STONE AGE AND ROCK ART HERITAGE SURVEY OF THE AGRI-URBAN DEVELOPMENT AT VAN REENEN, SOUTH AFRICA

FOR ARCHAIC HERITAGE PROJECT MANAGEMENT

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INTRODUCTION

Umlando cc was contracted by Archaic Heritage Project Management to undertake a Stone Age and Rock Art heritage impact assessment of the proposed development near van Reenen, Free State (figures 1 – 2). This report does not comment on the Iron Age, Historical and palaeontological sites recorded during the survey.

The impacts on the area will be:

- Grazing area for cattle
- Pecan nut farm
- Olive farm
- Alpaca breeding
- Horticultural area
- Accommodation for various staff and owners
- Luxury houses
- International school complex
- Office park
- Spiritual retreat and wellness center and associated accommodation,
- Two wind turbine farms

The study area is on top of the escarpment and consists of sandstone and dolerite outcrops. The vegetation is mostly grasses associated with wetlands, and valley forests occur mostly on the southeastern areas, i.e. in KwaZulu. Wattle and blue gum plantations occur as well. Most of the land is grassland and has not been ploughed.

Several isolated stone tools and two Late Stone Age sites were recorded during the survey. The sites are of low significance, although one should be sampled if affected by any development.

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the databases from both Umlando and the Natal Museum. These databases contain most of the known heritage sites in KwaZulu-Natal.

The initial archaeological survey (i.e. fieldwork) consists of a foot survey where the selected area was covered. The survey results will define the significance of each recorded site, as well as a management plan. The main problem with the survey was the poor archaeological visibility.

All sites are grouped according to low, medium and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips and decorated sherds are sampled, while bone, stone and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:

1.1. Organic remains:

1.1.1. Faunal

1.1.2. Botanical

1.2. Rock art

1.3. Walling

1.4. Presence of a cultural deposit

1.5. Features:

1.5.1. Ash Features

1.5.2. Graves

1.5.3. Middens

1.5.4. Cattle byres

1.5.5. Bedding and ash complexes

2. Spatial arrangements:

2.1. Internal housing arrangements

2.2. Intra-site settlement patterns

2.3. Inter-site settlement patterns

3. Features of the site:

3.1. Are there any unusual, unique or rare artefacts or images at the site?

3.2. Is it a type site?

3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

4.1. Providing information on current research projects

4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?

5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

7.1. Does the site have the potential to be used as an educational instrument?

7.2. Does the site have the potential to become a tourist attraction?

7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

8.1. Palaeontological sites

8.2. Historical buildings

8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites

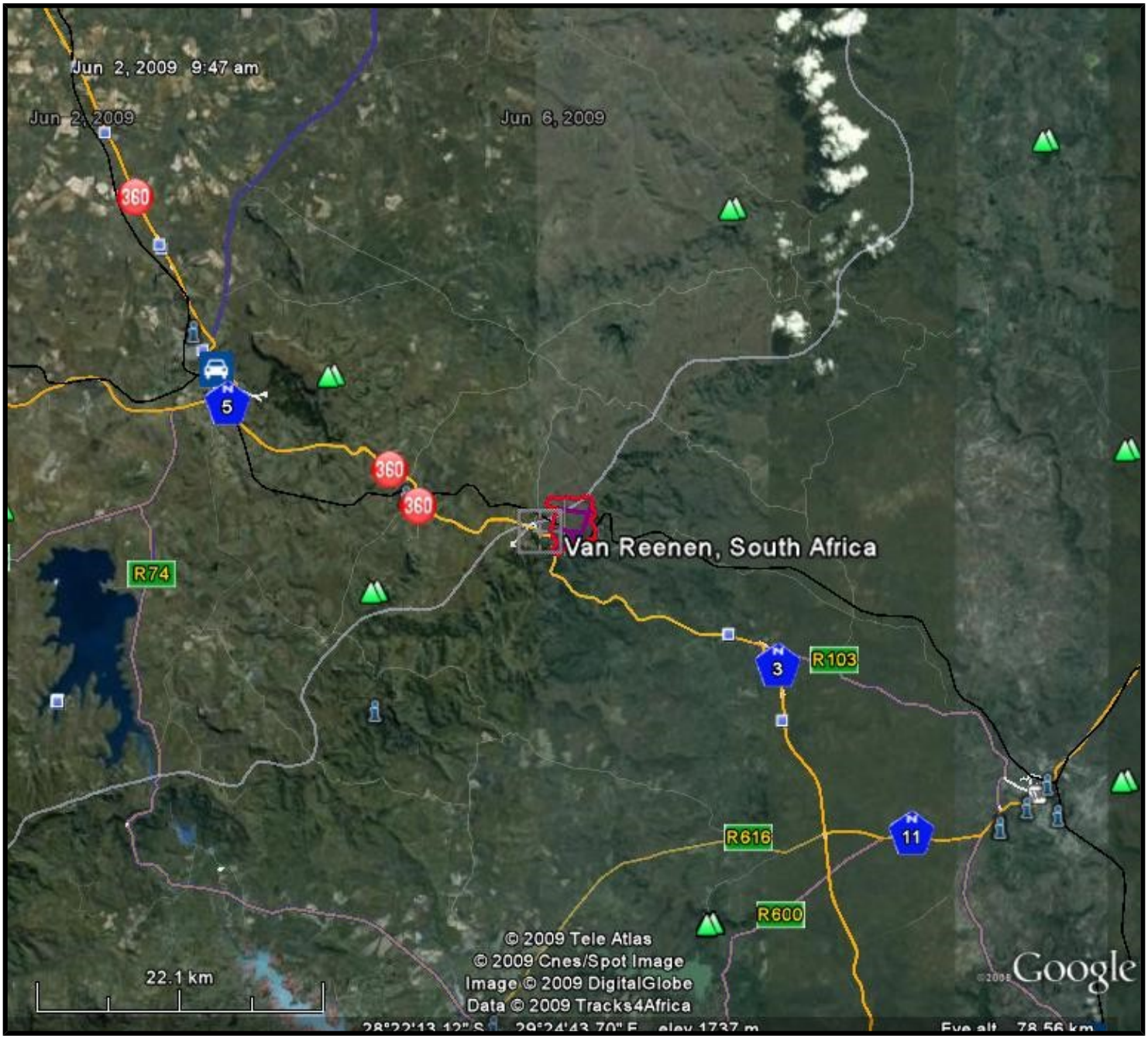
8.4. Graves and/or community cemeteries

8.5. Living Heritage Sites

8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

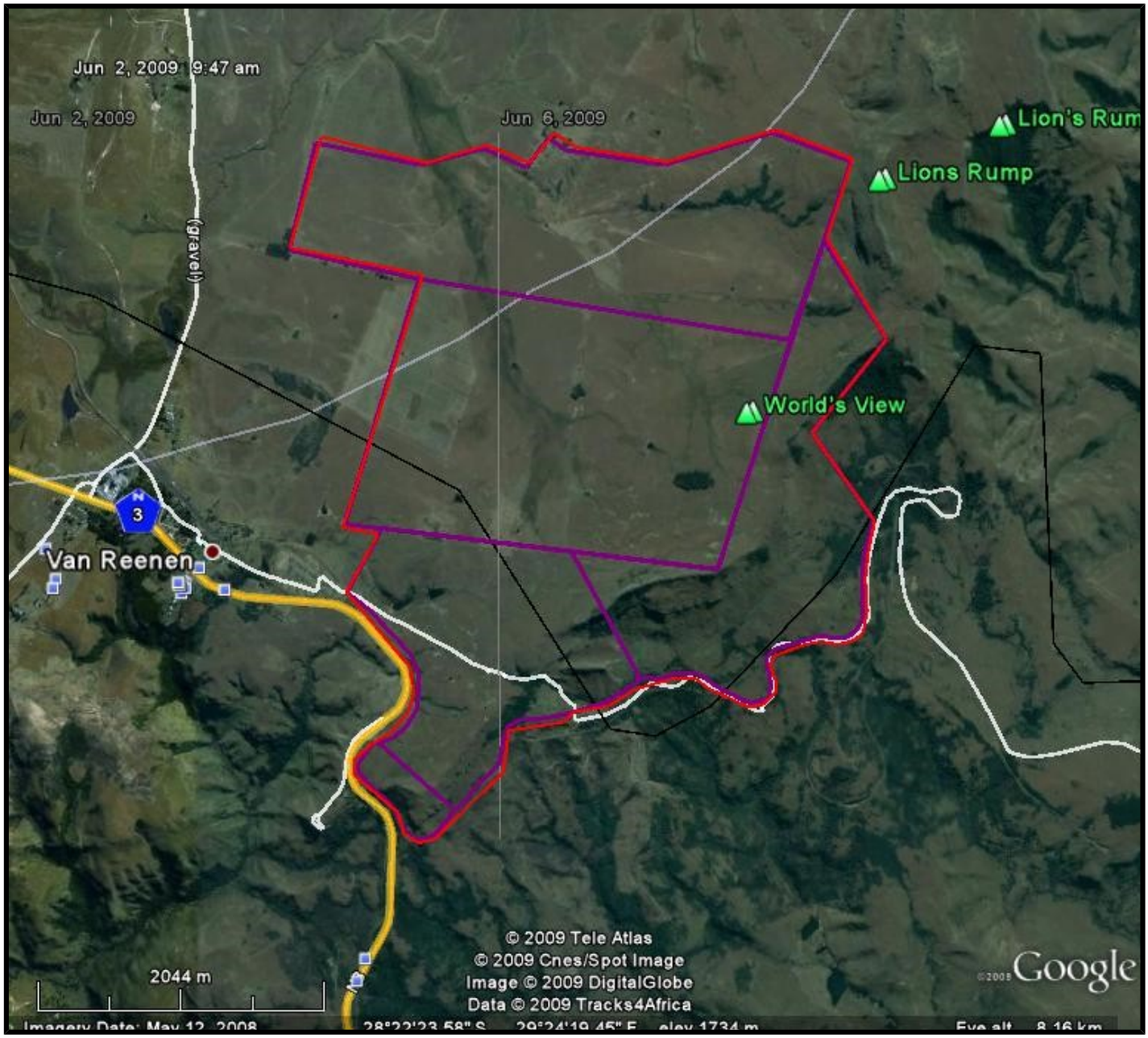
The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

FIG. 1: GENERAL LOCATION OF THE PROPOSED DEVELOPMENT[1]



[1] Study area outlined in yellow

FIG. 2: LOCATION OF THE STUDY AREA[2]



[2] Study area outlined in red; farm boundaries outlined in purple

RESULTS

The desktop study indicated that no sites have been recorded in the study area. Two archaeological sites have been previously recorded just outside of the study area: 2829AD 005 and 2829AD 006. The sites are shelters that contain faded rock art and stone tools, or some Late Iron Age pottery. There is thus an expectation that Late Stone Age sites would occur in the study area. The survey did not locate any rock art sites.

The survey recorded two Stone Age sites, and several individual artefacts (fig. 3)

Site 1

Site 1 occurs nearby the original Van Reenen's Pass. The area is located on a flat hill just above an erosion gully and the two dams. Most of the artefacts are located in the erosion gully; however, these have probably washed down from the main hill and are thus in a secondary context.

The stone tools are made from CCS (mostly banded agate) and fossilised trees. The stone tools include the following:

- Utilised flakes
- Bipolar cores
- Thumbnail end scraper
- Side scraper
- Flakes
- Manuports

There is a high concentration of the stone tools in this area and the site is probably a living area. Unfortunately, there is no visible stratigraphy and the archaeological deposit is a max. of 15cm thick. Given the lack of organic

remains, I do not believe that there will be subsurface features in the area of the site. The stone tools are good examples of the Wilton Complex, i.e. post 4000BP.

Significance: The artefacts are of general low significance. However, given the high density of stone tools, in comparison to the rest of the study area, the site is of low-medium significance.

Mitigation: Mitigation should be in the form of systematic sampling of stone tools. The sampling should only occur after the grass has been burnt.

Site 2

Site 2 is located along the northern boundary of the development. The stone tools occur in the erosion gullies and further up the hill on a less steep incline. The stone tools are made from quartz, CCS and fossilised trees. The stone tools include:

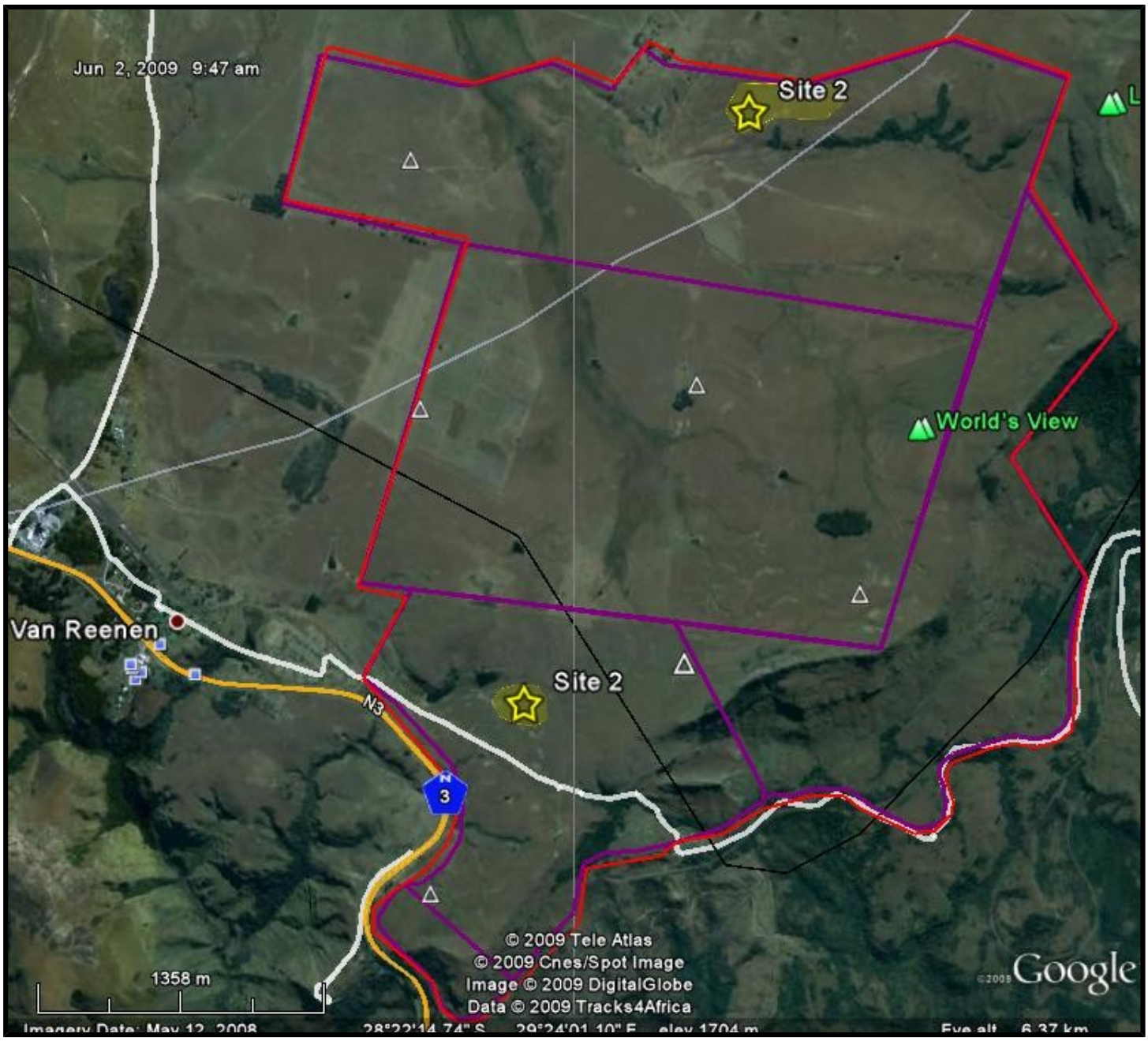
- Chunks
- Utilised flakes
- CCS manuports (nodules)
- Irregular cores

The irregular cores are from fossilised trees, and it appears that the area was chosen for the occurrence of the “outcrop” of fossilised trees. The stone tools are similar to those of Site 1, but in significantly fewer numbers.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

FIG. 3: LOCATION OF SITES AND ARTEFACTS[3]



[3] Yellow star = late Stone Age scatters; white triangles = isolated tools

General artefacts and comments

Isolated artefacts were recorded in various locations. These were all on CCS and are similar to the tools located at Site 1 and Site 2. These stone tools include the following:

- Utilised flakes (CCS)
- Miscellaneous Retouched Piece (dolerite)
- Thumbnail end scraper (CCS)
- Dolerite flake – this flake is of interest in that the flake had been created by a lighting strike on the dolerite boulder - the flake had a bulb of percussion and stress lines. The flake was then modified and utilised in one area. This stone tool occurred in the southern area of the development.

The stone tools are the standard types of stone tools associated with the last 4000 years. These stone tools are abundant shelters with deposits that occur in the general area (see Anderson and Anderson 2006, Mazel 1990, 1992, 1993, 1997, 1999; Wadley 2000). The area appears to be made up of two concentrations of stone tools on the landscape with isolated scatters between these concentrations.

MANAGEMENT PLAN

The stone tools from the various sites and scatters are all standard stone tools associated with the last 4000 years. While they are standard examples, they should be sampled to form part of a regional record of material. The nearest previously recorded site with a substantial deposit is ~25km northeast of the study area. The nearby rock art site does not appear to have a substantial deposit. Site 1 thus has potential to provide a good sample of stone tools for the Van Reenen area.

If any form of subsurface development will affect the site, then I suggest that it is sampled for stone tools. A grid should be set up and surface artefacts should be collected and recorded. A sampling permit from SAHRA will be required.

CONCLUSION

Umlando assisted with the heritage survey of the proposed Van Reenen Agri-urban development. Umlando was specifically contracted to undertake the Stone Age and Rock Art survey. Various cliffs and boulders were surveyed for rock art; however, no sites were observed. This is either because of the poorly preserved sandstone cliffs, or because the area was not socially suitable for rock art. A known rock art site occurs within 1.5km of the western boundary of the study area. I thus believe the area was not socially suitable for rock art.

Two Late Stone Age sites and several individual artefacts were recorded in the study area. One Late Stone Age site should be sampled if it will be affected b the proposed development.

There are no 'red flags'; however, the one site should be sampled.

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SITE RECORD FORMS

UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

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SITE CATEGORY: (X where applicable)
Late Stone Age : X
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 1
Official Name: Nolans Volans 2
Local Name: N/A
Map Reference: 28°22'41.72"S 29°23'51.52"E (alt = 1713m)

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From N3, turn left/right into Van Reenen road. Cross the railway crossing and take first right that runs along the northern side of the railway. This becomes a road that goes to the towers. After the settlement, pass over the cattle grid, and stop at first access gate (1570m after grid). Go through this access point and follow track to the main erosion gully. Site begins in the gully and continues uphill.

SITE DESCRIPTION:

Type of Site: Surface, may contain deposit.
Merits conservation: yes: sample
Threats: yes
What threats: Possible development

RECORDING:
Graphic record:
Digital pictures: Tracings : Re-drawings:

Recorder/Informant:
Name: Gavin and Louise Anderson
Address: PO Box 102532, Meerensee, 3901
Date:
Owner:
References:

Description of site and artefactual content.

The stone tools are made from CCS (mostly banded agate) and fossilised trees. The stone tools include the following: Utilised flakes, Bipolar cores, Thumbnail end scraper, Side scraper, Flakes, Manuports.

There is a high concentration of the stone tools in this area and the site is probably a living area. Unfortunately there is no visible stratigraphy and the archaeological deposit is a max. of 15cm thick. Given the lack of organic remains I do not believe that there will be subsurface features in the area of the site. The stone tools are good examples of the Wilton Complex, i.e. post 4000BP.

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SITE CATEGORY: (X where applicable)
Late Stone Age: X
Early Iron Age:
Late Iron Age
Historical Period:

Recorder's Site No.: Site 2
Official Name: Paulina
Local Name: N/A
Map Reference: 28°21'11.77"S 29°24'30.42"E (alt = 1720m)

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From N3, turn left/right into Van Reenen road. Cross the railway crossing and take first right that runs along the northern side of the railway. This becomes a road that goes to the towers. After the settlement, pass over the cattle grid, and stop at first access gate (1570m after grid). Go through this access point and follow track to the main erosion gully. Pass this gully and continue over the hill past the old ruins on left hand side. Continue with this track to near the end of the property and stop before the wetland. Cross the river (by foot) and head for the hill with a single main erosion gully and a dolerite outcrop on the top.

SITE DESCRIPTION:

Type of Site: Surface, may contain deposit.
Merits conservation: No
Threats: yes
What threats: Possible development

RECORDING:
Digital pictures: Tracings : Re-drawings:

Recorder/Informant:
Name: Gavin Anderson
Address: PO Box 102532, Meerensee, 3901
Date: 03/08/2009
Owner:
References:

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The stone tools are made from quartz, CCS and fossilised trees. The stone tools include: Chunks, Utilised flakes, CCS manuports (nodules), Irregular cores.

The irregular cores are from fossilised trees, and it appears that the area was chosen for the occurrence of the "outcrop" of fossilised trees. The stone tools are similar to those of Site 1, but in significantly fewer numbers.