

**A SURVEY OF CULTURAL RESOURCES ON THE FARM
TWEEFONTEIN, PIETERSBURG**

For:

NALEDI DEVELOPMENT

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REPORT: 200KH17

Date of survey: September 2001

Date of report: September 2001



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SUMMARY

A survey of cultural resources on the farm Twefontein, Pietersburg.

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 in which the proposed development is to take place.

No site, feature or artifact was found that would stop the development from taking place.

It is therefore recommended that the development can continue, but that the developer should be notified that archaeological sites might be exposed during the construction work. If anything is noticed, it should immediately be reported to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made.

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**A SURVEY OF CULTURAL RESOURCES ON THE FARM
TWEEFONTEIN, PIETERSBURG**

1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **Naledi Development** to survey an area in the Pietersburg district. This area is located approximately on the north eastern side of Pietersburg, on portion 3 of the farm TwEEfontein 915LS. 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 areas that is to be developed.

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 Determine the possible impacts on the known and potential cultural resources in the area of interest. Impacts will be determined or predicted for construction, operation and post operation phases.
- 2.4 Develop mitigation or control measures for impact minimization and cultural resources preservation.
- 2.5 Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction.

3. DEFINITIONS AND ASSUMPTIONS

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

- **Cultural resources** are all nonphysical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.

- The **significance** of the sites and artifacts are 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 any site is done with reference to any number of these.
- 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.
- The latitude and longitude of archaeological sites are to be treated as sensitive information by the developer and should not be disclosed to members of the public.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are mainly dealt within two acts. These are the South African Heritage Resources Act (Act 25 of 1999) 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 South African Heritage Resources Act

Article 35(4), of this act states that no person may, without a permit issued by the responsible heritage resources authority, destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological sites or any meteorite.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the SAHRA.

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.

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 bases

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 the list of references below.

5.2 Field survey

The field survey was done according to generally accepted archaeological practices, and was aimed at locating all possible sites, objects and structures. As the area is quite small, it was easy to walk it. Special attention was given to outcrops, cliffs were inspected for rock shelters, while stream beds and unnatural topographical occurrences such as trenches, holes and clusters of trees were investigated.

5.3 Documentation

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.

6. DISCUSSION

With regards to the pipeline, we could find nothing that would prevent the proposed development. In any event, the pipeline seems to follow the main road, well within the existing road servitude. Any site, feature or artifact in this area would already have been damaged by the construction of the road.

As to the area on Tweefontein where the water is to be pumped out, it has already been impacted by previous agricultural activities. Similarly, any site, feature or artifact in this area would have been damaged or destroyed by these activities and we could find nothing that would prevent the development from continuing.

7. RECOMMENDATIONS

We recommend that the proposed development can continue, if kept strictly to the areas investigated. However, the developer should be notified that archaeological features and objects,

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.

because of their nature, occur below ground. If any are exposed during construction work, it should immediately be reported to a museum, preferably one at which an archaeologist is available, in order that an investigation and evaluation of the finds can be done.

8. REFERENCES

8.1 Unpublished sources

8.1.1 Data base

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

Environmental Potential Atlas, Department of Environmental Affairs and Tourism.

8.2 Published sources

8.2.1 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.

Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik.

Mason, R. 1962. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.

Van Riet Lowe, C. n.d. *The distribution of Prehistoric rock engravings and paintings in South Africa*. Archaeological Survey, Archaeological Series No. 7.

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

9. PROJECT TEAM

J van Schalkwyk
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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.]

None

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

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

tuyeres - clay pipes used as part of the bellows during iron smelting