

**A SURVEY OF CULTURAL RESOURCES FOR THE
PROPOSED ESCOM RAIL LINE, HIGHVELD RIDGE
DISTRICT, MPUMALANGA**

For:

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SUMMARY

A survey of cultural resources for the proposed Escom rail line, Highveld Ridge district, Mpumalanga

The aim of the survey was to locate, identify, evaluate and document the sites, objects and structures of cultural importance found within the boundaries of the area in which the proposed development is to take place.

It is our viewpoint that no objects, features or sites of cultural significance occurs in the direct path of the development that would prevent the building of the rail line. However, in section 7 of this report it is recommended that

- Two farmsteads that are possibly older than 50 years were identified. As such they are protected by the National Monuments Act. If they are going to be impacted upon by the development, a permit for their destruction is necessary. This will necessitate that they be documented in full by a knowledgeable person.
- The relocation of all the graves, their contents and headstones, if they are to be impacted upon by the building of the rail line.
- The developers should be notified that archaeological sites might be exposed during the construction work. If anything is noticed, 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.
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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **L & W Environmental** to survey a route for a new rail line to be developed from Trichardt southwards to Tutuka power station in the Highveld Ridge district of Mpumalanga. The aim of the survey was to locate, identify, evaluate and document the 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 (cultural resources) 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. This can include recommendations for the sustainable development and use of the identified 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. METHODOLOGY

4.1 Preliminary investigation

4.1.1 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 list of references below.

4.1.2 Data sources

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

4.1.3 Other sources

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

4.2 Field survey

The field survey was done according to generally accepted archaeological practices, and was aimed at locating all possible sites, objects and structures. In this particular case it was simply a case of following the route of the proposed rail line. This area was then

surveyed for the potential for human use. 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.

4.3 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.

5. DESCRIPTION OF THE AREA

The area under investigation is situated southwards from the town of Trichardt, in the Highveld Ridge district of Mupmalanga. The topography of the area is mainly gently rolling highveld, with the most important geographical features the various streams crossing the area, such as Klipspruit and Leeuspruit. The soil is mostly turf, which was not deemed suitable for settlement on by Iron Age people. The current land use is mainly livestock and maize farming and very little of the original vegetation remains.

6. DISCUSSION

The larger geographical area under consideration does not seem to have been inhabited very intensively in the past. A few Middle Stone Age tools were identified in the various stream beds, but are viewed not to be in primary context as they could have been washed downstream.

No Iron Age sites were identified in the area, and it seems as if Early Iron Age people did not settle here. This is also confirmed by Maggs (1984:199), who indicates that the preference these people had for selecting sites was savanna areas below 1000 m.

Although settlement also took place in the savanna areas during Late Iron Age times, during this period the people started to expand into the grassland areas as well (Maggs 1984:204). However, it was only during early colonial times that large groups of people started to settle in significant numbers in this type of area.

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.

A number of abandoned homesteads are located in the area that was investigated. These are either old farmsteads, or seems to have belonged to farm labourers. The latter all seems to have been abandoned within the last few years and are therefore not viewed to be of cultural or historical significance.

There is the possibility of the existence of some graves in the area. These will have to be relocated if they are in any manner endangered by the proposed development. Relocation of the graves becomes a matter of obtaining permission from descendants (directly), or by advertising in the newspapers about the pending move. This is followed by permission from the Department of Health of the relevant province, as well as permission from the premier of that province and the local police. A commercial firm of undertakers then relocates the graves to a mutually agreed site.

7. RECOMMENDATIONS

It is our viewpoint that no objects, features or sites of cultural significance occurs in the direct path (route of the rail line) of the development that would prevent the building of the rail line. However, the following is recommended:

- 7.1 Two farmsteads that are possibly older than 50 years were identified. As such they are protected by the National Monuments Act. If they are going to be impacted upon by the development, a permit for their destruction is necessary. This will also necessitate that they be documented in full by a knowledgeable person.
- 7.2 The relocation of all the graves, their contents and headstones, if they are to be impacted upon by the building of the rail line.
- 7.3 The developers should be notified that archaeological sites might be exposed during the construction work. If anything is noticed, 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.

8. REFERENCES

- 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.

Maggs, T. 1984 Iron Age settlement and subsistence patterns in the Tugela River basin, Natal. In Hall, M., Avery, G., Avery, D.M., Wilson, M.L. & Humphreys, A.J.B. (eds.) *Frontiers: Southern African Archaeology Today*. BAR International Series 207. Pp. 194-206.

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

1:50 000 topocadastral maps: 2629CA, 2629CB

9. PROJECT TEAM

J van Schalkwyk

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

Status of the impact:

With mitigation and the resultant recovery of material, a negative impact can be turned positive. Describe whether the impact is positive (a benefit), negative (a cost) or neutral

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 = test excavation and/or mapping to determine if further work is necessary
- 4 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 5 = 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.]

1. Site number: 2629CA2

Location: Bosjesspruit 291IS: S 26°36'03.0"; E 29°12'59.9" [X 2943182.383; Y - 21578.452]

Description: Small formal cemetery, containing 5 graves, 3 with headstones. The remains of an old homestead is situated close by.

Discussion: This site is not directly in the path of the development, but should be kept in mind

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

2. Site number: 2629CA3

Location: Bosjesspruit 291IS: S 26°36'04.1"; E 29°13'47.4" [X 2943215.452; Y - 22892.633]

Description: According to information on the orthophotos there should be graves in this vicinity. However, none was found, possibly because of the current dense vegetation.

Discussion: Care should be taken during development in this area so that if these graves do exist, they are not damaged.

Significance of impact: Medium

Certainty of prediction: Unsure

Status of impact: Negative

Recommended management action: Relocation of graves

Legal requirements: Permits and notification

3. Site number: 2629CB2

Location: Grootfontein 336IS: S26°40'51.3"; E 29°16'55.2" [X 2952067.672; Y - 28069.175]

Description: Old abandoned farmstead built of sandstone, brick and corrugated iron.

Discussion: This structure is in all probability older than 50 years.

Significance of impact: Low

Certainty of prediction: Definite

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

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

4. Site number: 2629CB3

Location: New Denmark 335IS: S 26°42'51.0"; E 29°17'19.8" [X 2955753.063; Y - 28740.991]

Description: Old farmstead built of sandstone and corrugated iron. Although none were noticed, there might be graves in the yard.

Discussion: This structure is in all probability older than 50 years.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

5. Site number: 2629CB4

Location: New Denmark 335IS: S 26°43'01.4"; E 29°17'25.2" [X 2956073.472; Y - 28889.522]

Description: Remains of an old stone wall. On the orthophoto it is indicated that these are graves.

Discussion: It is doubtful if there were graves here. Conversely, they could have been removed. Care should be taken if construction takes place in this area

Significance of impact: Low

Certainty of prediction: Unsure

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

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

1. Site number: 2629CA1

Location: Charl Cilliers 332IS: S 26°39'37.8"; E 29°11'46.1"

Description: Formal cemetery, still in use.

Discussion:

Significance of impact:

Certainty of prediction:

Status of impact:

Recommended management action:

Legal requirements:

2. Site number: 024CB1

Location: Grootfontein 336IS: S26°39'49.6"; E 29°16'19.0"

Description: Feesterrein with monument - Voortrekkers and Dingane, December 1938.

Discussion:

Significance of impact:

Certainty of prediction:

Status of impact:

Recommended management action:

Legal requirements:

2. Site number: CD1

Location:

Description: Feesterrein with monument - Voortrekkers and Dingane, December 1938.

Discussion:

Significance of impact:

Certainty of prediction:

Status of impact:

Recommended management action:

Legal requirements: