, the Waterberg Plateau and the Soutpansberg mountains. Engravings on the other hand are found throughout the Karoo, the western Free State and North-West Province (Mitchell 2002).



Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce artefacts. Recently, there have been a debate about the use of the name. Other archaeologists have argued that the word “Iron Age” is problematic and does not precisely explain the event of what happened in southern Africa, as such, the word farming communities has been proposed (Segobye 1998). Nonetheless, in South Africa this period can be divided into two phases. Early (200 - 1000 A.D) and Late Iron Age (1000 - 1850 A.D). Huffman (2007) has indicated that a Middle Iron Age (900 - 1300 A.D) should be included. According to Huffman (2007:361), until the 1960s and 1970s most archaeologists had not yet recognised a Middle Iron Age. Instead they began the Late Iron Age at AD 1000. The Middle Iron Age (AD 900–1300) is characterised by extensive trade between the Limpopo Confluence and the East Coast of Africa. This has been debated, with other researchers, arguing that the period should be restricted to Shashe-Limpopo Confluence.

Before the arrival of Europeans, the area was the home to Bantu-speaking peoples such as the Sotho-Tswana. During the Late Iron Age, farming was of significance in the region. These farming communities built numerous stone walled settlements throughout the Free State from the 17th century onwards. These sites are associated with the predecessors of the Sotho-Tswana, and are linked with the so-called N-, V-, R- and Z-Type of settlements which are respectively associated with Fokeng, Kwena, Kgatla and Rolong clans. According to Huffman (2007), Iron Age sites which are found in this part of the Free State are represented by Middle Iron Age sites of the Moloko branch - Urewe tradition. These sites date to AD 1500 - AD 1700. Conversely, Late Iron Age sites are represented by the Thabeng facies of the Moloko branch - Urewe tradition. These sites date to AD 1700 - AD 1840.

Historical Period

Since the arrival of the white settlers - c. AD 1840 - in this part of the country. These settlers were largely self-sufficient, relying on cattle/sheep farming and also hunting. Few towns were established and farming remains the most dominant economy. The Free State (Afrikaans: *Vrystaat*, Sotho: *Foreistata*; before 1995, the Orange Free State) is a province of South Africa. Europeans first crossed the Orange River northward to enter the area in the 18th century. Early in the 19th century the Tswana were dispersed by Zulu military campaigns, and their place was taken by the Sotho (Basotho) and Griqua peoples. At the



same time, pastoral farmers of Dutch descent, called *trekboers* or Boers, began to settle the area. After 1836 came the Great Trek, a migratory movement in which larger numbers of Boer farmers seeking freedom from British rule moved north across the Orange River. In 1848 the British annexed the territory between the Orange and Vaal rivers, proclaiming it the Orange River Sovereignty over the resistance of the Boer general Andries Pretorius. The British proved unable to build an orderly administration, however, and conflicts with the Sotho convinced the British to withdraw in 1854. On February 23, 1854, under the Bloemfontein Convention, the British relinquished their sovereignty, and the local Boer settlers formed the independent Orange Free State.

9. Survey Findings

The phase 1 Cultural Heritage Impact Assessment for the proposed Residential Township on Remainder of the Farm Fourie trust 2525 District revealed no archaeological (Stone and Iron Ages) resources. However, several graves dating to the historical era, as well as historical structures were noted in the area proposed for development. The houses that are in the proposed area are five in numbers and date to the 1940s and 1950s. All these structures, irrespective of their conditions, are protected against any form of alteration by legislature. Accordingly, Section 34(1) of the National Heritage Resource Act, 1999 (Act 25 of 1999) protect these structures. In respect to Section 34(1) of the National Heritage Resource Act, 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, in this case, the Free State Provincial Heritage Resource Authority (FSPHRA). However, none of these structures can be considered to be of such significance that can prevent the proposed development from proceeding. In fact, if the noted structures cannot be reused, they can be demolished after they have been recorded in detailed, in which case FSPHRA must issue a permit for their demolition.

The noted informal graveyard is consisted of about 15 graves. Different types of grave dressing were found, these being stones, bricks, granite and some form of cement. The area where these graves are located is disturbed by the movement of cattle. The manner on which cattle moves, may move stones around the site, and because of this, stones will lose their place of origin. Hence, the number is an estimate, it was not possible to authentically count the number of these graves. Nevertheless, all graves have no inscription on them. According



to legislature, unknown graves are handled similarly to those older than 60 years. These graves are thus protected by Section 3 of the National Heritage Resource Act, 1999 (Act 25 of 1999). Section 36 (3) of the same Act further protects these graves against any form of alterations. The recommendation below should be considered with responsiveness as they are inspired by the National Heritage Resource Act.

Table 2: Overview of the findings and their significance.

No	Co-ordinates	Description	Significance	Mitigation
Foury1	29° 3' 8.70" S 26° 4' 47.10" E	Several graves demarcated by stones where noted in the proposed area. The direction of these graves is not clear, since the dressing is disturbed. It is assumed that these graves may total about +15. These graves are documented in the topographical map drawn in 1949. Meaning they are over 60 years.	High	Compile an executive plan to ensure continuous managing of the grave site. The plan should be aimed on the entire site as indicated by the yellow demarcation on Figure 2. A danger tape around the site is recommended during construction, and an educational programme to construction workers is essential.
Foury2	29° 3' 5.45" S 26° 4' 42.27" E	An old farmhouse with supporting structures where noted. These structures present varying degree of preservation.	Medium to Low	If the developer aims to demolish these houses, a permit will have to be sought. However, if they aim to retain them, and integrate them into the



				proposed development, a structural engineering assessment will be necessitated to ensure if the structures are liveable. Likewise, a permit will have to be sought before any renovation is initiated.
Foury3	29° 3' 7.73" S 26° 4' 42.59" E	An old house which could have been occupied by farm workers. This house is in bad condition and is in a state of disarray.	Medium to Low	See above.
Foury4	29° 3' 7.12" S 26° 4' 38.66" E	Another old house which is in a bad condition.	Medium to Low	See above.



Figure 7: Grave sites noted in the area proposed for development.





Figure 8: View of other grave dressing noted on the proposed area.



Figure 9: View of the first farm dwelling noted in the area proposed for development.

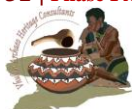
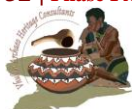




Figure 10: View of the second documented structure.



Figure 11: An overview of the last structure noted in the proposed site.



10. Recommendations

Graves are directly associated with human being and are thus accorded a high value (Local Grade III B). This means they should be included in the heritage catalogue (see Table 2). However, they can be mitigated if serious need arise. There are two possibilities on how graves can be mitigated. Firstly and mostly preferred is to fence the graves and compile a management plan to ensure their continuous conservation. This should be completed by a heritage specialist, and is done when graves are not in direct jeopardy by the proposed development. The second and last option is Phase-2 mitigation (relocation of graves). This procedure entails social consultation, and application of permits for those older than 60 years and unknown graves, while those less than 60 years of age, authorisation should be requested with respective departments. The former is thus recommended, this being to properly fence the graves and compile a management plan to ensure their continuous conservation. Considering that the area of some of the graves is not comprehensive, the management plan should be aimed on the entire site as indicated by the yellow demarcation on Figure 2. Further to this recommendation, the developer should ensure that the descendant of the graves are sought, and notified about this proposed development which might have an impact (directly or indirectly) on their graves. No stone robbing or removal of any material is allowed. Any disturbance or alteration on this graveyard would be illegal and punishable by law, under section 36 (3) of the National Heritage Resources Act (Act 25 of 1999). Furthermore, the developer should maintain a reasonable buffer zone around the identified graveyards (approximately 25 metres). No dumping of construction material is allowed within this buffer zone and no alteration or damage on this site (buffer) may occur.

The noted structures are viewed to have a medium significance on a regional level. In terms of Section 7 of the National Heritage Resource Act, all these structures are evaluated to have Grade III significance (see Table 1). If the developer aims to demolish some of the features of the noted buildings or structures, it is strictly recommended that a second phase heritage impact assessment is conducted by a heritage specialist. This should be done before the commencement of the proposed development, and it will entail proper documentation of these structures, as well as application for the permit to demolish (or renovate) with the FSPHRA as stipulated by the legislature. Alternatively, these structures can be integrated into the proposed development, in such instances, the developer will have to plan around these structures and include them in the layout plan.



Archaeological materials are often located underground, and often disturbed/ exposed ones construction began. As a result, this study cannot rule out the possibilities of encountering subsurface chance finds, and thus recommend the following:

The Environmental Control Officer or any person responsible for site management should be aware of the indicators of sub-surface sites, this may include the following:

- Bone concentrations, either animal or human,
- Ash deposits (unnaturally grey appearance of soil compared to the surrounding substrate),
- Ceramic fragments, including potsherds,
- Bone concentrations,
- Stone concentrations that appear to be formally arranged (may indicate the presence of an underlying burial),
- Fossilised remains of fauna and flora, including trees.

Any measure to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law under Section 35(4) and 36(3) of the National Heritage Resources Act (Act 25 of 1999). The developer should induct field worker about archaeology, and steps that should be taken in the case of exposing archaeological materials. Thus, all construction within a radius of at least 10m of such indicator should cease and the area be demarcated by a danger tape. Accordingly, a professional archaeologist or provincial officer should be contacted immediately. In the mean time, it is the responsibility of the Environmental officer and the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached. It is mandatory to report any incident of human remains encountered to the South African Police Services, provincial heritage staff member and professional archaeologist.

11. Conclusion

From a cultural heritage resources perspective, it is recommended that the proposed project proceed on condition that the suggested recommendation measures are successfully adhered to.



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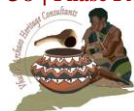
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APPENDIX 1: SITE SIGNIFICANCE

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

(a) Historic value

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

(b) Aesthetic value

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

(c) Scientific value

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

(d) Social value

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

(e) Rarity

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

(f) Representivity

- Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects?
- What is the importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class?
- Is it important in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or



technique) in the environment of the nation, province, region or locality?

