

**A SURVEY OF CULTURAL RESOURCES IN THE
EMFULENI DEVELOPMENT AREA,
VANDERBIJLPARK, GAUTENG**

For:

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SUMMARY

A survey of cultural resources for the Emfuleni development area, Vanderbijlpark, Gauteng.

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.

No sites, objects or structures of archaeological, historical and cultural importance that will be impacted upon by the development to such an extent that it will prevent the development from continuing, or require modification of the project design, were found within the area of the proposed development.

It is therefore recommended that the development can continue, but the following recommendations, put forward in section 7 of this report, must be considered:

- It must be kept in mind that archaeological objects and features, due to their specific nature, usually occur below ground level. It is therefore recommended that the developers be notified that archaeological sites might be exposed during construction. 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 find can be made. This is specially the case if the so-called Vaal River gravels is exposed.

CONTENTS

SUMMARY	i
CONTENTS	ii
1. AIMS OF THE SURVEY	1
2. TERMS OF REFERENCE	1
3. DEFINITIONS	1
4. METHODOLOGY	2
5. DESCRIPTION OF THE AREA	3
6. DISCUSSION	3
7. CONCLUSIONS AND RECOMMENDATIONS	4
8. REFERENCES	4
9. PROJECT TEAM	5
APPENDIX 1	6
APPENDIX 2	7
APPENDIX 3	8

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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **Van Riet en Louw Landscape Architects** to survey an area in Vanderbijlpark. It is planned to establish a casino here. 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 (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. The area was divided into blocks, making use of natural and human-made topographical elements. These blocks were then surveyed in detail by walking and driving across it. In each block, areas with a potential for human use were investigated. Special attention was given to outcrops, 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 SURVEYED

The area surveyed is located on the farm Leeukuil in the district of Gauteng.

The vegetation of the study area is classified by Acocks (1978:88) as Cymbopogon-Themada Veld, featuring gentle rolling highveld, with the most important geographical feature being the Vaal River. A few rocky outcrops are present. A large part of the area is made up of the flood plain of the Vaal River and, under normal circumstances, would not have been used for settlement in prehistoric times.

The survey area is located on some alluvium of Quaternary Age. This latter material is in all probability part of the so-called Vaal River gravels.

6. DISCUSSION

6.1 Stone Age

The Vaal River basin is well-known for its river gravels which in some places produce Early Stone Age tools as well as faunal material. The original identification and dating (eg. Söhnge, P.G., Visser, D.J.L. & Lowe, C. van Riet 1937; Archaeological Survey 1948) of these were later proved to be wrong (Partridge & Brink 1967). However, it remains an important source of information on the Early Stone Age. It is therefore advisable to be on the lookout for these gravels when development starts and, if it is exposed, which is doubtful for this particular location, an archaeologist should be called in to investigate it.

A number of Middle Stone Age tools were found. All of these are open surface finds (in contrast to stratified sites in shelters). In all cases the artifacts seems to be disturbed

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.

completely out of context due to the fact of it been surface material.

6.2 Iron Age

No objects, sites or features relating to the Iron Age were identified.

6.3 Historic

Two structures relating to recent historical times, were identified (see Appendix 2). Both seem to be related to early farming practices in the area. None of these are judged to be of much significance and can be ignored.

7. CONCLUSIONS AND RECOMMENDATIONS

Although some man made features and objects were identified (see Appendix 2), they are judged to be of little significance and will not prevent the development from continuing, or require modification of the project design.

It is therefore recommended that the development can continue, but the following recommendation must be considered:

- It must be kept in mind that archaeological objects and features, due to their specific nature, usually occur below ground level. It is therefore recommended that the developers be notified that archaeological sites might be exposed during construction. 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 find can be made. This is specially the case if the so-called Vaal River gravels is exposed.

8. REFERENCES

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.

Archaeological Survey, 1948. Early Man in the Vaal River Basin. **Archaeological Series No. VI**. Pretoria: Department of the Interior.

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

Partridge, T.C. & Brink, A.B.A. 1967. Gravels and terraces of the Lower Vaal River Basin. **South African Geographical Journal** 49:21-38.

Söhnge, P.G., Visser, D.J.L. & Lowe, C. van Riet. 1937. The geology and archaeology of the Vaal River basin. **Geological Survey, Memoir No. 35**. Pretoria: Department of Mines.

Van Riet Lowe, C. 1952. The Vaal River chronology. An up-to-date summary. **South African Archaeological Bulletin** 7:135-149.

8.2.2 Maps

1: 50 000 topocadastral - 2627DB Vereeniging

1:250 000 geological map - 2626 Wesrand

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:

- high where it would have a "no-go" implication on the project regardless of any mitigation
- moderate where the impact could have an influence which will require modification of the project design or alternative mitigation
- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- no impact where there is no impact at all

Degree of certainty:

- 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
- 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: D2627DB8

Location: Leeuwkuil 596IQ: S 26°44'13.7"; E 27°52'54.9" [X 295874.000; Y 111239.880]

Description: Old water furrow, built with cement.

Discussion: This feature has not been used in a very long time.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirement: None

2. Site number: D2627DB9

Location: Leeuwkuil 596IQ: S 26°44'35.1"; E 27°51'29.1" [X 2959433.724; Y 113605.390]

Description: Section of stone wall. It gives the impression of being the foundation of a boundary fence.

Discussion: This feature is not in use any more.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirement: 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 1830 in this part of the country

Archaeological data recording centre (ADRC)

National Monuments Council (NMC)