

# **The Archaeological Survey Of The Richards Bay Minerals**

**Mining Lease: August 2004**

**For Richards Bay Minerals**

**&**

**Amafa aKwaZulu-Natali**

**Date: 1 September 2004**

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**Umlando: Archaeological Tourism and Resource Management**

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## RBM August Survey

The September archaeological survey consisted of three projects.

1. Visit the AMS area where part of a human cranium was found on the conveyor belt: the site is AMS2.
2. Undertake the monthly survey
3. Excavate a human burial from MPA33

### AMS2

Umlando was informed on the 27 August 2004 of a possible human cranium that was discovered at the Ascent Mining Services (AMS) area. This is a dry mining area, north of Mining Pond E. Umlando was requested to write a report regarding the age of the skeleton, as this has implications for reburial. Part of a human cranium was found on the conveyor belt and we were requested to locate the rest of the remains.

The remains consist of the upper part of a human cranium: from the orbit sockets to the top of the cranium, i.e. less than a quarter of the cranium. No further human remains had been observed by the time of the site visit. Umlando and RBM personnel visited the dune above the AMS operations in order to locate the rest of the burial. No human burial was observed. It appears that the rest of the skeletal remains had already collapsed with the dune during mining.

Several artefacts were observed on the surface of the site (AMS2). These include pottery sherds, one large piece of slag, *Perna perna* fragments, and grinding stone fragments. No decorated pieces of pottery were observed, thus making it difficult to establish a more precise date for the site.

The cranial fragment is relatively well preserved suggesting that it has not been in the ground for a long time. The large piece of slag suggests that the site may be older. The more recent sites, especially those of the last 200 years, tend to have small pieces of slag and in low quantities. One sherd had a brown burnish, and another sherd had a red burnish. These tend to be associated with older sites.

It is not possible to associate a specific linguistic/cultural group to the skeleton without the occurrence of decorated pottery and/or radiocarbon dating. The site, and thus skeleton, would have a maximum age of  $\pm 400$  years, and a minimum age dating to the more recent past. That is, the skeleton may be associated with a Zulu or pre-Zulu culture<sup>1</sup>.

Appendix A notes the policy regarding human remains, and the agreement made with RBM, Amafa aKwaZulu-Natali (then Kwa-Zulu Natal Monuments Council), and the relevant Tribal Authorities. In this case, it is not possible to associate the skeleton conclusively to any specific group of people. Since the skeletal remains are very small, it has very little scientific and research value.

AMS2 was sampled and no further mitigation is required. The AMS staff working the conveyor belts should keep all bone remains (irrespective if they are human or not) as well as all decorated pottery, whilst in this area. These should be handed in to the ecology department.

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<sup>1</sup> Zulu-speaking people arrived in the area north of Richards Bay c. 1790AD

## September Archaeological Survey

### AMS1

AMS1 is located at the in the container area of AMS. The sherds are probably displaced from various sites, however they were noted for their occurrence. The sherds include comb-stamped Late Iron Age pottery, as well Early Iron Age pottery.

AMS1 was sampled and no further mitigation is required.

### MPE56

MPE56 is located on the second dune cordon from Lake Nhlabane. The site has been exposed, and damaged, by exploration drilling and bush clearance. The MPE56 consists of at least two shell middens, several pottery sherds, and faunal remains and an ochre nodule. The shell includes *Perna perna*, *Patella spp.* (limpets) and *Ostridaeae* (oyster). The faunal remains are from a large bovid and are well preserved. The pottery sherds are thin-walled and one has a red burnish. This suggests that it dates to the early to middle Late Iron Age.

MPE56 was sampled and no further mitigation is required.

### MPE57

This site is located two dune cordons behind MPE, and was exposed by one of the exploration tracks. The site is currently  $\pm 5$  cm below the surface of the track and extends beyond both sides of the track. MPE57 consists of at least one undisturbed shell midden: more of the site probably occurs in the vegetation adjacent to that rack. The midden appears to be well preserved and consists mostly of *Perna perna*. A few pottery sherds were observed near the midden. One of these sherds is part of a pot lid. The pottery appears to be Early Iron Age, or early Late Iron Age.

The lid fragment from MPE57 was sampled.

The site is of medium significance. Shell middens tend to preserve organic remains that otherwise decompose very fast in the dune environment. Furthermore, shell middens tend to occur behind houses, or in cattle byres, and thus a spatial component may exist. The site should have test-pit excavations to determine its full significance.

### MPC82

MPC72 is located on a slightly raised area near the top of a sand dune. It is near MPC81, however, there is a definite separation between the sites, i.e. there is a no continuation of MPC81 to MPC82. MPC82 consists of a single disturbed shell midden, and no other artefacts. The shell consists of *Perna perna* and *Ostridaeae*.

MPE56 was not sampled and no further mitigation is required.

### MPA33

MPA33 was previously recorded early this year. The site was noted for its occurrence of otoliths (fish ear bones) and marked for reinspection. The site was tentatively dates to the

Late Iron Age. The site was reinspected this month after it had been cleared of vegetation.

A few human cranial fragments were observed on the surface of the site. These remains are near the crest of the dune. Closer inspection revealed that parts of the cranium still occurred below the surface, and four finger bones were busy eroding from the surface.

We proceeded with the excavation of the skeleton in an attempt to determine if it was in tact or fragmented by bulldozer activity: as was the case for the cranium. We realised that most of the skeletal remains were *in situ*, although the skeleton had collapsed northwards and eastwards. The skeletal remains were relatively well preserved especially the larger bones. The skeleton would have been in a seated position. The left arm had been placed between the tibia-fibula and femur while the right arm was above the femur, possibly near the chest. Most of the cranium had been crushed and was  $\pm 30$  cm away from the rest of the skeleton, apart from the mandible that was inverted and above the chest. Very few rib bones were recovered. The skeleton is unusual in that it was facing eastwards, or sunrise. This is unusual since most of the RBM skeletons so far recovered have faced westwards (towards sunset).<sup>2</sup>

Unfortunately the wind picked up halfway through the excavation and started a mini-sandstorm (it was located on the crest of the dune that had been cleared of vegetation). The sand began filling the excavations faster than we could remove it and we thus were left with two options. First, stop the excavations and come back at a later stage. Second, excavate faster to recover as much as possible. The former was not viable, as my experience in the dunes has been that the skeleton would disappear underneath the sand movement. This has been the case in the past even after an area has been demarcated. We opted for the second option, which meant that detailed drawings were not possible, nor was it possible to photograph the history of the excavations. We did manage to photograph the initial phase of the excavation that showed the mandible and relative position of the forelimbs<sup>3</sup>

A general analysis of the skeleton can be made so far. The skeleton appears to be that of an adult male (all of the epiphysis and cranial sutures are formed, and the chin has a characteristic male appearance). The male was relatively tall (150cm – 180 cm). The bones do not show any initial signs of trauma and appear to be well formed. The teeth have been ground down, however this is the case for most of the skeletal remains in the dunes. The reason is probably due to the sand granules that would occur in the food from grinding stones and sand. A more detailed analysis would need to be undertaken by a physical anthropologist.

It is not possible to give a direct date for the skeleton. However, I believe that the skeleton dates to the Late Iron Age, rather than the Historical Period. While the pottery is, so far, undecorated, it is generally thin-walled. Other Late Iron Age sites occur near this site, and these may all be related.

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<sup>2</sup> This is only the second Iron Age skeleton, along the east coast, that I have excavated that has faced sunrise and not sunset.

<sup>3</sup> This is not ideal for skeletal excavations, however the severity of the wind and sand made it impossible to photograph, nor could we leave the excavations for a later date. The general area of the site was also to be burnt and we were concerned that this may affect the skeleton.

## **APPENDIX A**

### **POLICY FOR TREATMENT OF HUMAN REMAINS AT RICHARDS BAY MINERALS**

Umlando was requested to draw up a policy document for the treatment of human remains at RBM. The initial archaeological program at RBM had a general policy and procedure. This was agreed to by the relevant Tribal Authorities, RBM, Kwa-Zulu Natal Monuments Council and Gavin Anderson (then from the Natal Museum).

This policy was as follows:

1. Skeletons in the dunes may be excavated by an archaeologist
2. The site, and position of the skeleton, will be recorded by a GPS
3. The accession institute will curate the remains.
4. The skeletal remains may be analysed by a physical anthropologist.
5. If the skeletal remains date prior to the arrival of the Mbonambi and Mthiyane, then the accession institute shall continue to curate the remains.
6. If the skeletal remains date after the arrival of the Mbonambi and Mthiyane, then they would be temporarily curated at the accession institute. However, once the dune had been mined and then rehabilitated, the skeleton would be returned to its original burial place (hence the use of GPS). The appropriate rituals would then be observed.

I do not believe there is any reason to change this policy. However, a procedure needs to be established for future skeletal remains. This is also important since there is new legislation since the original agreement.

Human remains, and specifically old ones, are governed by the Human Tissues Act, the KZN Heritage Act, and the South African Heritage Resources Act. The latter two may claim human remains that are older than 60 years. The police MAY NOT claim such remains unless they have been given permission by the above agencies. If there is possible dispute regarding the age of the skeleton, then the burial needs to be visited by both a qualified archaeologist and a member of the SAPS. A good indicator for the age of a skeleton, in the dunes, is to note if any flesh exists. If there is flesh then the police can remove the remains. If no flesh occurs, then it is in all likelihood an archaeological skeleton.

The area needs to be immediately demarcated and designated a "no-go" area. That is no more earthmoving and/or bush clearance should be allowed within 10 m radius of the remains (I use 10m for convenience although a wider area may be claimed). We need to discuss what kind of demarcation may be used. For the time I think we could use the green for the ecology sign since people all know green markers mean a no go area. If a skeleton is found then the person who located the skeleton should go through the RBM chain of command until ending up at ecology, and thus at Rynhard Kok, who will in turn inform Umlando. Since we are only 1.5 hours drive away we can often be there at short notice.

Ethics: I am not sure about the law, but our professional association has ethics regarding the treatment of human remains. If any remains are visible from the surface they should be covered (with sand or netting), and not removed. If any remains have been removed, they need to be placed in a box, and stored in their own area (e.g. a cupboard). Human remains are not allowed to be photographed, displayed or treated in an undignified manner. All remains are to be treated with respect. It is traditional to enter a burial site without shoes, and by association, the excavation of human remains should be undertaken barefoot. However,

RBM safety regulations do not allow for this.

According to the Kwa-Zulu Natal Heritage Act of 1997, historical and archaeological skeletal remains need to go through a specific process. Amafa aKwaZulu-Natali is the government agency that deals with human remains. All ancestral claims to any human skeletal remains in Kwa-Zulu Natal need to be made via Amafa aKwaZulu-Natali. They are the curators of these remains until an agreement has been reached. This is important as local communities and developers, such as RBM, cannot automatically request skeletal remains to be returned.

**APPENDIX B  
SITE RECORD FORMS**

# ARCHAEOLOGICAL SITE RECORD FORM

## SITE CATEGORY:

Stone Age

Late Iron Age: Possible?

Early Iron Age: Possible?

Recorder's Site No.: MPC 82

Official Name:

Local Name:

Map Sheet: 2832CA KwaMbonambi

Map Reference:

GPS reading: S- 28 37' 14.2" E 32 17' 53.8"

Directions to site: Sketch or description.

From current location of MPC, on the cleared dune towards the sea/ sec

Site is located on a small raised area on the top of the dune.



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## SITE DESCRIPTION:

Type of Site: Open

Merits conservation: No

Threats: Yes

What threats: MPC Mining

## RECORDING:

Details of graphic record: N/A

Colour slides

Black & White photographs

Tracings

Re-drawings

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 491, Mkuze, 3965

Date: 30/08/04

Owner State

References:

Description of site and artefactual content.

The site consists of a large shell midden, not intact, but no other artefacts.

Shell = Perna Perna & Rock oyster.



# ARCHAEOLOGICAL SITE RECORD FORM

## SITE CATEGORY:

Stone Age

Early Iron Age; Possible?

Late Iron Age; Possible?

Historical Period:

Recorder's Site No.: MPE 57

Official Name:

Local Name:

Map Sheet: 2832CA KwaMbonambi

Map Reference:

GPS reading: S- 28 33' 45.5" E- 32 20' 46"

Directions to site: Sketch or description.



Continue with the track from MPE 56. The site is located in the road, approximately 200m after the hairpin turn.

## SITE DESCRIPTION:

Type of Site: Open

Merits conservation: Yes. Excavation of midden.

Threats: Yes

What threats: MPE Mining

## RECORDING:

Details of graphic record: N/A

Colour slides

Black & White photographs

Tracings

Re-drawings

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 491, Mkuze, 3965

Date: 30/08/04

Owner State

References:

Description of site and artefactual content.

The site consists of a single, intact shell midden. It is possible that it extends into the roadside vegetation.

Pottery: Appears more EIA than LIA, but is undecorated. 1x Lid. SAMPLED

Shell: Pema Pema

# ARCHAEOLOGICAL SITE RECORD FORM

## SITE CATEGORY:

Stone Age  
Early Iron Age: Yes  
Late Iron Age: Yes  
Historical Period:

Recorder's Site No.: AMS 1

Official Name:

Local Name:

Map Sheet: 2832CA KwaMbonambi

Map Reference:

GPS reading: S- 28 33' 58.6" E- 32 20' 20.2"

Directions to site: Sketch or description.



The site is located at the current car park of Ascent Mining Services.

## SITE DESCRIPTION:

Type of Site: Open

Merits conservation: No

Threats: Yes

What threats: Supplementary (dry) mining at Pond E.

## RECORDING:

Details of graphic record: N/A

Colour slides

Black & White photographs

Tracings

Re-drawings

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 491, Mkuze, 3965

Date: 30/08/04

Owner State

References:

Description of site and artefactual content.

The site is possibly just run-off from the recorded site at the top of the dune that is being mined.

Pottery: SAMPLED. Combstamped/shell impressed EIA + undecorated, thin-walled LIA. SAMPLED.

# ARCHAEOLOGICAL SITE RECORD FORM

## SITE CATEGORY:

Stone Age  
Early Iron Age:  
Late Iron Age: Yes  
Historical Period:

Recorder's Site No.: MPE 56

Official Name:

Local Name:

Map Sheet: 2832CA KwaMbonambi

Map Reference:

GPS reading: S- 28 33' 35.6" E- 32 20' 59.3"

Directions to site: Sketch or description.



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The site is located on the second dune cordon from Lake Nhlabane, seawards. It is on top of a dune, in the road, as well as in the roadside vegetation.

## SITE DESCRIPTION:

Type of Site: Open

Merits conservation: No. Due to extensive damage, the site is not worthwhile excavating.

Threats: Yes

What threats: MPE Mining

## RECORDING:

Details of graphic record: N/A

Colour slides

Black & White photographs

Tracings

Re-drawings

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 491, Mkuze, 3965

Date: 30/08/04

Owner State

References:

Description of site and artefactual content.

The site consists of various shell middens, heavily disturbed by bush clearance and road cutting.

Pottery: LIA thin-walled. SAMPLED

1x nodule of ochre

Bone fragments (possibly human), but no further evidence could be located.

Shell: Perna perna, Rock oyster + limpets.

# ARCHAEOLOGICAL SITE RECORD FORM

## SITE CATEGORY:

Stone Age  
Early Iron Age: Yes  
Late Iron Age: Yes  
Historical Period:

Recorder's Site No.: AMS2

Official Name:

Local Name:

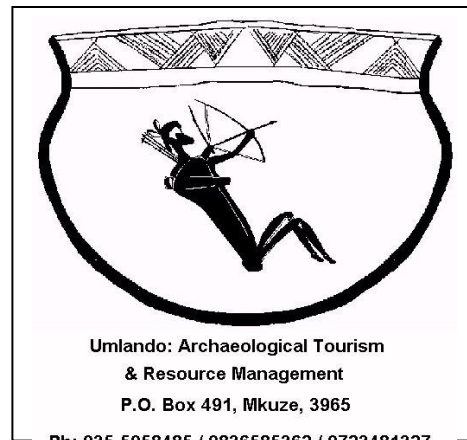
Map Sheet: 2832CA KwaMbonambi

Map Reference:

GPS reading? S 28° 33' 59.2" E32° 20' 25.7"

Directions to site: Sketch or description.

Site is on the first dune cordon from Lake Nhlabane. Site occurs over two dune crests and a flat area between each crest.



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## SITE DESCRIPTION:

Type of Site: Open  
Merits conservation: no  
Threats: Yes  
What threats: RBM mining

## RECORDING:

Details of graphic record: N/A

Colour slides

Black & White photographs

Tracings

Re-drawings

Recorder/Informant: Name: Gavin and Louise Anderson

Address: PO Box 491, Mkuze, 3965

Date: 30/8/04

Owner State

References:

Description of site and artefactual content.

Artefacts are dispersed by bulldozer activity. Pottery is undecorated and a few diagnostic sherds were sampled. Shell is *Perna perna* and scattered across the area – no definite midden occurs. A few broken grinding stones were observed. One large ( $\pm 10$ cm diameter) piece of slag at base of dune. One fragment of human cranium was recovered from the conveyor belt below the site. No other human remains have been observed or reported. These remains probably slumped with the rest of the dune during mining operations.