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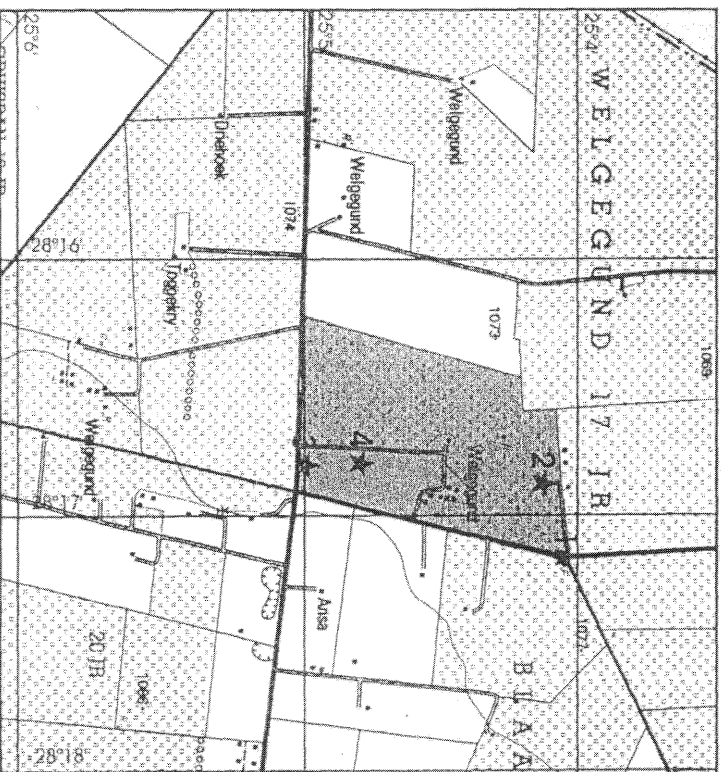
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PHASE 1

ARCHAEOLOGICAL IMPACT ASSESSMENT

Welgegend 17 JR
Radium
NORTHERN PROVINCE

S.A.H.R.A
2002-09-18
ONTIANG/RECEIVED



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March 1999

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AIM

The aim was to undertake a Phase 1 *Archaeological Impact Assessment* on approximately 35ha at Weigegund 17 Jfr, Radium, where a low cost housing project has been proposed, to assess the impact of the proposed scheme in terms of archaeological/historical sites and features and to make recommendations. The task was performed on March 9, 1999.

METHOD

A survey of the whole area demarcated for development was done on foot and by vehicle by an archaeologist and one assistant. Locations were recorded by means of a GPS (Garmin, 45XL), and archaeological remains were photographed with a Kodak Digital DC120 camera. Random sampling of surface finds were taken. A finds list was kept, while an audio tape was used to document further information. The finds were cleaned, photographed and packaged.

DESCRIPTION

The area is very flat. Vegetation is mainly grassveld, while the greatest part of the site had previously been ploughed. The ploughed areas are covered in weed and grass vegetation.

Three archaeologically significant sites had been identified, while a fourth site, of recent origin, has also been documented. They were numbered in chronological order as the assessment proceeded from the northeastern most part of the area. No GPS readings were taken of other sites as isolated stone artefacts were recovered from the entire surface. Some were sampled.

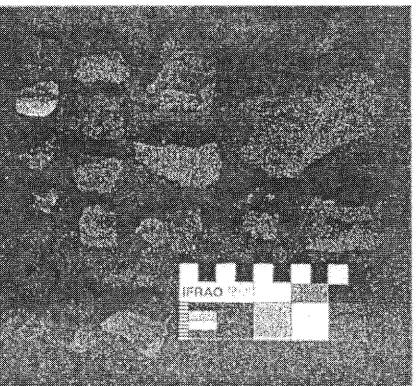
An informant mentioned that graves had been disturbed on the neighbouring farm in the ploughed areas, but not by the present owner. Nobody seemed to have any knowledge about this. The informant is a newcomer to the area.

Site 1

S25°04'1.47"

E28°17'12.08"

As the character of the rest of the terrain in this area proved to be impossible to investigate - as a result of the dense vegetation - random samples were taken from the road immediately adjacent to the demarcated area as well as just inside the premises of the neighbouring farm, which borders the site on the northern side. Stone artefacts, mainly flakes, were recovered from this area.

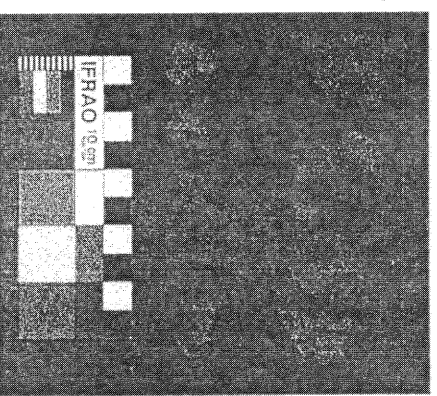


Site 2

S25°04'7.06"

E28°16'52.22"

The terrain was difficult to observe as the surface is covered in lush grass growth. The lands had been tilled at least three years ago and is covered in weeds and grass. In the end this part proved to be the most accessible for reconnaissance. Stone artefacts of Middle Stone Age origin were recovered in the lands.

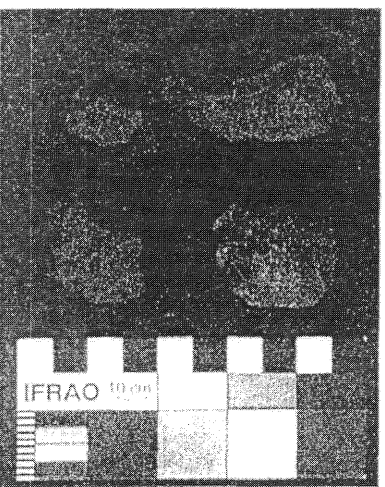


Site 3

S25°04'58.7"

E28°16'46.6"

This comprises the remains of a square structure, found in association with a midden. An informant insisted in guiding us there. A test pit was dug into the midden, but no cultural remains were retrieved. No further information regarding the date or people was available. None of the original farm workers remained in the area who could possibly inform on the origins. This was however the only structure visible above surface. No other feature, e.g. graves, other houses, etc. was seen that could be associated with these structure.

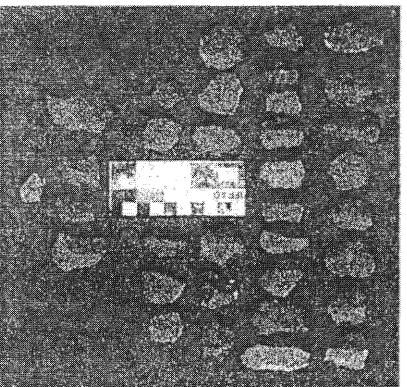


Site 4

S25°04'47.43"

E28°16'46.09"

A large, random collection of stone artefacts were made at the present farm dam. This proved that cultural finds might be located in the subsoil. Building activities at the dam apparently brought these to the surface.



EVALUATION

General

Apparently very little activities occurred during the Iron Age in this region. The absence of settlement in this area might be explained at the hand of water scarcity. Apparently the closest dependable water source is to be found at least 10km from the site, as indicated by the informant. At best this area would have been utilised for grazing purposes. No signs of previous (archaeological) cattle enclosures could however be seen on the surface, as a result of the dense vegetation.

Middle Stone Age artefact finds were numerous in the entire area. Except for the dam area (Site 4), no other clusters were visible on the surface. It is therefore probable that the finding places are either completely covered in vegetation or that it is buried beneath the surface as a result of depositioning, and more and better finds will be made if excavated.

For the purpose of this report, only a short description of the Middle Stone Age (MSA) will be given.

Background to the Stone Age

The Stone Age can be divided into three stages based on technological and typological characteristics. The three main stages are the following:

- ▶ The Early Stone Age (ESA), 1,8 Ma - 10 000 years ago.
- ▶ The Middle Stone Age (MSA), ca 150 000 years ago.
- ▶ The Late Stone Age (LSA), ca 40 000 years ago

The Middle Stone Age

South from the Limpopo the Middle Stone Age (MSA) replaces the ESA at the beginning of the Upper Pleistocene, and possibly even earlier. The earliest MSA site has been dated for 150 000 years ago. To

date no transitional industries have been identified, but a transition would probably result in very small hand axes and very long flake blades.

Collections are characterised by a variety of prepared cores and retouched flake tools, of which most have no equivalent in the ESA. Hand axes and choppers are absent, while flake and blade tools such as points, scrapers and finely toothed tools are characteristic. Both retouched and unrefined pieces could have been attached to wooden handles, as many examples presents a blunt back and sharp blade.

Three groups of MSA artefacts are distinguished, namely tools (with signs of secondary retouching or use), cores and waste (the pieces without signs of edge retouching. Characteristic of the MSA are the many triangular flakes with converging dorsal flaking and faceted butt-ends. Two broadly defined cores are distinguished, namely cores which were used to produce flakes with crossed dorsal flaking (mainly radiated, disc shaped or cores which had been worked from any direction), and cores with parallel, half-parallel or sometimes converging dorsal flaking (mainly with single or double platforms). The narrow, thin butt-ends and digressive percussion bulbs of some of the artefacts indicate the use of an intermediate punch (the so-called indirect percussion technique). This type of flake cores are present in large quantities in the South African interior and further north.

MSA sites occur in a variety of sites, such as river banks, flood plains, on the shores of lakes and pans as well as in fountain deposits. The materials of long occupation layers are well preserved in caves.

Heathfs are characteristic of Upper Pleistocene, i.e MSA occupation, such as at the Cave of Heathfs and Border Cave, Kwa-Zulu Natal. It is thus clear that humankind was able to control fire in South Africa at least 1 30 000 years ago, and probably earlier.

Problem areas

- ▶ Very little information still exists relating to the ESA transition to the MSA. This type of artefact is rare in archaeological collections.
- ▶ It is still inconclusive whether the ESA and MSA traditions existed simultaneously in restricted regions.
- ▶ It will be necessary to acquire a more representative collection and excavate some test pits in order to establish deposit depth of the artefacts.
- ▶ Before the site can be ascribed to a specific phase in the MSA tradition, a statistical analysis of the relation of various tools to each other as well as to the flakes will be required.

RECOMMENDATIONS

In view of the above, it is recommended that a Phase 2 Archaeological Impact Assessment be undertaken. The details could be finalised through mitigation on site. The mitigation should however be done prior to surface preparation (clearing of plant growth, etc.).

Although no Iron Age or historical remains were recovered or identified, it would be of the utmost importance that the archaeologist be notified:

- should any graves and/or middens be encountered during initial clearing of the surface or during subsoil removal. Please refer to *Addendum 2, paragraph 12(2A)*, in particular (d), (e) and (f).
- Please see *Addendum 3* in connection with the finds of March 9, 1999, especially the emboldened text.

The presently identified sites should be treated as follow:

- ▶ The area should be cleared of vegetation growth in order to locate artefact cluster. This should be done with care in order not to unnecessarily uproot embedded artefacts. Labourers could be drawn from the population.
- ▶ During the Phase 2 assessment the sites would be sampled according to a grid system in order to establish the site layout and to see whether a pattern of artefactual material clusters occur within the area.

- Should it deem necessary, this survey would be enlarged in order to establish the extent of the site/s.
- Some test pits will be sunk to view further deposits and depth. At the same time it could create an opportunity to employ some of the local, interested residents and simultaneously educate them in archaeology and prehistoric technological developments.
- The dam area will be surveyed for more artefacts, and if necessary, some test pits will be excavated in order to establish depositing.

- ♦ All material already recovered, as well as those from Phase 2 will be lodged with the *Pietersburg Museum* together with all documentation such as finds lists, daily reports, site description and a full report.
- ♦ A copy of the report will be sent to the *National Monuments Council* (NMC).
- ♦ A complete documentation form regarding this survey as well as the Phase 2 survey will be lodged with the *National Cultural History Museum* in Pretoria, which will be included in their data base regarding all archaeological finds in the Northern Province.

Conclusion

Southern Africa has some of the longest, best known archaeological sites in the world. It is expected that knowledge concerning the cultural development of the later Pleistocene in the future will increase as a result of continuous large scale excavations of rock shelters and open air sites, improved palaeo environment reconstructions on the application of accelerated dating techniques. Progress concerning earlier time sequences will depend on the discovery of sites from which much information can be gained, as well as the development and application of new analytical techniques.

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Hester Roodt

March 31, 1999

ADDENDUM 1

THE LAW

The National Monuments Act (No. 28 of 1969) protects all palaeontological, archaeological and historical sites and material older than 50 years. It is an offence to destroy, damage, alter, remove from its original site, or excavate any such site or material without a permit from the National Monuments Council. A person convicted of an offence in terms of the Act, could be liable for a fine of up to R1 0000 or two years imprisonment, or both. See *Addendum 1 for extracts from this act*.

In terms of the Environmental Conservation Act (No. 73 of 1989) the Integrated Environmental Management Procedure, Guideline Document 1 identifies certain man-made areas and features that are listed as environments which must be included in an environmental impact assessment report. These include archaeological and palaeontological sites, graves and burial sites, buildings and sites of religious, social and cultural significance.

ARCHAEOLOGICAL IMPACT ASSESSMENT

To minimise the impact of development on archaeological sites, and the impact of archaeological sites on development projects, and to avoid costly delays if a site is discovered during the course of construction work, it is important to hire an archaeologist well in advance to survey the area. It is important that developers realise that only qualified professional archaeologists should be employed to undertake survey work.

The developer is responsible for the costs involved in hiring an archaeologist to investigate the site.

Phase 1

The archaeologist hired to do the work will submit a phase 1 report. On the basis of the recommendations and assessment of significance made in the report, a decision can be taken on how the development may proceed. In most cases development will be able to go ahead as planned after the sites have been recorded.

Phase 2

In some cases, mitigation in a Phase 2 programme will be necessary and may involve excavation or collection of archaeological material. The purpose behind mitigation is to sample the site so that the evidence can be stored permanently in a museum where it can be consulted at a later date for record and research purposes.

Phase 3

More rarely, the site may be so important that it will warrant modification of the development in a Phase 3 programme. If this happens, the archaeologist, the National Monuments Council and the developer can confer on the action to be taken. It may be possible to incorporate an Iron Age village into a green belt in a housing scheme, or to modify a high rise building plan by covering over 18th century foundations and associated rubbish dumps beneath a parking lot to avoid destroying them completely. Such solutions are possible if the archaeologist is consulted early enough in the planning process.

Permission for the development to proceed can be given only once the National Monuments Council is satisfied that steps have been taken to ensure that the archaeological sites will not be damaged, or that they have been adequately recorded and sampled.

If this chain of action is followed, we stand a chance of saving something of our archaeological heritage for future generations and of avoiding conflict between developers and cultural conservationists. The National Monuments Council must ensure that the historical and cultural heritage of all South Africans is protected. Careful planning can minimise the impact of archaeological surveys on development projects by selecting options that cause the least amount of inconvenience and delay.

ADDENDUM 2

EXTRACTS FROM THE NATIONAL MONUMENTS ACT (NO 28 OF 1969, AS AMENDED IN 1986) THAT ARE RELEVANT TO ARCHAEOLOGICAL SITES

- 12(2A) No person shall destroy, damage, excavate, alter, remove from its original site or export from the Republic -
- (a) any meteorite or fossil; or
 - (b) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by Bushmen; or
 - (c) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by any other people who inhabited or visited the Republic before the settlement of the Europeans at the Cape; or
 - (d) any implement, ornament or structure known or commonly believed to have been made, used or erected by people referred to in paragraphs (b) and (c); or
 - (e) the anthropological or archaeological contents of graves, caves, rock shelters, middens, shell mounds or other sites used by such people; or
 - (f) any other historical site*, archaeological or palaeontological finds, material or object,

except under the authority of and in accordance with a permit issued under this section.

[* An "historical site" is defined as "any identifiable building or part thereof, marker, milestone, gravestone, landmark or tell older than 50 years."]

ADDENDUM 3

Report on Workshop on Standards for the Assessment of Significance and Research Priorities for Contract Archaeology

SA3 (Southern African Association of Archaeologists) Biennial Conference
University of Venda, 10 July 1998

*Janette Deacon
National Monuments Council*

Opportunities for archaeological contract work will expand in southern Africa in the next few years. To make the best of the opportunities, medium-term (3-5-year) research and heritage conservation priorities need to be established as a matter of urgency in consultation with CRM practitioners, provincial and national heritage agencies and research archaeologists. The following factors are relevant.

1. In South Africa, the Department of Environmental Affairs and Tourism published on 5 September 1997 its long-awaited List of Activities which may have a substantial detrimental effect on the environment and the regulations regarding activities identified under Section 21(1) of the Environment Conservation Act (No. 73 of 1989). These effectively make environmental impact assessments compulsory for the listed activities.
2. The National Heritage Bill, designed to replace the National Monuments Act in South Africa, came before the Cabinet and Parliament in 1998. If it could become law from 1 April 1999, amongst other innovations, it makes impact assessments compulsory where historical, archaeological and palaeontological sites are affected by development but are not protected by other legislation.
3. In neighbouring African countries, the tempo of contract work is also rising as new legislation and requirements of the World Bank are implemented.

It seems widely accepted that CRM practitioners do mitigation to rescue the research potential of a site which would otherwise be lost. The following kinds of sites were identified as being worthy of mitigation:

Stone Age / Hunter Gatherer

- | | |
|---|---|
| <ul style="list-style-type: none">• any open air site with bone or other organic material;• any cave or rock shelter with deposit;• rock paintings and rock engravings (record context as well as images);• quarry sites with possibilities for core re-fitting;• long sequence sites;• coastal and inland shell middens;• any sites with Howiesons Poort, Stillbay or Robberg artefacts;• human remains or burials;• fish traps;• placement of Earlier Stone Age sites in the | <ul style="list-style-type: none">• landscape - are they associated with river valleys, water sources or quarries?• evidence for modernity in Middle Stone Age sites;• sites with evidence for interaction between Stone Age and Iron Age or colonial people;• Later Stone Age sites with Bambata pottery;• pastoral sites, especially in the Eastern Cape;• caches of ostrich eggshells or other items;• hunting blinds;• evidence for exploitation of raw material sources such as haematite or specularite. |
|---|---|

Iron Age / Agriculthrist

- Sites that will help to clarify the ceramic sequence of the Early Iron Age in the northern and eastern regions of southern Africa;
- any Bambata settlement;
- Early Iron Age sites with evidence for structures or long term occupation;
- sites with evidence for political or social hierarchies;
- evidence of the organization of metal production;
- burials with evidence for social differentiation, health and nutrition;
- evidence for trade within and outside of the Zimbabwe culture area;
- sites in areas that are under-researched to build up the culture-historical sequence;
- special-purpose sites such as rainmaking, circumcision, mining, furnaces, cattle posts vs living sites, salt making;
- Blackburn and Moor Park sites in KwaZulu-Natal;
- well preserved early Moloko sites with middens for evidence of diet and subsistence or stone walling;
- any Zimbabwe-style stone walling should be mapped in sufficient detail to estimate factors such as population size and grain-bin variability;
- evidence for contemporary cultural interaction, for example between Khami and Moloko;
- sites with architectural styles and information on materials used for housing, even in the recent past;
- evidence for the introduction of maize, either direct or in the style of grindstones used;
- sites with botanical remains of cultigens;
- information on the distribution, size and characteristics of dolly-holes for gold mining;
- evidence for textiles or weaving in addition to spindle whorls;
- evidence for games and contextual information relating to them;
- figurine caches and spatial relationships to settlements;
- check stone outcrops near stonewalled sites for engravings.

Historical / Colonial

- sites connected with whaling and sealing;
- ships or ship/boat structures on land;
- shipwreck survivor camps;
- sites in the interior with nineteenth century ceramics (RESUNACT is preparing guidelines for identification);
- single occupation sites in urban environments with deposits such as wells, cisterns and depressions;
- 17th century or early 18th century sites in Cape Town;
- sites that are connected with national and international slave trade routes;
- LSA sites with metal items such as brass buttons;
- documentary and archival searches should be done before going into the field;
- sites that could inform on the effects of military forces on indigenous local populations;
- the symbolic significance of textiles, beads and other items imported by traders;
- sites with oral traditions of sacred significance - oral histories increase significance and are therefore relevant to archaeology;
- historical graves need sensitive removal during mitigation and this is often best done in collaboration between archaeologists and funeral specialists.

