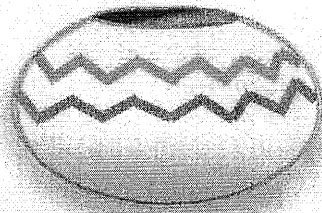


9/12/248/0008

Phase 1 Archaeological Impact Assessment for the proposed town  
development on 98ha of the farm Broedershoek 129 JU, portions  
15 and 16  
compiled by

# Kudzala Antiquity



Mr JP Celliers  
September 4, 2007

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## 1. Introduction

Kudzala Antiquity was commissioned to conduct a Archaeological Impact Assessment (AIA) on the proposed township development on portions 15 and 16 of the farm Broedershoek. The study forms part of an Environmental Impact Assessment as required by legislation, the National Heritage Resources Act (Act 25, 1999). This act requires of individuals (engineers, farmers, mines and industry) or institutions to have impact assessment studies undertaken whenever any development activities are planned. This is to ensure that heritage features or sites that qualify as part of the National Estate are not damaged or destroyed.

Heritage resources considered to be part of the national estate include those that are of cultural significance or have other special value to the present community or future generations.

The national estate may include:

- 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 natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- 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; andother human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- sites of significance relating to slavery in South Africa;

- movable objects including:
  - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological 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

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).

Against this background, the HIA was conducted on Broedershoek, an area of approximately 98 hectares.

Van Vollenhoven (1995:3) describes cultural resources as all unique and non-renewable physical phenomena (of natural occurrence or made by humans) that can be associated with human (cultural) activities. These would be any man-made structure, tool, object of art or waste that was left behind on or beneath the soil surface by historic or pre-historic communities. These remains, when studied in their original context by archaeologists, are interpreted in an attempt to understand, identify and reconstruct the activities and lifestyles of past communities. When these items are disturbed from their original context, any meaningful information they possessed is lost, therefore it is important to locate and identify such remains before construction or development activities commence.

An AIA consists of three phases, this document deals with the first phase. This (phase 1) investigation is aimed at getting an overview of cultural resources in a given area, thereby assessing the possible impact a proposed development may have on these resources. When the archaeologist encounters a situation where the planned project will lead to the

destruction or alteration of an archaeological site, a second phase in the survey is normally recommended. During a phase two investigation, the impact assessment of development activities on identified cultural resources is intensified and detailed investigation into the nature and origin of the cultural material is undertaken. Normally at this stage, archaeological excavation is carried out in order to document and preserve the cultural heritage.

Phase three consists of the compiling of a management plan for the safeguarding, conservation, interpretation and utilization of cultural resources (Van Vollenhoven, 2002).

Continuous communication between the developer and surveyor after the initial report has been compiled may result in the modification of a planned route or development to incorporate or protect existing archaeological sites.

## 2. Description of surveyed area

The study area falls within the Mbombela Local Municipality and Ehlanzeni District Municipality within Mpumalanga Province. The survey was carried out on approximately 98 ha of land which was previously cultivated. The property is bordered in the south by the Luphisi road turning east from the R 538 and the Primkop to the north-east. The survey was conducted on foot and with the use of a motor vehicle in an effort to locate cultural remains.

## 3. Methodology

The methodological approach for this study should meet the requirements of relevant heritage legislation. A desktop study followed by a physical survey of the impacted areas was conducted. Discussions with knowledgeable individuals specifically regarding burial sites also took place. In this case a local resident and businessman, Mr Dominic Mdluli provided information regarding the location of graves.

SAHRA recently (2005) issued the "*Minimum standards for archaeological and*

*palaentological components of impact assessment reports*". This is a draft document which suggests that the following components be included in a heritage impact assessment:

- Archaeology
- Shipwrecks
- Battlefields
- Graves
- Structures older than 60 years
- Living heritage
- Historical settlements
- Landscapes
- Geological sites
- Palaeontological sites and objects

This document only deals with the archaeology and basic history since the area does not contain any significant heritage resources. Shipwrecks, geological sites and palaeontological sites and objects are not dealt with in this report.

The purpose of the archaeological study is to establish the whereabouts and nature of cultural heritage sites should they occur on the surveyed area. This includes settlements, structures and artifacts which have value for an individual or group of people in terms of historical, archaeological, architectural and human (cultural) development.

The location and identification of such objects or places is conducted to assess whether they are of significance and warrant further investigation or protection. This study consisted of foot surveys, consultation with knowledgeable individuals and a desktop study.

### **3. 1. Desktop study**

The purpose of the desktop study is to compile as much information as possible on the heritage resources of the area. This helps to provide an historical context for located sites.

Sources used for this study included published and unpublished documents, archival material and maps. Material obtained from the following institutions or individuals were consulted:

- Lydenburg Museum, Lydenburg

### **3. 2. Significance of sites**

The South African Heritage Resources Agency (SAHRA) formulated guidelines for the conservation of all cultural resources and therefore also divided such sites into three main categories. These categories might be seen as guidelines that suggest the extent of protection a given site might receive. They include sites or features of local (Grade 3) provincial (Grade 2) and national (Grade 1) significance.

For practical purposes the surveyor uses his own classification for sites or features and divides them into three groups, those of low or no significance, those of medium significance, those of high significance.

Within the establishment of the significance of a site or feature there are certain values or dimensions connected to significance which may be allocated to a site. These include:

- **Types of significance**

The site's scientific, aesthetic and historic significance or a combination of these is established.

- **Degrees of significance**

The archaeological or historic site's rarity and representative value is considered. The condition of the site is also an important consideration.

- **Spheres of significance**

Sites are categorized as being significant in the international, national, provincial, regional or local context. Significance of a site for a specific community is also taken into consideration.

It should be noted that to arrive at the specific allocation of significance of a site or feature, the specialist considers the following:

- Historic context
- Archaeological context or scientific value
- Social value
- Aesthetic value

More specific criteria used by the specialist in order to allocate value or significance to a site include:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Quality of the archaeological or historic material of the site
- Quantity of sites and site features

In short, archaeological and historic sites that contain data which may significantly enhance the knowledge that archaeologists currently have about our cultural heritage should be considered highly valuable. In all instances these sites should be preserved and not damaged during construction activities. When development activities do however jeopardize the future of such a site, a second and third phase in the Cultural Resource Management (CRM) process is normally advised which entails the excavation or rescue excavation of cultural material along with a management plan to be drafted for the preservation of the site or sites.

Graves are considered very sensitive sites and should never under any circumstances be jeopardized by development activities. Graves are incorporated in the National Heritage Resources Act under section 36 and in all instances where graves are found by the surveyor, the recommendation would be to steer clear of these areas. If this is not



possible or if construction activities have for some reason damaged graves, specialized consultants are normally contacted to aid in the process of exhumation and reinterment of the human remains. This implies that construction activities at the particular grave site will be brought to a halt temporarily.

## 4. History and archaeology

### **4.1. Historic and Archaeological Background**

The surveyed area is located close to well-known settlements such as Plaston and White River to the north-west and Karino to the south.

After the Anglo Boer War (1899-1902) some British officers settled in this town after being granted land here. The town was named after the White River so called because of the white sand therein. This river flows very close to the town and eventually joins the Crocodile River.

Plaston is a small settlement located between White River and Karino, a similar farmer settlement located further to the south. It started out as a railway station named after a Mr Dirk van der Plast who at some stage was the owner of the farm Blinkwater. The station was the last of the White River line, this sideline was completed in 1926. (Barnard, 1975: 120).

The first inhabitants of the eastern Lowveld were probably the San or Bushmen. They were a nomadic people who lived together in small family groups and relied on hunting and gathering of food for survival. Evidence of their existence is to be found in numerous rock shelters throughout the Lowveld where some of their rock paintings are still visible. A number of these shelters have been documented in the Nelspruit area (Bornman, 1995; Schoonraad in Barnard, 1975).

It has been argued that the red ochre source for these paintings is to be found at Dumaneni, near Malelane (Bornman, 1995).

It was only later when Bantu-speaking tribes moved into this area from the northern parts

of Southern Africa and settled here. This period is referred to as the Early Iron Age (AD 200-1500 approx.). These were presumably Sotho-Tswana herder groups. Some research was done during the 1970's at sites belonging to the EIA (Early Iron Age), location Plaston, a settlement close to White River (Evers, 1977). The Plaston site was discovered during house-building operations in 1976 when a number of pottery shards were unearthed. Rescue excavations were subsequently carried out in an effort to preserve and document the finds. The site is located on a spur between the White river and an ephemeral tributary approximately two to three kilometers north of the formal Plaston settlement. The pottery type is comparable to the Early Iron Age sites of the Lydenburg Heads site as well as the Klingbiel phase and also those found at Eiland, Silver Leaves and Matola.

Early Iron Age pottery was also excavated by archaeologist, Prof. Tom Huffman during 1997 on location where the Riverside Government complex is currently situated (Huffman, 1998).

Various historians and ethnographers describe that the areas of Barberton, Nelspruit and surrounds were frequented by Swazi and Sotho-Tswana groups in historic times or Late Iron Age times during the period AD 1500-1800. (Myburgh, 1949; Herbst, 1985; Bornman, 2002; Pienaar, 1990; Barnard, 1975).

## 5. Located sites and their description

### 5.1. Site B 1.

**Location:** See Appendix B and C.

**Description:**

This is a rectangular shaped stone-walled structure poorly defined. The stone-walling is roughly 30 cm high and mainly consists of a single row of aligned stones. There are no similar structures in the immediate vicinity. It is not regarded as significant.

**Impact of the proposed development:**

The proposed development will directly impact on this site.

**Mitigation:**

No mitigation required.

### 5.2. Site B 2.

**Location:** See Appendix B and C.

**Description:**

Similar to site B 1 but even more poorly defined.

**Impact of the proposed development:**

The proposed development will directly impact on this site.

**Mitigation:**

No mitigation required.

### 5.3. Site B 3

**Location:** See Appendix B and C.

**Description:**

A large house on the east and smaller dwellings north of here just opposite the dirt road. The dwellings are all currently inhabited.

**Impact of the proposed development:**

Unknown. It will probably have a direct impact on at least some of the buildings.

**Mitigation:**

There is no reason to believe that these structures are 60 years old or older. No mitigation required.

**5.4. Site B 4**

**Location:** See Appendix B and C

**Description:**

Large cement brick dwelling. Not in current use.

**Impact of the proposed development:**

Unknown. The proposed development activities will probably impact on this structure.

**Mitigation:**

There is no reason to believe that this structure is 60 years old or older. No mitigation required.

**5.5. Site B 5**

**Location:** See Appendix B and C

**Description:**

Cement brick dwelling. Not in current use.

**Impact of the proposed development:**

Unknown. The proposed development activities will probably impact on this structure.

**Mitigation:**

There is no reason to believe that this structure is 60 years old or older. No mitigation required.

### **5.6. Site B 6**

**Location:** See Appendix B and C

**Description:**

Cement brick dwelling. Not in current use.

**Impact of proposed development:**

Unknown. The proposed development activities will probably impact on this structure.

**Mitigation:**

There is no reason to believe that this structure is 60 years old or older. No mitigation required.

### **5.7. Site B 7**

**Location:** See Appendix B and C.

**Description:**

This site is located up and north-east of Site B 4. The informant Mr Dominic Mdluli identified this area as a graveyard with at least 5 graves. I could not positively identify the grave dressings but some depressions and small earth-mounds are visible.

**Impact of proposed development:**

Unknown. It is probable that this area will be affected by the development.

**Mitigation:**

Although I could not find definite evidence of grave dressings, it is likely that there are graves located here when the information of the informant is considered. It is recommended that no development activities be undertaken in this area before substantial social consultation have been undertaken in an effort to positively identify the people buried here. After this is done it is advised that the graves either be fenced off and access allowed for family members or that the graves be exhumed and reinterred at a location identified by the families.

**TABLE 5.1. General Significance of located sites.**

<b>Site No.</b>	<b>Description</b>	<b>Type of significance</b>	<b>Degree of significance</b>	<b>Sphere of significance</b>
B 1	Rectangular stone wall structure. Poorly defined.	Possible historic significance	Low	Local value
B 2	Evidence of stone walled structure. No definite shape discernible.	Possible historic significance	Low	Local value
B 3	At least four dwellings currently occupied	None	None	None
B 4	Rectangular cement brick structure. Previously used as dwelling for farm workers	None	None	None
B 5	Rectangular cement brick structure. Previously used as dwelling for farm workers	None	None	None
LM 6	Three rectangular cement brick structures. Previously used as dwelling for farm workers	None	None	None
LM 7	Location of at least 5 graves	Local community	High	Local community

**TABLE 5.2. Significance allocation of located sites**

Site no.	Unique nature	Integrity of archaeological deposit	Wider context	Relative location	Depth of deposit	Quality of archaeological/historic material	Quantity of site features	Preservation condition of site
B 1	Not Significant	No deposit left	Little archaeological research done. Site too small and isolated for meaningful assessment	Not known.	N/A	Archaeologically: low potential. Historically: low quality	Limited number of sites	Low
B 2	Not Significant	No deposit left	Little archaeological research done. Site too small and isolated for meaningful assessment	Not known	N/A	Archaeologically: low potential. Historically: low quality	Limited number of sites	Low
B 3	None	N/A	None	N/A	N/A	N/A	N/A	N/A
B 4	Not unique	N/A	None	N/A	N/A	N/A	N/A	N/A
B 5	Not unique	N/A	None	N/A	N/A	N/A	N/A	N/A
B 6	Not unique	N/A	None	N/A	N/A	N/A	N/A	N/A
B 7	Significant	Possibility of human skeletal material	Local community	Significant for local community	Unknown	Archaeologically: high potential. Historic: local community	Not easily discernible	Poor

It is important to note that the bulk of archaeological remains are normally located beneath the soil surface. It is therefore possible that some significant cultural material or remains were not located during this survey and will only be revealed when the soil is disturbed.

Therefore it is recommended that the owner of the land or developers take this into consideration when such activities are planned and executed at these locations.

Should excavation or large scale earth moving activities reveal any human skeletal remains, broken pieces of ceramic pottery, large quantities of sub-surface charcoal or any material that can be associated with previous occupation, a qualified archaeologist should be notified immediately. This will also temporarily halt such activities until an archaeologist have assessed the situation. It must also be noted that if such a situation occurs it may have further financial implications for the developers the developers.

## 6. Findings and recommendations

Mitigation measures were allocated to each site as discussed in section 5: Located sites and their description. It is recommended that further investigation be conducted to establish whether the family members associated with the grave site (Site 7) are still residing in the area. This will help with the establishment of the exact number of individuals buried here and the age of the graves.

It is my opinion that development activities will not negatively impact on any of the other identified sites.

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### **Maps**

1. SA 1:50 000 2531 AC Manchester 121 JU

## Appendix A

### Terminology

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

**“Archaeological”** means –

- Material remains resulting from human activity 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 or structures;
- Rock Art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artifacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and
- Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found;

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

**“Cultural significance”** 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 well-being, including –

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

**“Expropriate”** means the process as determined by the terms of and according to procedures described in the Expropriation Act, 1975 (Act No. 63 of 1975);

**“Foreign cultural property”**, in relation to a reciprocating state, means any object that is specifically designated by that state as being of importance for archaeology, history, literature, art or science;

**“Grave”** means a place of internment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;

**“Heritage resource”** means any place or object of cultural significance;

**“Heritage register”** means a list of heritage resources in a province;

**“Heritage resources authority”** means the South African Heritage Resources Agency, established in terms of section 11, or, insofar as this Act (25 of 1999) is applicable in or in respect of a province, a provincial heritage resources authority (PHRA);

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

place declared to be a provincial heritage site by a provincial heritage resources authority;

**“Improvement”**, in relation to heritage resources, includes the repair, restoration and rehabilitation of a place protected in terms of this Act (25 of 1999);

**“Land”** includes land covered by water and the air space above the land;

**“Living heritage”** means the intangible aspects of inherited culture, and may include –

- cultural tradition;
- oral history;
- performance;
- ritual;
- popular memory;
- skills and techniques;
- indigenous knowledge systems; and
- the holistic approach to nature, society and social relationships;

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

**“Object”** means any moveable property of cultural significance which may be protected in terms of any provisions of the Act, including –

- any archaeological artifact;
- palaeontological and rare geological specimens;
- meteorites;
- other objects referred to in section 3 of the Act;

**“Owner”** includes the owner’s authorized agent and any person with a real interest in the property and –

- in the case of a place owned by the State or State-aided institutions, the Minister or any other person or body of persons responsible for the care, management or control of that place;

- in the case of tribal trust land, the recognized traditional authority;

**“Place”** includes –

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place;

**“Site”** means any area of land, including land covered by water, and including any structures or objects thereon;

**“Structure”** means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith;

## Appendix B

### List of located sites

The located sites were numbered B 1 to B 7. The B indicates “Broedershoek” followed by the number of the site. A spatial location with the aid of a GPS (Global Positioning System) was added to each site.

#### 9.1. Site name: B 1 (Site 1)

Date of compilation: 18/08/2007

GPS reading: Longitude, 31° 06, 843' E

Latitude, 25° 24, 947' S

Altitude: 686 m

Photo: Fig. 1, 2.

#### 9.2. Site name: B 2 (Site 2)

Date of compilation: 18/08/2007

GPS reading: Longitude, 31° 07, 171' E

Latitude, 25° 24, 690' S

Altitude: 764 m

Photo: Fig. 3.

#### 9.3. Site name: B 3 (Site 3)

Date of compilation: 18/08/2007

GPS reading: Longitude, 31° 07, 314' E

Latitude, 25° 24, 584' S

Altitude: 821 m

Photo: Fig. 4, 5.

9.4. Site name: B 4 (Site 4)

Date of compilation: 18/08/2007

GPS reading: Longitude, 31° 07, 303' E

Latitude, 25° 24, 518' S

Altitude: 834 m

Photo: Fig. 6.

9.5. Site name: B 5 (Site 5)

Date of compilation: 18/08/2007

GPS reading: Longitude, 31° 07, 258' E

Latitude, 25° 24, 506' S

Altitude: 810 m

Photo: Fig. 7, 8.

9.6. Site name: B 6 (Site 6)

Date of compilation: 18/08/2007

GPS reading: Longitude, 31° 07, 232' E

Latitude, 25° 24, 475' S

Altitude: 829 m

Photo: Fig. 9.

9.7. Site name: B 7 (Site 7)

Date of compilation: 03/09/2007

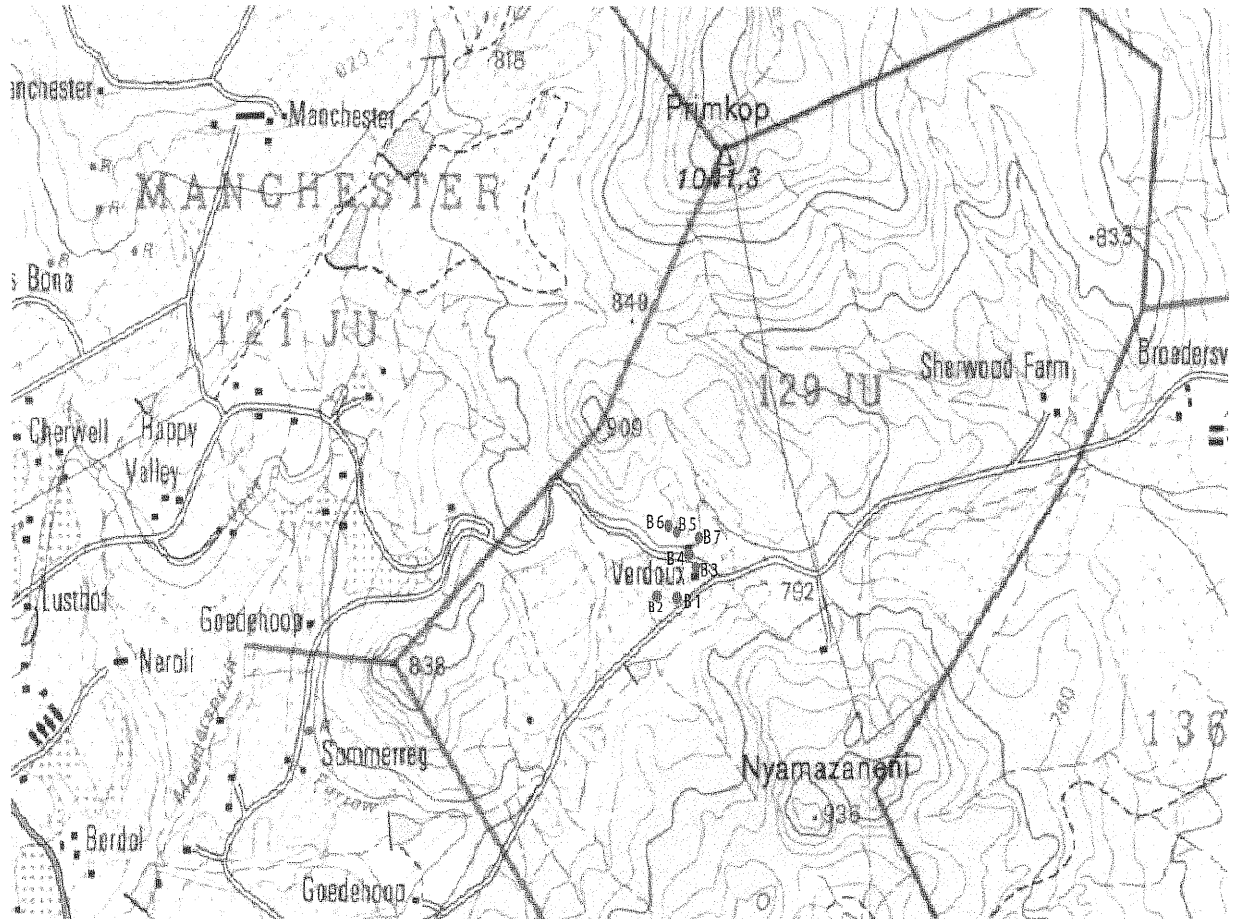
GPS reading: Longitude, 31° 07, 282' E

Latitude, 25° 24, 494' S

Altitude: 830 m

Photo: Fig.10.

Appendix C - Maps







Appendix – D  
Photos of located sites



Fig. 1. Site 1.



Fig. 2. Site 1.



Fig. 3. Site 2.

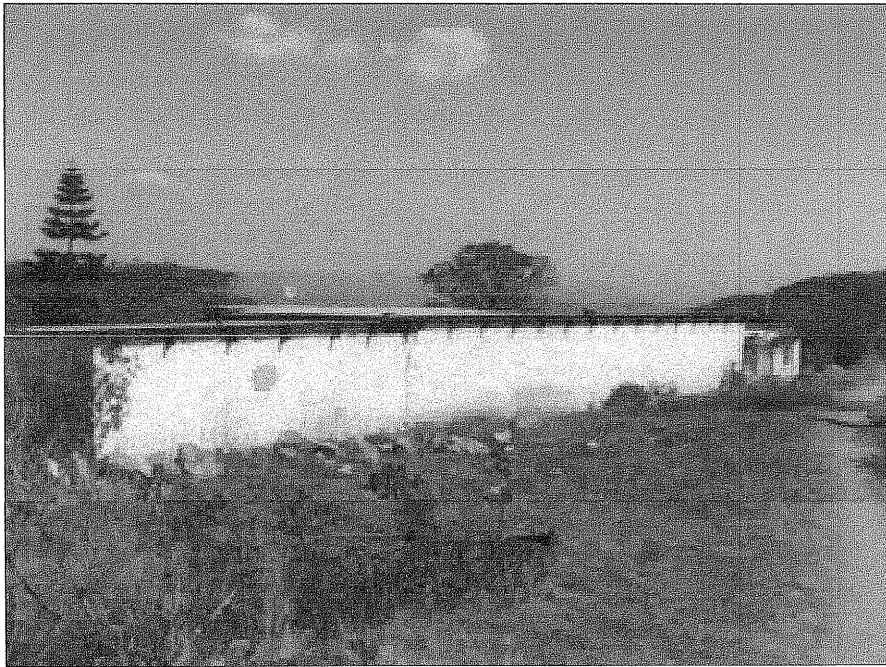


Fig. 4. Site 3.



Fig. 5. Site 3.

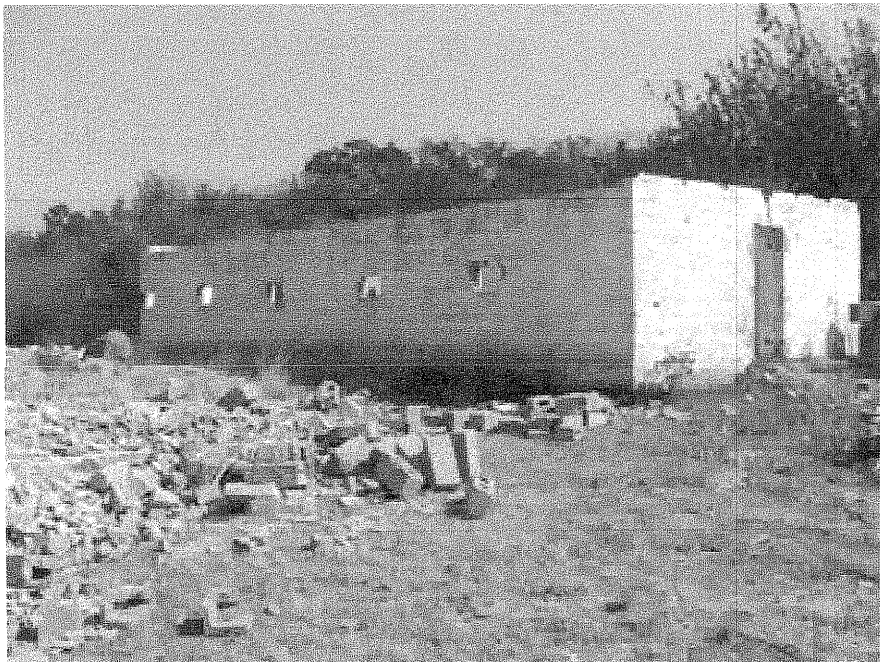


Fig. 6. Site 4.



Fig. 7. Site 5.



Fig. 8. Site 5.

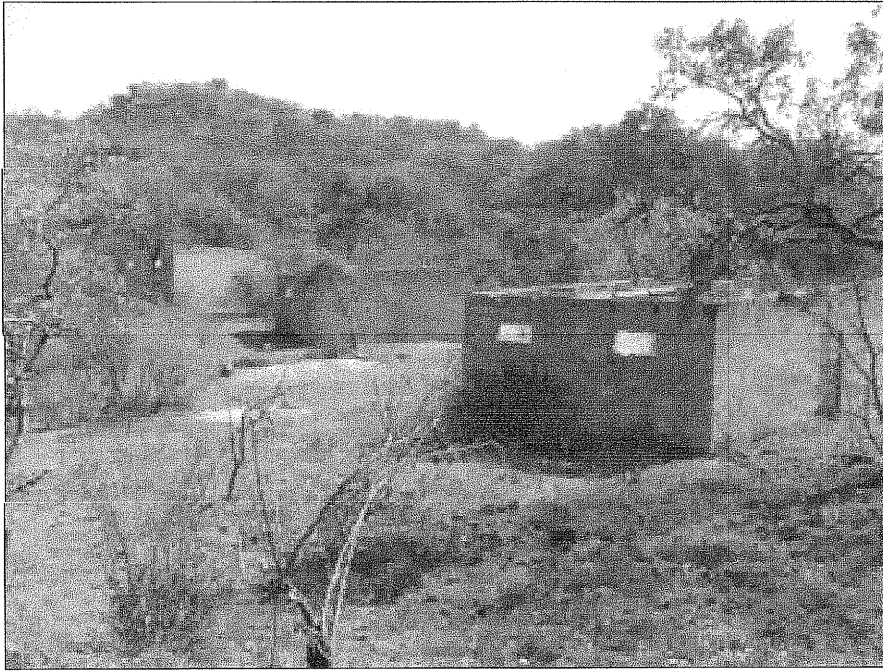


Fig. 9. Site 6.



Fig. 10. Site 7.