

# HERITAGE IMPACT ASSESSMENT OF A PORTION OF THE FARM PIENAARS POORT OWNED BY NATIONAL PORT AUTHORITY (NPA), SALDANHA BAY

Prepared for

**Philip Rosenthal, Environmental Engineer**

May 2003



Prepared by

Tim Hart

**Archaeology Contracts Office**

Department of Archaeology  
University of Cape Town  
Private Bag  
Rondebosch  
7701

Phone (021) 650 2357

Fax (021) 650 2352

Cell 073 1418618

Email [tjg@age.ac.za](mailto:tjg@age.ac.za)

## **EXECUTIVE SUMMARY**

The Archaeology Contracts Office of the University of Cape Town was appointed to assess heritage impacts with respect to development of new access roads and associated services; employees' care and recreation facility and new NPA administration building for the Port of Saldanha. This study revealed that:

- The land consists of open space with no evidence of any historic structures or sites protected by the National Heritage Resources Act 25 of 1999.
- Two highly ephemeral Late Stone Age sites were located. These are not considered significant enough to warrant any form of mitigation.
- There is evidence of marine transgression throughout the site, especially in the quarry and along the shoreline calcrete cliff. Palaeontological material in the form of fragments of fossil bone and a dense shell lens were noted in the quarry, which will be impacted by development. This is considered to be significant and needs to be sampled and described prior to development of the site.

## CONTENTS

1	Introduction.....	4
2	Description of the site .....	4
2.1	Background .....	4
2.1.1	Palaeontology.....	4
2.1.2	Pre-colonial archaeology.....	5
2.1.3	Colonial period .....	5
3	Method.....	6
3.1	Restrictions.....	6
4	Findings .....	6
4.1	Palaeontological material .....	6
4.2	Archaeological material .....	7
4.3	Mitigation .....	7
4.4	Human skeletal remains .....	7
4.5	Cultural landscape.....	7
5	Legislative issues.....	8
6	Conclusion.....	8
7	References .....	8

# 1 Introduction

The Archaeology Contracts Office of the University of Cape Town was appointed by Philip Rosenthal (Environmental Engineer) to undertake the heritage component of an Environmental Impact Assessment of portions of land (197/9 and 197/12 Pienaars Poort) situated on the Northern shore of Saldanha Bay (see Figure 1). The National Port Authority (NPA) who own the land, wish to utilize some of the area to build an administration facility for their use.

The Archaeology Contracts Office undertook to visit the affected area and assess the significance of any heritage sites found in the area as well as the general impacts associated with the proposed site of the building and the construction of a perimeter fence around the property.

## 2 Description of the site

The land that we were asked to assess amounts to about 50 hectares of open veld immediately back from the northern shore of the bay. The “Blue Water Bay” holiday resort lies immediately to the west of the site while the temporary administration buildings of NPA lie on erven to the east. In effect, this portion of land represents the last relatively undeveloped area between the Town of Saldanha Bay and the ore terminal. The southern portion of the site is bounded by a quiet beach, and in places a low wave cut calcrete cliff. Apart from a single low hill the landscape is flat and fairly featureless, vegetated by sandveld plants and a few alien bushes. The most prominent man-made feature on the site is a large calcrete quarry (approx 1 hectare) and a loading ramp. Several informal dirt tracks traverse the site and give access to ad hoc “picnic” areas on the beachfront. Casual braai places and discarded litter indicate that access is unregulated. Illegal dumping of garden waste and building rubble is also evident.

The proponent has indicated that the site of the quarry has been identified as the favoured development site for the administration block, which will have a basement area. The presence of the quarry would limit the amount of bulk excavation required to achieve this. Beside access roads, security fence, administration block and parking area no further development of the site is planned. In effect development activities will be limited to a very small fraction of the study area.

### 2.1 Background

#### 2.1.1 Palaeontology

The geology of Langebaan and the circumstances that lead to the formation of the fossil bearing deposits, are largely due to changes in sea level and the effects this had on the proto-Berg River and Langebaan Lagoon. Successive alternating patterns of marine transgression and regression have resulted in the accumulation of a sequence of water-borne sediments dating from the early Miocene (25ma) through to more recent quaternary sands. The most important portion of the sequence for both economic and scientific reasons is the Varswater Formation, which is highly fossiliferous and contains the greatest concentration of phosphate ore (Tankard 1975, Hendey 1976). It is in these circumstances that a small portion of the world’s largest Pliocene mammalian fossil deposits are conserved

at Langebaanweg Fossil Park. Other fossil remains exist at important sites at Hopefield, Hoedjiespunt, and have also been observed throughout the calcrete deposits, which are very common in this area. Remains of extinct shortneck giraffe (*Sivatherium*) have been observed in deep excavations at the nearby Saldanha Steel site (Roberts pers comm.). Closer by, between Club Mykonos and the ore terminal Pleistocene archaeological and fossil remains have been observed eroding from the wave-cut calcrete bank into the intertidal zone (Klein, R.G & Avery, G pers comm.).

The geology of the study area reflects successions of calcretes, aeolian sands and raised beaches rich in fossil shell lenses that reflect Pleistocene variations in sea level and the effect this has had on the shores of the lagoon. Beds of extinct fossil molluscs (*Venerupis sp* and *Crepidula sp*) have been exposed in the sides of the quarry and are copiously manifested in the wave-cut calcrete bank along the south shoreline. It is highly likely that this material exists in buried ancient shorelines throughout the study area.

### **2.1.2 Pre-colonial archaeology**

The first major excavations that took place along the eastern shore of the Langebaan Lagoon were conducted in 1988 when the Archaeology Contracts Office was commissioned to sample archaeological material that was to be impacted by the development of the Club Mykonos resort. Three sites were excavated, (Parkington, Poggenpoel and Hart 1988) providing enough information and radio carbon dates to construct a preliminary local sequence of Late Stone Age. The oldest site excavated was LP 16 situated at what is known as Leentjiesklip 4. This small buried encampment demonstrated that occupation of area dated back to over 3500 years ago (shell date  $4150 \pm 60$  BP (Pta -5036)). Site LP 18 was rather more recent dating to mainly the pottery period of the Late Stone Age after 2000 years ago. The youngest layers of this particular site dated to within the last 200 years showing that indigenous people were active in this area until historic times.

In 1991 The Archaeology Contracts Office was once again commissioned to excavate archaeological material on Leentjiesklip 3. A further series of excavations was completed in 1998 at Paradise Beach and Leentjiesklip 2 with the excavation of sites LP 41, 42, 28, 29 (Paradise Beach) and sites LP 1, 2. In general, the pattern of occupation of the lagoon area involves people locating themselves at the coast where they ate large quantities of marine food including seals and fish. Furthermore there is good evidence to suggest that they may have been scheduling their coastal visits to collect low tide species of limpets and perlemoen, which were found on most sites. Unlike many coastal sites that have been studied in the Western Cape, terrestrial foods were important with tortoises, birds, and small antelope playing an important role in the diet. The general prevalence of sites that do not contain ceramics indicating that the people who were living in the area, may well have been San hunter gatherers.

### **2.1.3 Colonial period**

The broader colonial period archaeology of the area has not been researched in detail apart from excavations conducted by Schrire (1993) at the site Oudepost 1 – an early VOC outpost. No historical archaeology has taken place in Langebaan or Saldanha Bay. The history of the study area is not well understood, the nearest original farm building being that at *Blouwaterbaai* that has since been developed as a holiday resort. The study area contains

no evidence of any historic material suggesting that it has always been grazing land until it passed into the ownership of Mossgas, and thereafter NPA.

### 3 Method

The site was searched on foot by two archaeologists over a period of a single day for physical evidence of heritage material. Any material found was plotted using a Garmin GPS 3 Plus set on map datum WGS 84, and material described and evaluated in terms of its significance. Archival and deeds office research was not undertaken unless historical material was found on site or necessitated from any socio-cultural issues emerging from the EIA. The areas surveyed was the land (portion 197/9) that are to be affected by the new access road and building (Figure1) as well as the alignment of the new perimeter fence around NPA property (197/12 ).

#### 3.1 Restrictions

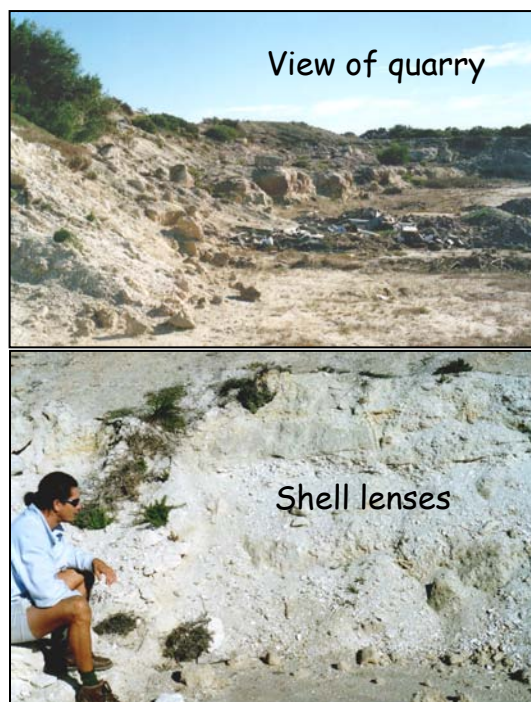
Few restrictions were encountered. The site was easily accessible and surface visibility was good. Palaeontological material was only visible in places where there was natural erosion or quarrying into the underlying calcretes. No trial excavations were undertaken as part of this assessment.

### 4 Findings

#### 4.1 Palaeontological material

Site NPA 1 (S32.99451° E17.97731°)  
Fossil marine shell deposits (*Crepidula* sp and *Venerupis* sp) are visible in the disused quarry. They take the form of at least 3 separate lenses most easily visible on the west side of the excavation. Occasional fragments of fossil mammal bone observed in the quarry floor indicate that the calcretes above or below the shell beds are potentially fossiliferous. No fossil bone was observed *in situ*.

Fossil marine shell beds were also observed along the wave-cut calcrete embankments along the beach indicating that this material is prolific in the study area marking the position of an ancient Pleistocene shoreline several meters higher than that of today.



## **4.2 Archaeological material**

Two Late Stone Age archaeological sites were located. Both of these are extremely ephemeral and not worthy of the most basic mitigation.

Site NPA 2 (S32.99515° E17.98081°)

A few broken limpets (*Patella granatina*) scattered among some dune hummocks close to the beach. Also observed were a silcrete flake, a quartz chunk and a tortoise bone.

Site NPA 3 (S32.99516° E17.98220°)

A few broken limpets (*Patella granatina*) close to the beach. Also observed were a quartz chunk and a fragment of ostrich egg.

## **4.3 Mitigation**

Site NPA1

The placing of the development in the quarry is the best possible solution to mitigation of damage to the fossil shell beds embedded in the calcrete. Since this area has already been disrupted, new impacts to the material will be greatly reduced. The fossil beds are extensive, and mainly below the ground. The development will only impact a very small proportion of this resource.

- A palaeontologist/marine biologist should be appointed to sample and analyse the exposed section in the quarry ahead of development activities. Iziko Museum (Dr Roger Smith) or Council for Geoscience (Dr David Roberts) or ACO (Dr A Jerrardino) may be able to assist in this regard.

Sites NPA2 and NPA3

These sites are so ephemeral that no archaeological sampling is necessary before development activities commence.

## **4.4 Human skeletal remains**

This material can be found anywhere, and is protected by law. If it is encountered during development activities, the find area should be left as undisturbed as possible and reported immediately to an archaeologist, Heritage Western Cape, SAHRA and South African Police Services.

- Do not move or collect any bones until the remains are removed under a SAHRA issued permit.

## **4.5 Cultural landscape**

There is no evidence to suggest that this piece of ground was of particular importance in colonial or pre-colonial times. Its featureless character means that it was exposed to prevailing winds and not particularly suitable for habitation. It is however the last portion of

the north coast of the bay that remains relatively undeveloped. It is expected that it will largely retain this quality as the development plan involves a very limited area.

## 5 Legislative issues

The proponent will have to apply to Heritage Western Cape for a permit to destroy or damage both palaeontological site NP1 and archaeological site NP2 – 3. It is recommended that such a permit be issued (under section 38) on condition that the palaeontological material is sampled.

## 6 Conclusion

The planned development will have few impacts in terms of physical heritage, however the EIA must take cognizance of any issues of intangible heritage, issues of historical significance that may emerge from the public participation process.

## 7 References

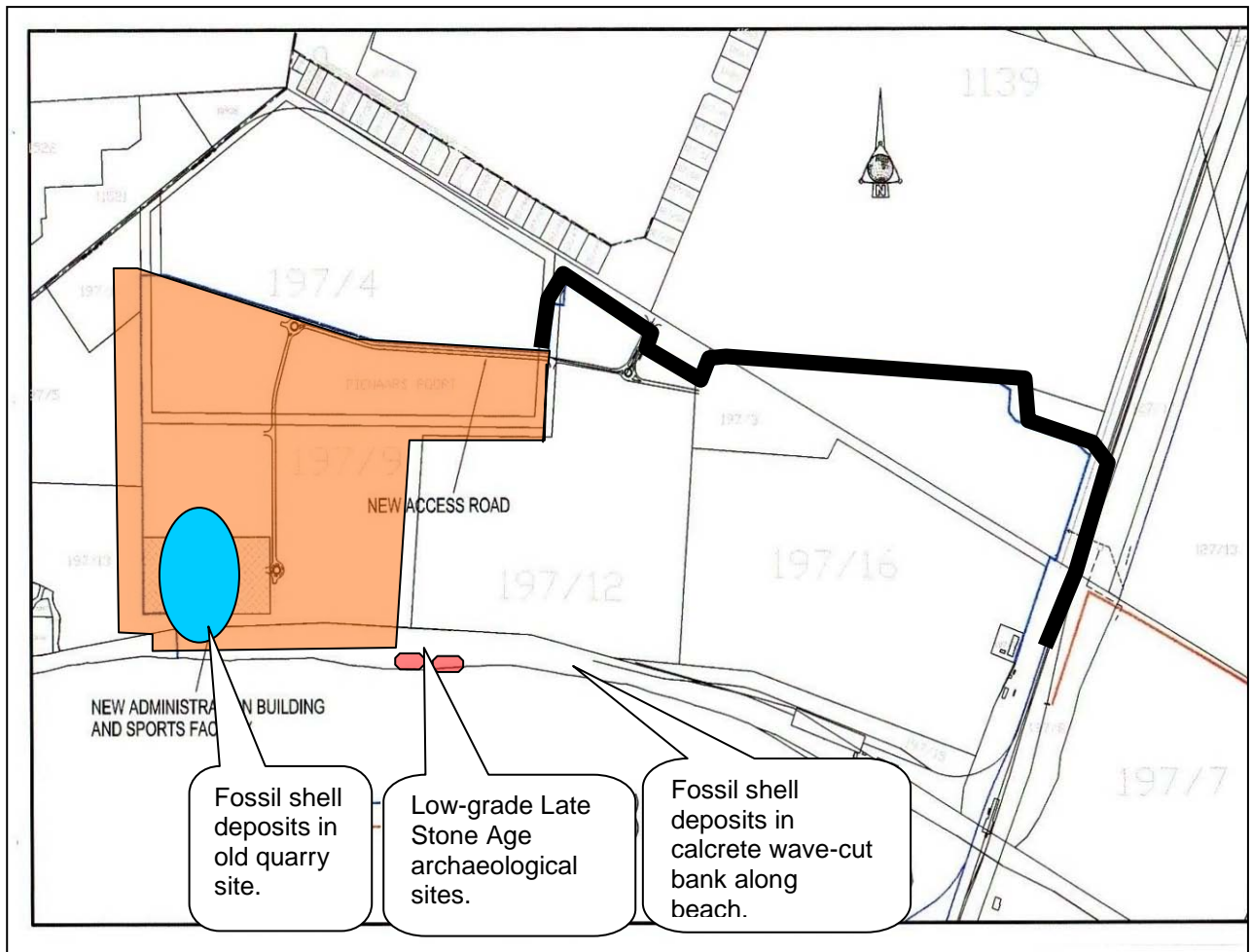
- Hart, T.J.G. & Jerardino, A.M. 1998. Phase 2 archaeological sampling of Late Stone Age archaeological sites at Paradise Beach, Club Mykonos. Unpublished report prepared for CML Developers. ACO. UCT.
- Hart, T.J. G and Gribble J. 1998. Phase 2 archaeological sampling of Late Stone Age middens, Leentjiesklip 2, Langebaan. Unpublished report prepared for Langebaan Waterfront Pty Ltd. ACO. UCT.
- Hendey Q.B. 1982 Langebaanweg, a record of past life. Cape Town: South African Museum.
- Parkington, J.E. and Poggenpoel, C.E. 1987 Phase 1 archaeological assessment of Club Mykonos, Langebaan. Unpublished report prepared for Club Mykonos, Langebaan.
- Parkington J.E., Poggenpoel, C.E. and Hart, T.J.G 1988, Report on the first phase of excavations at Lynch Point, Langebaan. Unpublished report prepared for Club Mykonos, Langebaan.
- Schire, C., Cruz-Uribe, K. & Klose, J. 1993. The site history of the historical site at Oudepost I, Cape. *South African Archaeological Society Goodwin Series* 7:21-32.
- Tankard, A.J. 1976. Pleistocene history and coastal morphology of the Ysterfontein – Elands Bay area, Cape Province. *Annals of the South African Museum.* 69: 73-119.



**Table 1** Impacts to heritage material

<b>Feature</b>	<b>Extent</b>	<b>Duration</b>	<b>Intensity</b>	<b>Probability</b>
Site NP1	Local	Permanent	Low	High
Site NP 2	Local	Permanent	Low	Low
Site NP 3	Local	Permanent	Low	Low

<b>Feature</b>	<b>Significance</b>	<b>Without mitigation</b>	<b>With mitigation</b>	<b>Confidence</b>
NP1	Low	Negative - low	Positive - high	High
NP2	Low	Neutral	Neutral	High
NP3	Low	Neutral	Neutral	High



The study area is located on the northern shore of Saldanha Bay just west of the ore terminal.

The dark rectangle (left) indicates an approximate detail of the map presented (above).

The surveyed area consists of the *erven* that are coloured orange and also includes the perimeter fence line indicated on the map above coloured dense black.

Site map provided by NPA  
 Locality map after *Illustrated Atlas of Southern Africa*. 1994. Cape Town: Readers Digest.

**Figure 1**