

Phase 1 Archaeological Impact Assessment in respect of the
Proposed Funda Mlimi Poultry Abbatoir on the farm Gemsbokfontein
231 JR, Gauteng Province.

Compiled by



For **Aurecon**

Surveyor: Mr JP Celliers

14 October, 2013

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Executive summary

Site name and location: The proposed Funda Mlimi Poultry Abbatoir on the farm Gemsbokfontein 231 JR.

Purpose of the study: An Archaeological and historic study in order to identify heritage resources on the affected property as part of an Environmental Impact Assessment.

1:50 000 Topographical Map: 2528 BD (1995)

Local Authority: Kungwini Local Municipality

EIA Consultant: Aurecon

Client:

Heritage Consultant: Kudzala Antiquity CC.

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Report date: 14 October 2013

Description and findings:

An Archaeological Impact Assessment survey was undertaken by Kudzala Antiquity CC for Aurecon as part of an EIA process in respect of the proposed Funda Mlimi Poultry Abbatoir development near Bronkhorstspuit in Gauteng Province. This was done with the aim of identifying sites which are of heritage significance on the property and assessing their significance. This forms part of legislative requirements as appears in section 38 of the National Heritage Resources act (25 of 1999).

The survey was conducted on foot and with the aid of a motor vehicle in an effort to locate archaeological remains and historic features.

No sites of archaeological or heritage value were identified or located during the survey. Limiting factors included dense grass which limited visibility to an extent.

Disclaimer: *Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. Kudzala Antiquity CC will not be held liable for such oversights or for costs incurred as a result of such oversights. This study does not include a palaeontological assessment which may be required by SAHRA.*

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- The results of the project;
- The technology described in any report
- Recommendations delivered to the Client.

JP Celliers is a trained Archaeologist and Museum Professional. He holds a Masters Degree from the University of Pretoria with specialisation in Archaeology.

He has been conducting Archaeological Impact Studies and Mitigation in a professional capacity since 2003 and is the Director of Kudzala Antiquity CC, a consulting business specialising in Archaeological and related Heritage work.

He is also a member in good standing of ASAPA (Association of South African Professional Archaeologists) where he is graded as a Field Supervisor in the following disciplines: Iron Age Archaeology, Stone Age Archaeology and Colonial Period Archaeology.



1. Introduction

Kudzala Antiquity CC was commissioned to conduct an Archaeological and Heritage resources survey on the farm Gembokfontein 231 JR near the town of Bronkhorstspuit in Gauteng Province. The survey was conducted for Aurecon in order to **identify** heritage resources and features. The National Heritage Resources Act (Act 25, 1999, section 38) and the NEMA (National Environmental Management Act No. 107 of 1998) requires of individuals (engineers, farmers, mines and industry) or institutions to have specialist heritage 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 properly managed and not damaged or destroyed.

Heritage resources considered to be part of the national estate include those that are of Cultural, historical 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; and

other 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).

Cultural resources are unique and non-renewable physical phenomena (of natural occurrence or made by humans) that can be associated with human (cultural) activities (Van Vollenhoven, 1995:3).

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 possess 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. Often 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 have been compiled may result in the modification of a planned route or development to incorporate into the development or protect existing archaeological sites.

2. Description of surveyed area

The study area falls within the Kungwini Local Municipality, Gauteng Province. The survey was carried out on approximately 40 ha of previous agricultural land located in the region of Bronkhorstspuit.

Veld type: This is a highly variable landscape with extensive sloping plains and a series of ridges which are elevated over undulating plains. Vegetation comprises of species-rich sour grassland alternating with low sour shrubland on rocky outcrops and steeper slopes.

Geology: The geology is characterized by Quartzite ridges of the Witwatersrand Supergroup and the Pretoria Group as well as the Selons River Formation of the Rooiberg Group (Mucina and Rutherford, 2009).

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 archival study followed by a physical survey of the impacted areas was conducted. This was done to assess whether graves or features of historical or archaeological value exist on the property.

SAHRA (South African Heritage Resources Agency) and the relevant legislation (Act 25 of 1999, National Heritage Resources Act) require that the following components be included in an Archaeological impact assessment:

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

All the above-mentioned heritage components are addressed in this report, except shipwrecks, geological sites and palaeontological sites and objects.

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.

It is the aim of this study to locate and identify such objects or places in order to assess whether they are of significance and warrant further investigation or protection. This is done by means of foot surveys, a desktop archival study as well as a study of the results of previous archaeological work in the area.

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 include published and unpublished documents, archival material and maps. Information obtained from the following institutions or individuals were consulted:

- Lydenburg Museum, Lydenburg
- Published and unpublished archaeological reports and articles
- Published and unpublished historical reports and articles

3.1.1. Previous Archaeological studies in the area

No information could be obtained for the topographic map block 2528 BD. In adjacent blocks, 2528 BC; 2528 DB some studies were done. An archaeological impact study by J. van der Walt entitled: Archaeological Impact Assessment on Holding 38 Lewzeni Estate AH, Cullinan, Gauteng Province (2008), listed no sites of archaeological significance in the area. Similar results by the same author for the proposed Sikhulisiwe Primary School, Ekangala – F Extension 2. A Study undertaken in November 2006 by P. Birkholtz entitled: Phase 1 Heritage Impact Assessment on Portions of the farm Hartebeestspruit 235 JR, Gauteng Province, revealed a number of important archaeological as well as historical finds. Among these a two Middle Iron Age sites, an historic cemetery and 5 historic farmsteads. In December of 2004 Huffman and Steyn conducted an archaeological investigation on the Ezemvelo Nature Reserve. The sites recorded ranges from the Middle Stone Age, Late Iron Age and Historic sites.

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) national (Grade 1) significance, grades of local significance and generally protected sites with a number of degrees of significance (*Also see table 5.2. Significance rating guidelines for sites*).

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
- Research 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 containing 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 (25 of 1999) 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.

4. History and Archaeology

4.1. Historic period

4.1.1. Early History

The historic atlas of Bergh (1999) mentions no signs of Stone Age, Early Iron Age or Later Iron Age activity in the area where Rietfontein 470 JR is located. It also seems that there was no prominent presence of any Bantu tribes in the area by the beginning of the 19th century.

According to Bergh (1999) there was neither a real danger of Malaria infection or Tsetse flies in the area of Rietfontein 470 JR. This possibly meant that the area was favourable for human settlement and livestock farming.

The Difaqane (Sotho), or Mfekane (“the crushing” in Nguni) was a time of bloody upheavals in Natal and on the Highveld, which occurred around the early 1820's until the late 1830's. It came about in response to heightened competition for land and trade, and caused population groups like gun-carrying Griquas and Shaka's Zulus to attack other tribes. It seems that the area in which Rietfontein 470 JR is located today was not directly affected by any of the prominent movements caused by the Difaqane (Bergh, 1999: 10-11; 14; 116-119).

During the time of the Difaqane, a northwards migration of white settlers from the Cape was also taking place. Some travellers, missionaries and adventurers had gone on expeditions to the northern areas in South Africa, some already as early as the 1720's. The traveller Robert Scoon travelled through the area of the present-day Bronkhorstspuit in 1836. This journey is shrouded in ambiguity, as it is unknown from where Scoon departed or what his exact route was. It is also not known whether he returned to the Cape after his journey or travelled into a different direction. After the end of his travels he however wrote an article for The *Graham's Town Journal*, which appeared on 28 July 1836. It is from this article that it could be deduced that Scoon had travelled through the Bronkhorstspuit area. Among other things, Scoon reported that he had come across a party of Boers who were some of the early Voortrekkers making their way into the northern provinces (Bergh, 1999: 12-13; 121-122).

It was only by the late 1820's that a mass-movement of Dutch speaking people in the Cape Colony started advancing into the northern areas. This was due to feelings of mounting dissatisfaction caused by economical and other circumstances under British rule in the Cape. This movement later became known as the Great Trek. This migration resulted in a massive increase in the extent of that proportion of modern South Africa dominated by people of European descent (Ross 2002: 39).

As can be expected, the movement of whites into the Northern provinces would have a significant impact on the black people who populated the land. This was also the case in the Gauteng Province, where Rietfontein 470 JR is located. Farms were surveyed in a large area, which included the present-day Bronkhorstspuit area, between 1839 and 1840. By 1860, the population of whites in the central Transvaal was already very dense and the administrative machinery of their leaders was firmly in place. Many of the policies that would later be entrenched as legislation during the period of apartheid had already been developed.

Since the development of Bronkhorstspuit undoubtedly had an influence on the properties surrounding it, some information on the history of this town will also be given. Bronkhorstspuit is a small town 50 kilometers east of Pretoria in Gauteng, South Africa, along the N4 highway towards Witbank. It lies on the border between the Gauteng and Mpumalanga Provinces. Before the establishment of the town, in 1858, a group of Voortrekkers settled in the Bronkhorstspuit creek, which was originally called Kalkoenkransrivier. A railway station was established on the present-day site of Bronkhorstspuit in 1894. In June 1897, the South African Republic gave its approval for the establishment of the town, by that time already named Bronkhorstspuit by locals. It was however only in 1905 that Bronkhorstspuit was officially proclaimed as a town. There is disagreement about how the town originally got its name. Some say that it was named after the farmer J. G. Bronkhorst, whereas others believe that it was named after the plant *bronkors* (the Afrikaans name for watercress), that grew in the region of the creek (Internet Archive N/A; Routes 2013).

Some information regarding the current geographical makeup of the town of Bronkhorstspuit was traced. Below, some statistics calculated during the 2001 census:

Area	
• Total	70.76 km ² (27.32 sq mi)
Population (2001)	
• Total	7,909
• Density	110/km ² (290/sq mi)
Racial makeup (2001)	
• Black African	32.5%
• Coloured	1.5%
• Indian/Asian	1.5%
• White	64.4%
First languages (2001)	
• Afrikaans	60.5%
• Southern Ndebele	8.8%
• Zulu	7.2%
• English	6.8%
• Other	16.7%

(Census 2001)

4.1.2. History of the Boer Wars (1880-1881; 1899-1902) in the area

An important conflict took place at Bronkhorstspuit during the First Anglo-Boer War (also known as the Transvaal First War of Independence) in December 1880. The troops of Colonel Anstruther were lead into an unnecessary and poorly-planned conflict with the Boers. Many British lives were lost when Anstruther ignored warnings that British relations with the Boers were rapidly deteriorating and that he had to make haste to Pretoria. An insufficiently armed British garrison came up against an unaccountable number of Boers on horses at a farm stopover at Bronkhorstspuit and failed to realize their significance. He then allowed a heavily armed troop of Boers to approach his wagons after the Boer messenger rode up to the column under the white flag of truce. The Boers consequently disregarded the flag and opened fire on the defenseless column. The roadway where Anstruther's column was ambushed had apparently disappeared, like many of the battlefields of the Zulu War. Some British gravestones are apparently to be found in an area that they have been moved to, but are difficult to find (Greaves, 2012: 145-151; Duxbury, 1980).

The Anglo-Boer War, which took place between 1899 and 1902 in South Africa, was one of the most turbulent times in South Africa's history. Even before the outbreak of war in October 1899 British politicians, including Sir Alfred Milner and Mr. Chamberlain, had declared that should Britain's differences with the Z.A.R. result in violence, it would mean the end of republican independence. This decision was not immediately publicized, and as a consequence republican leaders based their assessment of British intentions on the more moderate public utterances of British leaders. Consequently, in March 1900, they asked Lord Salisbury to agree to peace on the basis of the status quo ante bellum. Salisbury's reply was, however, a clear statement of British war aims (Du Preez, 1977).

A black concentration camp was located next to the railway station at Bronkhorstspuit during the Anglo-Boer War. One of the conflicts of the war also took place a small distance to the southeast of the town. The battalion of B. Viljoen attacked that of the British commander Garrison on 18 November 1900 (Bergh, 1999: 15).

4.2. Archaeology

4.2.1. Stone Age

No signs of Stone Age, Early Iron Age or Later Iron Age activities can be found in the area where Rietfontein 470 JR is located today. It also seems that there was no prominent presence of any black tribes in the area by the beginning of the 19th century (Bergh, 1999: 4-8; 10). There is however, a recorded Late Stone Age site named Fort Troje near Cullinan, a town to the north-west of Bronkhorstspuit. This site belongs to sites associated with the Late Holocene period (500BC approx.) associated with some pottery and microlith stone tools particular to the Smithfield industry (6000 BC approx.).

Towards Mpumalanga to the east a number of Stone Age sites have been recorded and researched by scientists. The Later phases of the Stone Age began at around 20 000 years BP (Before Present). This period was marked by numerous technological innovations and social transformations within these early hunter-gatherer societies. Hunting tools now included the bow and arrow. More particularly, the link-shaft arrow which comprises a poisoned bone tip loosely linked to a shaft which fell away when an animal was shot and left the arrow tip embedded in the prey animal. Other innovations included bored stones used as digging –stick weights to help with uprooting of tubers and roots, small stone tools, normally less than 25mm long, which was used for cutting meat and scraping hides. There were also polished bone needles, twine made from plant fibers, tortoiseshell bowls, fishing equipment including bone hooks and stone sinkers, ostrich eggshell beads and other decorative artwork (Delius, 2007).

These people may be regarded as the first modern inhabitants of Mpumalanga, known as 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 Eastern Mpumalanga where some of their rock paintings are still visible. A number of these shelters have been documented throughout the Province (Bornman, 1995; Schoonraad in Barnard, 1975; Delius, 2007). These include areas such as Witbank, Ermelo, Barberton, Nelspruit, White River, Lydenburg and Ohrigstad.

Two Late-Holocene (Later Stone Age) sites near Hazyview in the Kruger National Park date to the last 2500 years and are associated with pottery and microlith stone tools (Bergh, 1998: 95). This is contemporary to typical hunter-gatherer lifestyle and may also have been sites frequented by San.

San paintings in Mpumalanga are characterized by representations of animals and human figures and are normally fine-lined paintings which are produced by using brushes made of plant material, sticks and quills. The colours are usually red and black or sometimes white. It has been argued that the red ochre source for some of these paintings is to be found at Dumaneni, near Malelane (Bornman, 1995).

At Honingklip near Badplaas in the Carolina District, two LSA rock shelters with four panels of rock art was discovered and archaeologically investigated. The site was used between 4870 BP and as recently as 200 BP. Stone walls at both sites date to the last 250 years of hunter-gatherer occupation and they may have served as protection against intruders and predators. Pieces of clay ceramic and iron beads found at the site indicates that there was early social interaction between the hunter-gatherer (San) communities and the first farmers who moved into this area at around 500 AD. Evidence from Welgelegen Shelter on the banks of the Vaal River near Ermelo suggests that the early farming (Bantu) and hunter-gatherer (San) communities coexisted (Delius, 2007; Bergh, 1998).

The farmers who used metal tools, occupied the shelter while an independent hunter-gatherer group who made typical LSA (Late Stone Age) stone tools and used pottery, occupied the overhang area of the shelter. Similar “symbiotic” relationships existed between the Batwa San from the Lake Chrissie area and the Swazi well into the 20th century (Delius, 2007).

4.2.2. Early Iron Age

There is no record of early Iron Age sites located in the area where the study was conducted, however the larger area, including east towards Mpumalanga, does have a significant Early Iron Age legacy.

The period referred to as the Early Iron Age (AD 200-1500 approx.) started when presumably Karanga (north-east African) herder groups moved into the north eastern parts of South Africa. It is believed that these people may have been responsible for making of the famous Lydenburg Heads, ceramic masks dating to approximately 600AD.

Ludwig von Bezing was a boy of more or less 10 years of age when he first saw pieces of the now famous Lydenburg heads in 1957 while playing in the veld on his father's farm near Lydenburg. Five years later von Bezing developed an interest in archaeology and went back to where he first saw the shards. Between 1962 and 1966 he frequently visited the Sterkspruit valley to collect pieces of the seven clay heads. Von Bezing joined the archaeological club of the University of Cape Town when he studied medicine at this institution.

He took his finds to the university at the insistence of the club. He had not only found the heads, but potsherds, iron beads, copper beads, ostrich eggshell beads, pieces of bones and millstones. Archaeologists of the University of Cape Town and WITS Prof. Ray Innskeep and Dr Mike Evers excavated the site where von Bezing found the remains. This site and in particular its unique finds (heads, clay masks) instantly became internationally famous and was henceforth known as the Lydenburg Heads site.

Two of the clay masks are large enough to probably fit over the head of a child, the other five are approximately half that size. The masks have both human and animal features, a characteristic that may explain that they had symbolic use during initiation- and other religious ceremonies. Carbon dating proved that the heads date to approximately 600 AD and were made by Early Iron Age people. These people were Bantu herders and agriculturists and probably populated Southern Africa from areas north-east of the Limpopo river. Similar ceramics were later found in the Gustav Klingbiel Nature Reserve and researchers believe that they are related to the ceramic wares (pottery) of the Lydenburg Heads site in form, function and decorative motive. This sequence of pottery is formally known as the Klingbiel type pottery. No clay masks were found in similar context to this pottery sequence.

Two larger heads and five smaller ones make up the Lydenburg find. The heads are made of the same clay used in making household pottery. It is also made with the same technique used in the manufacture of household pottery. The smaller heads display the modeling of a curved forehead and the back neck as it curves into the skull. Around the neck of each of the heads, two or three rings are engraved horizontally and are filled in with hatching marks to form a pattern. A ridge of clay over the forehead and above the ears indicates the hairline. On the two larger heads a few rows of small clay balls indicate hair decorations. The mouth consists of lips – the smaller heads also have teeth. The seventh head has the snout of an animal and is the only head that represents an animal.

Some archaeological 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). This site is located on a spur between the White River and a small tributary. It is situated on holding 119 at Plaston.

The site was discovered during house building operations when a collection of pottery shards was excavated. The finds consisted of pottery shards both on the surface and excavated.

Some of the pottery vessels were decorated with a red ochre wash. Two major decoration motifs occurred on the pots:

- Punctuation, using a single stylus and
- Broadline incision, the more common motif

A number of Early Iron Age pottery collections from Mpumalanga and Limpopo may be compared to the Plaston sample. They include Silver Leaves, Eiland, Matola, Klingbiel and the Lydenburg Heads site. The Plaston sample is distinguished from samples of these sites in terms of rim morphology, the majority of rims from Plaston are rounded and very few beveled. Rims from the other sites show more beveled rims (Evers, 1977:176).

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). This site known as the Riverside site is situated a few kilometers north of Nelspruit next to the confluence of the Nelspruit and Crocodile River. It was discovered during the course of an environmental impact assessment for the new Mpumalanga Government complex/ offices. A bulldozer cutting exposed storage pits, cattle byres, a burial and midden on the crest of a gentle slope. Salvage excavations conducted during December 1997 and March 1998 recovered the burial and contents of several pits.

One of the pits contained among other items, pottery dating to the eleventh century (AD 1070 ± 40 BP) this relates the pottery to the Mzonjani and Broederstroom phases. The early assemblage belongs to the Kwale branch of the Urewe tradition.

During the early 1970's Dr Mike Evers of the University of the Witwatersrand conducted fieldwork and excavations in the Eastern Transvaal. Two areas were studied, the Letaba area south of the Groot Letaba River, west of the Lebombo Mountains, east of the great escarpment and north of the Olifants River. The second area was the Eastern Transvaal escarpment area between Lydenburg and Machadodorp.

These two areas are referred to as the Lowveld and escarpment respectively. The earliest work on Iron Age archaeology was conducted by Trevor and Hall in 1912. This revealed prehistoric copper-, gold- and iron mines. Schwelinus (1937) reported smelting furnaces, a salt factory and terraces near Phalaborwa. In the same year D.S. van der Merwe located ruins, graves, furnaces, terraces and soapstone objects in the Letaba area.

Mason (1964, 1965, 1967, 1968) started the first scientific excavation in the Lowveld which was followed by N.J. van der Merwe and Scully. M. Klapwijk (1973, 1974) also excavated an Early Iron Age (EIA) site at Silverleaves and Evers and van den Berg (1974) excavated at Harmony and Eiland, both EIA sites.

Recent research by the National Cultural History Museum resulted in the excavation of an Early Iron Age site in Sekhukuneland, known as Mototolong (Van Schalkwyk, 2007). The site is characterized by four large cattle kraals containing ceramics which may be attributed to the Mzonjani and Doornkop occupational phases.

4.2.3. Late Iron Age

Little or no information exists of Late Iron Age sites in the Bronkhorstspuit area, however, a large amount of information is available about Late Iron Age activity towards the east of this area.

The later phases of the Iron Age (AD 1600-1800's) is represented by various tribes including Ndebele, Swazi, BaKoni, Pedi marked by extensive stonewalled settlements found throughout the escarpment and particularly around Lydenburg, Badfontein, Sekhukuneland, Roosenekal and Steelpoort. The BaKoni were the architects of the stone-walled enclosures found throughout the escarpment area of Eastern Mpumanga. These settlement complexes may be divided into three basic features: homesteads, terraces and cattle tracks. Researchers such as Mike Evers (1975) and Collett (1982) identified three basic settlement layouts in this area. Basically these sites can be divided into simple and complex ruins. Simple ruins are normally small in relation to more complex sites and have smaller central cattle byres and fewer huts. Complex ruins consist of a central cattle byre which has two opposing entrances and a number of semi-circular enclosures surrounding it. The perimeter wall of these sites is sometimes poorly visible. Huts are built between the central enclosure and the perimeter wall. These are all connected by track-ways referred to as cattle tracks. These tracks are made by building stone walls which forms a walkway for cattle to the centrally located cattle byres.

Smaller tribes such as the Pai and Pulana who resided in the Lowveld were attacked by and made to flee from the aggressive Swazi, especially during the *mfecane* (difaqane). They (Swazi) were particularly active in the Lowveld during the difaqane period (1820's) and it is well-known that they frequently attacked and ousted smaller herder groups like the Pai and Pulana, especially in the area today known as Low's Creek. They were however prevented from settling in the low-lying areas due to the presence of the tsetse fly and malaria. Consequently there is little evidence of large scale settlement in the Crocodile River valley until the time of colonial settlement (1890's) and later. Small, isolated dry-packed stone-walled enclosures found near Nelspruit and surrounding areas may be attributed to these smaller groups who hid away from the Swazi onslaught. The sites were probably not used for extended periods as they were frequently on the move as a result of the onslaught and therefore small, indistinct and with little associated cultural material.

5. Located sites, description and suggested mitigation

No sites or features of Heritage significance were found or documented.

Table 5.1. Summary of located sites and their significance

Type of site	Identified sites	Significance
Graves and graveyards	None	None
Late Iron Age	None	None
Early Iron Age	None	None
Historical buildings	None	None
Historical structures (ruins)	None	None
Stone Age sites	None	None

Table 5.2. Significance rating guidelines for sites

Field Rating	Grade	Significance	Recommended Mitigation
National Significance (NS)	Grade 1		Conservation, nomination as national site
Provincial Significance (PS)	Grade 2		Conservation; Provincial site nomination
Local significance (LS. A)	Grade 3A	High Significance	Conservation, No mitigation advised
Local Significance (LS. B)	Grade 3B	High Significance	Mitigation but at least part of site should be retained
Generally Protected A (GPA)		High/ Medium Significance	Mitigation before destruction
Generally Protected B (GPB)		Medium Significance	Recording before destruction
Generally Protected C (GPC)		Low Significance	Destruction

6. Findings and recommendations

No sites or features of archaeological or heritage significance could be located during the survey.

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. 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 should be noted that if such a situation occurs it may have further financial implications.

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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;

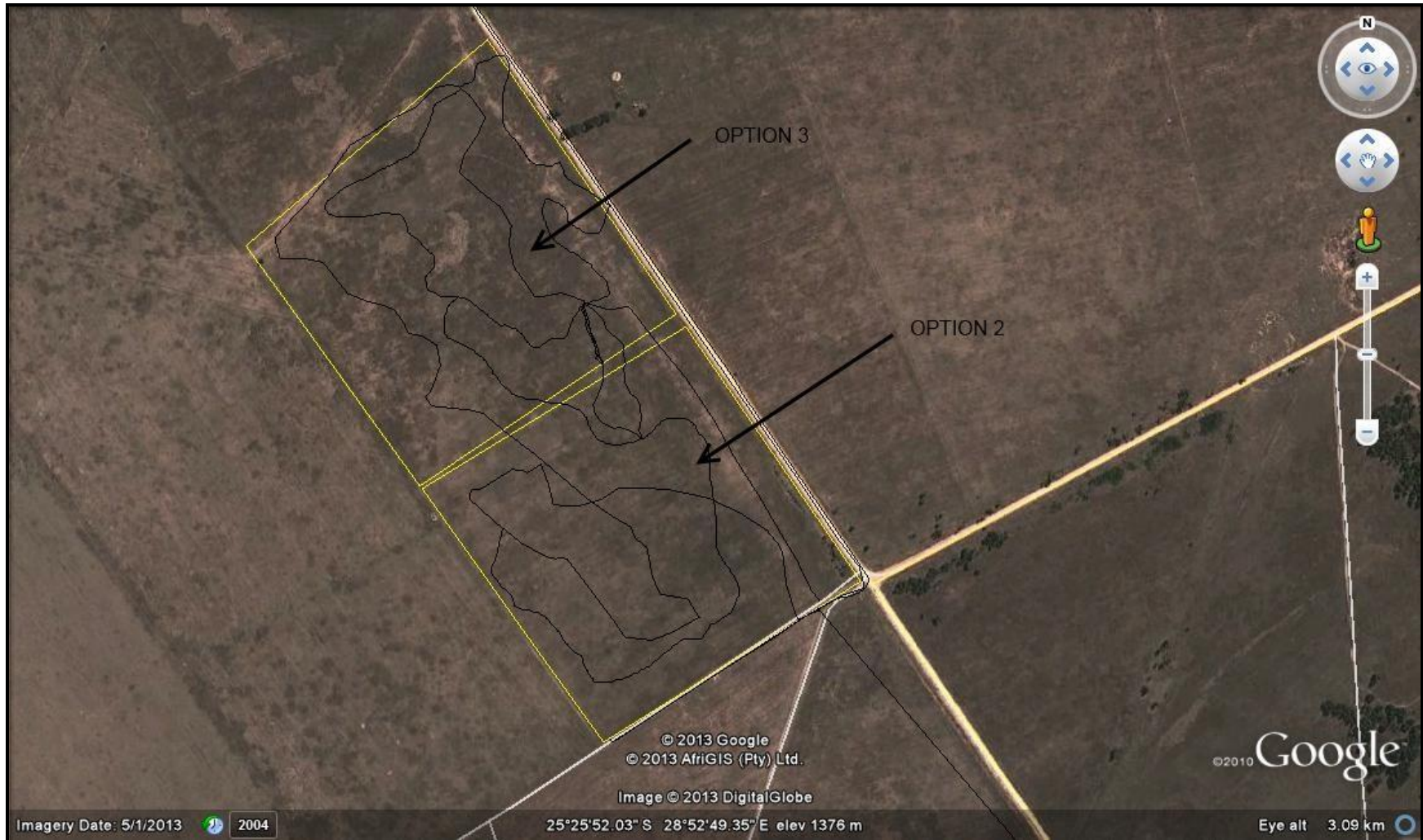
“Structure” means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Appendix B

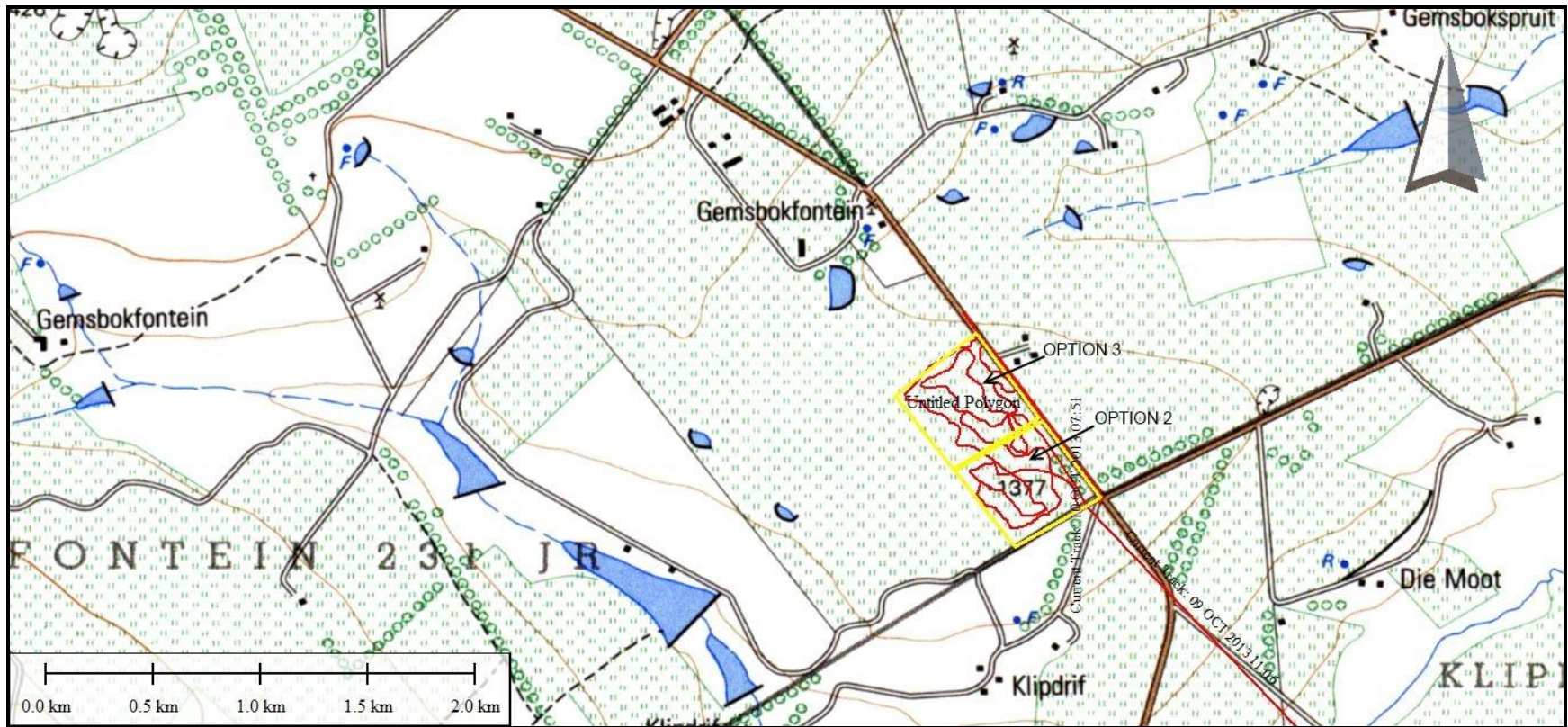
9. List of located sites

No sites listed for this survey

Appendix C – Maps



Map 1: Yellow borders indicate the proposed areas for the Poultry Abattoir. Tracklog of foot survey indicated in black.



Map 2: Topographic 1:50 000, 2528 BD. Yellow borders indicate the proposed areas for the Poultry Abattoir. Tracklog of foot survey indicated in red.

Appendix D



Fig. 1. General photo in a northern direction of the study area Option 3.



Fig. 2. General photo of the Option 3 area in an eastern direction.



Fig. 3. General northern view of the Option 2 area.



Fig. 4. A view towards the east, Option 2 area.



Fig. 5. In the western areas of Option 2 grass has evidently been cut, possibly for thatch.



Fig. 6. The southern border area of Option 2.



Fig. 7. Near the northern border of Option 3.