

Wits Commercial Enterprise (Pty) Limited

(Registration No: 2002/008461/07) 5th floor, Senate House, Jorissen Street, 2001 Braamfontein Private Bag 3, 2050 Wits **South Africa**

Barlin & Chaskelson Architects

Archaeological Impact Assessment

Proposed upgrade of the Wits Donald Gordon Medical Centre, Johannesburg Gauteng Province

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Service provider



MATAKOMA - ARM

HERITAGE CONTRACTS UNIT

UNIVERSITY OF THE WITWATERSRAND SCHOOL OF GEOGRAPHY, ARCHAEOLOGY AND ENVIRONMENTAL STUDIES PRIVATE BAG 3, P O WITS 2050 TEL: +27 82 851 3575 / +27 82 373 8491, FAX: +27 11 717 6578 EMAIL: INFO@MATAKOMA.CO.ZA

ACKNOWLEDGEMENT OF RECEIPT

CLIENT:	Barlin & Chaskelson Architects
CONTACT PERSON:	Mr Rocco Bosman, 17 Elm St, Houghton 2094, Gauteng, PC Box 2369 Saxonwold 2132 Office Tel: +2711 487 1192/3, Office Fax: +2711 487 1467
SIGNATURE:	
LEADING CONSULTANT	MATAKOMA-ARM Heritage Contracts Unit
CONTACT PERSON:	Wouter Fourie
SIGNATURE:	Copyright

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EXECUTIVE SUMMARY

As we know from legislation the surveying, capturing and management of heritage resources is an integral part of the greater management plan laid down for any major development or historic existing operation. With the proclamation of the National Heritage Resources Act 1999 (Act 25 of 1999) this process has been lain down clearly. This legislation aims to under pin the existing legislation, which only addresses this issue at a glance, and gives guidance to developers and existing industries to the management of their Heritage Resources.

The importance of working with and following the guidelines lain down by the South African Heritage Resources Agency cannot be overemphasised. This document forms part of the Heritage Impact Assessment the proposed alterations and extensions of the Wits Donald Gordon Medial Centre (WDGMC), Johannesburg, Gauteng Province

The following outline the findings of the report:

During the survey no sites of archaeological importance were identified in the development area.

Refer to Section 9 for management guidelines.

If these recommendations are adhered by there is from an archaeological point of view no reason why the development can not commence.

General

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

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1. INTRODUCTION

Matakoma-ARM was contracted by Barlin & Chaskelson Architects to conduct an Archaeological Impact Assessment for the proposed alterations and extensions of the Wits Donald Gordon Medial Centre (WDGMC), Johannesburg, Gauteng Province.

The aim of the study is to identify all heritage sites, document, and assess their importance within Local, Provincial and national context. From this we aim to assist the developer in managing the discovered heritage resources in a responsible manner, in order to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

The report outlines the approach and methodology utilised before and during the survey, which includes in Phase 1: Information collection from various sources and public consultations; Phase 2: Physical surveying of the area on foot and by vehicle; and Phase 3: Reporting the outcome of the study.

During the survey, no archaeological sites of significance were identified in the area of impact. However, archaeological finds were made in the adjacent property to the east of the WDGMC. General site conditions and features on site were recorded by means of photos, GPS location, and description. Possible impacts were identified and mitigation measures are proposed in the following report.

This report must also be submitted to SAHRA provincial office for scrutiny.

1.1 PROJECT DESCRIPTION

The existing WDGMC, is located in the historical Parktown area of Johannesburg. The site which accommodates the existing buildings and proposed additions is located between Rock Ridge Road and Eton/Sherborne Road in Parktown (the old

Kenridge Hospital). The site consists of Erf 191, 190, 189, 913/1, 913/2, 913/3, 200, 201 and 202.

Refer to Figure 1 for a locality map of the study area.

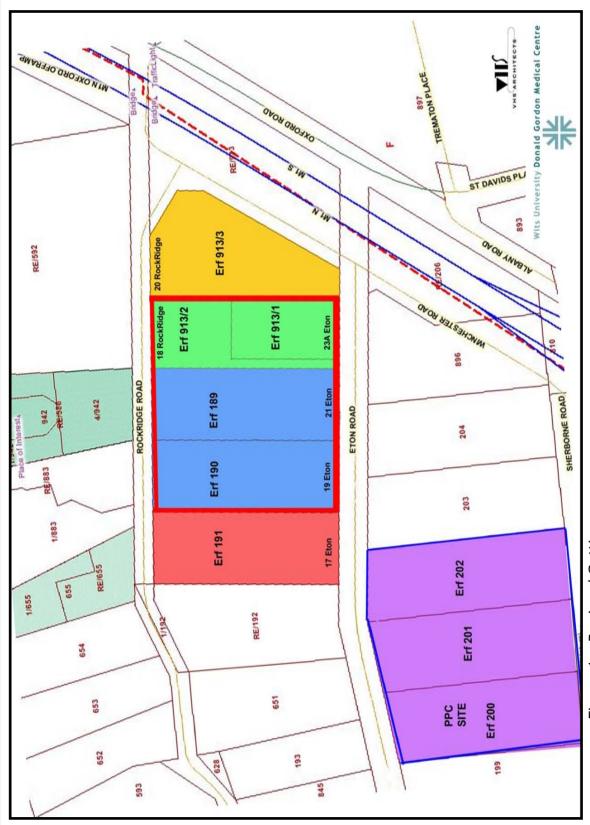


Figure 1: Regional Setting

2. APPROACH AND METHODOLOGY

The aim of the study is to extensively cover all data available to compile a background history of the study area; this was accomplished by means of the following phases.

2.1 PHYSICAL SURVEYING

Due to the nature of cultural remains, the majority that occur below surface, a physical walk through of the study area was conducted. MATAKOMA-ARM was appointed to conduct a survey of the proposed development area together with access routes and entrances to the proposed residential development. The total area of impact comprised an area of approximately 2.4 ha in total. The study area was surveyed over one day, by means of vehicle and extensive surveys on foot by MATAKOMA-ARM.

Aerial photographs and 1:50 000 maps of the area were consulted and literature of the area were studied before undertaking the survey. The purpose of this was to identify topographical areas of possible historic and pre-historic activity. All sites discovered both inside and bordering the proposed development area was plotted on 1:50 000 maps and their GPS co-ordinates noted. 35mm photographs on digital film were taken at all the sites.

3. WORKING WITH LEGISLATION

It is very important that cultural resources be evaluated according to the National Heritage Recourse Act. In accordance with the Act, we have found the following:

• These sites are classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999) section 3 (3).

A place or object is to be considered part of the national estate if it has cultural significance or other special value because of-

(a) its importance in the community, or pattern of South Africa's history;

(b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;

- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- (i) sites of significance relating to the history of slavery in South Africa.

(Refer to Section 9 of this document for assessment)

These sites should be managed through using the National Heritage Recourses Act 1999 (Act No 25 of 1999) sections 4, 5 and 6 and sections 39-47.

Please refer to Section 9 for Management Guidelines.

4. ASSESSMENT CRITERIA

This chapter describes the evaluation criteria used for the sites listed below.

The significance of archaeological sites was based on four main criteria:

- site integrity (i.e. primary vs. secondary context),
- amount of deposit, range of features (e.g., stonewalling, stone tools and enclosures),

- uniqueness and
- **potential** to answer present research questions.

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:

- A No further action necessary;
- B Mapping of the site and controlled sampling required;
- C Preserve site, or extensive data collection and mapping of the site; and
- D Preserve site

Impacts on these sites by the development will be evaluated as follows

4.1 IMPACT

The potential environmental impacts that may result from the proposed development activities.

4.1.1 Nature and existing mitigation

Natural conditions and conditions inherent in the project design that alleviate (control, moderate, curb) impacts. All management actions, which are presently implemented, are considered part of the project design and therefore mitigate against impacts.

4.2 EVALUATION

4.2.1 Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

				ì
FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED	ı

			MITIGATION	
National	Grade 1	-	Conservation; National	
Significance (NS)			Site nomination	
Provincial	Grade 2	-	Conservation; Provincial	
Significance (PS)			Site nomination	
Local Significance	Grade	High Significance	Conservation; Mitigation	
(LS)	3A		not advised	
Local Significance	Grade	High Significance	Mitigation (Part of site	
(LS)	3B		should be retained)	
Generally	-	High / Medium	Mitigation before	
Protected A (GP.A)		Significance	destruction	
Generally	-	Medium	Recording before	
Protected B (GP.B)		Significance	destruction	
Generally	-	Low Significance	Destruction	
Protected C (GP.C)				

4.2.2 Impact Rating

VERY HIGH

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or social) environment, and usually result in **severe** or **very severe** effects, or **beneficial** or **very beneficial** effects.

Example: The loss of a species would be viewed by informed society as being of VERY HIGH significance.

Example: The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with a VERY HIGH significance.

HIGH

These impacts will usually result in long term effects on the social and/or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

Example: The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.

Example: The change to soil conditions will impact the natural system, and the impact on affected parties (in this case people growing crops on the soil) would be HIGH.

MODERATE

These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by society as constituting a fairly important and usually medium term change to the (natural and/or social) environment. These impacts are real but not substantial.

Example: The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.

Example: The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

LOW

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by the public and/or the specialist as constituting a fairly unimportant and usually short term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.

Example: The temporary change in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.

Example: The increased earning potential of people employed as a result of a development would only result in benefits of LOW significance to people who live some distance away.

NO SIGNIFICANCE

There are no primary or secondary effects at all that are important to scientists or the public.

Example: A change to the geology of a particular formation may be regarded as severe from a geological perspective, but is of NO significance in the overall context.

4.2.3 Certainty

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

PROBABLE: Over 70% sure of a particular fact, or of the likelihood of impact occurring.

POSSIBLE: Only over 40% sure of a particular fact or of the likelihood of an impact occurring.

UNSURE: Less than 40% sure of a particular fact or likelihood of an impact occurring.

4.2.4 Duration

SHORT TERM: 0 to 5 years

MEDIUM: 6 to 20 years

LONG TERM: more than 20 years

DEMOLISHED: site will be demolished or is already demolished

Example Evaluation

Impact	Impact Significance	Heritage Significance	Certainty	Duration	Mitigation
Negative	Moderate	Grade GP.B	Possible	Short term	В

5. HISTORICAL BACKGROUND OF AREA

As archaeological surveys deal with the locating of archaeological resources in a prescribed cartographic landscape, the study of archival and historical data, and especially cartographic material, can represent a very valuable supporting tool in finding and identifying such heritage resources.

The historical background and timeframe can be divided into the Stone Age, Iron Age and Historical timeframe. These can be divided as follows:

Stone Age

The Stone Age is divided in Early; Middle and Late Stone Age and refers to the earliest people of South Africa who mainly relied on stone for their tools.

Earlier Stone Age: The period from \pm 2.5 million yrs - \pm 250 000 yrs ago. Acheulean stone tools are dominant.

Middle Stone Age: Various lithic industries in SA dating from ± 250 000 yrs – 22 000 yrs before present.

Later Stone Age: The period from \pm 22 000-yrs before present to the period of contact with either Iron Age farmers or European colonists.

Although Johannesburg is known as a build up environment, Stone Age finds are made from time to time. The Braamfontein Spruit has some known Stone Age find spot and other smaller finds are known to occur.

Erf no 913/3 has produced some Stone Age finds during 2004, and has been attributed with Earlier and Later Stone Age artefacts found on site. The site has however never been formally investigated up to this survey.

Iron Age

The Iron Age as a whole represents the spread of Bantu speaking people and includes both the Pre-Historic and Historic periods. Similar to the Stone Age it to can be divided into three periods:

The Early Iron Age: Most of the first millennium AD.

The Middle Iron Age: 10th to 13th centuries AD

The Late Iron Age: 14th century to colonial period.

The Johannesburg area has produced some Early Iron Age finds, notably the smelting furnaces at Mellville Koppies, Bruma and Lonehill. Most of the Late Iron Age remains would have been destructed during the earlier development of Johannesburg.

Historic Timeframe

The historic timeframe intermingles with the later parts of the Stone and Iron Age, and can loosely be regarded as times when written and oral recounts of incidents became available.

The development of Johannesburg lead to the existence of numerous diggers camps in the area of Central Johannesburg and north towards Park Town. These camp including Ferreirascamp, Randjieslaagte and Marshall's Town left remains in the form of ash middens. Most of these middens are uncovered during excavations for development, as was shown the case at Wits Main campus and Johannesburg Station.

6. SITES OF SIGNIFICANCE

During the survey no sites of significance were identified in the development area. The survey consisted of the investigation of all uncovered soil, that included flower beds, and the

construction area in front and to the south east of the existing chapel on site.



Figure 2: Entrance to WDGMC – to be renovated



Figure 3: Disturbed area on site



Figure 4: Parking areas do be renovated

(Refer to **Figure 2-4** for general site conditions on the property.)

The archaeological site that was mentioned previously is located on Erf no 913/3 in the northern section of the WDGMC (Refer to Figure 5).

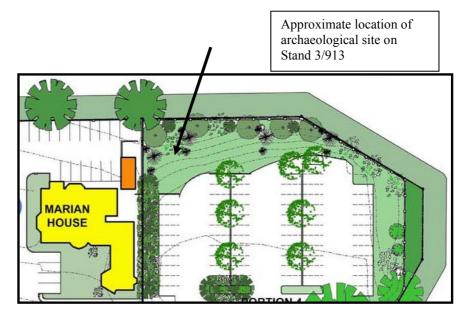


Figure 5: Approximate locality of archaeological site

During a site visit of the WDGMC the area of the archaeological find was indicated to the archaeologist. The

area is characterised by a rocky outcrop to the west and flowerbeds to the east. The area slopes steeply from the north (Rock Ridge Road) toward the parking area inside the WDGMC.

During the site visit only one Middle Stone Age Blade was identified on site. The Rocky outcrop has previously been disturbed by drilling and numerous flaked quartzite piece occur on site that may be mistaken for lithics.

On the current information available and observations on site the site can be rated as having low significance. Refer to following table.

Description of Site:			
Site Number]	
Map reference	Topo-sheet number	Number of Map in report	
	2627CA	Annexure A	
GPS coordinates: Indicate Model and datum - WGS 84	Х	Y	
Garmin 38, WGS 84	Refer to map in Annexure A and Figure 5		
Site Data	Description	<u>I</u>	
Type of site (e.g. open scatter; shell midden, cave /shelter);	The site has previously been classified as an open air scatter consisting of Earlier, Middle and Later Stone Age artefacts		
Site categories (e.g. Earlier Stone Age, Late Iron Age);	Stone Age		
<pre>Context (i.e. primary or secondary);</pre>	Primary/Secondary	У	
Cultural affinities, approximate age and significant features of the site;	None known		
Estimation or measurement of the extent (maximum dimensions) of the site(s);	Site is approximat	ely 40m x 20m	

Depth and stratification of the site (where shovel test permits have been given), both in the text and through photographs of the sections;	None visible				
Possible sources of information about past environments, such as stalactites/ stalagmites, flowstone, dassie middens, peat or organic rich deposits.	None				
Statement of Significance (Heritage Value)	The site is of possible low archaeological significance. Based on current information available. Previous newspaper articles indicate a large number of lithics present on site – however no significant number were found during the site visits. (Refer to Annexure B for article				
Field Rating (Recommended grading or field significance) of the site:	Generally protected (GP.C)				
Impact Evaluation of development on site	Impact on site is seen as medium negative				
Recommendations including:	Although the construction on site is not to influence the site directly it is recommended that if at any time construction work is to commence close to the site, the area to be fenced.				
Summary					
Field Rating	Impact	Impact Significance	Certainty	Duration	Mitigation
Grade GP.C	Negative	Low	Unsure	Short term	В

7. ASSUMPTIONS AND LIMITATIONS

Due to the nature of cultural remains that occur, in most cases, below surface, the possibility remains that some cultural remains may not have been discovered during the survey. Although MATAKOMA-ARM surveyed the area as thorough as possible, it is incumbent upon the developer to inform the relevant heritage agency should further cultural

remains be unearthed or laid open during the process of development.

8. LEGAL AND POLICY REQUIREMENTS

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will apply until a survey has been done and identified heritage resources are formally protected.

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In the new legislation, permits are required to damage, destroy, alter, or disturb them. People who already possess material are required to register it.

The management of heritage resources are integrated with environmental resources and this means that before development takes place heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves, which are older than 60 years and are not in a cemetery (such as ancestral graves in rural areas), are protected. The legislation protects the interests of communities that have interest in the graves: they may be consulted before any disturbance takes place.

The graves of victims of conflict and those associated with the liberation struggle will be identified, cared for, protected and memorials erected in their honour.

Anyone who intends to undertake a development must notify the heritage resource authority and if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the developer's cost. Thus developers will be able to proceed without uncertainty about whether work will have to be stopped if a heritage resource is discovered.

According to the National Heritage Act (Act 25 of 1999 section 32) it is stated that:

An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

- objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, meteorites and rare geological specimens;
- visual art objects;
- military objects;
- numismatic objects;
- objects of cultural and historical significance;
- objects to which oral traditions are attached and which are associated with living heritage;
- objects of scientific or technological interest;
- books, records, documents, photographic positives and negatives, graphic material, film or video or sound recordings, excluding those that are public records as defined in section 1 (xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996), or in a provincial law pertaining to records or archives; and
- any other prescribed category.

Under the National Heritage Resources Act (Act No. 25 of 1999), provisions are made that deal with, and offer protection, to all historic and pre-historic cultural remains, including graves and human remains.

• Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the

relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

• Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation. If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

9. ASSESSMENT AND RECOMMENDATIONS

A locality map is provided in **Annexure A**

A heritage resources management plan must be developed for managing the heritage resources in the study area during construction and operation of the development. This includes

- Monitoring program (watching brief) by an archaeologist
- basic training for construction staff on possible finds,
- action steps for mitigation measures, surface collections, excavations and
- communication routes to follow in the case of a discovery

The definition of an archaeological watching brief is a formal program of observation and investigation conducted during any operation carried out for non-archaeological reasons. This

will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

The purpose of a watching brief is:

- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works;
- To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard;
- A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.

MATAKOMA-ARM can be contacted for further work on this process.

There is from an archaeological point of view no reason why the development can not commence.

General

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

10. LIST OF PREPARES

Wouter Fourie, BA (Hon) Archaeology (Pretoria)

11. REFERENCES

11.1 ARCHAEOLOGICAL PAPERS

Wits Archaeological Database. Matakoma-ARM.

11.2 CULTURAL HERITAGE PAPERS

Australia ICOMOS. The Burra Charter (The Australian ICOMOS charter for places of cultural significance). 2002.

Standard and Guidance for Archaeological Desk-Based Assessment. 1994.

International Council of Monuments & Site Documents. Conventions, Charters and Guidelines. 2002.

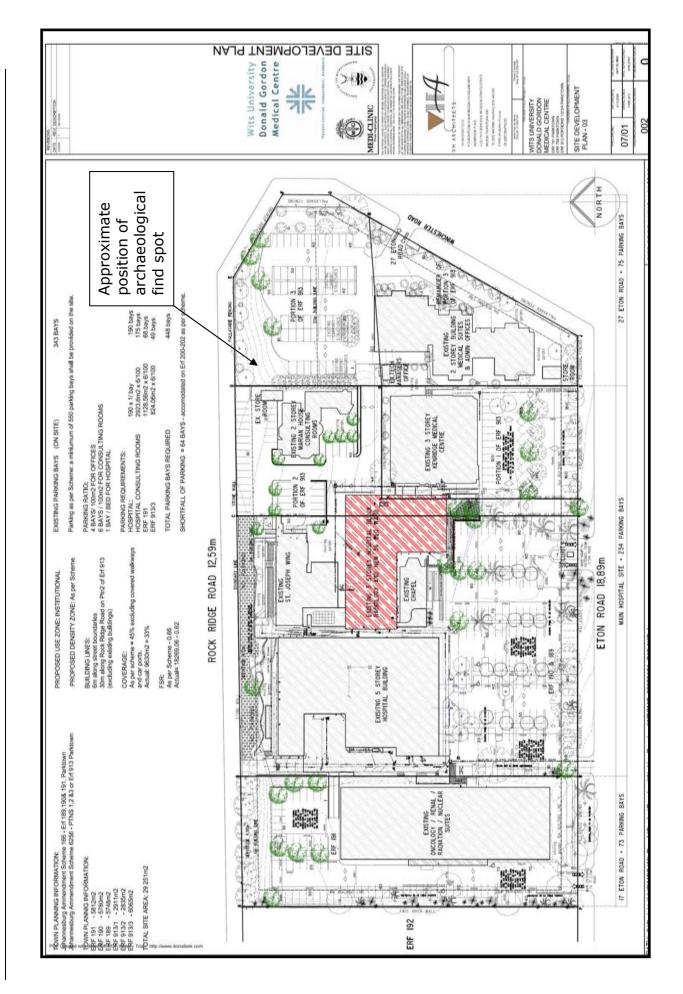
Documents on Cultural Heritage Protection. 2002.

International Council of Monuments & Site Documents. Guidelines to the Burra Charter: Conservation Policy. 1985.

International Council of Monuments & Site Documents. Guidelines to the Burra Charter: Cultural Significance. 1984.

Australian Historic Themes. A Framework for use in Heritage Assessment and Management. Australian Heritage Commission. 2001.

ANNEXURE A: Archaeological Map



ANNEXURE B Newspaper Article on archaeological site

week-Beeld, Saterites 19.-hinle 2004

A MARKUVE

+13 A



Foto: SIMPHINE MCVAL Eon von die werktule alt die vroeë Staentydperk wat Mine ontdek het.

per en groter as die uit die middel Steentydperk. Klainer werktuie uit die laat-Steentydperk toon gro Steentydperk is byvoorbeeld lon-Milne beskryf steenwerktuie na kulturele en historiese dokumenonsangeraak en die werktuie is

historiese belang in 1968 tot most Koppies-natuurreservaat, wat op 'n Ander voorbeeld van 'n terrein uit die Steentydperk in die nabye omgewing is die Melville grond van sy argeologiese en ter vaardigheld.

Prehistoriese werktuie in Park

Elma Kloppera

Bale mense weet Purktown is een van Johannesburg se oudste woonbumte.

Min west dls sowat 1,2 miljoen Cettalents hiervan in die vorm jaar gelede al bewoon.

drur 'n annateur-argeoloog wat in van 'n prehistoriese werktuigter-

rein is onlangs toevallig onidek

Milns se die terrein is ryk aan voorbeelde van klipwerktale tijt die vroes, middel, en laat Sieen-tydperk, wat dit een van die mees oorvloedige erfenisterreine in die dle tutn van sy werkplek rondgekrap het

Mar. Rob Milne, finansidle hoof medicae sentrum, het die ontdokvan die Universiteit van die Witwatergrand se Donald Gordonking gedoen.

on het twee weke gelede op die werktule afgekom in die tuin van Hy is bekend weens verskoie argeologiese ontdekkings landwyd die mediese sentrum

Dit kan die waarde van Johannesburg as tooristo-nantrokking omgewing van Johannesburg

te waaruit duidelike affeldings gemiese iewe, algemene kultuur en gedragspatrone van prehistoriese

good bewast.

maak kan word van die ekono-

sansienilk verthoog.

Die perseel is in 'n digbeboude stedelike gebied, maar is feltlik

weerspiest. Werktuse uit die vroeë Die ontwikkeling van so'n gemeenskap word in die werktule inwoners van die gebied.

ment verklaar is.