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Archaeological Investigation of the Proposed Heidelberg Kloof Estate Development,
Heidelberg, Gauteng

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Executive Summary

No archaeological or historical settlements or remains (including graves) will be affected by the proposed development

Please note the following:

> A Heritage Conservation Management Plan (HCMP) should be compiled for the estate if the archaeological remains are be used for recreation purposes (NHRRA, Section 44).

- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction, 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.* NHRRA (Act No. 25 of 1999), Section 36 (6)).

1. Introduction

The Archaeology Contracts Unit (UNISA) conducted an investigation, focussing on the archaeological and historic remains in the proposed Heidelberg Kloof Residential Estate development, Gauteng. This report was requested by Van Riet and Louw Landscape Architects on behalf of Koppie Eilandom. This report was necessitated by an application to change the land use from agriculture and open space to accommodate residential development.

The property is situated north of Heidelberg and borders on the Suikerpostrand Nature Reserve to the west and north. The estate is 220 hectares in extent and is situated on the farm Langlaagde 1861R (portions 64 and 85).

The aim of this investigation is to locate, identify and document visible archaeological artefacts, structures (including graves) and settlements of cultural significance in the proposed area of development.

2. Terms of Reference

The terms of reference of this survey are as follows:

- * Provide a detailed description of all archaeological artefacts, structures (including graves) and settlements
- * Assess the significance of the impact of the proposed development on the archaeological remains within the area
- * Estimate the level of sensitivity/importance of the archaeological remains within the area
- * Propose possible mitigation measures provided that such action is necessitated by the development activities

3. Definitions and Approach

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited on or in the ground.
- All archaeological remains, artificial features and structures 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)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory. 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 **Minerals Act (Act No 50 of 1991)** and the **National Environmental Management Act (Act No 107 of 1998)** when making any recommendations.
- Human remains older than 60 are protected by the **National Heritage Resources Act**, with reference to Section 36. Human remains that are less than 60 years old are protected by the **Human Tissue Act (Act 65 of 1983 as amended)**.

- Cultural resources are non-renewable.
- 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 Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction, 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)).
- A copy of this report will be lodged with the **South African Heritage Resources Agency (SAHRA)** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (subsection 4).

4. Methodology

4.1 Literature Study

Various archaeological and ethnographic sources were consulted to compile a concise cultural framework of the area under investigation.

4.2 Maps and Other Sources

The proposed development was localised by using the 1:50 000 Topographic Maps 2628AD (Springs) and 2628 CB (Heidelberg), followed by an on-site investigation. The orientation and location of the sites were determined by using a Global Positioning System (GPS)¹ correlated with the geographic features (i.e. rivers, fields, topography etc.) of the survey area.

4.3 Fieldwork

An on-site investigation was conducted on 10 September 2003. Utilising the road system the whole area was extensively surveyed by vehicle and on foot. Emphasis was placed on indications of significant historical and archaeological settlements and structures (including graves). This survey focussed especially on areas where development is proposed (residential stands).

5. Area Description

The estate is situated in an open valley dominated by a perennial stream. The valley is surrounded by undulating hills on the western, northern and eastern sides. Existing developments on the farm include various paved roads, dams, several extensive buildings

¹ According to the manufacturer a standard deviation is to be expected when determining the location of sites. However, care has been taken to correlate the reading with the topography and to obtain a low dilution of precision (DOP) before plotting sites on a map. The datum point is WGS 84.

and swimming pool area, caravan stands, picnic areas, staff accommodation and two formal cemeteries.

6. Chronological Framework

PERIOD	APPROXIMATE DATE
Early Stone Age	more than c. 2 million years ago - c. 250 000 years ago
Middle Stone Age	c. 250 000 years ago - c. 25 000 years ago
Later Stone Age (Includes San Rock Art)	c. 25 000 years ago - c. AD 200 (up to historic times in certain areas)
Early Iron Age	c. AD 400 - c. AD 1025
Late Iron Age (Stone-walled sites)	c. AD 1025 - c. AD 1820s (c. AD 1640 - c. AD 1820s)
Historic Period (Farms with Title Deeds)	1860 - present

7. Archaeological and Ethnohistorical Context

7.1 Stone Age Sequence

Large concentrations of Early Stone Age (ESA) sites are usually located on the flood plains of perennial rivers and may date to over 2 millions years ago. These ESA open sites may contain, firstly, scatters of stone tools and second, large concentrated deposits which range from pebble tool choppers to core tools such as handaxes and cleavers. The early hominids who made these stone tools, did not actively hunt.

Middle Stone Age (MSA) sites also occur on flood plains but are in many cases associated with rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades. They may have been hafted but organic materials do not always preserve. Limited drive hunting activities are associated with this period.

Sites dating to the Late Stone Age (LSA) occur primarily in rock shelters. Well protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich egg shell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is sometimes possible. South African rock art is also associated with this period.

7.2 Iron Age Sequence

In the central regions of South Africa at least three settlement phases, which pertain to prehistoric agropastorists, have been distinguished for the **Early Iron Age** (EIA). The first phase of the Early Iron Age is known as **Happy Rest**, representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase known as **Diamant** is dated to AD 600 - AD 900. 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. This occupation phase has been linked to the arrival of the Northern Sotho, Tswana and Southern Ndebele (Nguni-speakers) in the region dated from the sixteenth to 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. This correlates with oral traditions about various people who sought refuge in the mountains during the processes of disruption in the northern interior of South Africa, caused during the so-called *difagane* (or *Mfecane*). Mzilikazi, the leader of a Zulu regiment, to whom this period of disruption is attributed, reached the Heidelberg-area during the early 1820s.

In 1968 the archaeologist Revil Mason conducted an aerial survey of archaeological sites which covered most of the present Gauteng Province. With the focus on site layout he identified 8 distinct stone-walled ruin classes (Mason 1968:169). These are as follows:

- Class 1: Isolated circle or a few adjacent but isolated circles (Simple ruin)
- Class 2a: Circular open space defined by several attached semi-circular enclosures (Complex ruin)
- Class 2b: Two or more large circles composed of interlocking small circles (Complex ruin)
- Class 3: Circular enclosures enclosed by periphery-walling (may be scalloped) (Complex ruin)
- Class 4a: Scattered circular enclosures forming a closely related whole; no enclosing periphery walling (Complex ruin)
- Class 4b: Closely related circular enclosures covering a large area; no enclosing periphery walling (Complex ruin)
- Class 4c: A dispersed set of isolated circles seeming to form a related whole (Complex ruin)
- Class 5: Scattered irregular walling with no definite plan identified (Complex ruin)

The survey identified 6237 settlements. The following stone-walled Iron Age sites were recorded in the vicinity of Suikerbosrand River (Mason 1968:169):

Class 1	Class 2	Class 3	Class 4a	Total
212	8	525	49	794

During 1973 Mason also documented and excavated several Late Iron Age sites in the Suikerbosrand Nature Reserve of which he excavated three (site no: 101-103/73). The excavations focussed on structures (i.e. hut floors) and middens of stone-walled settlements which can be classified as Class 3. A radio carbon (C14) date from a hut at site 103/73 yielded a date of 1850 BP (Before Present) (Mason 1986:608-628).

7.3 Ethnohistorical Sequence

The Mapputing people settled in the area of present-day Heidelberg in the 1690s under their chief *kgosi* Mathula. They are a Tswana group with the *duiker* as their totem. However, when they arrived in the region they encountered the Bofokeng. Tension was resolved with the marriage between chief Mathula and the daughter of Keketisi, the leader of the Bofokeng at the time. The Mapputing people were ruled by various prominent chiefs (Khoase, Motsosane II, Ratsebe, Falatse, Pali and Falatse II (ruled until 1880)) and remained in the area until the present-day (Ellenberger 1912:34,35,351).

8. Description of Sites

Sites that were identified during the survey are archaeological sites dated to the late (stone-walled) phase of the Late Iron Age (c. AD 1640 - AD 1830s). Due to the nature of the topography of the area the archaeological sites are mostly situated in high-lying areas surrounded by hilltops. Mainly Class 1 sites were constructed in these secluded locals. Most of these sites probably functioned as cattle outposts on the periphery of the Suikerbosrand mountain range.

All the archaeological sites are situated in close proximity to water. Recent climatic research indicates that between AD 900 - AD 1295 southern Africa experienced a 'Warm Epoch' with generally hotter and wetter conditions than today. Between AD 1295 - AD 1780 the region experienced a so-called 'Little Ice Age' with generally colder and drier conditions. Although the period AD 1425 and AD 1675 was generally warm and wet (cf. Tyson 1992). As a result, past conditions in the area probably was at times even more favourable for grain cultivation (e.g. sorghum, millet and various types of beans) than today.

8.1 Site 1

This site is characterised by a cluster of six associated livestock enclosures (probably for cattle and calves) constructed in between large boulders on a spur. The stone walls are approximately 0,5 metres high and the diameter of the enclosures vary between 7 and 25 metres. Two of the larger enclosures each have a conjoined smaller enclosure. No hut remains, middens or cultural material were recorded on the surface.

8.2. Site 2

A large stone-walled enclosure (15 metres in diameter) with a conjoining smaller enclosure (5 metres in diameter). No dung deposits were recorded inside the enclosure. An additional large enclosure (15 metres in diameter) and conjoining smaller enclosure (7 metres in diameter) were recorded approximately 50 metres to the south of the first. Dung deposits were recorded inside the main enclosure. No hut remains or cultural material were recorded on the surface.

8.3 Site 3

Two large conjoined stone-walled enclosures (each 15 metres in diameter) with one adjacent stone-walled enclosure (also 15 metres in diameter). The height of the stone walls is roughly 0,5 metres and they are constructed in between large boulders on a spur. No other hut remains or middens were recorded.

8.4 Site 4

A circular stone-walled enclosure (approximately 18 metres in diameter), which contains dung deposits, with a conjoined smaller enclosure (approximately 3 metres in diameter). The walling is roughly 1,4 metres high (█). An additional stone-walled enclosure (approximately 15 metres in diameter; walling roughly 0,3 metres high) was recorded nearby. No hut remains were found.

8.5 Site 5

This site consists of a long semi-circular stone wall arc approximately 20 metres long. The height of the stone wall is approximately 0,5 metres. Upright foundation stones that are positioned in a circle were recorded at the opening of the stone wall arc. These foundation stones indicate the possible remains of a hut. No midden deposits were recorded in the enclosures.

8.6 Site 6

An extensive elliptical stone-walled enclosure (approximately 30 x 10 metres) surrounded by a semi-circular stone wall approximately 50 metres in extent (). The stone walls are roughly 0,5 metres high. No hut remains or middens were recorded.

8.7 Site 7

A circular stone-walled enclosure (approximately 20 metres in diameter) and an adjacent smaller enclosure (approximately 3 metres in diameter) The height of the stone walls is 0,5 metres and they are constructed in between large boulders on a spur.

8.8 Site 8

Two stone-walled enclosures (each approximately 10 metres in diameter) situated adjacent to each other, in between large boulders. The height of the stone walls is 0,5 metres. Middens deposits were recorded in the open area in between the enclosures. A circular enclosure demarcated by upright stones (approximately 2 metres in diameter) was recorded in the vicinity of the enclosures (). If the large enclosures were used as cattle outposts, this smaller structure was probably a shelter used by the young boys looking after the cattle.

8.9 Site 9

An extensive stone-walled enclosure approximately 25 x 20 metres in extent, with a conjoined smaller enclosure (approximately 7 metres in diameter). The height of the stone walls vary between 0,5 and 1 metres (). Dung deposits were recorded in the enclosures.

8.10 Site 10

An isolated stone-walled enclosure (approximately 10 metres in diameter). The height of the walling is 0,5 metres and no dung deposits or hut remains were recorded.

8.11 Site 11

Two extensive stone-walled circular enclosures (approximately 15 and 20 metres in diameter respectably) situated in between large natural boulders. The height of the walling is 0,5 metres and no dung deposits or hut remains were recorded. An additional stone-walled enclosure (approximately 10 metres in diameter) was recorded adjacent to the first two. The height of the stone wall is 1 metre.

8.12 Site 12

An isolated stone-walled enclosure (approximately 12 metres in diameter) (). The height of the walling varies between 0,7 and 1 metres. No midden deposits recorded.

8.13 Site 13

The site consists of four conjoined stone-walled enclosures (varying between 10 to 15 metres in diameter). The height of the stone walls is 0,7 metres. No hut remains and middens associated with this site.

8.14 Site 14

An extensive site situated on a terrace on the slope of a mountain. A periphery stone wall demarcating the site on the one side is approximately 50 metres long. Several enclosures were recorded in the central open area of the site (generally approximately 6 metres in diameter). The height of the stone walls vary between 0,5 and 1 metres. A large dolly hole (cupule) was recorded on the site which might be associated with rainmaking rituals (). Indications of middens were found.

8.15 Site 15

An extensive network of interconnected circular stone walls. The height of the stone walls is only 0,2 metres which makes it difficult to determine to full extent of the settlement. The site is probably associated with Site 16. No middens were recorded.

8.16 Site 16

A circular stone-walled enclosure with a small central enclosure (approximately 3 metres in diameter) on the inside. The height of the walls is 0,3 metres. No midden was recorded.

8.17 Site 17

A cluster of circular stone-walled enclosures (each 5 metres in diameter). Two enclosures are conjoined while one is free-standing. The average height of the stone walls is 0,5 metres. No other structures of middens were recorded in the area.

8.18 Site 18

A Late Iron Age circular stone-walled complex (approximately 50 metres in diameter) with a periphery wall. The central area inside the settlement is sub-divided into several enclosure (compartments). The height of the stone walls varies between 0,2 and 1 metres. One undecorated potsherd was found on the surface. A large midden was recorded inside the periphery stone wall.

8.19 Site 19

A Late Iron Age circular stone-walled complex (70 metres in diameter). The settlement is characterised by a periphery wall which encompass several inner circular enclosure (5 metres in diameter) which are conjoined to the periphery wall. The height of the stone walls varies between 0,5 and 1 metres. A large midden was recorded inside the periphery stone wall.

8.20 Site 20

A historic graffiti site characterised by superimposed names and dates engraved by people visiting the area on an exposed rock surface adjacent to a non-perennial stream (██████████). Most of the engravings are older than 60 years and the site is therefore protected by the South African Heritage Resources Act (Act no. 25 of 1999). The uniqueness of this site is highlighted by the representation of the various people (locals and visitors) who visited the area well as the long time sequence these engravings represent (engravings are dated from 1920s to 2000).

8.21 Site 21

A formal cemetery which is approximately 60 x 30 metres in extent, containing roughly 30 graves. The graves are demarcated by headstones. Unfortunately some of the headstones have been vandalised (██████████). The cemetery is demarcated by a dressed stone wall which is approximately 1,5 metres high. The graves are probably associated with former Heidelberg residents. Most of the graves are more than 60 years old and are therefore protected by the South African Heritage Resources Act (Act no. 25 of 1999), and the Human Tissues Act, 1983 (Act No. 65 of 1983 as amended). This cemetery is highly significant and will not be disturbed by the proposed development activities.

8.22 Site 22

A formal cemetery which is approximately 100 x 50 metres in extent, containing more than 300 graves. The graves are demarcated by headstones (also various marble constructions) and packed heaps of stone (██████████). The cemetery is demarcated by a dressed stone wall which is approximately 1,5 metres high. The graves are probably associated with former Heidelberg residents. Most of the graves are more than 60 years old and are therefore protected by the South African Heritage Resources Act (Act no. 25 of 1999), and the Human Tissues Act, 1983 (Act No. 65 of 1983 as amended). This cemetery is highly significant and will not be disturbed by the proposed development activities.

9. Summary of Sites

Site No	Site Type	Position	Significance	Impact
1	Late Iron Age settlement	S26.48921 E28.33637	High	None
2	Late Iron Age settlement	S26.48986 E28.33583	High	None
3	Late Iron Age settlement	S26.48974 E28.33664	High	None
4	Late Iron Age settlement	S26.49049 E28.33628	High	None
5	Late Iron Age settlement	S26.49095 E28.33655	High	None
6	Late Iron Age settlement	S26.49104 E28.33687	High	None

	settlement	E28.33687		
7	Late Iron Age settlement	S26.48976 E28.33826	High	None
8	Late Iron Age settlement	S26.49022 E28.33825	High	None
9	Late Iron Age settlement	S26.49062 E28.33814	High	None
10	Late Iron Age settlement	S26.49060 E28.33780	High	None
11	Late Iron Age settlement	S26.49271 E28.33922	High	None
12	Late Iron Age settlement	S26.49255 E28.33846	High	None
13	Late Iron Age settlement	S26.48857 E28.33488	High	None
14	Late Iron Age settlement	S26.48654 E28.33494	High	None
15	Late Iron Age settlement	S26.48575 E28.33750	High	None
16	Late Iron Age settlement	S26.48550 E28.33788	High	None
17	Late Iron Age settlement	S26.48514 E28.33794	High	None
18	Late Iron Age settlement	S26.48170 E28.33646	High	None
19	Late Iron Age settlement	S26.48078 E28.33644	High	None
20	Historic Graffiti	S26.48697 E28.33962	High	None
21	Formal Cemetery	S26.49549 E28.34619	High	None
22	Formal Cemetery	S26.49516 E28.34648	High	None

10. Conclusions and Recommendations

No archaeological or historical settlements or remains (including graves) will be affected by the proposed development

Please note the following:

- A Heritage Conservation Management Plan (HCMMP) should be compiled for the estate if the archaeological remains are be used for recreation purposes (NHRA, Section 44).
- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction, 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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