

**Cultural Heritage Impact Assessment:
Phase 2 Investigation for a Proposed Expansion at Rosslyn Quarry, Pretoria West, City of Tshwane Metropolitan Municipality, Gauteng Province**



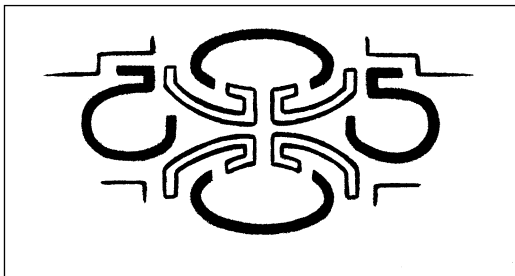
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|-----------------------------------|--------------------|
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Executive Summary

This Phase 2 heritage impact assessment report focusses on the comprehensive recording, surveying, mapping and assessing of two Late Iron Age stone-walled sites (Sites 1 & 2) and a historical structure (Site 3) in accordance with the provisions of Section 38 of the *National Heritage Resources Act* (Act No. 25 of 1999) (NHRA). This investigation emanates from an earlier Phase 1 survey of the same area namely: Cultural Heritage Survey of the Rosslyn Norite Quarry, on Portions 34, 35, 72 & 73 of the Farm Klipfontein 268JR, Rosslyn, Tshwane Municipality, Gauteng Province (Coetzee 2009). The Rosslyn Quarry managed by Canyon Rock (Pty) Ltd plan to extend the mining operation towards the north western boundary of Portion 73 of the farm Klipfontein 268JR which will directly impact two cultural heritage sites (Sites 1 and 2).

Due to the age of the archaeological (Sites 1 and 2) and historical site (Site 3) they fall under the protection of both Section 34 and Section 35 of the NHRA (Act No. 25 of 1999). Note that during the Phase 1 survey no surface deposits or artefacts were noted in association with the features. As a result, no excavations or artefact surface collection strategies were employed during the survey and no permit application was submitted to SAHRA. Moreover, due to the current mining expansion plan the secondary aim of the Phase 2 report is to apply for a destruction permit from SAHRA for the structures.

Although cultural material can be crucial in assisting with dating and contextualising archaeological and historical structures (Sites 1, 2 and 3), it is unfortunate that no substantial deposits (refuge middens) were recorded.

Site 1 and 2

During the Phase 2 assessment it became clear that Sites 1 and 2 are the same site and as a result of this re-assessment and additional fieldwork please note the following:

- The site probably dates to between AD 1780 and AD 1830 and is part of the Later Moloko period within the Late Iron Age
- The site is roughly 200 metres in length and 70 metres in width and consists of two sections built with dry stonewalling.
- Ethnographic and historical data link the site to the Tswana group: Bakgatla ba Mmakau
- The site probably functioned as a cattle/livestock outpost providing protection and grazing fields under the protection of a few young men. No indication was found of long-term occupation (no middens recorded).
- Due to the third-tier status of the site and limited cultural material the field rating of the site is reevaluated as Generally Protected B (Medium significance) from the original rating of Generally Protected A (High significance) in the Phase 1 report (Coetzee 2009).

Site 3

As a result of the re-assessment and additional fieldwork during this Phase 2 investigation please note the following:

- Some known house structures were indicated in the area on the 1939 topographic map which suggests that Site 3 might date to the early AD 1900s.

- Only the foundation of the house is currently visible and no refuse midden or any cultural material was found in association with the structure.
- The single-room house structure was probably used by a farm worker as a home base.
- Due to the condition and limited cultural material the field rating of the site remains as Generally Protected C (Low significance).

Sites 1 and 2 (one site) has been recorded and classified as a Tswana cattle outpost with a Generally Protected B rating. Site 3 consists of the foundation of a historical structure which has been recorded and classified as Generally Protected C. All three sites are protected under the NHRA (Act 25 of 1999) as they are dated older than 60 years (historical) (Site 3) and older than 100 years (archaeological) (Sites 1 & 2) respectively. All sites have been extensively recorded and surveyed as resented in this report. Due to the proposed future expansion of mining activities and envisaged impacts a destruction permit will be applied for with SAHRA for the destruction of these sites.

Definitions and abbreviations

| | |
|------------|---|
| Midden: | Refuse that accumulates in a concentrated heap. |
| HIA: | Heritage Impact Assessment |
| Iron Age: | An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture |
| LIA: | Late Iron Age sites are usually demarcated by stone-walled enclosures |
| NHRA: | National Heritage Resources Act (Act No. 25 of 1999) |
| PHRA-G: | Provincial Heritage Resources Authority - Gauteng |
| SAHRA: | South African Heritage Resources Agency |
| SAHRIS: | South African Heritage Resources Information System |
| Stone Age: | An archaeological term used to define a period of stone tool use and manufacture |

Declaration

I, Francois Coetzee, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.



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1. Introduction and Terms of Reference

A Phase 1 cultural heritage survey was conducted for the Canyon Rock (Pty) Ltd, Rosslyn Quarry in Pretoria West namely: Cultural Heritage Survey of the Rosslyn Norite Quarry on Portions 34, 35, 72 & 73 of the Farm Klipfontein 268JR, Rosslyn, Tshwane Municipality, Gauteng Province, conducted by FP Coetzee in 2009 (Coetzee 2009). Results from this survey included a total of three cultural heritage sites. Two locales were recorded as Site 1 and Site 2 that were identified as stone-walled Iron Age settlements and a third site which consists of foundational remains of one historical structure (Site 3). Due to the proposed expansion of the main quarry pit at Canyon Rock (Pty) Ltd, Rosslyn Quarry a destruction permit will be required for Sites 1, 2 and 3. As a result a Phase 2 cultural heritage investigation was requested by Umhlaba Environmental Consulting CC with the aim to record, survey and map the relevant heritage remains to support this application process.

2. Objectives

The aim of the Phase 2 heritage impact assessment report is to record, survey, map and assess Sites 1 and 2 which were identified as stone-walled Iron Age settlements and Site 3, the remains of a historical structure, in accordance with the provisions of Section 38 of the National Heritage Resources Act (NHRA) (Act No. 25 of 1999).

Due to their possible age (over 100 years) Sites 1 and 2 are protected under Section 35 and Site 3 is protected under Section 34 of the NHRA (Act No. 25 of 1999). Due to the current mining expansion plan the secondary aim of the Phase 2 report is to apply for a destruction permit from SAHRA for the three structures (see Figure 12).

3. Description of Physical Environment of Study Area

The heritage survey is situated approximately 18 km northwest of Pretoria CBD, north of the N4 (also R566) and adjacent to the M17 (Soshanguve Road). Ga-Rankuwa is situated to the west and Mapopane and Soshanguve to the north of the survey area. Rosslyn industrial area and several residential sections are located in the general area. The farm Klipfontein 268 JR is generally characterised by rocky outcrops (north), with a low-lying section (south). Several untarred roads provide access to the mining area.

| | |
|--|---|
| Farm Name(s) and Portions | The following portions and farms: <ul style="list-style-type: none"> • Klipfontein 268JR <ul style="list-style-type: none"> ○ Portions 34, 35, 72 & 73 |
| Size of Survey Area | Approximately 58.7 hectares |
| Magisterial District | City of Tshwane Metropolitan Municipality |
| 1:50 000 Map Sheet | 2528CA |
| 1:250 000 Map Sheet | 2528 |
| Central Coordinates of the Development | 28.047878°E 25.607659°S |

Table 1: Physical Environment

The survey area falls within the Savanna Biome, particularly the Central Bushveld Bioregion and more specifically the Norite Koppies Bushveld (SVcb 7). This veld type occurs in North West and Gauteng Provinces and is also embedded in Marikana Thornveld, north of the Magaliesberg, and on rocky hills between Rustenburg and Pretoria with the highest hills (e.g. Kareepoortberg) near Brits (Mucina & Rutherford 2006).

Infrastructure consists of several dirt roads that provide access to the area, as well as power lines, bridges, fences, residential houses and a quarry.

Pretoria normally receives about 573 mm of rain per year, with most rainfall occurring mainly during summer. The region receives the lowest rainfall (0 mm) in June and the highest (110 mm) in January. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for Pretoria range from 18.3°C in June to 27.5°C in January. The region is the coldest during July when the mercury drops to 1.7°C on average during the night (SAexplorer 2019).

| | |
|----------------------------|---|
| Current Zoning | Industrial |
| Economic activities | Mining |
| Soil and basic geology | <p>Significant ridge systems occur in the Rosslyn region, notably the Magaliesberg as well as isolated hills at Ga-Rankuwa, Soshanguve and Mabopane. Significant watercourse systems occur throughout, most notably the Apies River, Sand Spruit and Boepens Spruit.</p> <p>More than two billion years ago, after deposition of the Pretoria Group, a very large magma chamber intruded above the Magaliesberg Formation. The implications of this intrusion were twofold. Firstly, all the underlying rocks (which were initially deposited horizontally) were tilted to the north at an approximate angle of 25° around Pretoria. Secondly, the heat from this magma chamber metamorphosed the rocks, notably the Magaliesberg Formation, and resulted in sandstone changing to quartzite. This intrusion is called the Bushveld Igneous Complex. It is subdivided into three distinctly different suites. The Rustenburg Layered Suite is composed of a wide range of mafic (silica-poor) igneous rocks, including gabbro, norite, pyroxenite and anorthosite. All of these differ in terms of their composition, but all are generally darker coloured, coarse-grained rocks, which characteristically weather to expansive or black turf soils in the right climatic conditions (Mucina & Rutherford 2006).</p> |
| Prior activities | Agriculture |
| Socio Economic Environment | <p>The total population in the Gauteng province for 2015 is estimated at 13.2 million, which is approximately 24% of South Africa's population (54.8 million), making Gauteng the most populous province in the country. Tshwane makes up more than 3 million of the total Gauteng population, accounting for approximately 24% of the province's population, making Tshwane the third most populous municipality in the province. The unemployment rate and the number of unemployed persons in actual terms in Tshwane. The unemployment rate in Tshwane improved from 23.3 percent in 2011 to 22.3 percent in 2015. This represents a decline from approx. 313 737 unemployed people in 2011 to approx. 337 629 unemployed people in 2015 (City of Tshwane Metropolitan Municipality IDP 2019/2020).</p> |
| Evaluation of Impact | <p>An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits NHRA (Act No. 25 of 1999, Section 38(3d)): Positive</p> |

Table 2: Socio-economic environment

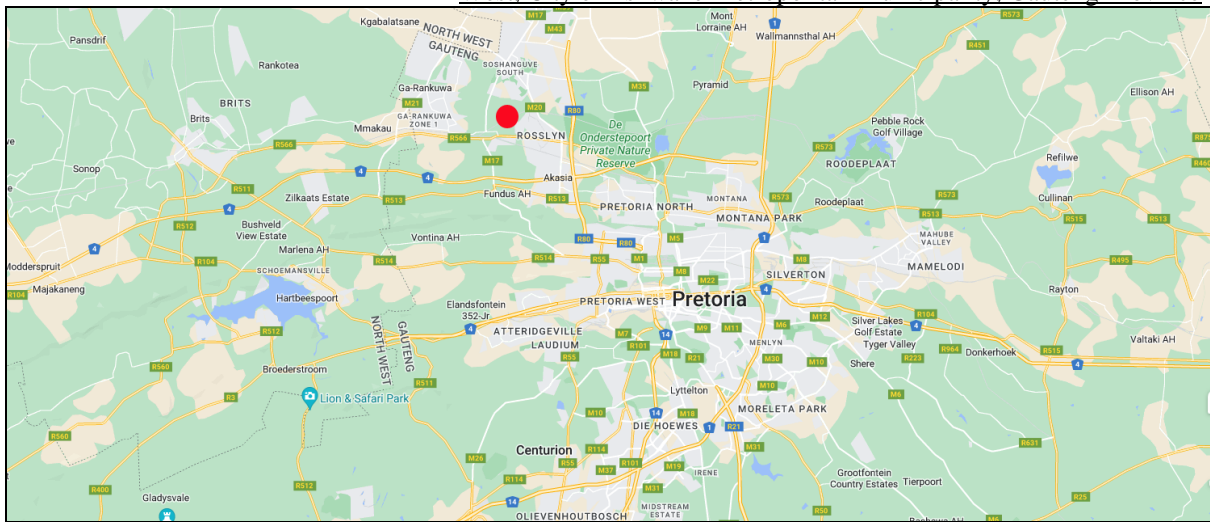


Figure 1: Regional context of the survey footprint located northwest of Pretoria (indicated by the red area)

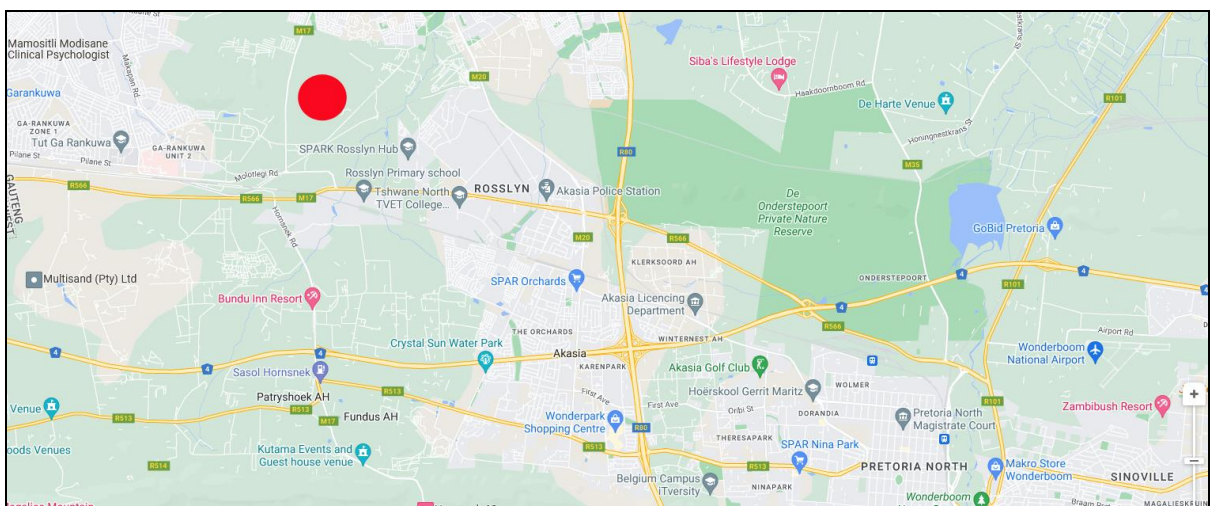


Figure 2: Local context of the survey area located northwest of Pretoria (indicated by the red area)

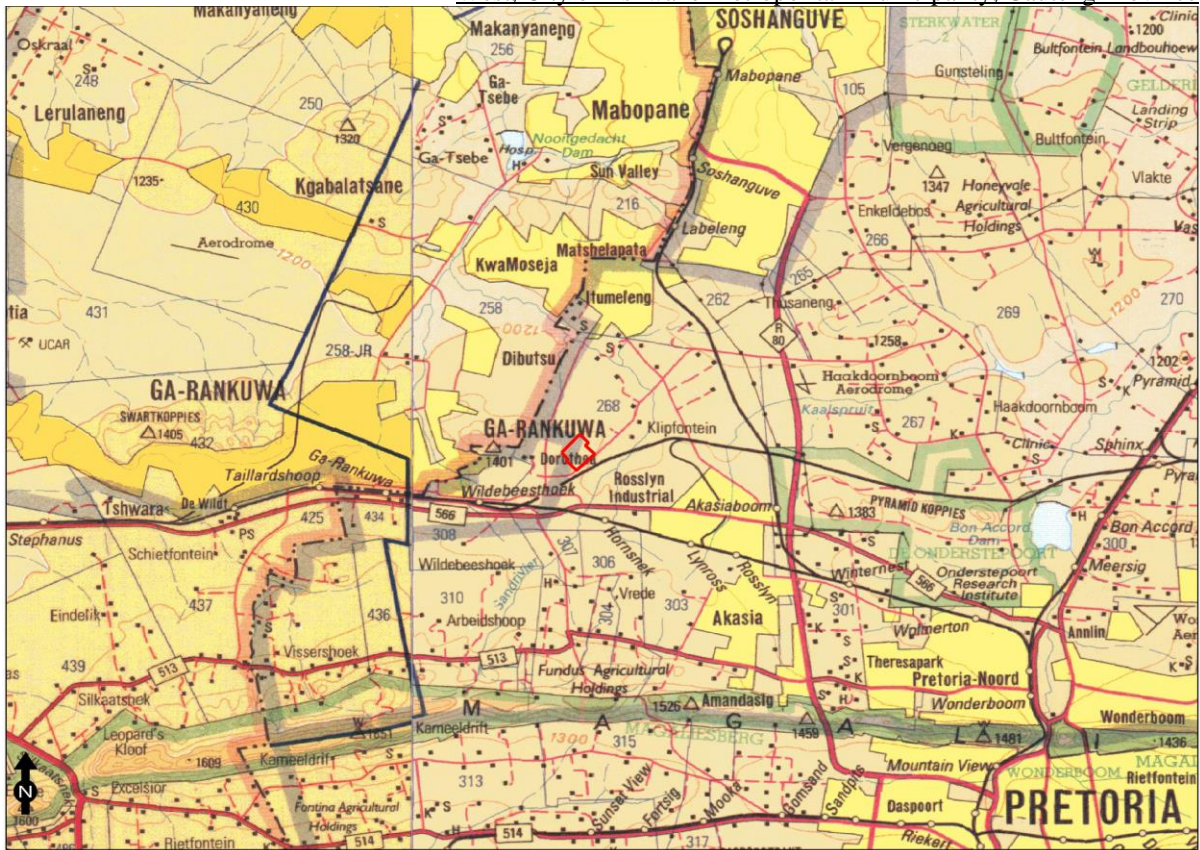


Figure 3: Local context of the survey footprint (1:250 000 Map 2528)

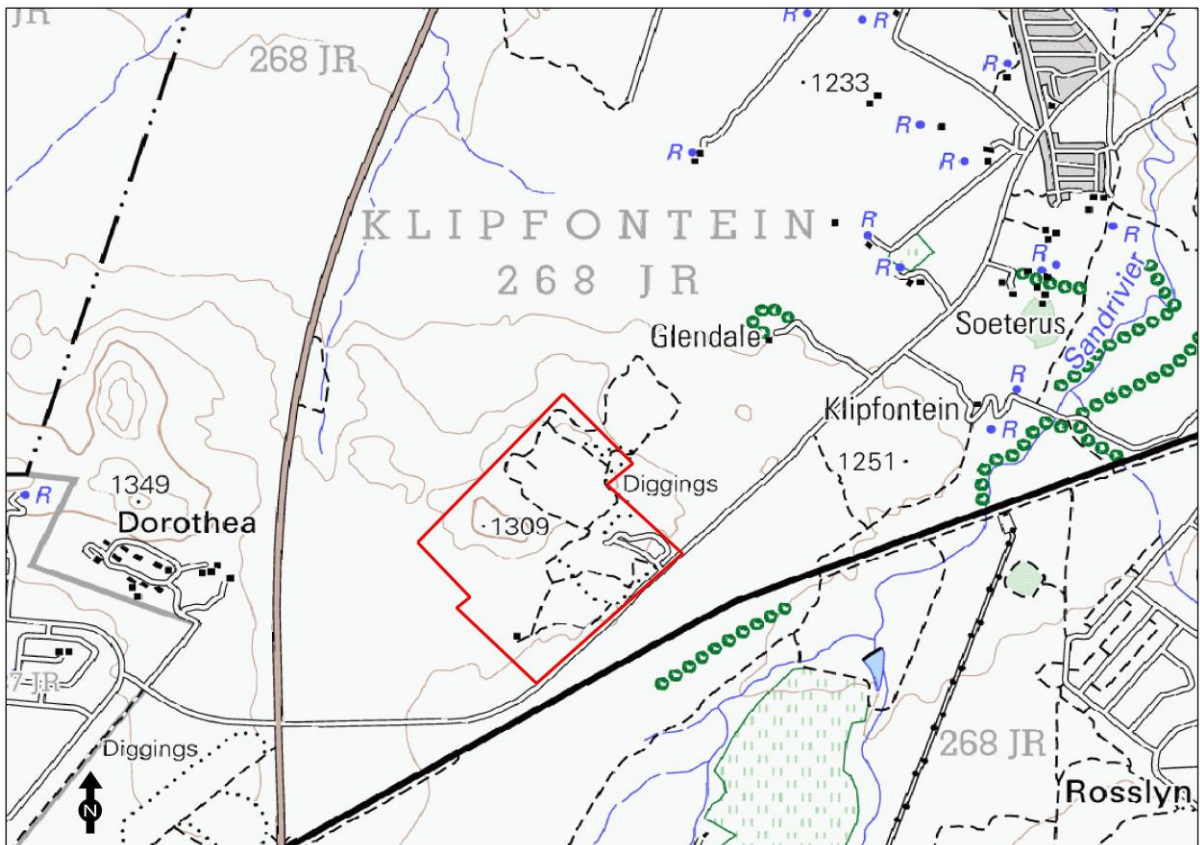


Figure 4: The survey area as indicated on the 1:50 000 topographic map 2528CA (2001)

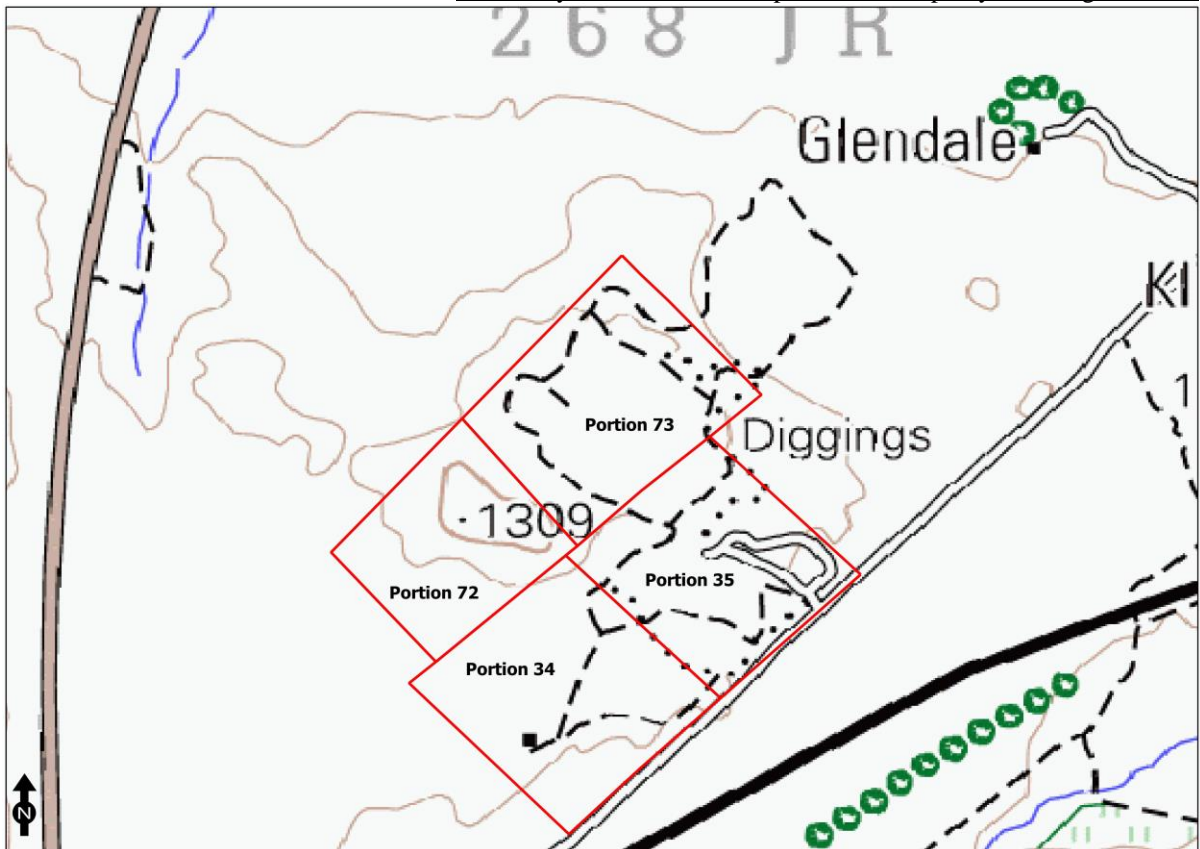


Figure 5: The Portions of the farm Klipfontein 268JR on the 1:50 000 topographic map 2528CA (2001)

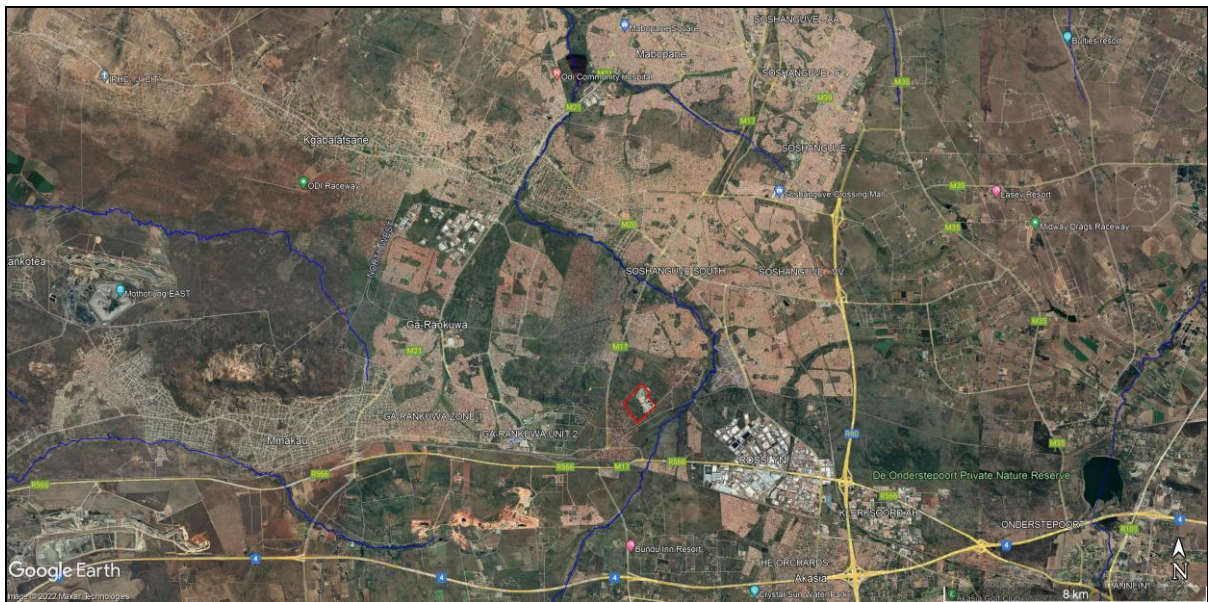


Figure 6: Survey area within local context, Ga-Rankuwa (west) and Soshanguve (north) of the survey area (Google Earth 2022)



Figure 7: Detail of survey area as indicated on Google Earth Pro (2022)



Figure 8: General view of the north western boundary of the quarry (access road adjacent to heritage sites)



Figure 9: General view of the quarry in 2009



Figure 10: General view of the environment at the heritage sites with access road in the foreground



Figure 11: General view of the rocky outcrop on which the heritage sites were located

4. Proposed Project Description

Canyon Rock (Pty) Ltd, Rosslyn Quarry plans to extend the mining operation towards the north western boundary of Portion 73 of the farm Klipfontein 268JR which will impact on two cultural heritage sites (Sites 1 and 2). Note that blasting is used as an integral mining technique along with excavators, front-end-loaders and large haul trucks to move the mined aggregate material. Due to the direction of the planned expansion Site 3 will not be impacted on in the near or foreseeable future.

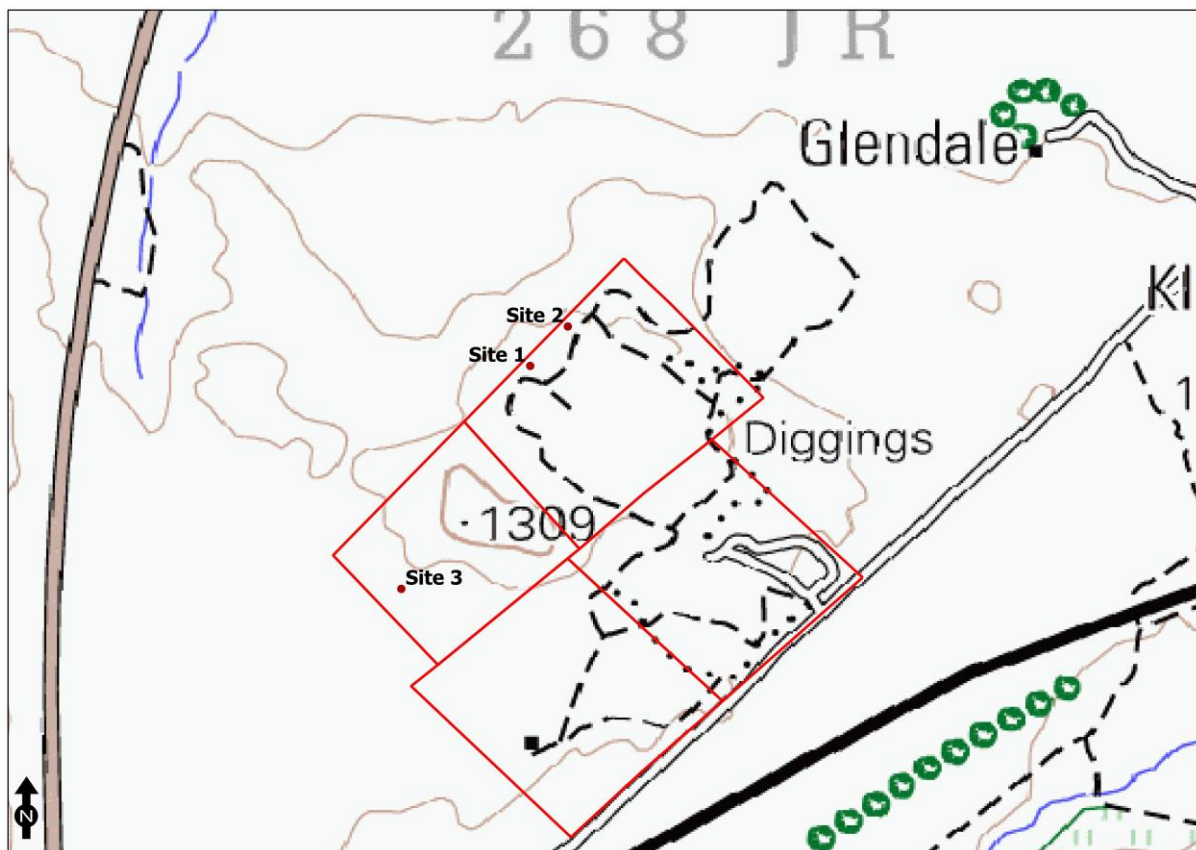


Figure 12: The location of the three heritage sites relative to the extent of the mine



Figure 13: The location of the two recorded stone-walled Iron Age sites (Sites 1 and 2) relative to the extent of the current mining pit



Figure 14: The location of the historical structure (Site 3) relative to the extent of the current mining pit

5. Legal Framework

| APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT | REFERENCE APPLIED |
|--|--------------------------|
| The Constitution of the Republic of South Africa (Act No. 108 of 1996) | |
| The National Environmental Management Act (Act No. 107 of 1998) | Section 24 Section 28 |
| The National Water Act (Act No. 36 of 1998) | Section 21 (a)(b) |
| Regulation 2, Appendix 2 of Governmental Notice Regulation (GNR) 982 | Appendix 2 (a-1) |
| Air Quality Act (Act No. 39 of 2004) | Section 21 |
| National Forests Act, Act of 84 of 1998 | |
| The National Heritage Resources Act (Act No. 25 of 1999) | Section 38, 34, 35, 36 |
| Conservation of Agricultural Resources Act (Act No. 85 of 1983) | |
| Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) | |
| The National Water Act (Act No. 36 of 1998); | |

| | |
|---|------------------|
| Mine Health and Safety Act (Act No. 29 of 1996) (MHSA) | |
| Biodiversity Act (Act 10 of 2004) | |
| National Infrastructure Plan | |
| City of Tshwane Metropolitan Municipality Integrated Development Plan (IDP) 2019/2020 | Various Sections |

Table 3: Legal framework

- Section 38 of the NHRA (Act No. 25 of 1999) stipulates that the following activities trigger a heritage survey:

| Development criteria in terms of Section 38(1a-e) of the NHRA (Act No. 25 of 1999) | Yes/No |
|--|--------|
| Construction of road, wall, powerline, pipeline, canal or other linear form of development or barrier exceeding 300m in length | No |
| Construction of bridge or similar structure exceeding 50m in length | No |
| Development exceeding 5000 m ² in extent | Yes |
| Development involving three or more existing erven or subdivisions | Yes |
| Development involving three or more erven or divisions that have been consolidated within past five years | No |
| Rezoning of site exceeding 10 000 m ² | No |
| Any other development category, public open space, squares, parks, recreation grounds | No |

Table 4: Activities that trigger Section 38 of the NHRA

- Field rating system as recommended by SAHRA:

| Field Rating | Grade | Significance | Recommended Mitigation |
|-------------------------|-------------|--------------------------|---|
| National Significance | Grade I | High significance | Conservation by SAHRA, national site nomination, mention any relevant international ranking. No alteration |
| Provincial Significance | Grade II | High significance | Conservation by provincial heritage authority, provincial site nomination. No alteration whatsoever without permit from provincial heritage authority. |
| Local Significance | Grade III-A | High significance | Conservation by local authority, no alteration whatsoever without permit from provincial heritage authority. Mitigation as part of development process not advised. |
| Local Significance | Grade III-B | High significance | Conservation by local authority, no external alteration without permit from provincial heritage authority. Could be mitigated and (part) retained as heritage register site. |
| Generally Protected A | Grade IV-A | High/medium significance | Conservation by local authority. Site should be mitigated before destruction. Destruction permit required from provincial heritage authority. |
| Generally Protected B | Grade IV-B | Medium significance | Conservation by local authority. Site should be recorded before destruction. Destruction permit required from provincial heritage authority. |
| Generally Protected C | Grade IV-C | Low significance | Conservation by local authority. Site has been sufficiently recorded in the Phase 1 HIA. It requires no further recording before destruction. Destruction permit required from provincial heritage authority. |

Table 5: Field rating system to determine site significance

- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite, non-renewable and irreplaceable.
- All archaeological remains, features, structures and artefacts older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999, Section 34 & 35)**. The Act makes an archaeological impact assessment as part of an EIA and

EMPR mandatory (see **Section 38**). No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.

- Cognisance will also be taken of the Mineral and Petroleum Resources Development Act (Act No 28 of 2002) and the National Environmental Management Act (Act No 107 of 1998) when making any recommendations.
- Human remains older than 60 years are protected by the NHRA, with reference to Section 36. Human remains that are less than 60 years old are protected by the Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003 as well as local Ordinances and regulations.
- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.
- The guidelines as provided by the NHRA (Act No. 25 of 1999) in Section 3, with special reference to subsection 3, and the Australian ICOMOS (International Council on Monuments and Sites) Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- A copy of this report will be submitted on SAHRIS as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4) and the relevant Provincial Heritage Resources Authority (PHRA).
- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the SAHRA (or relevant PHRA).

6. Study Approach/Methodology

Geographical information (KML shapefiles) on the proposed mining areas was supplied by Umhlaba Environmental Consulting CC. The most up-to-date Google Earth images and topographic maps were used to indicate the survey area. Topographic maps were sourced from the Surveyor General. Please note that all maps are orientated with north facing upwards (unless stated otherwise).

Note that in the Phase 1 report (Coetzee 2009) Sites 1 and 2 were given the following field rating: Generally Protected A [High/Medium significance; mitigation required], and Site 3: Generally Protected C [Low significance, no further action required] which triggers the following Phase 2 mitigation measures:

- re-assess and establish the condition and stability of the stone walled structures (especially taking into account blasting has taken place in close proximity (over 50 metres distant for the last 15 years);
- Extensively record the structures using photography (both diagonal and aerial);
- Survey the structure using a surveying instrument (EDM Total Station);
- Conduct detail measurements of the structures;

- Draw up detailed maps of the structures; and
- Re-survey the current surface to confirm whether any artefacts and/or deposits were missed during the Phase 1 survey.

6.1 Review of existing information/data

Additional information on the cultural heritage of the area was sourced from the following records:

- National Mapping Project by SAHRA (which lists heritage impact assessment reports submitted for South Africa);
- Environmental Potential Atlas (ENPAT);
- Online SAHRIS database;
- National Automated Archival Information retrieval System (NAAIRS);
- Maps and information documents supplied by the client; and
- Several heritage surveys have been conducted in the vicinity of the survey area (published and unpublished material on the area) (Coetzee 2003, 2009; Huffman & Van der Merwe 1992; Van Schalkwyk, Pelser & Teichart 2000).

The Chief Surveyor General's diagram of the farm Klipfontein 268JR (originally No. 482) confirms that the farm was first surveyed in September 1889 with the Deed of Transfer (No. 743/05) issued to JJ Van Staden on 6 February 1905 (see Addendum 2). Although people started to settle the area during the early 20th century it seems that the farm Klipfontein was divided and again subdivided into over a hundred portions between the 1920s and 1950s. Most of these portions were not settled but were probably used for grazing and agricultural fields by early farmers. The first temporary structures seem to have appeared in the early 20th century as the region was sparsely populated (see Figure 20).

Several cultural heritage surveys have been conducted in the general region and mountain ranges around the farm Klipfontein 268JR and further to the west on the farms Hoekfontein 432JR and Sjambok Zijn Oude Kraal 258JR (Van Schalkwyk et al 2000). Several Late Iron Age (LIA) stone-walled settlements associated with Tswana-speaking groups have been recorded. The dominant groups in the area are the Bakgatla бага Makau and Bakwena ба Mogopa.

Bakwena ба Mogopa

The Bakwena consists of various subgroups of which the Mogopa (totem: crocodile) is only one. The earliest settlement recalled by the Mogopa is Rathateng (at the confluence of the Crocodile and Limpopo Rivers), from where they moved to Lokwadi (Zandrivierspoort 747) during the 17th century AD. They later resettled at the Phalane mountains. During the 18th century AD they moved to the Mabjanamatswana mountain range to the north-east of Brits. They thereafter resettled west of the Pienaars River at Mangwatladi only to return to Mabjanamatswana before the end of the 18th century AD. Here they lived at Gwate (Mamogaleslaagte) at the foot of Thaba ya Morena.

During the period known as the Difagane or Mfecane (AD 1830s), Mizilikazi and his armies entered and subdued the region. After the initial conflict the Mogopa scattered in various directions with the core moving to Botswana, where they remained until 1868. The baMogopa then returned to Mathare (north-east of Brits), Mantabole (Bethanie) and Makolokwe (Wolwekraal) where they still reside today (Breutz 1989).

The Bakwena ba Mogopa owned and settled on the following farms: Berseba 503, Boschpoort 841, Karreepoort 623, Leeukop 501, Leeuwpan 1047, Losperfontein 119, Pearl 395, Waaikraal 206, Wolwekraal 206, Wonderkop 835, Nooitgerdacht 908, Bospoort 16, Elandsfontein 20 & 21.

Farms of the Hebron Section: Kameelfontein 51, Sjambok zynkraal 52, Syferfontein 310, Oskraal 437, Uitvalgrond 376.

Farms of the Jericho Section: Palmietfontein 59, Kaalzandbult 34, Uitvalgrond 326

BaKgatla ba ga Mmakau

According to ethnographic evidence the Bakgatla бага Mmakau, also a Tswana-speaking group, settled at Gammakau in Sjambok's Location (Sjambok Zijn Oude Kraal 258JR) and on the farm Hoekfontein 432JQ in the Odi District since the late 18th century AD. The chief of the Mmakau during this time was Seamoge (who was referred to as Sjambok) settled at Hoekfontein and died there in 1888. He was succeeded by his second son Chief Moemisi. The farms Hoekfontein 432JQ, Sjambok Zijn Oude Kraal 258JR and Klipfontein 268JR fall generally within the Bakgatla бага Mmakau's sphere of influence. The baMmakau (totem: blue monkey (kgabo)) is also a group that is associated with the Mabjanamatswana mountain range north-east of Brits (Bretz 1989).

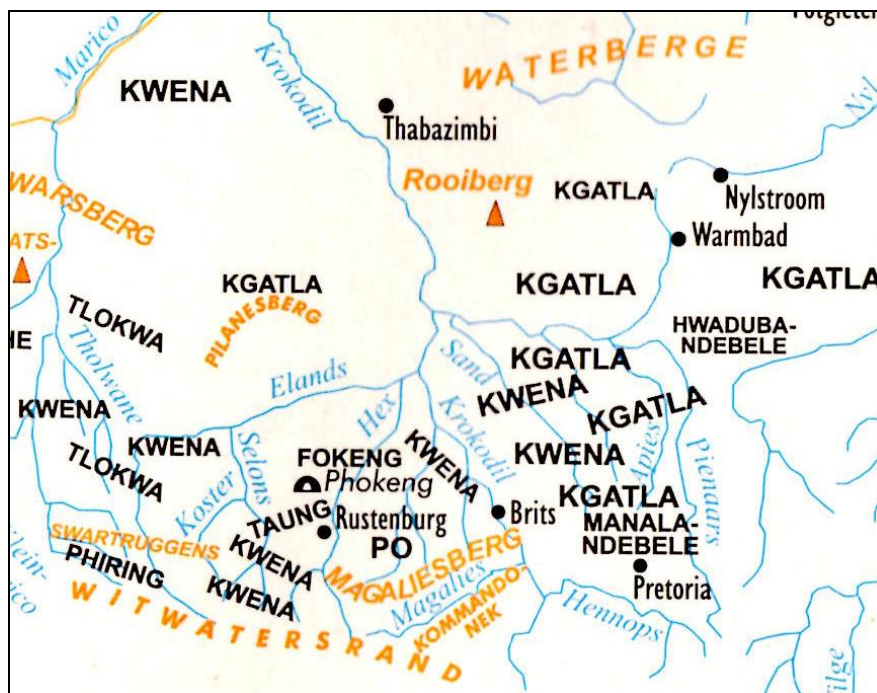


Figure 15: The various Tswana groups situated north-west of Pretoria that are relevant to this survey (after Bergh 1998)

time extended to an area that consist half of the present Ga-Rankuwa. The balance one Hundred and Fifty Pounds was forwarded by the Berlin Mission Lutheran Church. The other half of Ga-Rankuwa consists of land that was similarly purchased by The Bakgatla Ba Mmakau. The Bakwena people through the Bakwena chief, Mamogale, and several German Lutheran missionaries and other missionaries such as those of the Methodist church, began collecting money towards this purchase. Chief Mamogale and the missionaries bought back several farms, and Ga-Rankuwa was one of these farms. Oral testimony and written records suggest that the local Veldkornet, Paul Kruger, who would become president of the Transvaal Republic or South African Republic, helped chief Mamogale and the missionaries acquire the land. They also purchased land near Brits, where Chief Mamogale established his "capital" in the village of Bethanie. Chief Mamogale's descendants continued to be recognized as the chiefs of the Bakwena Ba Magopa and having jurisdiction over Ga-Rankuwa. In the 1960s, the area was included in one of the Bantustans called Bophuthatswana.

Ga-Rankuwa was proclaimed a Suburb by Proclamation 448 of 1965 and was initially established to accommodate people who were displaced mainly from Lady Selborne. Ga-Rankuwa was developed in accordance with the Physical Planning Act of 1967 which hoped to divert industrial development away from the city centres to the border areas of the homelands. It was estimated that the suburb would eventually accommodate a population of 120,000 people.

Soshanguve is a township situated about 30 km north-west of Pretoria. The name Soshanguve is an acronym for Sotho, Shangaan, Nguni and Venda, thus showing the multi-ethnic composition of the population.

Tswaing Crater, meaning Place of Salt in Setswana, is a 2000-hectare heritage site, some 40 km north-west of Central Pretoria, surrounded by settlements inhabited by more than a million people, such as Winterveld, Soshanguve, Mabopane and Eersterus, near Hammanskraal.

The city of Pretoria was established in 1855 (see Addendum 1 for more detailed timeline) and Rosslyn is an industrial suburb of Akasia, situated 29 km north-west of Pretoria. This industrialized area is best known for its automotive industry, in particular the BMW South Africa factory, which opened in 1968.

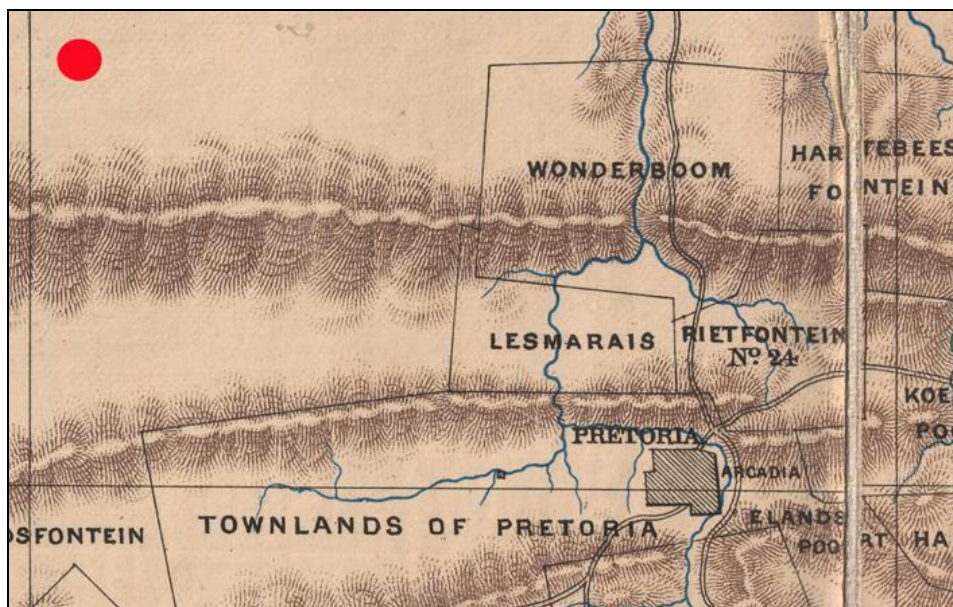


Figure 17: Map of the Pretoria and Heidelberg Gold Fields dated 1887 (survey area not recorded yet)

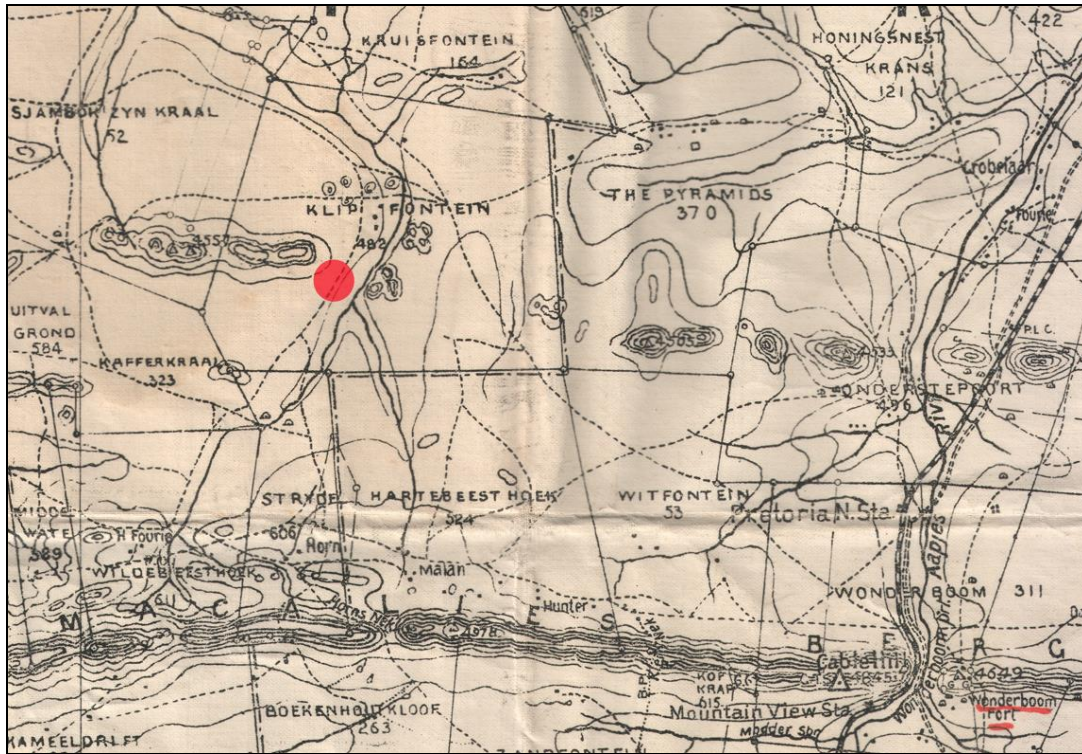


Figure 20: Surveyor General Office, map of Pretoria and Heidelberg 1905

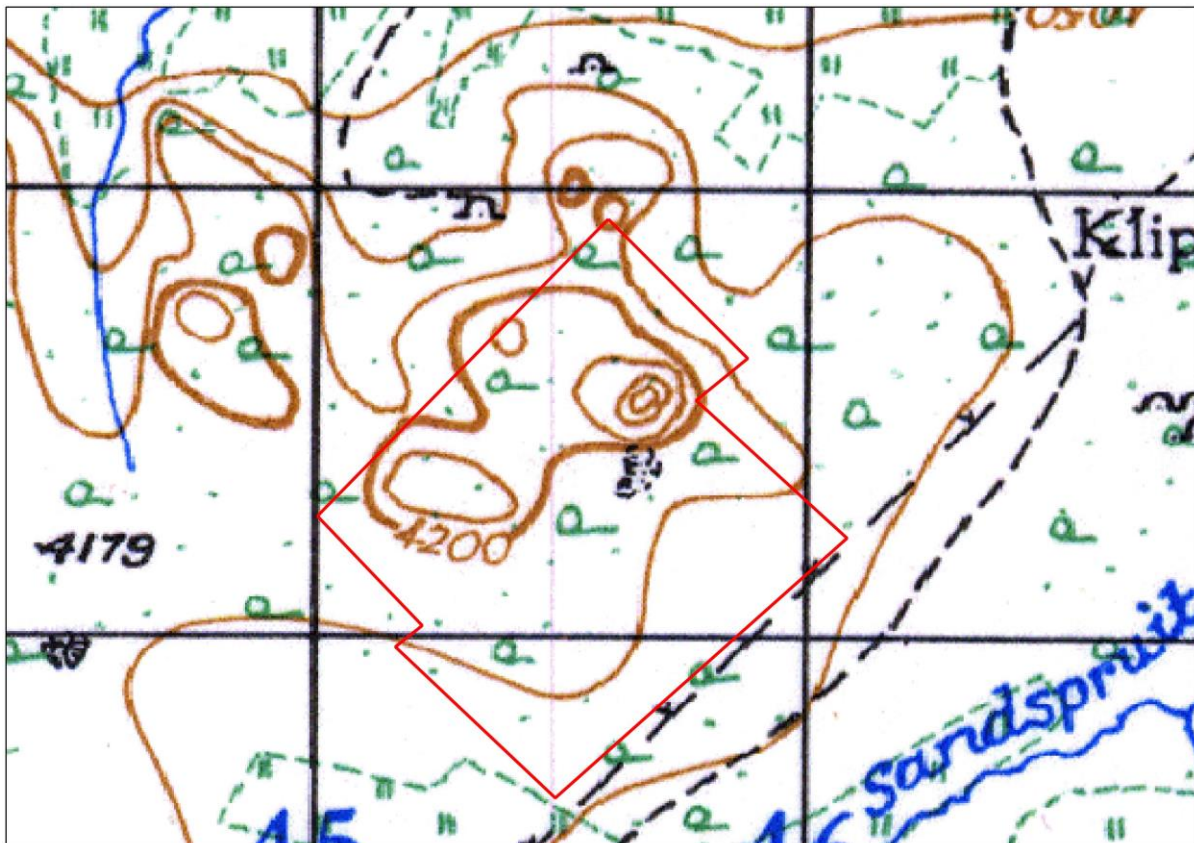


Figure 21: The survey area as indicated on the 1:50 000 topographic map 2528CD (1939)



Figure 22: The survey area as indicated on Google Earth Pro (2004)

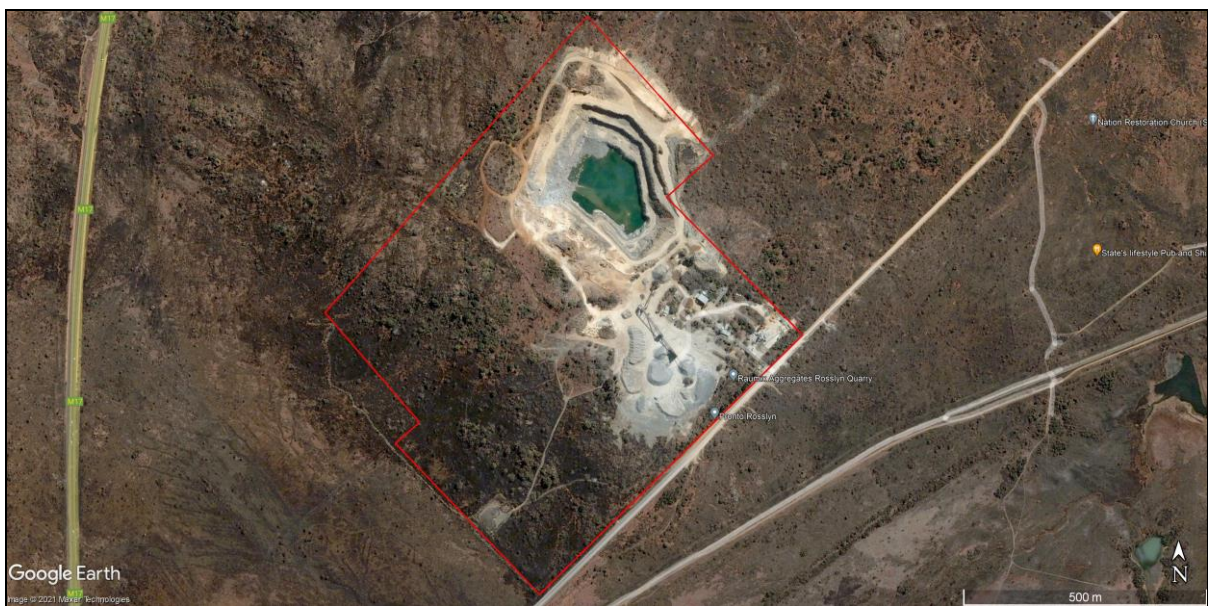


Figure 23: The survey area as indicated on Google Earth Pro (2008)



Figure 24: The survey area as indicated on Google Earth Pro (2011)



Figure 25: The survey area as indicated on Google Earth Pro (2021)

The expansion and general development of the mining activities and buildings between 2004 and 2021 are illustrated in Figure 22 to 25. This is to indicate the general progression of the mine within the mining area.

Historical maps (Figures 14 & 15) and ethnographic evidence confirm that Sites 1 and 2 are located within the sphere of influence of the Bakgatla бага Mmakau. We know that their chief Seamoge was a well-known historical figure in the region and referred to as Sjambok during mid-19th century (see Figure 19). The Bakwena ba Mogopa's area of influence was more the west and closely associated with the establishment of Ga-Rankua with the help of several missionary establishments (Breutz 1989:348; Van Schalkwyk et al 2000:63; Van Warmelo 1935).

6.2 Site visits

The field survey was conducted on 29 July and 6 August 2021.

6.3 Assumptions, restrictions, gaps and limitations

No severe physical restrictions were encountered as the survey area was accessible.

7. The Cultural Heritage Sites (Sites 1 and 2)

7.1. Background

During the Late Iron Age (LIA) (c. AD 1640 - AD 1830; Late Moloko) settlements were characterised by stone-walled enclosures situated on defensive hilltops. This occupation phase has been linked to the arrival of ancestral Northern Sotho, Tswana and Ndebele (Nguni-speakers) in the northern regions of South Africa. This terminal LIA period is mostly represented by settlements containing multichrome Moloko pottery commonly attributed to the Sotho-Tswana. Oral traditions and ethnographic evidence link these stone-walled settlements with African farming communities who later also sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called difaqane (or mfecane).

The Zwartkoppies Mountain range on the farm Hoekfontein 432JQ is well known for its high concentration of stone-walled Late Iron Age settlements. Occupation can be traced back to the AD 1400s to a place of origin in the area called Mabyanamatswana (see Breutz 1989). On the farm Hoekfontein 432JQ, situated to the west of the farm Klipfontein 268JR an archaeological impact assessment revealed an extensive Late Iron Age settlement. This investigation was prompted when multiple graves were exposed when excavations were done for a proposed pipeline. The site is characterised by an external stonewall with internal structures, several large refuse middens, possible house or granary remains and an iron smelting furnace with concentrations of slag. A total of 117 decorated potsherds (associated with the Uitkomst facies) as well as twenty four jars and nine bowls were excavated (Van Schalkwyk et al 2000:59).

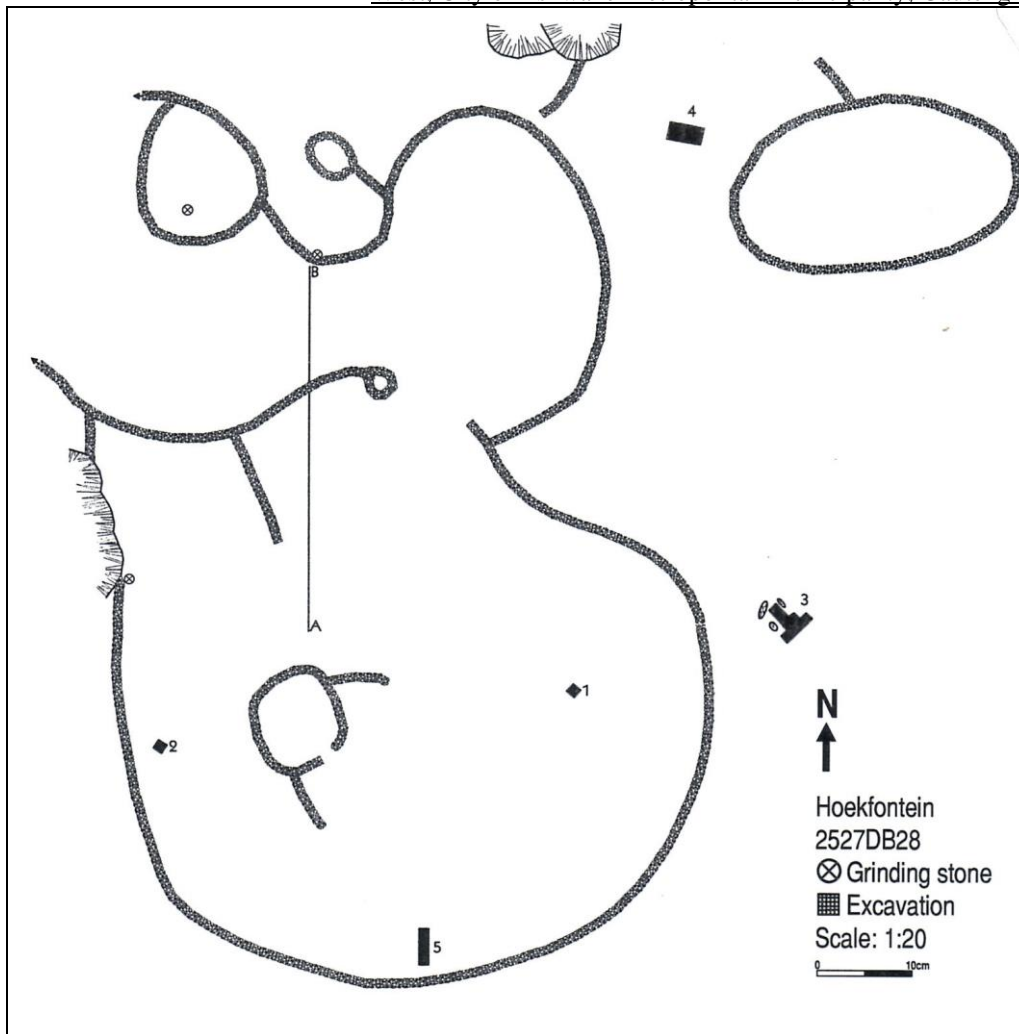


Figure 26: A Late Iron Age stone-walled settlement recorded on the farm Hoekfontein 432JQ (Swartkoppies) (after Van Schalkwyk et al 2000)

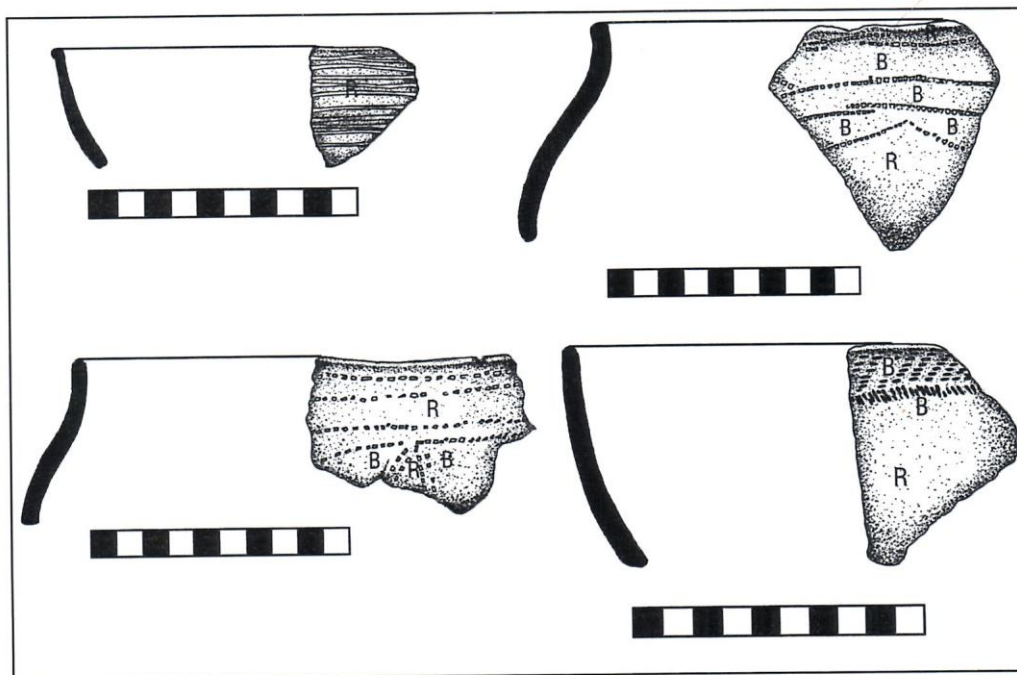


Figure 27: Decorated potsherds from the Late Iron Age stone-walled settlement recorded on the farm Hoekfontein 432JQ (Swartkoppies) (after Van Schalkwyk et al 2000)

Generally Sotho-Tswana settlements conform to a settlement layout associated with the Central Cattle Pattern (CCP). This worldview stipulates that the men's space is located at the centre of the settlement demarcated by livestock enclosures, platforms, the court (kgotla) and associated refuse middens. Surrounding this central space are the areas associated with women, which include houses, storage bins, children's houses and cooking enclosures. These spaces are usually enclosed with a circular stonewall of individual scallops (Huffman 2009).

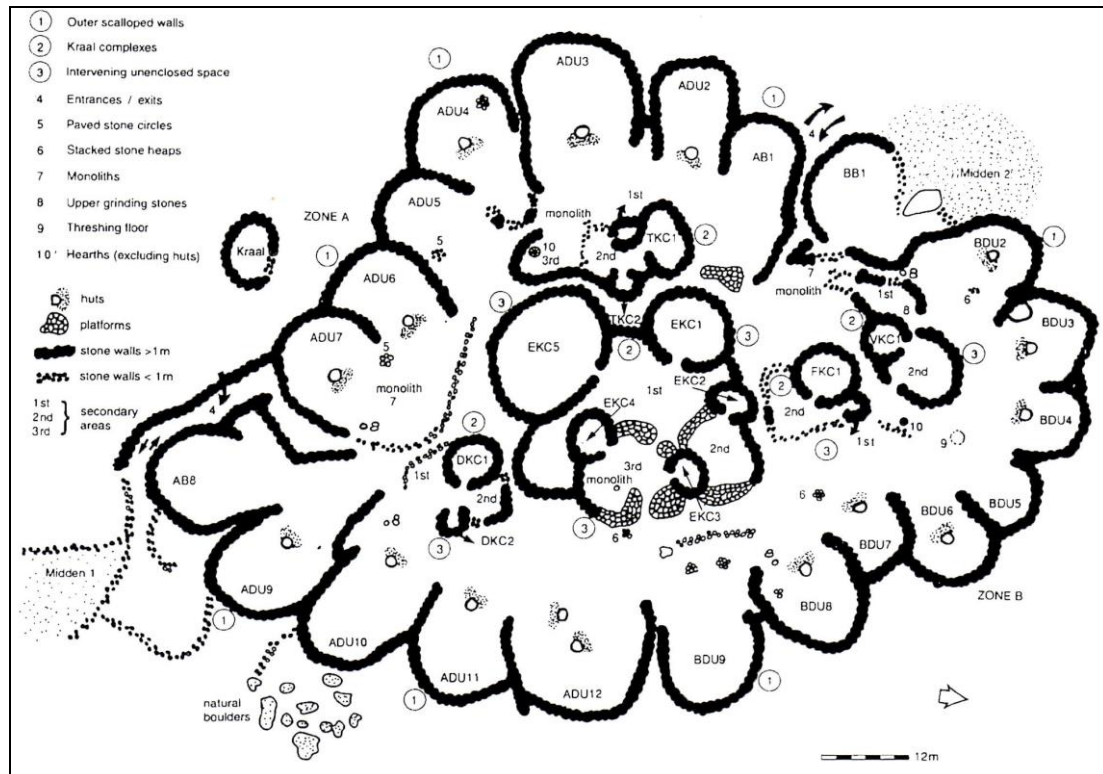


Figure 28: Sel 1 of the Late Iron Age site Molokwane indicating outer scallops with houses typical of Tswana settlements (after Pistorius 1994)

The Late Iron Age Kwenya capital at Molokwane (Figure 28) is a good example of a Tswana settlement with the livestock enclosures situated in the centre with the surrounding scallops indicating the location of the women's houses. Molokwane is located south of Rustenburg and is located within the general Tswana sphere of influence (Pistorius 1994).

Furthermore Sotho-Tswana settlements can be classified into three or more tiers, which are associated with status linked to an hierarchical structure. The three tiers are:

- Capital settlements (associated with the chief (kgosi) (refer to Figure 28)
- Secondary settlement (associated with headmen (dikgosana)
- Cattle outposts (young uninitiated boys or during conflict or war)

Note that cattle outposts are usually the most numerous on the landscape and consist of a few livestock enclosures (for both adult animals and juveniles), often with very little evidence for occupation (no refuse middens and/or house constructions). These outposts are scattered around main settlements and alleviate the burden of keeping all the livestock at one settlement (both for management and grazing). The recorded sites for this project (Sites 1 & 2) are therefore interpreted as cattle outposts (see Figure 29).

Please also note during the re-evaluation of Sites 1 and 2 it was realised that it is the same settlement. Although the reference to Sites 1 and 2 is retained throughout the report, remember that it is one settlement.

7.2 Sites 1 & 2 (Figures 12 & 13)

| GENERAL SITE DESCRIPTION | |
|--|--|
| Site type | Late Iron Age (Later Moloko) |
| Site Period | Late 18 th to early 19 th centuries |
| Physical description | <p>The site comprises a stone-walled settlement which consists of two sections situated on a rocky outcrop overlooking the valley towards the west. The settlement was constructed using a dry-wall technique and none of the rocks are dressed or shaped. Generally larger rocks and boulders were positioned at the base with smaller rocks stacked on top to form the wall.</p> <p>The northern section of the site is the larger of the settlement containing two large livestock enclosures with at least seven smaller enclosures for calves and/or small stock (e.g. sheep and goat). The whole section is also delineated by a stone wall with the opening on the north western side.</p> <p>The southern section consists of one large livestock enclosure and two small stock enclosures. Note that the most prominent and highest walling occurs in this section of the settlement, but it is not delineated with a peripheral wall, only a partial wall situated between the two sections.</p> <p>Note that no refuse middens were recorded at or near the settlement. No evidence was found of house remains or foundations that might have indicated the number and location of houses. A few undecorated potsherds were recorded as part of a surface scatter. No other features or structures were recorded in association with the settlement.</p> <p>Due to the elevated location of the site and that it mostly consists of livestock enclosures with no signs of long term occupation, this is clearly a cattle outpost.</p> |
| Integrity of deposits or structures | No surface artefacts such as hut dagha, metal, bone or ash were recorded. Apart from the small number of potsherds no concentrations of any kind were recorded. |
| Site extent | <p>Approximately 200 metres in length (long axis: north to south)</p> <p>Approximately 70 metres in width (west to east)</p> <p>Wall height: 2.50 metres in some place in the southern section to 0.3 metres</p> |

Table 6: General discription of Site 1

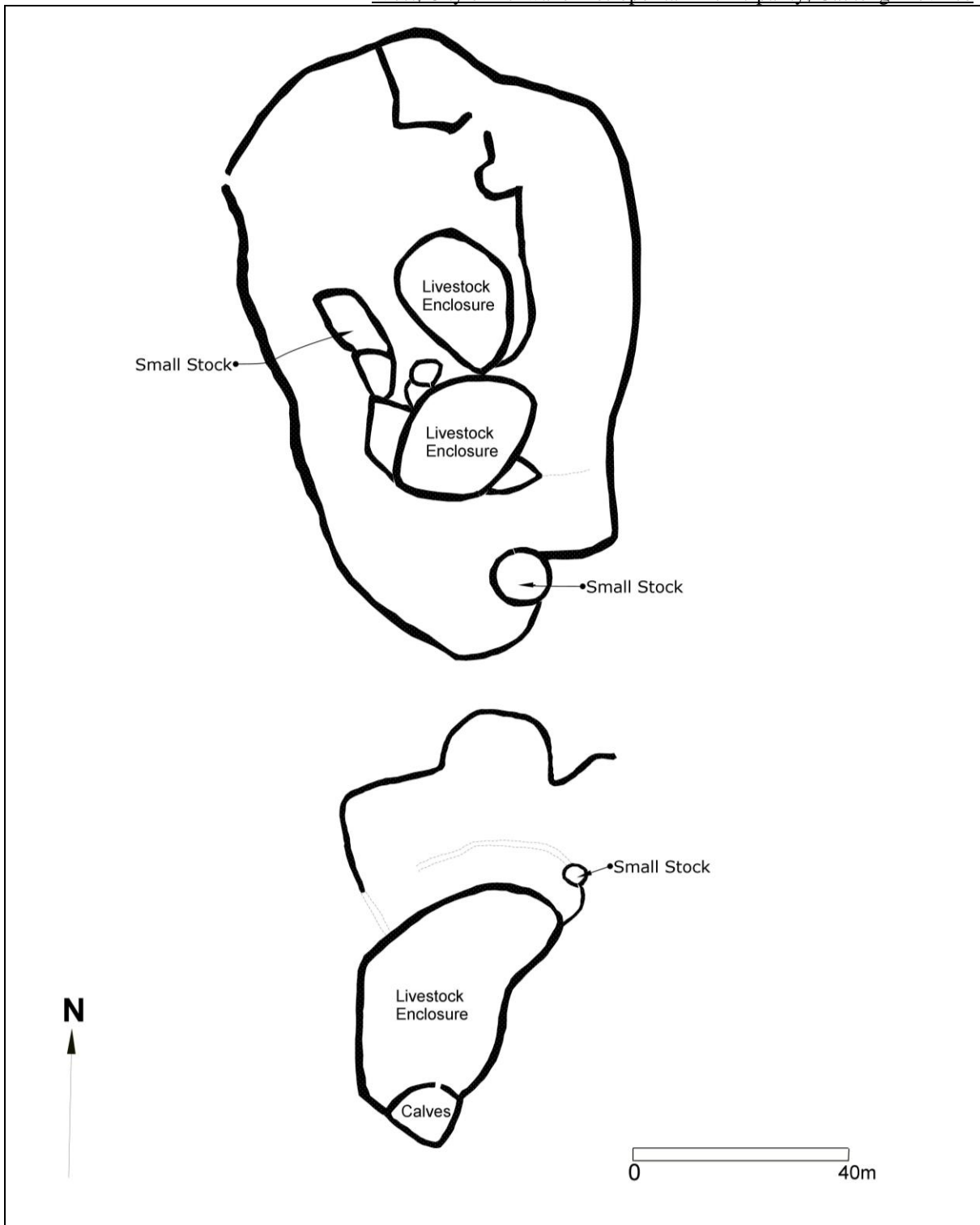


Figure 29: Layout of Site 1 & 2



Figure 30: Prominent stonewalling recorded at the southern section of the site



Figure 31: Prominent stonewalling recorded at the southern section of the site



Figure 32: Some foundation walling in between the northern and southern section of the site



Figure 33: An example of a lower section of the wall recorded at the northern section of the site



Figure 34: An example of a lower section of the wall recorded at the northern section of the site



Figure 35: An example of a lower wall that is part of an enclosure recorded at the northern section of the site



Figure 36: Undecorated potsherds recorded on the surface at the northern section of the site

7.3 Site 3 (Figure 12 & 14)

| GENERAL SITE DESCRIPTION | |
|-------------------------------------|--|
| Site type | Historical structure |
| Site Period | Early AD 1900 |
| Physical description | The site comprises a stone foundation of a single-room structure. The foundation of the possible house is square. None of the stones used in the construction of the foundations seem to have been dressed or shaped. It seems most of the stones have been carried away as there is almost no wall collapse. This is a very rudimentary structure with no additional feature except a small north-facing veranda. Note that no refuge middens or any artefacts were recorded in association with the structure. No other contextual information could be recorded. The house structure is situated in an open area and was probably used by a farm worker while looking after livestock grazing in the area. |
| Integrity of deposits or structures | No surface artefacts or deposits were recorded in association with the structure. |
| Site extent | Site 3: Approximately 4 metres in length Approximately 3 metres in width Veranda: 0.5 metres Wall height (foundation): 0.20 metres |

Table 7: General discription of Site 3

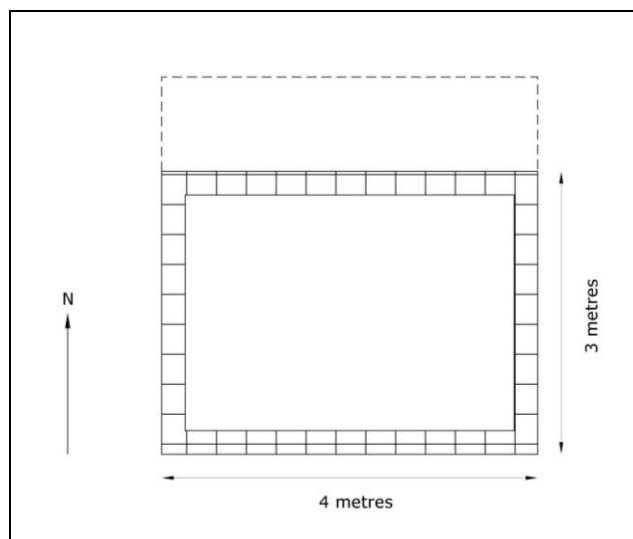


Figure 37: Layout of Site 3



Figure 38: The foundation of the structure (no collapsed walling remained)

8. Locations and Re-evaluation of Sites

| Site No | Coordinates | Site Type | Field Rating of Significance | Impact |
|---------|--|--|---|-------------|
| 1&2 | 25.604468°S 28.047621°E 25.603742°S 28.048314°E | Late Iron Age site (cattle outpost) | Generally protected B: Medium significance | Destruction |
| 3 | 25.608573°S 28.045246°E | Historical structure | Generally protected C: Low significance | Destruction |

Table 8: Location and evaluation of sites

9. Conclusions and Recommendations

Although cultural material can be crucial in assisting with dating and contextualising archaeological and historical structures (Sites 1, 2 and 3), it is unfortunate that no substantial deposits (refuge middens) were recorded.

Site 1 and 2

During the Phase 2 assessment it became clear that Sites 1 and 2 are part of the same site and as a result of this re-assessment and additional fieldwork please note the following:

- The site probably dates to between AD 1780 and AD 1830 and is part of the Later Moloko period within the Late Iron Age
- The site is roughly 200 metres in length and 70 metres in width and consists of two sections built with dry stonewalling.
- Ethnographic and historical data link the site to the Tswana group: Bakgatla ba Mmakau

- The site probably functioned as a cattle/livestock outpost providing protection and grazing fields under the protection of a few young men. No indication was found of long-term occupation (no middens recorded).
- Due to the third-tier status of the site and limited cultural material the field rating of the site is reevaluated as Generally Protected B (Medium significance) from Generally Protected A (High significance) (Coetzee 2009).

Site 3

As a result of the re-assessment and additional fieldwork during this Phase 2 investigation please note the following:

- Some known house structures were indicated in the area on the 1939 topographic map which suggests that Site 3 might date to the early AD 1900s.
- Only the foundation of the house is currently visible and no refuge midden or any cultural material was found in association with the structure.
- The single-room house structure was probably used by a farm worker as a home base.
- Due to the condition and limited cultural material the field rating of the site remains as Generally Protected C (Low significance).

Sites 1 and 2 (one site) has been recorded and classified as a Tswana cattle outpost with a Generally Protected B rating. Site 3 consists of the foundation of a historical structure which has been recorded and classified as Generally Protected C. All three sites are protected under the NHRA (Act 25 of 1999) as they are dated older than 60 years (historical) (Site 3) and older than 100 years (archaeological) (Sites 1 & 2) respectively. All sites have been extensively recorded and surveyed as resented in this report.

Sites 1, 2 and 3 have been adequately scientifically recorded, surveyed and mapped and it is therefore recommended that they can be destroyed.

Due to the proposed future expansion of mining activities and envisaged impacts a destruction permit will be applied for with SAHRA for the destruction of these sites.

Also, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* NHRA (Act No. 25 of 1999), Section 36 (6)).

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Addendum 1: Archaeological and Historical Sequence

The table provides a general overview of the chronological sequence of the archaeological periods in South Africa.

| PERIOD | APPROXIMATE DATES |
|--|---|
| Earlier Stone Age | more than 2 million years ago to >200 000 years ago |
| Middle Stone Age | <300 000 years ago to >20 000 years ago |
| Later Stone Age (Includes hunter-gatherer rock art) | <40 000 years ago up to historical times in certain areas |
| Early Iron Age | c. AD 200 - c. AD 900 |
| Middle Iron Age | c. AD 900 – c. AD 1300 |
| Late Iron Age (Stonewalled sites) | c. AD 1300 - c. AD 1840 (c. AD 1640 - c. AD 1840) |

< = less than; > = greater than

Archaeological Context

Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably did not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore kill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

The following chronological sequence was recently established by prominent Stone Age archaeologists (Lombard et al 2012):

Later Stone Age

- Age Range: recent to 20-40 thousand years ago

- General characteristics: expect variability between assemblages, a wide range of formal tools, particularly scrapers (microlithic and macrolithic), backed artefacts, evidence of hafted stone and bone tools, borers, bored stones, upper and lower grindstones, grooved stones, ostrich eggshell (OES) beads and other ornaments, undecorated/decorated OES fragments, flasks/flask fragments, bone tools (sometimes with decoration), fishing equipment, rock art, and ceramics in the final phase.
 - **Ceramic or Final Later Stone Age**
 - Generally < 2 thousand years ago
 - MIS 1
 - Contemporaneous with, and broadly similar to, final Later Stone Age, but includes ceramics
 - Economy may be associated with hunter-gatherers or herders

Technological characteristics

- Stone tool assemblages are often microlithic
- In some areas they are dominated by long end scrapers and few backed microliths; in others formal tools are absent or rare
- Grindstones are common, ground stone artefacts, stone bowls and boat-shaped grinding grooves may occur
- Includes grit- or grass-tempered pottery
- Ceramics can be coarse, or well-fired and thin-walled; sometimes with lugs, spouts and conical bases; sometimes with decoration; sometimes shaped as bowls
- Ochre is common
- Ostrich eggshell (OES) is common
- Metal objects, glass beads and glass artefacts also occur
- **Final Later Stone Age**
 - 100 – 4000 years ago
 - MIS 1
 - Hunter-gatherer economy

Technological characteristics

- Much variability can be expected
- Variants include macrolithic (similar to Smithfield [Sampson 1974]) and/or microlithic (similar to Wilton) assemblages
- Assemblages are mostly informal (Smithfield)
- Often characterised by large untrimmed flakes (Smithfield)
- Sometimes microlithic with scrapers, blades and bladelets, backed tools and adzes (Wilton-like)
- Worked bone is common
- OES is common
- Ochre is common
- Iron objects are rare
- Ceramics are absent
- **Wilton**
 - 4000 – 8000 years ago
 - MIS 1

- At some sites continues into the final Later Stone Age as regional variants (e.g. Wilton Large Rock Shelter and Cave James)

Technological characteristics

- Fully developed microlithic tradition with numerous formal tools
 - Highly standardised backed microliths and small convex scrapers (for definition of standardisation see Eerkens & Bettinger 2001)
 - OES is common
 - Ochre is common
 - Bone, shell and wooden artefacts occur
- **Oakhurst**
 - 7000 – 12 000 years ago
 - MIS 1
 - Includes Albany, Lockshoek and Kuruman as regional variants

Technological characteristics

- Flake based industry
 - Characterised by round, end, and D-shaped scrapers and adzes
 - Wide range of polished bone tools
 - Few or no microliths
- **Robberg**
 - 12 000 to 18 000 years ago
 - MIS 2

Technological characteristics

- Characterised by systematic bladelet (<26mm) production and the occurrence of *ouils ecailles* or scaled pieces
 - Significant numbers of unretouched bladelets and bladelet cores
 - Few formal tools
 - Some sites have significant macrolithic elements
- **Early Late Stone Age**
 - 18 000 – 40 000 years ago
 - MIS 2-3
 - Informal designation
 - Also known as transitional MSA-LSA
 - Overlapping in time with final Middle Stone Age

Technological Characteristics

- Characterised by unstandardised, often microlithic, pieces and includes the bipolar technique
- Described at some sites, but not always clear whether assemblages represent a real archaeological phase or a mixture of LSA/MSA artefacts

Middle Stone Age

- Age Range: 20 000 – 30 000 years ago

- General characteristics: Levallois or prepared core techniques (for definitions see Van Peer 1992; Boeda 1995; Pleurdeau 2005) occur in which triangular flakes with convergent dorsal scars, often with faceted striking platforms, are produced. Discoidal systems (for definition see Inizan et al. 1999) and intentional blade production from volumetric cores (for definition see Pleurdeau 2005) also occur; formal tools may include unifacially and bifacially retouched points, backed artefacts, scrapers, and denticulates (for definition see Bisson 2000); evidence of hafted tools; occasionally includes marine shell beads, bone points, engraved ochre nodules, engraved OES fragments, engraved bone fragments, and grindstones.
- In the sequence below we highlight differences or characteristics that may be used to refine interpretations depending on context.
- **Final Middle Stone Age**
 - 20 000 – 40 000 years ago
 - MIS 3
 - Informal designation partly based on the Sibudu sequence

Technological characteristics

- Characterised by high regional variability that may include, e.g. bifacial tools, bifacially retouched points, hollow-based points
- Triangular flake and blade industries (similar to Strathalan and Melikane)
- Small bifacial and unifacial points (similar to Sibudu and Rose Cottage Cave)
- Sibudu point characteristics: short, stout, lighter in mass compared to points from the Sibudu technocomplex, but heavier than those from the Still Bay
- Can be microlithic
- Can include bipolar technology
- Could include backed geometric shapes such as segments, as well as side scrapers

Sibudu

- 45 000 – 58 000 years ago
- MIS 3
- Previously published as informal late Middle Stone Age and post-Howieson's Poort at Sibudu
- Formerly known post-Howieson's Poort, MSA 3 generally, and MSA III at Klasies River

Technological characteristics

- Most points are produced using Levallois technique
- Most formal retouch aimed at producing unifacial points
- Sibudu unifacial point (type fossil) characteristics: faceted platform; shape is somewhat elongated with a mean length of 43.9 mm), a mean breadth of 26.8 mm and mean thickness of 8.8 mm (L/B ratio 1.7); their mean mass is 11.8 g
- Some plain butts
- Rare bifacially retouched points
- Some side scrapers are present
- Backed pieces are rare
- **Howieson's Poort**
 - 58 000 – 66 000 years ago
 - MIS 3-4

Technological characteristics

- Characterised by blade technology
- Includes small (<4 cm) backed tools, e.g. segments, scrapers, trapezes and backed blades
- Some denticulate blades
- Pointed forms are rare or absent
- **Still Bay**
 - 70 000 – 77 000 years ago
 - MIS 4-5a

Technological characteristics

- Characterised by thin (<10 mm), bifacially worked foliate or lanceolate points
- Semi-circular or wide-angled pointed butts
- Could include blades and finely serrated points (Lombard et al. 2010)
- **Pre-Still Bay**
 - 72 000 – 96 000 years ago
 - MIS 4-5

Technological characteristics

- Characteristics currently being determined / studied
- **Mossel Bay**
 - 77 000 to —105 000 years ago
 - MIS 5a-4
 - Also known as MSA II at Klasies River or MSA 2b generally

Technological characteristics

- Characterised by recurrent unipolar Levallois point and blade reduction
- Products have straight profiles; percussion bulbs are prominent and often splintered or ring-cracked
- Formal retouch is infrequent and restricted to sharpening the tip or shaping the butt
- **Klasies River**
 - 105 000 to —130 000 years ago
 - MIS 5d-5e
 - Also referred to as MSA I at Klasies River or MSA 2a generally

Technological characteristics

- Recurrent blade and convergent flake production
- End products are elongated and relatively thin, often with curved profiles
- Platforms are often small with diffused bulbs
- Low frequencies of retouch
- Denticulate pieces
- **Early Middle Stone Age**
 - Suggested age MIS 6 to MIS 8 (130 000 to —300 000 years ago)
 - Informal designation

Technological characteristics

- This phase needs future clarification regarding the designation of cultural material and sequencing
- Includes discoidal and Levallois flake technologies, blades from volumetric cores and a generalised toolkit
- **Earlier Stone Age**
 - Age range: >200 000 to 2 000 000 years ago
 - General characteristics: early stages include simple flakes struck from cobbles, core and pebble tools; later stages include intentionally shaped handaxes, cleavers and picks; final or transitional stages have tools that are smaller than the preceding stages and include large blades.
 - In the sequence below we highlight differences or characteristics that may be used to refine interpretations depending on context.
- **ESA-MSA transition**
- 200 to —600 thousand years ago
- MIS 7-15

Technological characteristics

- Described at some sites as Fauresmith or Sangoan
- Relationships, descriptions, issues of mixing and ages yet to be clarified
- Fauresmith assemblages have large blades, points, Levallois technology, and the remaining ESA components have small bifaces
- The Sangoan contains small bifaces (<100 mm), picks, heavy and light-duty denticulated and notched scrapers
- The Sangoan is less well described than the Fauresmith
- **Acheulean**
 - 300 thousand to —1.5 million years ago
 - MIS 8-50

Technological characteristics

- Bifacially worked handaxes and cleavers, large flakes > 10 cm
- Some flakes with deliberate retouch, sometimes classified as scrapers
- Gives impression of being deliberately shaped, but could indicate result of knapping strategy
- Sometimes shows core preparation
- Generally found in disturbed open-air locations
- **Oldowan**
 - 1.5 to >2 million years ago
 - MIS 50-75

Technological characteristics

- Cobble, core or flake tools with little retouch and no flaking to predetermined patterns
- Hammerstones, manuports, cores
- Polished bone fragments/tools

Iron Age Sequence

In the northern regions of South Africa at least three settlement phases have been distinguished for early prehistoric agropastoralist settlements during the **Early Iron Age** (EIA). Diagnostic pottery assemblages can be used to infer group identities and to trace movements across the landscape. The first phase of the Early Iron Age, known as **Happy Rest** (named after the site where the ceramics were first identified), is representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase of **Diamant** is dated to AD 600 - AD 900 and was first recognized at the eponymous site of Diamant in the western Waterberg. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water.

The Late Iron Age (LIA) settlements are characterised by stone-walled enclosures situated on defensive hilltops (c. AD 1640 - AD 1830). This occupation phase has been linked to the arrival of ancestral Northern Sotho, Tswana and Ndebele (Nguni-speakers) in the northern regions of South Africa with associated sites dating between the sixteenth and seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19th century settlements with multichrome Moloko pottery commonly attributed to the Sotho-Tswana. These settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called difaqane (or mfecane).

Ethno-historical Context

The Ndzundza Ndebele (Southern Ndebele of Nguni origin) also settled in Steelpoort River Valley and oral history suggests an early (*circa* late AD 1500) settlement in the interior, to the immediate north of Pretoria, under their founder-ruler called Musi. The Ndzundza chieftaincy is believed to have eventually extended its boundaries along the catchment area of the Steelpoort River in the 1630s and settled here for the next 250 years (Van Vuuren 1995, Van Warmelo 1935). Several of these settlements (KwaSimkhulu, KwaMaza and Esikhunjini) are known through oral history and have been investigated archaeologically (see Schoeman 1997).

Ndebele towns that have been investigated archaeologically include KwaSimkhulu (occupied circa AD 1600 – AD 1680s), KwaMaza (occupied circa AD 1675 – AD 1820; situated at the eastern foot of Bothasberg), Esikhunjini (occupied circa AD 1820 – AD 1835; on the north-eastern slopes of Bothasberg) and KoNomtjarhelo (capital Erloweni (Mapochstad) and an outlying site: UmKlaarmaak (near Spitskop) (occupied circa AD 1835 – AD 1883).

Although there was a substantial migration towards the northern regions of South Africa most of the Ndzundza Ndebele actually stayed behind and expanded their settlements in the area north and east of Pretoria. Extensive settlements are known to exist in the region and the authoritative ethnological survey conducted by Van Warmelo in 1935 indicates continuous occupation of the area.

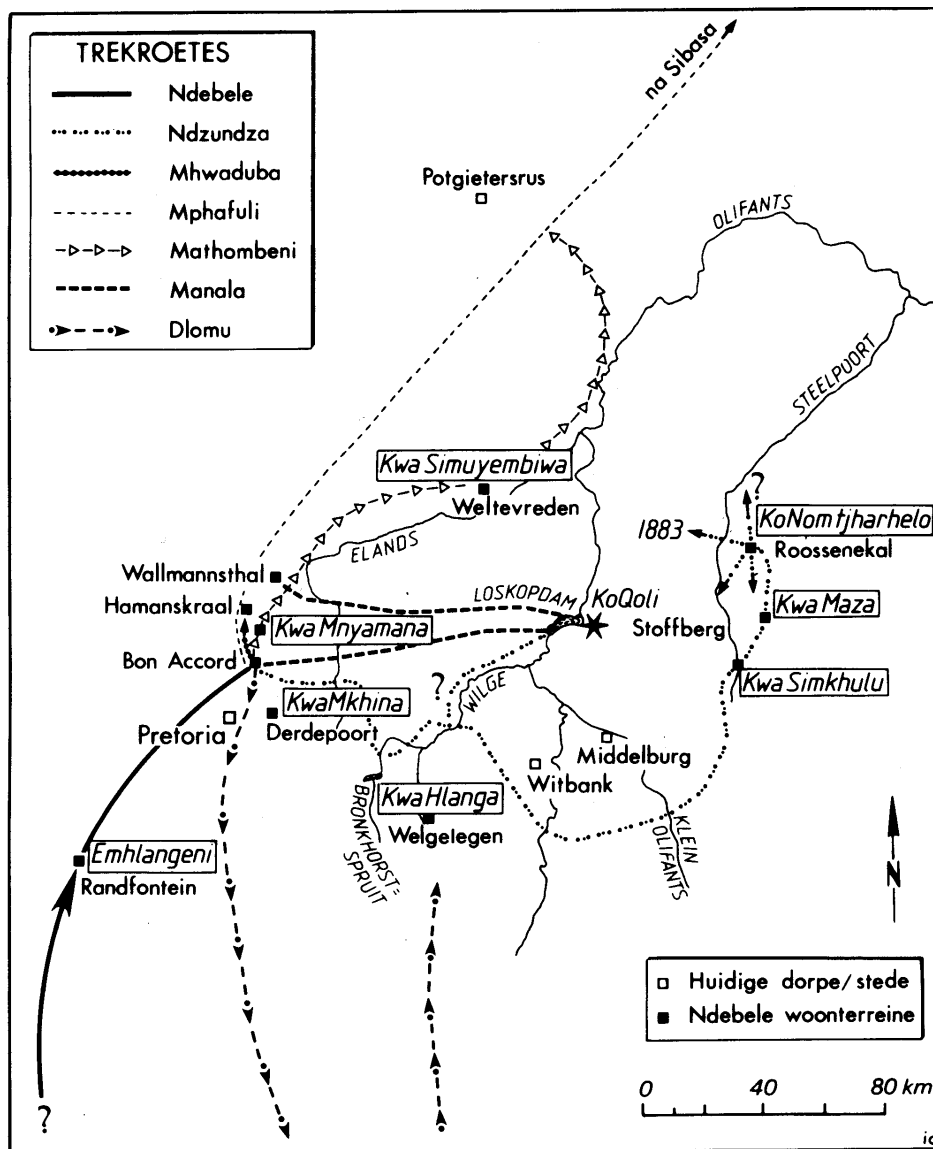


Figure 39: Migration routes of the Ndebele to the west of the survey area (van Vuuren 1995)

The period of upheaval known as the Difaqane (Mfecane) had widespread implications for the northern interior of South Africa. Mzilikazi, one of the generals of King Shaka of the Zulu kingdom left KwaZulu-Natal in 1820 and took his Khumalo clan north-westward on a journey which changed the face of the South African interior. He first reached the Pedi people north of the Olifants and Steelpoort Rivers and took over their land. A year later and after a lengthy sojourn the group arrived at the slopes of the Magaliesberg Mountains in the Pretoria area in about 1827. Mzilikazi established two military kraal or capitals. The one was situated on the Apies River called enDinaneni which was situated north-west of Pretoria on the road to Hartebeespoort Dam and enKungweni which was built along the Daspoort range of hills.

His main residence was on the south side of Meintjieskop, but he later moved to the north of the Magaliesberg Mountains, to a place named emHlahlandlela. This aggressive occupation of the land forced the local Ndebele (Ndzundza) groups to scatter and hide in mountainous areas. Later during the 1830s Mzilikazi moved further west to establish a capital at Gabeni, north of Zeerust where he subjugated various Sotho Tswana groups in the area. His power

was only challenged in 1837 by a combined Boer, Tswana and Griqua force. Mzilikazi later migrated into Zimbabwe and established his next capital, Bulawayo (Rasmussen 1977).

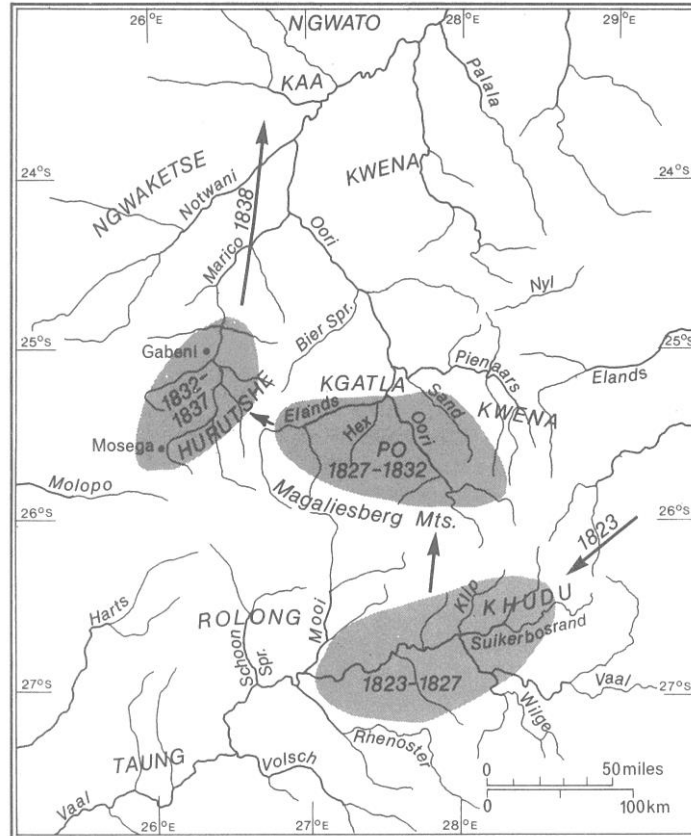


Figure 40: The location of the major spheres of influence of Mzilikazi from the early 1820s to late 1830s

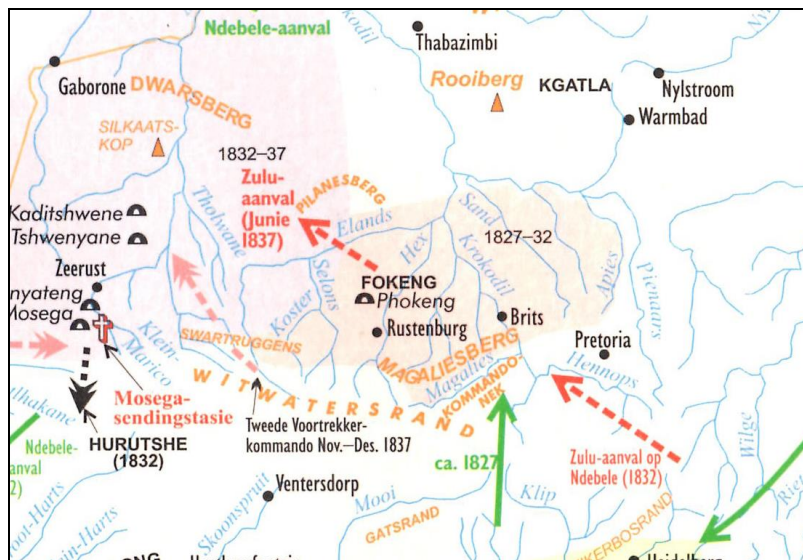


Figure 41: Movement of Mzilikazi's warriors relative to the survey area northwest of Pretoria (after Bergh 1998)

Pretoria historical timeline

- 1825 Mzilikazi's arrival in Transvaal region.
- 1836 Andries Potgieter's arrives in the area north of the Vaal.

- 1837 Mzilikazi defeated by the Voortrekkers and forced to flee across the Limpopo.
- 1840 First permanent White inhabitants arrive in the Pretoria area.
- 1852 Sand River Convention signed, granting Transvaal Boers independence.
The Zuid Afrikaanse Republiek (ZAR) is established.
- 1853 16 November, Establishment of the first Volksraad.
MW Pretorius purchases the farms Elandspoort and Koedoespoort.
In November 1853 the two farms are declared a town.
- 1855 Pretoria founded and established as the capital of ZAR, named after General Andries Pretorius.
The first church is designed and built by the Devereau brothers and Willem Skinner
- 1856 Andries Du Toit pegs out Pretoria town
- 1857 Marthinus Wessels Pretorius, the son of Andries Pretorius, is elected first President of ZAR
The first church is inaugurated by Rev D Van Der Hoff.
2 May, Andries Francois du Toit is sworn in as Pretoria's first magistrate.
- 1859 The first state aided school is opened with Hendrik Stiemens as teacher.
- 1860 Pretorius is elected President of the OFS, but is later forced to resign as President of ZAR
1 May, Pretoria becomes the seat of government of ZAR
- 1864 First Raadsaal erected on the corner of Market and Church streets.
Pretorius elected for second time as President of ZAR.
- 1864 The first mail coach is established in Pretoria.
- 1867 Church Street West cemetery commissioned for use. Prior to this, deceased were buried on farms around Pretoria
- 1871 Pretorius forced to resign as President after consenting to the Keate award.
- 1872 Thomas Francois Burgers elected State President of ZAR
The Pretoria Post Office is established
- 1873 *Die Volkstem* newspaper established by President Burgers. Mr. Celliers being the first editor
- 1877 The Transvaal republic is proclaimed British territory
Standard Bank established in the Transvaal.
Telegraphic communication is established in Pretoria.
- 1880 Boers declare themselves independent at Paardekraal.
- 1881 Battle of Majuba; the war ends with the restoration of the Transvaal Republic under the Pretoria Convention.
Indians enter Transvaal and settle in the Asiatic Bazaar
- 1883 Paul Kruger elected President of ZAR.
- 1884 The London Convention replaces the Pretoria Convention
- 1886 Construction of the first Post Office building begins.
Post Office built on the north corner of Church Street west. The building was demolished in 1910 and a four storey building erected in its place. This is the present Post Office.
- 1888 The President Theater is erected. From 1903 to 1910 it is known as The Empress.
The Nederlandsche Bank opens. The name later changes to Nederlandsche Bank Voor Zuid Afrika N.V. The building was designed by M. de Zwaan who also designed the Sammy Marks building on Church Street.
- 1889 Suburb of Arcadia is incorporated into Pretoria.
6 May, President Kruger lays the foundation stone for the new Raadsaal.
It was to be a three-storey building designed by S Wierda, a government architect at the time. The builder is J.J Kirkness.

- Landdros Kantoor or Magistrates Court is built on the north east corner of Koch and Pretorius Streets
- 1890 Suburb of Sunnyside is incorporated into the city of Pretoria.
- 1892 The first swimming baths built in Pretoria.
- 1893 The Staats Model school is established.
- 1894 State Girls school (now Hamilton Primary school) and State Gymnasium established.
- 1895 1 January, The Delgoa Bay railway is opened.
- 1890 The White suburb of Les Marais is established.
The foundation stone of the Pretoria Hospital is laid by President Kruger.
The Grand Hotel is built, initially called the President Hotel. Many important occasions are celebrated in the hotel, like the banquet held for Lord Selbourne in April 1910 when he relinquished his position as High Commissioner of South Africa.
The Asiatic Bazaar comes into existence. Paul Kruger allocates this area to be developed exclusively for Indians, Coloureds and Blacks. The northern part was to be occupied by the Blacks while the southern part was occupied by the Coloureds, known as the 'Cape Location.'
The area to the north and south of Boom street was allocated to the Indians.
- 1891 December, The Raadsaal is completed.
The Press printers established on the corner of Koch and Vermeulen Streets. The first editor was Leo Weinthal.
- 1892 Suburb of Pretoria West established.
6 July, The President lays the foundation stone of the two-storey National Bank. This building is completed in 1893.
First railway station erected in Pretoria. NAZM is responsible for the maintenance of the railroad
Electricity is introduced to Pretoria. The power station is situated on Schoeman Street towards the north-side about halfway between Prinsloo and Van Der Walt Streets.
- 1893 First Portland Cement Factory built at Daspoort
August, The State Gymnasium is established for the training of teachers.
- 1893-1894
Law Chambers are built on the western side of Church Square.
- 1895 The Press printing works for the first time, printing a one penny stamp. All Transvaal Republic stamps were previously printed overseas.
- 1896 The White suburbs of Mayville, Eloffsdal and Villiera are established.
- 1897 Outbreak of bubonic plague.
- 1897 The White suburb of Hermanstad is established.
- 1897 8 June, Foundation stone of the building of the Palace of Justice laid by President Kruger.
- 1898 Roseville and New Muckleneuk established.
Palace of Justice building completed.
Leo Weinthal, the first editor of the Printing Press, establishes the *PretoriaNews*, based in Queen street.
- 1898-1899
Erection of the Staats Meisjies Skool (State Girls School) building.
- 1899 Outbreak of South African War.
- 1900 Pedestal erected on Church Square for statue of President Kruger.
- 1902 31 May, Treaty of Vereeniging signed, ending the South African War. The Republics then become British colonies.
The White suburb of Brooklyn is established.
Zoo and Museum built in Boom Street. Dr JWB Gunning becomes the first director of both the zoo and museum.

- 1903 Pretoria Municipality offices are opened next to the National Bank.
Gezina, Wonderboom South, Rietfontein, Parktown, Mountain View and Claremont are established
First fruit shop opens in Pretoria.
Police barracks and Charge office erected on the south west corner of Koch and Pretorius Streets.
- 1903-1904
Mint building erected.
- 1904 Pretoria Gardens, Daspoort, Rietondale and Waterkloof established.
Sewerage system introduced in Pretoria.
Opera House officially opened, with a seating capacity of 600.
- 1905 12 April, Foundation stone laid for the new Town Hall.
23 May, Lord Selbourne arrives in Pretoria.
Lady Selbourne proclaimed a black township (north west of the city was the only township where blacks were allowed to own land)
Lady Selbourne, Hatfield and Booyens are established.
- 1906 Pedestal removed and a fountain erected in the middle of Church Square. This fountain was later moved to the Zoological Gardens in 1911.
- 1907 The Transvaal and OFS are granted responsible self- government status.
- 1910 April, Lord Selbourne leaves Pretoria.
31 May, Birth of the Union of South Africa with Pretoria as administrative capital and Cape Town as the legislative capital.
Louis Botha becomes the first Prime Minister of the Union of South Africa.
November, First tram runs in Pretoria.
- 1912 Statue of President Kruger erected in Princes Park. Mr. Sammy Marks presents the statue to Pretoria in 1900 but it could not be erected immediately for political reasons.
Between 1900 and 1912, the statue lies in Delagoa Bay.
Bank of Africa incorporated into National Bank
The National Party is established.
The Municipal Tram Sheds are built on the corner of Van Der Walt and Schoeman Streets. There were about 13,5 miles of tracks for trams in Pretoria.
- 1913 Union buildings completed. Designed by architect Herbert Baker. The Union Buildings housed the administrative offices of the new state.
- 1914 January, National Party formed by Gen. Hertzog
The White suburb of Capital Park is established.
- 1923 Natives (Urban Act) is passed, which leads to the creation of locations to house Black workers in White urban areas.
- 1928 ISCOR is established.
- 1929 The White residential suburb of Colbyn is established.
- 1931 14 October, Pretoria is declared a city when the Innesdale municipality is incorporated into it.
- 1934 United Party government formed under Generals Hertzog and Smuts.
Menlo Park is established as a White residential suburb.
- 1935 The Pretoria City Hall is inaugurated by Sir Johannes Wessels.
- 1939 Establishment of Atteridgeville, named after the Deputy mayor Patricia Atteridge.
Waterkloof Ridge established as a White residential suburb.
The last tram leaves Church Square.
- 1940 May, First 50 families move from Marabastad to Atteridgeville.
- 1942 The White suburb of Danville is established.
- 1948 National Party comes to power under DF Malan.
The White residential suburb of Groenkloof is established.

- 1949 1 July, The Hercules municipality is merged with Pretoria.
- 1951 The black residential township of Mamelodi is laid out.
- 1957 Black inhabitants of Lady Selbourne take part in the bus boycott.
The Treason Trial begins, in which 30 of the accused, including Nelson Mandela were only released in March 1961 because the State could not prove its case
- 1958 Dr. Verwoerd becomes Prime Minister.
Lady Selbourne is declared a White area.
- 1960 Establishment of Laudium, a residential township for Indians.
- 1961 South Africa becomes a Republic and leaves the Commonwealth of Nations
- 1962 Eersterus, the residential township for Coloured people, is laid out 15km east of Church Square
- 1964 20 May, Pretoria Art Museum inaugurated.
1 July, The municipalities of Silverton and Pretoria North are incorporated into Pretoria.
- 1966 The black township of Ga-rankuwa is officially opened in the Tswana homeland.
- 1968 The Afrikaans newspaper *Hoofstad* is established
- 1972 February, Petrol driven buses are introduced in Pretoria.
The newspaper *Oggendblad* is established
- 1977 12 September, Steve Biko dies in a Pretoria prison.
- 1980 25 January, three ANC men take 25 hostages in the Pretoria suburb of Silverton, demanding the release of Nelson Mandela. The three ANC men and two White female hostages are killed.
- 1981 12 November, a Rosslyn sub-station is damaged by four limpet mines.
14 December, a Pretoria sub-station is bombed.
- 1983 20 February, Umkhonto we Sizwe (MK) cadres try to set the Pelindaba Nuclear Research station on fire.
20 May, a car bomb at the South African Air Force in Pretoria kills 15 people.
- 1984 4 January, a guerrilla is killed in Mamelodi.
5 May, Approximately 7000 people attend an Afrikaner Volkswag rally in Pretoria.
- 1985 March, Police station in Mamelodi is destroyed by a limpet mine.
9 May, Two grenade attacks occur in townships in Pretoria.
- 1986 8 January, an explosion damages a Pretoria sub-station.
12 March, SACC member Oupa Masuku's mother, Esther Masuku, is killed in a hand grenade attack on their house in Atteridgeville.
June, Pretoria government imposes a nationwide state of emergency to crush Black resistance.
1 December, Fabian Ribiero and Florence Ribiero are killed outside Pretoria.
- 1987 13 March, four municipal police officers are killed and one injured in Atteridgeville.
- 1988 18 March, guerrillas attack a tavern in Atteridgeville frequented by policemen. Three policemen are killed.
9 April, a limpet mine explodes near the Atteridgeville Development Board's canteen.
15 April, a bomb explodes prematurely outside Pretoria's Sterland cinema, killing the carrier and wounding a bystander. According to the ANC, the intended target was a nearby government building.
10 May, a child is killed when a grenade is thrown at a policeman's home in Mamelodi.
June, a mini limpet mine explodes at a snack bar in Pretoria, injuring 18 people.
September, a bomb explodes at the Laudium home of a Pretoria municipal election candidate.
15 November, Barend Strydom kills 5 people at Strydom Square in Pretoria.
- 1989 September, a mini limpet mine explodes outside the Mamelodi police station.

- 1990 6 August, the Pretoria Minute is signed as a result of talks between the South African government and the ANC in Pretoria.
- 1994 April, India establishes a High Commission in Pretoria.
27 April, Nelson Mandela is sworn in as the first democratically elected President of South Africa in Pretoria.

Addendum 2: Surveyor General Farm Diagram

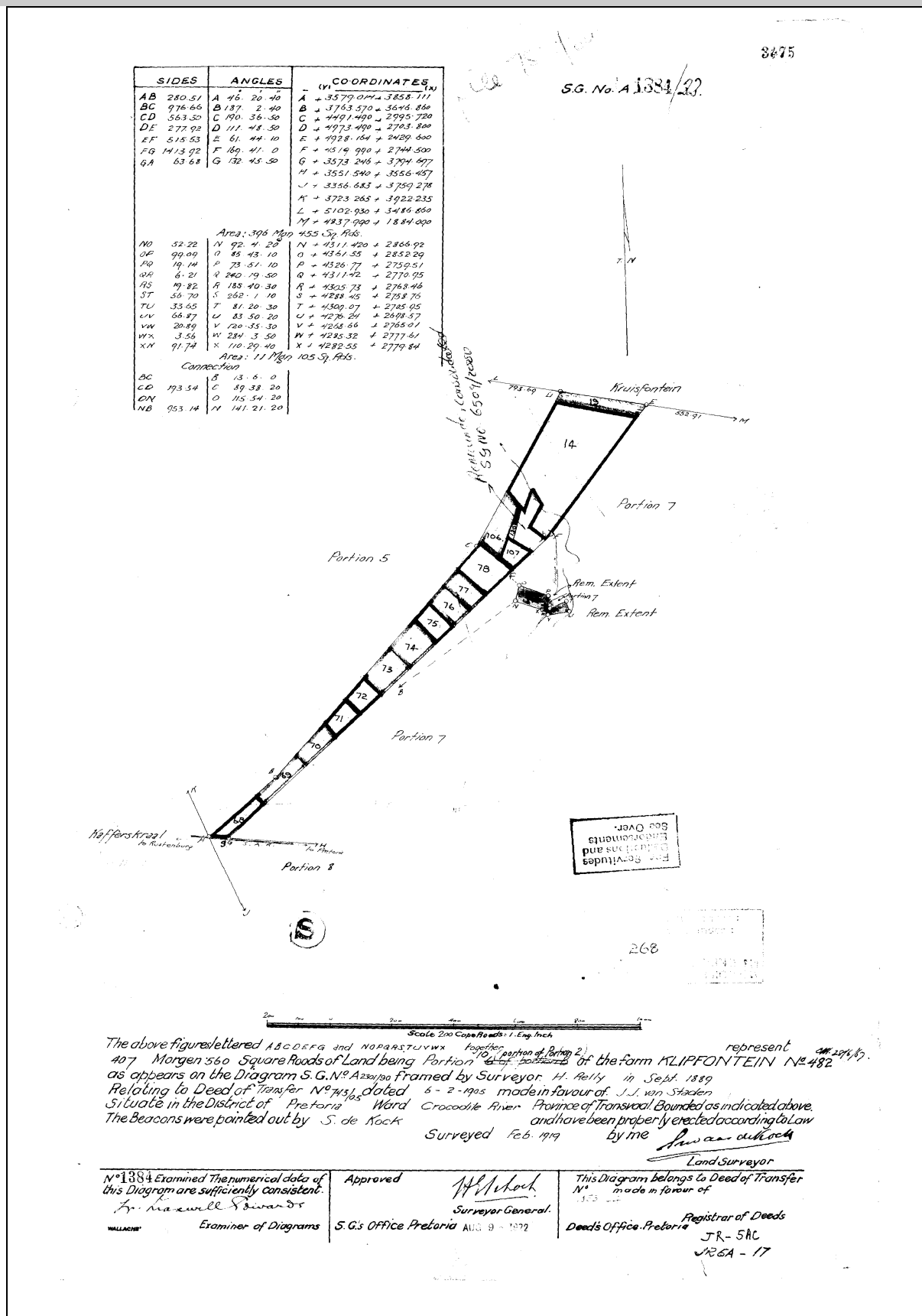


Figure 42: Surveyor General's sketch of the farm Klipfontein 268JR was first surveyed in 1889