

**A SURVEY OF CULTURAL RESOURCES IN THE
NELMAPIUS EXTENSION 4 URBAN DEVELOPMENT,
EAST OF PRETORIA, GAUTENG PROVINCE**

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SUMMARY**A survey of cultural resources in the Nelmapius Extension 4 urban development, east of Pretoria, Gauteng Province**

A survey of the above area was done. No sites, objects and structures of cultural importance that will alter the proposed development, were identified. It is therefore recommended that the proposed development can continue.

It is also recommended in section 7 of this report that the developers 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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**A SURVEY OF CULTURAL RESOURCES IN THE
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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **EVN Consulting Engineers** to survey a portion of the farm The Willows 340JR, east of Pretoria. It is planned to develop this area for urban housing. 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 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. CONDITIONS AND ASSUMPTIONS

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

- **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. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. They can be, but are not necessarily identified with defined locations.

- 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.
- 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 an archaeological site are to be treated as sensitive information by the developer, and should not be disclosed to members of the public.
- 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 across it. In each block, areas with a potential for human use were investigated. 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.

4.4 Presentation of the information

In discussing the results of the survey, a chronological rather than a geographical approach is followed in the presentation of an overview of human occupation and land use in the area. This helps the reader to better understand the potential impact of the proposed development. Information on the individual objects, sites, occurrences and structures is presented in Appendix 2.

5. DESCRIPTION OF THE AREA SURVEYED

The area that was surveyed is located on a portion of the farm The Willows 340JR in the Pretoria district.

The topography of the area is basically flat, with the most dominant geographical feature being the Pienaars River, which forms the eastern border.

The geology of the area is made up of shale of the Magaliesberg Formation of the Pretoria Group of the Transvaal Sequence. Some later intrusions of diabase and syenite occur as outcrops in the area. This is not the type of material preferred by Stone Age people in tool making, but was used extensively by Iron Age people in constructing of their settlements.

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.

The original vegetation of the area is classified as Bankenveld (Acocks 1975:99). This is open savanna with **Acacia caffra** and **Celtis africana** trees dominating. A large variety of grass species occurs. Acocks indicate that intensive cultivation of this type of veld by Iron Age people resulted in **Hyparrhenia hirta** (blougras/steekgras) becoming very dominant in the disturbed areas.

Large sections of the area have been cultivated in the past, with the result that any cultural resources that might have occurred here, have been destroyed or displaced out of original context.

Currently the area is also used for illegal dumping of rubbish. Large sections of the area have been covered in this manner, making the detection of cultural resources difficult.

6. DISCUSSION

One site that was identified possibly dates to the Late Iron Age. However, this is a very small and insignificant site and furthermore, it is already damaged by illegal dumping. A few sites dating to recent historical times were identified in the area. However, all of them are damaged to such an extent that little or no information can be derived from them. The existing buildings on the different farmsteads are also not judged to be of architectural merit and do not seem to be older than 50 years.

7. RECOMMENDATIONS

The following recommendations are made

- 7.1 That the development can continue.
- 7.2 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

8.1 Unpublished data

8.1.1 Data base

Archaeological Data Recording Centre (ADRC), National Cultural History Museum, Pretoria.

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**

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National Cultural History Museum, 1995. **A survey of cultural resources in the proposed Pretoria East waste dump site**. Unpublished report, no. 95KH06. Pretoria: National Cultural History Museum.

National Cultural History Museum, 1996. **An investigation of Late Iron Age sites on the farm Hatherley 331JR, Pretoria District**. Unpublished report, no. 96KH07. Pretoria: National Cultural History Museum.

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

8.2.2 Maps

1: 50 000 Topocadastral map - 2528CB

1: 50 000 Geological map - 2528CB

9. PROJECT TEAM

J van Schalkwyk - project leader

R de Jongh - reviewer

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 necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = test excavation 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 RESULTS

[See Appendix 1 for an explanation of the conventions used in assessing of the cultural remains]

1. Site number: 2528CB29²

Location: The Willows 340JR: 25°43'46.3" S; 28°21'53.2" E [X 2846781.732; Y 63750.196]

Description: An area with large bluegum trees and the remains of a structure built from clay and stone.

Discussion: An old homestead. From the remains it is deduced that this site was probably used in different phases, as the architectural styles and material differ quite significantly. The area is currently very much impacted upon with rubbish that was dumped here, making any further investigation impossible.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Legal requirements: None

Recommended management action: 1 = no further investigation necessary

2. Site number: 2528CB30

Location: The Willows 340JR: 25°44'18.6" S; 28°21'08.9" E [X 2847790.895; Y 64974.597]

Description: The remains of an old homestead, with ruins of different buildings and fruit and other trees.

Discussion: The area is currently very overgrown and full of rubbish that was dumped here. This make the detection of cultural resources difficult. It is known that grave are some times associated with homesteads such as this. As a result it is recommended that during clearing up operations, care should be take to determine if there are any graves.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Legal requirements: None

Recommended management action: 1 = no further investigation necessary

3. Site number: 2528CB31

Location: The Willows 340JR: 25°44'09.2" S; 28°21'35.3" E [X 2847491.927; Y 64248.526]

² Numbers 2528CB1-28 relate to other known sites on this 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.

Description: Short section of low, circular stone walling. A second circle is located approximately 50 m to the east. This occurs on a small diabase dike. The site is already impacted upon as large quantities of stone and building rubble were dumped there.

Discussion: This is possibly the remains of late Iron Age sites and can be compared with others found in the larger geographical region.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Legal requirements: None

Recommended management action: 1 = no further investigation necessary

4. Site number: 2528CB32

Location: The Willows 340JR: 25°44'05"S; 28°21'30" E [X 2847369.649; Y 64416.371]

Description: The 1:50 000 geological map for the area (2528CB - Silverton) indicate the existence of a grave at approximately this point.

Discussion: A search for this feature was, however, fruitless. This position correspond closely with the site identified in no. 3 above and it is easy to see that a mistake could have been made during the mapping process.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Legal requirements: None at present

Recommended management action: 1 = no further investigation necessary. However, if on clearing of the area a grave is discovered, it should be relocated.

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