A SURVEY OF CULTURAL RESOURCES IN THE KLIPRIVIERSBERG NATURE RESERVE, JOHANNESBURG DISTRICT

For:

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SUMMARY

A survey of cultural resources in the Klipriviersberg Nature Reserve, Johannesburg District.

A large number of archaeological sites occur in the area and the easiest would be to avoid all of them. This, however, is not a feasible approach. It is therefore recommended that exploration can continue only if suitable mitigation measures are applied to the various archaeological sites. This includes the following

- If a particular site cannot be avoided, it is recommended that drilling and setting off of explosions takes place, rather than taking vehicles onto the site. In these cases, however, an archaeologist should be present during the selecting of the particular site and to retrieve any cultural material or archaeological information before it is damaged or destroyed. Under no circumstance should any of the walling be destroyed or damaged in order for vehicles to get access to a site.
- The developers should be notified that additional archaeological sites might be identified during the prospecting work. If these are to be impacted upon, it should be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made.
- Religious groups of diverse origin use the area in religious gatherings. These activities should be acknowledged and taken into consideration during the prospecting activities.

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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **Environmentek** to survey an area in which in it is planned to determine by means of remote sensing, the possibility of mining for gold. This area is located on the farm Rietvlei 101IR, south of Johannesburg in the Johannesburg district. The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural importance found within the boundaries of the area that is to be prospected in.

2. TERMS OF REFERENCE

The **Terms of Reference** for the study were to:

- 2.1 Identify all objects, sites, occurrences and structures of an archaeological or historical nature located in the area of the proposed development.
- 2.2 Assess the significance of the cultural resources in terms of their historical, social, religious, aesthetic and scientific value.
- 2.3 Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
- 2.4 Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.
- 2.5 Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction phase.

3. **DEFINITIONS**

The following aspects have a direct bearing on the survey and the resulting report:

- 3.1 **Cultural resource** is a broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. They can be, but are not necessarily identified with defined locations.
- 3.2 The **significance** of the sites and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of a site is done with reference to any number of these.
- 3.3 Significance is site-specific and relates to the content and context of the site. Sites

- regarded as having low significance have already been recorded in full and require no further mitigation. Sites with medium to high significance require further mitigation.
- 3.4 The latitude and longitude of an archaeological site are to be treated as sensitive information by the developer, and should not be disclosed to members of the public.
- 3.5 All recommendations are made with full cognisance of the relevant legislation, in this case the **National Monuments Act (No 28 of 1969, as amended)**.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are mainly dealt within two acts. These are the National Monuments Act (Act 28 of 1969) and the Environmental Conservation Act (Act 73 of 1989). It is however important to note that new legislation is being prepared and this might come into effect before the end of 1999.

4.1 National Monuments Act

Article 12, subsection 2A of this act states that anyone who wishes to disturb, destroys, alter, remove or export any fossils, rock art or artifacts left at places inhabited by indigenous people before European colonisation, shipwrecks and their contents older than 50 years, buildings and structures that are older than 50 years, as well as paintings or furniture that have been in South Africa for more than 50 or years respectively, may do so only if they have a permit from the National Monuments Council. According to this Act the following resources are protected:

- a. Meteorites and fossils
- b. Prehistoric rock art
- c. Prehistoric tools, ornaments and structures
- d. The anthropological and archaeological contents of graves, rock shelters, caves, middens etc.
- e. Historical sites and archaeological finds, material or artifacts
- f. Declared national monuments
- g. Cemeteries and graves with headstones older than 50 years

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the National Monuments Council to do so.

4.2 Environmental Conservation Act

This act states that a survey and an evaluation of cultural resources should be undertaken in areas where development, which will change the face of the environment, is to be made. The impact of the development on the cultural resources should also be determined and proposals to mitigate this impact is to be formulated.

4.3 The White Paper on Heritage Resources

The white paper is currently being discussed by parliament and is destined to be promulgated before the end of 1999. It will replace the current National Monuments Act. The types of sites protected by the new act will be more or less the same than that covered by the current act, but provide more strict measures of protection. One of the changes to the current act is that all graves, cemeteries and structures older than 60 years will be protected, moving away from the 50-year clause.

4.4 Graves, cemeteries and skeletal remains

There are several laws and bylaws pertaining to the exhumation and re interment of human

remains. All graves older than 50 years are protected under the **National Monuments Act**. This holds true for unmarked as well as marked graves. In the latter case, it also includes the headstone.

Exhumation of graves must conform to the standards set out in the **Ordinance on Exhumations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925). Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (ie where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act** (Act 65 of 1983 as amended).

5. METHODOLOGY

5.1 Preliminary investigation

5.1.1 Survey of the literature

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various anthropological, archaeological and historical sources were consulted - see the list of references below.

5.1.2 Data sources

The **Archaeological Data Recording Centre** (ADRC), housed at the National Cultural History Museum, Pretoria, was consulted.

5.1.3 Other sources

The topocadastral and other maps were also studied - see list of references below.

5.2 Field survey

The field survey was done according to a grid system that was laid out on aerial photographs by the client. A number of transects were then walked by the survey team, using the photographs and a compass to keep direction. All sites that were identified were investigated as to their size and state of conservation and archaeological potential. Sites not located directly in line were also documented in order to facilitate selection of alterative transects.

5.3 Documentation

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All sites, objects and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the **Global Positioning System** (GPS)¹ and plotted on a map. This information was added to the description in order to facilitate the identification of each locality.

¹ According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then correlate it with reference to the physical environment before plotting it on the map.

6. DESCRIPTION OF THE AREA

The study area is located on the farm Rietvlei 110IR in the Johannesburg District of Gauteng. The section that was surveyed currently forms part of the Klipriviersberg Nature Reserve. The area is classified by Acocks (1978:48-49) as Bankenveld. This is a high-lying, largely stoney country with a rolling topography.

7. DISCUSSION

7.1 Stone Age

Stone Age tools were found to occur throughout the area. These are mostly Middle Stone Age in origin and occur without exception as surface material. As such they are considered to be disturbed out of context and are therefore judged not to pose any obstacle to the proposed exploration. Some Late Stone Age flakes were also identified on a number of outcrops. Similarly, it basically exists as surface material and does not seem to be in a primary context.

7.2 Iron Age

Stone walled sites dating to the Late Iron Age, were identified throughout the area. Some of these are judged to be insignificant. However, a few are quite extensive and show stone walling, terracing, pottery and faunal remains as surface indicators. The sites are mostly located on the saddle of the various valleys or in valleys self, on the north or east facing slopes, although exceptions do occur. The size of the sites in this latter category might be an indication of their importance.

These sites form part of the Tswana settlement of the larger geographical area and they can probably be linked with other sites not located in the area under consideration, eg. at Suikerbosrand. They date most probably to within the last 300 years and might still have emotional and historical significance to current Tswana communities. They were most probably abandoned with the arrival of the Ndebele of Mzilikazi during the early part of the 19th century.

7.3 Historic

A few structures that might date to historical times were identified. Some of these are located within some of the Iron Age sites and as such are treated as part of the larger complex. The other historical sites, such as the cemetery and an old farmstead, are easily identifiable.

7.4 Contemporary sites

Some structures that are related to current activities were identified. These are "churches" built by members of the Zion Christian Church, or its various splinter groups. These consist of a small clearing, usually amongst some trees, with a few stones as seats. In a few cases, the floors are made from cement.

8. RECOMMENDATIONS

A large number of archaeological sites occur in the area and the easiest would be to avoid all of them. This, however, is not a feasible approach. It is therefore recommended that exploration can continue only if suitable mitigation measures are applied to the various archaeological sites. This includes the following

- If a particular site cannot be avoided, it is recommended that drilling and setting off of explosions takes place, rather than taking vehicles onto the site. In these cases, however, an archaeologist should be present during the selecting of the particular site and to retrieve any cultural material or archaeological information before it is damaged or destroyed. Under no circumstance should any of the walling be destroyed or damaged in order for vehicles to get access to a site.
- The developers should be notified that additional archaeological sites might be identified during the prospecting work. If these are to be impacted upon, it should be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made.
- Religious groups of diverse origin use the area in religious gatherings. These activities should be acknowledged and taken into consideration during the prospecting activities.

9. REFERENCES

9.1 Unpublished sources

9.1.1 Data base

Archaeological Data Recording Centre, (former) Tvl section, National Cultural History Museum, Pretoria.

9.2 Published sources

9.2.1 Books and journals

Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

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Transvaal AD 350-1880. Occasional Paper No. 16. Johannesburg: Archaeological Research Unit, University of the Witwatersrand.

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Van Warmelo, N.J. 1977. Anthropology of Southern Africa in Periodicals to 1950. Pretoria: Government Printer.

9.2.2 Maps

1: 50 000 Topocadastral maps - 2628AC

10. PROJECT TEAM

J van Schalkwyk - principal investigator A Pelser

APPENDIX 1: STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON CULTURAL RESOURCES

Significance of impact:

- low where the impact will not have an influence on or require to be significantly

accommodated in the project design

- medium where the impact could have an influence which will require modification of the

project design or alternative mitigation

- high where it would have a "no-go" implication on the project regardless of any

mitigation

Certainty of prediction:

Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment

- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

APPENDIX 2: SURVEY RESULTS²

[Previous site numbers relate to other known sites on a particular ¼ degree sheet already documented in the ADRC, and does not necessarily refer to sites occurring on or close to the specific area of development.]

[The X & Y coordinates is calculated according to the LO 29 system]

1. Site number: 2628AC2

Location: Rietvlei 101IR: S 26°16'50.0"; E 28°02'11.4" [X 2908039.432; Y 96238.849]

<u>Description</u>: Small circular structure of cement and stones.

Discussion: This is a "church" used by members of the Zion Christian Church.

<u>Significance of impact</u>: High <u>Certainty of prediction</u>: Definite

<u>Recommended management action</u>: Must be avoided <u>Legal requirements</u>: None (ethical considerations)

2. Site number: 2628AC3

Location: Rietvlei 101IR: S 26°16'51.5"; E 28°02'09.4" [X 2908086.010; Y 96294.000]

Description: Remains of a structure built of clay and stones

<u>Discussion</u>: Possibly an old farm labourer house

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

3. Site number: 2628AC4

Location: Rietvlei 101IR: S 26°16'54.1"; E 28°01'28.2" [X 2908174.598; Y 97436.589]

Description: Circular structures of stone, dating to the Late Iron Age (LIA)

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

4. Site number: 2628AC5

Location: Rietvlei 101IR: S 26°16'51.9"; E 28°01'23.3" [X 2908107.915; X 97573.062]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

5. Site number: 2628AC6

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² See Appendix 1 for an explanation of the conventions used in assessing the cultural remains.

Location: Rietvlei 101IR: S 26°17'03.4"; E 28°014'1.4" [X 29808458.063; Y 97068.176]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

6. Site number: 2628AC7

Location: Rietvlei 101IR: S 26°17'01.8"; E 28°01'34.3" [X 2908410.302; Y 97265.547]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

7. Site number: 2628AC8

Location: Rietvlei 101IR: S 26°17'03.7"; E 28°01'31.5" [X 2908469.362; Y 97342.798]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

8. Site number: 2628AC10

<u>Location</u>: Rietvlei 101IR: S 26°17'06.1"; E 28°01'28.8" [X 2908543.790; Y97417.157]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

9. Site number: 2628AC9

Location: Rietvlei 101IR: S 26°17'03.9"; E 28°01'25.0" [X 2908476.877; Y 97523.104]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

10. <u>Site number</u>: 2628AC11

<u>Location</u>: Rietvlei 101IR: S 26°17'26.0"; E 280117.4 [X 2909158.633; Y 97728.834] <u>Description</u>: Some very rudimentary walling of stone, possibly dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Low <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

<u>Legal requirements</u>: NMC permit 11. <u>Site number</u>: 2628AC24

<u>Location</u>: Rietvlei 101IR: S 26°17'48.8"; E 28°01'24.5" [X 2909858.850; Y 97526.545] <u>Description</u>: Large cemetery. It is fenced and contains possibly more than 100 graves

Discussion: This site is currently still in use

<u>Significance of impact</u>: High Certainty of prediction: Definite

<u>Recommended management action</u>: Must be avoided Legal requirements: None (ethical considerations)

12. Site number: 2628AC16

Location: Rietvlei 101IR: S 26°17'57.0"; E 28°01'37.2" [X 2910580.770; Y 97172.302]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Defnite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

13. Site number: 2628AC13

<u>Location</u>: Rietvlei 101IR: S 26°17'54.6"; E 28°01'49.7" [X 2910032.094; Y 96826.067]

<u>Description</u>: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

14. Site number: 2628AC15

Location: Rietvlei 101IR: S 26°17'57.0"; E 28°01'45.9" [X 2910106.748; Y 96930.937]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

15. Site number: 2628AC14

<u>Location</u>: Rietvlei 101IR: S 26°18'00.0"; E 28°01'49.4" [X 2910198.349; Y 96833.144]

<u>Description</u>: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

16. Site number: AC2628AC21

<u>Location</u>: Rietvlei 101IR: S 26°17'57.7"; E 28°02'27.3" [X 2910119.722; Y 95782.216]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

Significance of impact: Medium

Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

17. Site number: 2628AC22

<u>Location</u>: Rietvlei 101IR: S 26°18'01.5"; E 28°02'32.3" [X 2910235.644; Y 95642.635]

Description: Circular structure of stone dating to the LIA. Some modern materials also occur

amongst the walling, indicating that it was reused at a later stage.

Discussion: This is an old settlement site

Significance of impact: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

18. <u>Site number</u>: 2628AC23

Location: Rietvlei 101IR: S 26°18'01.2"; E 28°02'40.4" [X 2910224.749; Y 95417.987]

<u>Description</u>: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

19. Site number: 2628AC17

Location: Rietvlei 101IR: S 26°18'12.4"; E 28°01'45.6" [X 2910580.770; Y 96935.702]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium Certainty of prediction: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

20. Site number: 2628AC18

<u>Location</u>: Rietvlei 101IR: S 26°18'12.4"; E 28°01'41.2" [X 2910581.687; Y 97057.767]

<u>Description</u>: Rectangular structure of stone dating possibly to historical times <u>Discussion</u>: This possibly is the remains of an old farm labourer's house

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

21. Site number: 2628AC26

Location: Rietvlei 101IR: S 26°18'01.4"; E 28°01'08.9" [X 2910249.911; Y 97956.405]

Description: Circular structure of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

22. Site number: 2628AC27

Location: Rietvlei 101IR: S 26°18'11.8"; E 28°01'05.4" [X2910570.725; Y 98051.074]

Description: Rudimentary structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Low <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

23. <u>Site number</u>: 2628AC12

<u>Location</u>: Rietvlei 101IR: S 26°18'14.9"; E 28°01'01.8" [X 2910666.892; Y 98150.220]

<u>Description</u>: Old cemetery, with graves dating back to 1897. It is possibly linked to the following

site (no. 24)

<u>Discussion</u>: Although much overgrown by grass, it probably have some significance to the

<u>Significance of impact</u>: High Certainty of prediction: Definite

Recommended management action: Must be avoided

Legal requirements: NMC permit

24. <u>Site number</u>: 2628AC25

<u>Location</u>: Rietvlei 101IR: S 26°18'24.3"; E 28°01'02.9" [X 2910955.960; Y 98117.506] <u>Description</u>: Remains of buildings of an old farmstead. Is possibly linked to the previous site <u>Discussion</u>: It is in a bad state of repair and it is doubtful if it has much significance. It is,

however, probably older than 50 years and is therefore protected by law.

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

25. Site number: 2628AC19

<u>Location</u>: Rietvlei 101IR: S 26°18"23.5"; E 28°01'39.6" [X 2910923.641; Y 97099.585]

Description: Circular structures of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

26. Site number: 2628AC20

<u>Location</u>: Rietvlei 101IR: S 26°18'27.3"; E 28°01'41.4" [X 2911040.217; Y 97048.772]

<u>Description</u>: Circular structure of stone dating to the LIA

Discussion: This is an old settlement site

<u>Significance of impact</u>: Medium <u>Certainty of prediction</u>: Definite

Recommended management action: Avoid if possible

Legal requirements: NMC permit

27. <u>Site number</u>: 2628AC28

Location: Rietvlei 101IR: S 26°18'46.9"; E 28°03'17.7" [X 2911623.628; Y 94372.903]

Description: Rudimentary circular structures of stone dating to the LIA

Discussion: This is an old settlement site

Significance of impact: Low

Certainty of prediction: Definite

Recommended management action: Avoid if possible Legal requirements: NMC permit

APPENDIX 3: GLOSSARY AND ABBREVIATIONS

This section is included to give the reader some necessary background. It must be kept in mind, however, that these dates are all relative and serve only to give a very broad framework for interpretation.

STONE AGE

Early Stone Age (ESA) 2 000 000 - 150 000 Before Present

Middle Stone Age (MSA) 150 000 - 30 000 BP Late Stone Age (LSA) 30 000 - until c. AD 200

IRON AGE

Early Iron Age (EIA) AD 200 - AD 1000 Late Iron Age (LIA) AD 1000 - AD 1830

HISTORICAL PERIOD

Since the arrival of the white settlers - c. AD 1840 in this part of the country

National Monuments Council (NMC)