Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

A REPORT ON THE ASSESSMENT OF STONE AGE SITES AT THE BLACK ROCK MINING OPERATIONS, NORTHERN CAPE PROVINCE

For:

EScience Associates (Pty) Ltd
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REPORT: **AE01916V**

By:

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SUBMISSION OF REPORT

Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.

It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.

Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.

DISCLAIMER

Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.

Should it be necessary to visit a site again as a result of the above mentioned, an additional appointment is required.

Reasonable editing of the report will be done upon request by the client if received within 60 days of the report date. However editing will only be done once, and clients are therefore requested to send all possible changes in one request. Any format changes or changes requested due to insufficient or faulty information provided to Archaetnos on appointment, will only be done by additional appointment.

Any changes to the scope of a project will require an additional appointment.

SUMMARY

Archaetnos cc was appointed by EScience Associates (Pty) Ltd to compile a Cultural Heritage Management Plan for the old mine workings at the Black Rock Mining Operations (BMRO). The plan is to be utilised as part of the motivation for the site to be declared as a heritage site. During a field visit for this purpose some Stone Age sites identified during previous heritage studies in the area were also visited.

BRMO is situated in the Northern Cape Province approximately 80 km north-west of the town of Kuruman and 12 kilometres north-west of Hotazel. BRMO falls within the jurisdiction of the John Taolo Gaetsewe District Municipality.

The Terms of Reference for the study were as follows:

1. Assessing the Stone Age sites
2. Determining the extent of the sites
3. Establishing the artefact densities of the sites
4. Determining the cultural significance of the sites
5. Making recommendations for the mitigation/ preservation of the sites

Fifteen sites were assessed. The re-assessment of the sites resulted in it being renumbered. Only 9 sites remain. Each site also received a cultural significance rating.

The following is recommended:

- Due to the danger of encroaching soil on Site no. 1 it should be mitigated. This should merely consist of the collection of stone tools from the site.

- These may be utilised in a display at the mine as well as for training purpose to sensitize employees of the importance of these . Such a display should be properly interpreted.

- None of the other sites are in danger and should therefore be left as it is. Should this situation change, mitigation would at least be needed on Site 6.

- No development should however be allowed within a zone of 100 m on both sides of the Gamagara River.

- It may be considered to also collect stone tools on some of the other sites, perhaps as part of a training exercise.

- It should be remembered that due to archaeological sites being subterranean in essence, it is possible that all more sites/ stone tools may be identified in future. Care should therefore be taken when development work commences that, if any more artifacts are uncovered, a qualified archaeologist be called in to investigate.

- Proposed management measures for potential impacts, which should be followed as heritage protocol and Chance Find Procedure foe this is :

- A training course could be conducted to sensitize employees and to convey to them basic knowledge of the Stone Age.
- This could be coupled with a display of stone tools from the site, properly interpreted.
- Loose stone tools found are usually of minor significance and should just be left as it is.
- Areas where a substantial number of stone tools are found together should be geo-referenced and left alone until such time as an archaeologist can visit the site to determine its significance.
- Should any of the above be identified, the area should be demarcated to ensure no impact until further investigation has been done.

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1. INTRODUCTION

Archaetnos cc was appointed by EScience Associates (Pty) Ltd to compile a Cultural Heritage Management Plan for the old mine workings at the Black Rock Mining Operations (BMRO). The plan is to be utilised as part of the motivation for the site to be declared as a heritage site. During a field visit for this purpose some Stone Age sites identified during previous heritage studies in the area were also visited.

BRMO is situated in the Northern Cape Province approximately 80 km north-west of the town of Kuruman and 12 kilometres north-west of Hotazel. BRMO falls within the jurisdiction of the John Taolo Gaetsewe District Municipality (Figure 1-2).

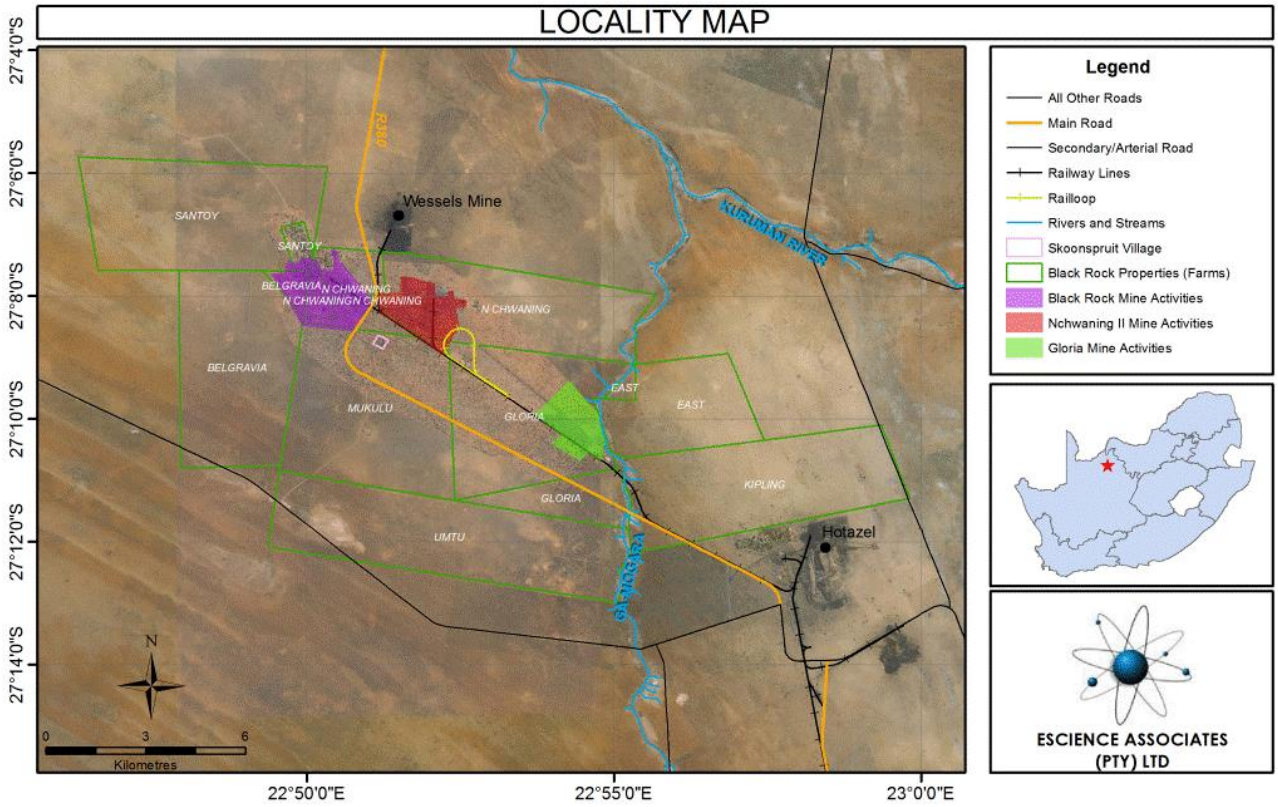

Figure 1: Location of the Black Rock Mine in the Northern Cape.

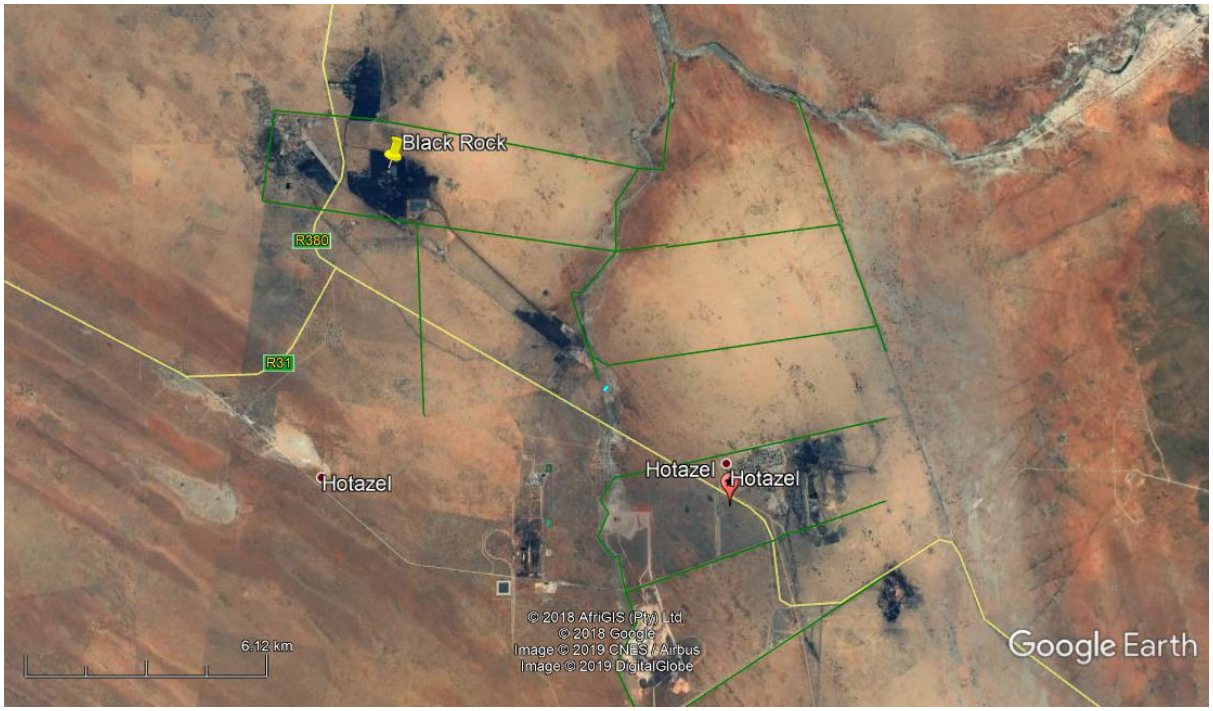

Figure 2: Location of Black Rock in relation to Hotazel.

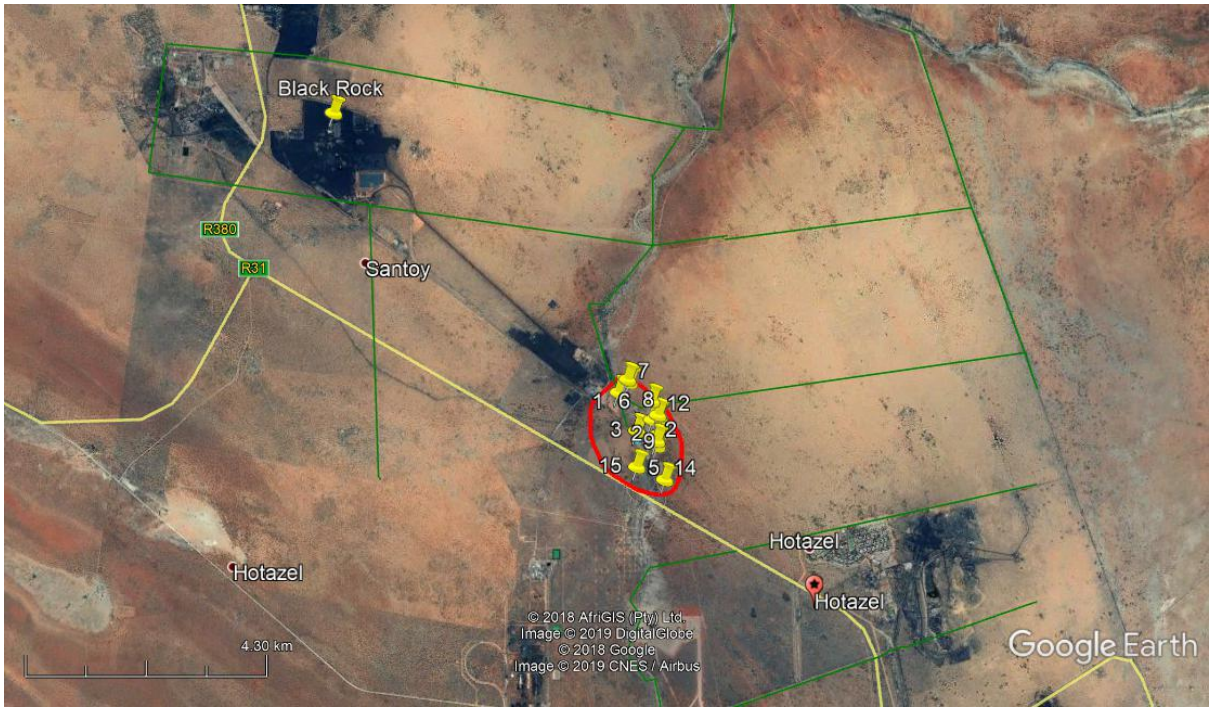

Figure 3: Location of the Stone Age sites in the area.

2. TERMS OF REFERENCE

The Terms of Reference for the study were as follows:

1. Assessing the Stone Age sites
2. Determining the extent of the sites
3. Establishing the artefact densities of the sites
4. Determining the cultural significance of the sites
5. Making recommendations for the mitigation/ preservation of the sites

3. CONDITIONS & ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the study:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity. These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development (Appendix A).

2. The significance of the sites, structures 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. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects (Appendix B).

3. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.

4. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).

5. All recommendations are made with full cognizance of the relevant legislation.

6. It has to be mentioned that this was not a Heritage Impact Assessment (HIA), but an assessment of specific sites already known.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

4.1 The National Heritage Resources Act

According to the above-mentioned Act the following is protected as cultural heritage resources:

a. Archaeological artifacts, structures and sites older than 100 years
b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
c. Objects of decorative and visual arts
d. Military objects, structures and sites older than 75 years
e. Historical objects, structures and sites older than 60 years
f. Proclaimed heritage sites
g. Grave yards and graves older than 60 years
h. Meteorites and fossils
i. Objects, structures and sites of scientific or technological value.

The national estate (see Appendix D) includes the following:

a. Places, buildings, structures and equipment of cultural significance
b. Places to which oral traditions are attached or which are associated with living heritage
c. Historical settlements and townscapes
d. Landscapes and features of cultural significance
e. Geological sites of scientific or cultural importance
f. Archaeological and paleontological importance
g. Graves and burial grounds
h. Sites of significance relating to the history of slavery
i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. The different phases during the HIA process are described in Appendix E. An HIA must be done under the following circumstances:

a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
b. The construction of a bridge or similar structure exceeding 50m in length
c. Any development or other activity that will change the character of a site and exceed 5 000m^2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000 m^2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of this Act deals with archaeology, palaeontology and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

a. ancestral graves
b. royal graves and graves of traditional leaders
c. graves of victims of conflict
d. graves designated by the Minister
e. historical graves and cemeteries

f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise. Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations.

Exhumation of graves must conform to the standards set out in the **Ordinance on Exhumations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925). Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police.

Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **National Health Act** (**Act 61 of 2003**).

4.2 The National Environmental Management Act

This Act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

5. METHODOLOGY

5.1 Survey of literature

A survey of literature was undertaken in order to obtain background information regarding the Stone Age sites.

5.2 Site visit

The fifteen Stone Age sites of relevance to this report was visited during field work. These were assessed in order to obtain contextual information on the area.

5.3 Evaluation of Heritage sites

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

6. DESCRIPTION OF THE ENVIRONMENT

The area that was surveyed is typical of the Kalahari landscape. It is surrounded by sand dunes. The Gamagara River, a non-perennial water course, runs through the area. All of the Stone Age sites are located along this river (Figure 4). Vegetation cover varies between open patches with minimal ground cover and more dense areas along the river (Figure 5).

However the environment has been disturbed by activities such as gravel roads, a railway line and mining. The natural topography falls from the east and the west towards the river which runs from south to north and is central in the area.

Figure 4: Location of the Stone Age sites along the Ganmagara River.

Figure 5: General view in the vicinity of the Gamagara River.

7. DISCUSSION

7.1 The Stone Age in the Northern Cape

In order to contextualise the sites information on the Stone Age in the Northern Cape is included. The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago
Middle Stone Age (MSA) 150 000 – 30 000 years ago
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

Stone Age sites are known to occur in the larger geographical area, including the well-known Wonderwerk Cave in the Kuruman Hills to the east, Tsantsabane, an ancient specularite working on the eastern side of Postmasburg, Doornfontein, another specularite working north of Beeshoek and a cluster of important Stone Age sites near Kathu. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Lylefeld, Demaneng, Mashwening, King, Rust & Vrede, Paling, Gloucester and Mount Huxley to the north (Morris 2005: 3). Other known sites are the Doornlaagte Early Stone Age archaeological site close to Kimberley and a specularite mine close to Postmasburg (SAHRA database).

Kruger (2014) identified three MSA sites close to the Kathu pan. These are regarded as being important due to it being within (and possibly part of) the significant larger Kathu Stone Age Complex. Van Vollenhoven (2017) has identified Late Stone Age artefacts at these sites.

The onset of the Middle Stone Age coincided with a widespread demand for coloured or glittering minerals that arose at the time for still unknown reasons. The intensive collection of such substances soon exhausted surface exposures and led to the quest being extended underground and thus to the birth of mining practice. As mentioned, specularite was commonly mined in the Postmasburg area. In 1968 AK Boshier, working in collaboration with P Beaumont, found a number of underground specularite mines on Paling (De Jong 2010: 35). Stone and Iron Age communities mined specularite associated with iron ores for cosmetic purposes at Blinkklipkop, Paling, Gloucester and other farms (De Jong 2010: 41; Snyman 2000: 3).

Many Middle and Late Stone Age tools have been found by Archaetnos during surveys in the Northern Cape. These sites are located close to Griekwastad, Hotazel. Postmasburg and Kenhardt (www.archaetnos.co.za). On the farm Konkooksies 91 in the Pofadder district, five sites with Middle and Late Stone Age tools were identified (Pelser 2011). The environment here seems very similar to that at the study area, indicating that sites are most likely to be found within the proposed mining area.

Rock engraving (rock pecking) sites are known from Beeshoek and Bruce (Morris 2005: 3; Snyman 2000: 3). The latter are associated with the Late Stone Age.

Sites were also identified close to Postmasburg on the farm Paling during an earlier survey (Pelser and Van Vollenhoven 2010: 12-17). On neighbouring farms some stone tools were identified (Fourie & Van der Walt 2006: 26-27).

The mentioned Late Stone Age sites are associated with the San people. Mitchell (2002: 126) indicates that the language group who occupied the Northern Cape is the /Auni-//Khomani and Eastern /Hoa. These people were hunters and gatherers which means that they would have moved around, leaving little trace of their existence.

7.2 The Stone Age sites at BRMO

The relevant Stone Age sites were identified by Küsel et.al. (2009) and Pelser & Van Vollenhoven (2011). Küsel et.al. identified one site (Site no. 1) and Pelser & Van Vollenhoven fourteen (Sites 2-15). Isolated stone tools were also identified during these surveys. Only sites 1 and 6-12 were deemed of high cultural significance by the respective previous studies. It was recommended that Sites 1 and 6 be mitigated in the event of a development in this area. SAHRA agreed to this in their comments both in 2013 and 2018.

The sites are[1]:

Site 1: S27˚10’39.0” E22˚54’53.6”
Site 2: S27.18572 E22.92173
Site 3: S27.18362 E22.91820
Site 4: S27.18539 E22.92119
Site 5: S27.18605 E22.92180
Site 6: S27.17542 E22.91651
Site 7: S27.17592 E22.91679
Site 8: S27.17885 E22.92081
Site 9: S27.18185 E22.92095
Site 10: S27.18157 E22.92185
Site 11: S27.18129 E22.92189
Site 12: S27.18110 E22.92196
Site 13: S27.18422 E22.92130
Site 14: S27.19146 E22.92320
Site 15: S27.18940 E22.91817

7.3 Site assessment

During the site assessment the following was determined:

1. Site no. 1 is being threatened by the possible gradual sliding of sand from a rehabilitated area towards the north thereof.
2. No other site is being threatened by the proposed development.

[1] GPS coordinates are given in the same format as in the original reports.

3. Site no. 2 does not exist anymore. It was in a gravel road which had been scraped since.
4. Sites no. 3 and 4 is very close together with artefacts being found continuously between them and should be regarded as one.
5. Sites no. 6 and 7 is very close together with artefacts being found continuously between them and should be regarded as one.
6. Sites no. 9-12 is very close together with artefacts being found continuously between them and should be regarded as one.
7. Site no. 15 consists of stone tools scraped open by a road here. It therefore is extremely disturbed.

Regarding the extent and densities of the sites the following was determined:

1. The artefacts densities are extremely low, being less that 3 artefacts per m^2 for most of the sites, with only site 1 and 6 showing a density of more than 3:1, but less than 5:1.
2. The extent of most of the sites are limited. Site 1 covers an area of approximately 2 Ha; Site 3 and 4 together about 240 m^2; Site 6 and 7 together about 1 Ha; and Site 9-12 also approximately 1 Ha. The others are even smaller.

Regarding the content of the sites it was noted that:

1. Site 1 contained stone tools from the ESA, MSA and LSA (Figure 6).
2. All the other sites only have MSA and/or LSA artefacts (Figure 7-8).

Figure 6: Various stone artefacts from Site no. 1.

Figure 7: Two hand axes from Site no. 6.

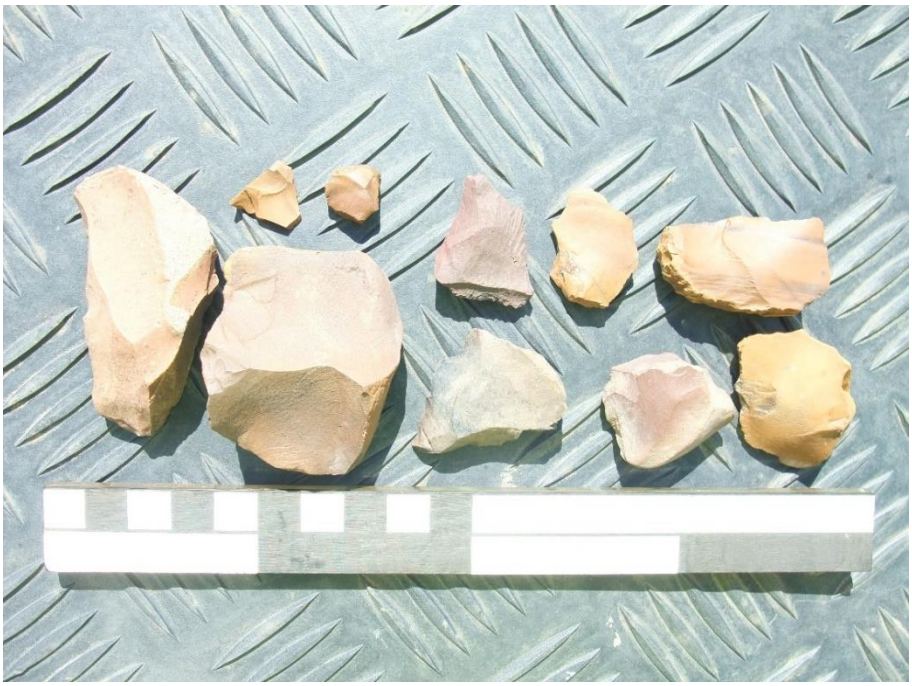

Figure 8: Late Stone Age artefacts from Site no. 4.

Therefore the cultural significance of these sites can be concluded as follows:

1. Site 1 and 6/7 is of medium-high significance due to the artefact densities not being very high, but the sites being relatively large and thus hosting a variety of artefacts
2. Site3/4, 5, 8, 9-12, 13 and 14 is regarded as being of low-medium significance.
3. Site 15 is of negligible significance.

8. CONCLUSIONS AND RECOMMENDATIONS

The re-assessment of the sites was completed and as a result is was decided to renumber the sites (Figure 9). Table 1 gives a summary of this as well as the cultural significance allocated to each.

Figure 6: The Gamagara Stone Age sites.

Table 1: Gamagara Stone Age sites

Old number	New number	Cultural significance	Reference
1	1	Medium-high	Küsel et.al. 2009
2	13	Medium-high	Pelser & Van Vollenhoven 2011
3	3 and 4	Low-medium	Pelser & Van Vollenhoven 2011
4	15	Negligible	Pelser & Van Vollenhoven 2011
5	5	Low-medium	Pelser & Van Vollenhoven 2011
6	6 and 7	Low-medium	Pelser & Van Vollenhoven 2011
7	14	Low-medium	Pelser & Van Vollenhoven 2011
8	8	Low-medium	Pelser & Van Vollenhoven 2011
9	9-12	Low-medium	Pelser & Van Vollenhoven 2011

The following is recommended:

- Due to the danger of encroaching soil on Site no. 1 it should be mitigated. This should merely consist of the collection of stone tools from the site.

- These may be utilised in a display at the mine as well as for training purpose to sensitize employees of the importance of these . Such a display should be properly interpreted.

- None of the other sites are in danger and should therefore be left as it is. Should this situation change, mitigation would at least be needed on Site 6.

- No development should however be allowed within a zone of 100 m on both sides of the Gamagara River.

- It may be considered to also collect stone tools on some of the other sites, perhaps as part of a training exercise.

- It should be remembered that due to archaeological sites being subterranean in essence, it is possible that all more sites/ stone tools may be identified in future. Care should therefore be taken when development work commences that, if any more artifacts are uncovered, a qualified archaeologist be called in to investigate.

- Proposed management measures for potential impacts, which should be followed as heritage protocol and Chance Find Procedure foe this is :

    - A training course could be conducted to sensitize employees and to convey to them basic knowledge of the Stone Age.
    - This could be coupled with a display of stone tools from the site, properly interpreted.
    - Loose stone tools found are usually of minor significance and should just be left as it is.
    - Areas where a substantial number of stone tools are found together should be geo-referenced and left alone until such time as an archaeologist can visit the site to determine its significance.
    - Should any of the above be identified, the area should be demarcated to ensure no impact until further investigation has been done.

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APPENDIX A

DEFINITION OF TERMS:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

Historic value:	Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
Aesthetic value:	Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
Scientific value:	Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
Social value:	Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
Rarity:	Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
Representivity:	Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

- National Grade I significance should be managed as part of the national estate
- Provincial Grade II significance should be managed as part of the provincial estate
- Local Grade IIIA should be included in the heritage register and not be mitigated (high significance)
- Local Grade IIIB should be included in the heritage register and may be mitigated (high/ medium significance)
- General protection A (IV A) site should be mitigated before destruction (high/ medium significance)
- General protection B (IV B) site should be recorded before destruction (medium significance)
- General protection C (IV C) phase 1 is seen as sufficient recording and it may be demolished (low significance)

APPENDIX D

PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – grade I and II
Protected areas - an area surrounding a heritage site
Provisional protection – for a maximum period of two years
Heritage registers – listing grades II and III
Heritage areas – areas with more than one heritage site included
Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states
Structures – older than 60 years
Archaeology, paleontology and meteorites
Burial grounds and graves
Public monuments and memorials

APPENDIX E

HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.