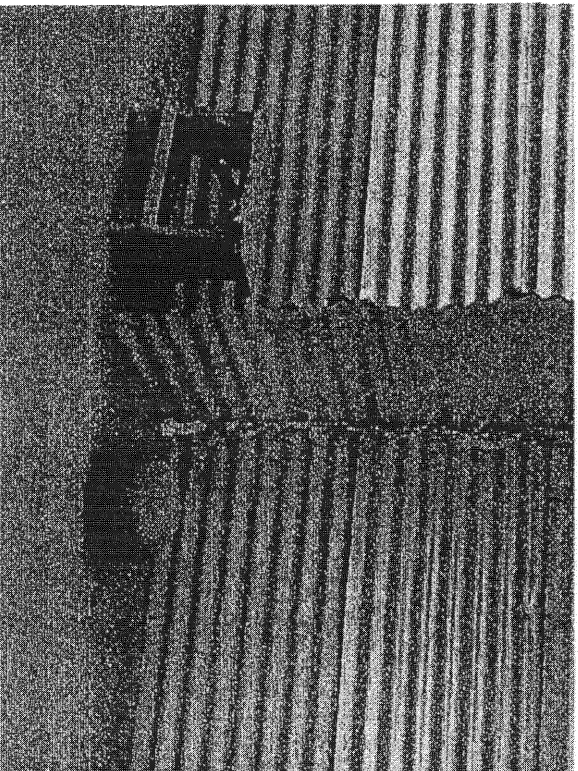


PHASE I

ARCHAEOLOGICAL IMPACT ASSESSMENT

Low Cost Housing Project Part of Bochum N. 178 LS Bochum, Northern Province



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March 1999

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AIM

The aim was to undertake a Phase 1 Archaeological Impact Assessment on approximately 40ha at Bochum N. 178 LS (Bochum - A Extension 4) 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 February 23, 1999.

METHOD

A survey of the entire area demarcated for development was done on foot by an archaeologist and one assistant. Locations were recorded by means of a GPS (Garmin, 45XL), and archaeological/historical features were photographed with a Kodak Digital DC120 camera. Notes were audio taped. All finds were documented, labelled and packaged in the field. Before being photographed, it was cleaned. A finds list was also kept.

DESCRIPTION

Both the residential and the informal settlements are located on an even, flat area. The maula trees which dot the area are relatively young, and all other trees have the character of shrubbery as it is being heavily utilised for fire wood. Premises are clearly demarcated either by formal fencing methods or by thorn tree branches and aloe leaves laid out on the periphery. Most premises are kept well swept, with the result that no cultural remains were noticed, even after thorough reconnaissance.

Among some of the various informal stands are grassy, relatively undisturbed areas. All of these have been reconnoitred and occupants were shown potshards and interviewed with regard to any knowledge of previous habitation, with nil results.



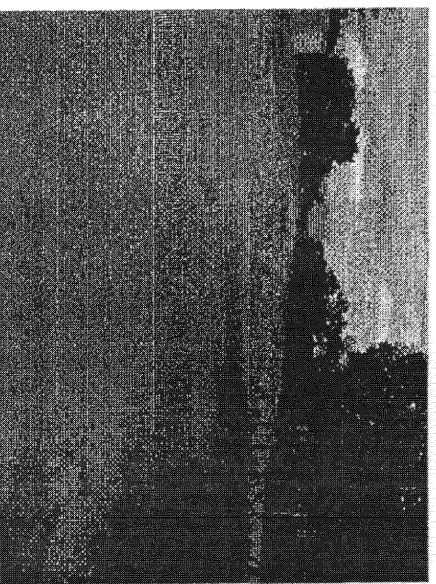
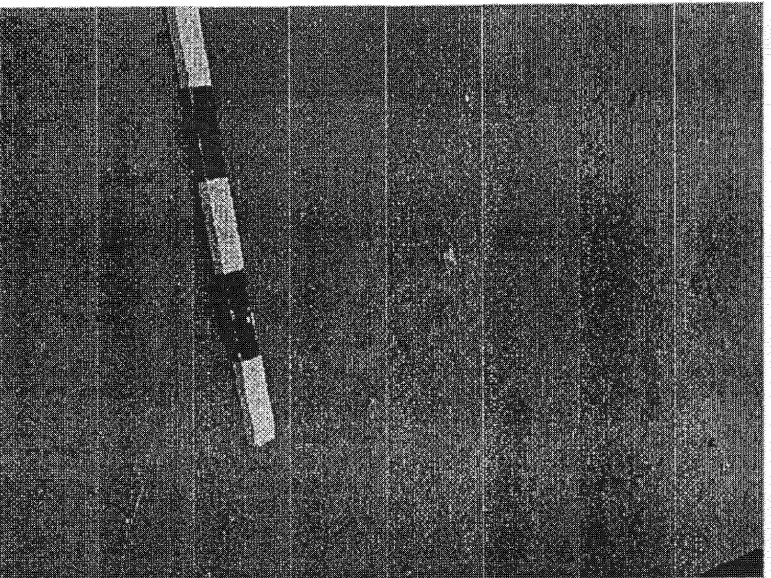
A part of the identified area had been utilised prior to the informal settlement. Formal residences had been erected, especially in the most southern part of the area. Cultural material were identified on the surface, especially in the slightly eroded areas such as foot paths and the shoulders of the road. Some were still embedded in the hard compacted soil.

Some isolated potsherd finds were also recorded. No other features, e.g. graves, stone walls, house floor/foundations, middens or cattle enclosures were noticed.

Two sites were identified.

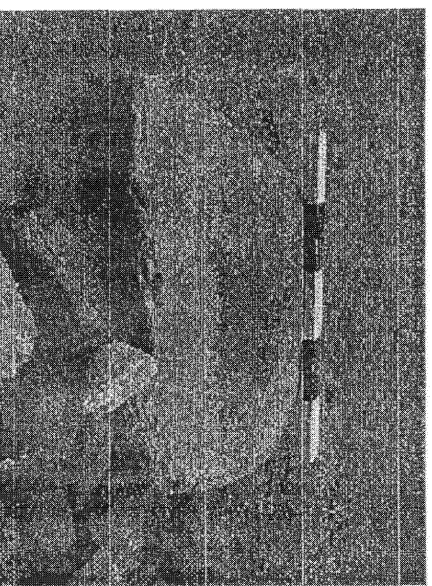
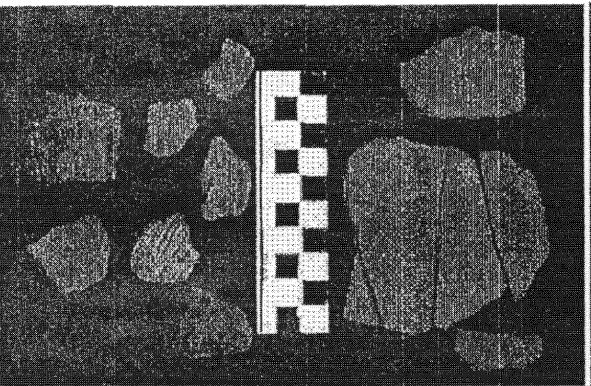
Site 1

S23°17'12.7" E29°08'24.7"

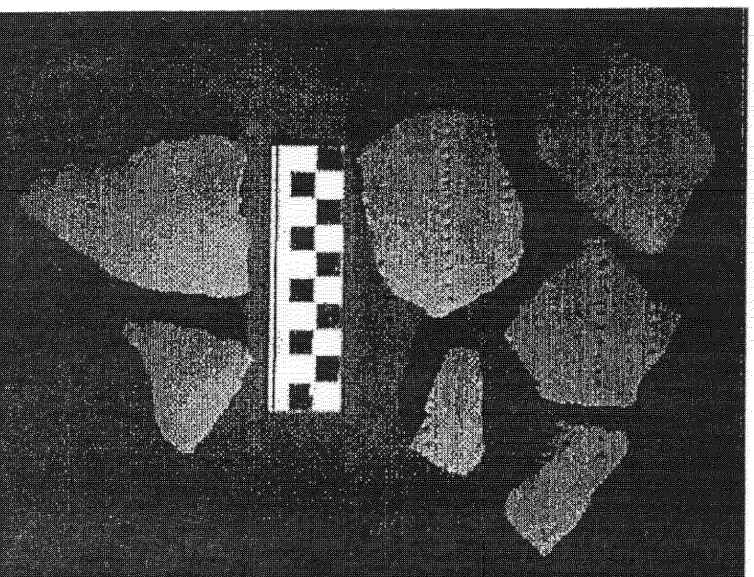
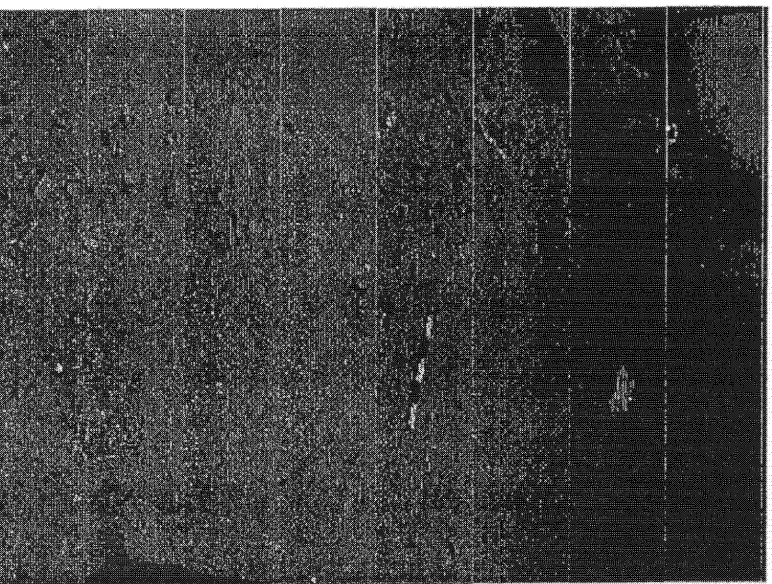


This site was located in the formal built-up area, which forms the most southern part of the area that was investigated. Several potsherds were recovered in the existing road.

In front of Houses numbered 1982, 1983 and 1984 a cluster of potsherds were recovered mostly on the side of the road where some erosion had taken place. Some were decorated in a modern style, and would be of recent origin. Some sherds were identified as belonging to the Moloko and possibly the Eiland tradition. In the yard of House No 1983 a grinding stone was photographed.



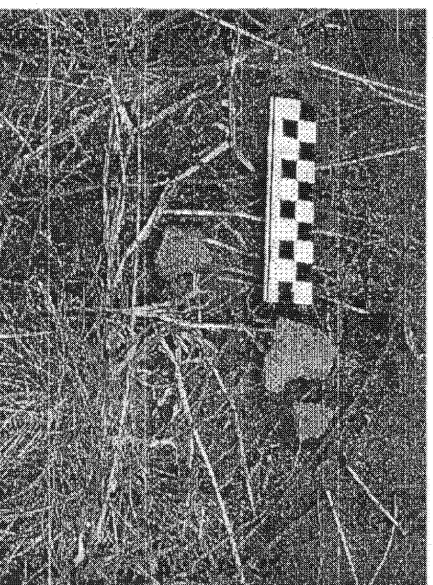
In the back yard of House No 1984 more decorated potsherds were recovered in association with a midden (ash heap). In the photograph below, the light grey ash is in the foreground, and the darker, charcoal coloured and slightly raised part of the midden can be seen directly behind it. The potsherds recovered from the midden, although prettily decorated, is only approximately 15 - 20 years old, and probably of Kone origin.



At the entrance gate of House No 1991, a cluster of undecorated potsherds, extending into the road, was discovered. It was neither deep nor embedded in the soil but seemed to have washed down the road, as it was found in loose soil. None were collected and no photographs were taken. A trench was in the process of being dug between Houses 1991 and 1990. The soil is grey in colour and therefore seemed similar to that of a midden. A test pit was dug but no cultural remains were recovered.

Site 2

S23°17'05.2" E29°08'34.4"



This is an isolated potsherd find, but as this was the only other artefactual material in the entire area other than Site 1, it was decided to take a GPS reading. These undecorated sherds were recovered from the grass veld next to a road. It was not collected but photographed. No other archaeological features or artefactual material were identified.

EVALUATION

The most important archaeological material found in the whole area is Site 1, in particular the grinding stone and the Eiland and Moloko polshers that were recovered in the road in front of House No's 1982, 1983 and 1984.

Background

The southern African Iron Age began around AD 200 when people with knowledge of iron smelting moved into Botswana, the Northern Province, Mozambique and the eastern coastal regions of South Africa. The archaeological name, *Iron Age*, derives from the fact that these new people with their knowledge of metallurgy made metal tools and weapons.

The Iron Age can be divided into three phases, namely:

Early Iron Age (EIA) AD 200 - 1000

Middle Iron Age (MIA) AD 1000 - 1500

Late Iron Age (LIA) AD 1500 - colonial times

A certain type of pottery, which belonged to a single stylistical tradition, was found in association with iron and copper production and farming in the largest parts of East and southern Africa. As it was the first signs of metal production in the entire area, it was called the Early Iron Age.

Settlements with distinctive Early Iron Age pottery have been found at sites all over the Bushveld areas into which the early farmers first moved. Pottery is the most important artefact for identifying Iron Age groups. Iron Age pottery from different regions and different periods are decorated in different ways. This shows that the movement of Iron Age farmers into southern Africa did not occur at only one time, or involve only one group. By studying pottery, archaeologists are also able to demonstrate that some people remained in an area over a period of time during which their style of pottery changed and therefore divide individual groups chronologically into successive phases.

Eiland assemblage

The Eiland assemblage of ceramics have been dated between the ninth and twelfth centuries. Some deposits occur in e.g. Eiland in the eastern Northern Province Lowveld, Tavhatshena and Begwa in the Southpansberg, Silver Leaves in the eastern Northern Province near Tzaneen, Rooiberg in the western Northern Province and Ficus in the central Northern Province in the Makapan valley.

Moloko assemblage

Moloko ceramics dates to the fourteenth century in the Northern Province, the fifteenth century in the Northwest Province and the fifteenth century on the southern Highveld (southern Gauteng and northeastern Free State) where it is associated with stone-walled settlements. Moloko tradition ceramics are commonly considered to have been made by the ancestors of the Sotho-Tswana people because modern Pedi, South Sotho and Kgatla pottery can be derived from it.

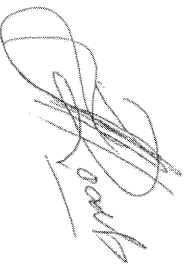
RECOMMENDATIONS

A Phase 2 Archaeological Impact Assessment is not recommended.

The most important site is located in an area that had already undergone development. Unfortunately scientific information was lost because no archaeological impact assessment had been undertaken. Caution should nevertheless be taken should any graves, middens or other cultural remains (which at this stage is unnoticeable on the surface) be encountered during building operations, and the archaeologist should be notified immediately. In this regard please see Addendum 2, in particular paragraphs 12(2A) (e) and (f), and Addendum 3 (Iron Age/Agriculturist).

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Hester Roodt

March 30, 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 2 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. 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

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| <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 Howesons 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. |
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Iron Age / Agricuturist

- 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 rathmaking, circumcission, 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;
- figure 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.

