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**ARCHAEOLOGICAL TEST EXCAVATIONS  
ERF 1679, PEARLY BEACH  
SOUTHERN CAPE**

Report prepared for

**THE SOUTH AFRICAN HERITAGE RESOURCES AGENCY**

By

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2002**

## 1. Introduction

### 1.1 Background and brief

Archaeological test and shovel excavations were undertaken at Erf 1679, Pearly Beach, in order to assess the significance of archaeological deposits located during the course of a Phase 1 Archaeological Impact Assessment (AIA) in February 2000 (Kaplan 2000a).

The proposed development of Erf 1679 envisages 10 residential units.

In August 2002, the South African Heritage Resources Agency (SAHRA) ordered that archaeological test/shovel excavations be undertaken at Erf 1679, in order to assess the significance of the archaeological deposits.

SAHRA ordered that:

- a detailed description of the sites, including areas likely to be impacted by the proposed development, be supplied;
- site records should cover measurements of the size of the sites;
- the relative shell species within two, 2 x 1 m<sup>2</sup> grids on different parts of the site be quantified;
- the relative frequency of artefacts found on the surface of the sites be determined;
- in-situ measurements of the exterior diameter of ostrich eggshell beads, be determined;
- sketches or digital photographs of ceramic sherds, be supplied;
- limited shovel testing to establish the depth of the deposit and to check for buried lenses, be undertaken; and
- a collection of large limpets or mussels for radiocarbon dating be made

Following the fulfilment of the above requirements, SAHRA also noted, that if necessary, a site visit should be undertaken with an independent assessor at which:

- the significance of the sites is reassessed; and
- the issue of the impact of the bush clearing and construction work and of the increased habitation of the area is assessed

## 2. The site

Erf 1679 is located in Pearly Beach (Figure 1), on the southern Cape coast, about 200 km north of Cape Town.

The proposed development will cover a large portion of the site.

The property is well vegetated (Figures 2 & 3). Some disturbance on the site has taken place, most notably a road through the south-western corner of the property. A few small excavation pits occur in the north-western boundary of the site, alongside van Breda Road. Some dumping is also evident.

Ephemeral scatters of shellfish remains and a few cultural items were located in the north-western portion of the site during the course of the Phase 1 AIA (Kaplan 2000a).

Fragmented shellfish remains were also located in the south-eastern portion of the site, alongside a gravel track in the public open space (Kaplan 2002a).

## 3. The excavation

Sites Pearly Beach (PB 1) and PB 2 were recorded in February 2000 (Kaplan 2000a).

PB 3 was recorded in 2002.

Test and shovel excavations at PB 2 and PB 3 took place over four days, between the 19<sup>th</sup> and the 22<sup>nd</sup> of September, 2002.

No test/shovel testing at PB 1 was undertaken as these remains are extremely thin on the ground and have, since 2000, also been disturbed by small scale excavations. Also, two pits alongside van Breda Street close to PB 1 were inspected in 2000 for archaeological and cultural remains, and none were found (Kaplan 2000a).

Four, 2 x 1 m<sup>2</sup> squares were laid on different parts of each site. The excavated material in the first 3-5 cm of each square in PB 2 and PB 3 was sieved through a 1.5 mm wide mesh sieve and sorted for cultural remains on site. Surface shell from one, 1 x 1 m<sup>2</sup> on each site was bulk bagged and kept for possible research purposes. A full photographic record of the excavations was made. No section drawings were made as no natural stratigraphy occurs.

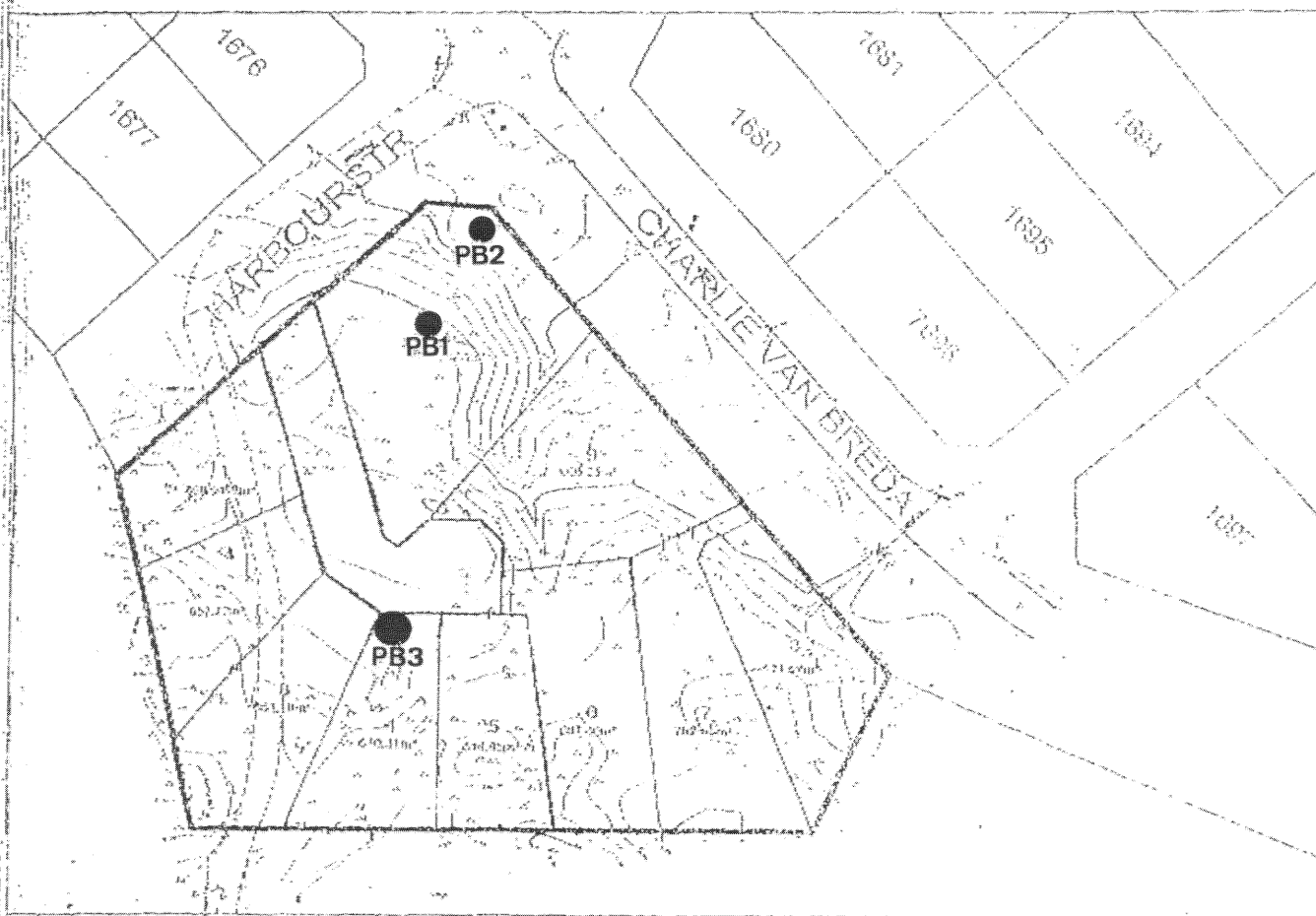
### PB 2

PB 2 was recorded in February 2000 (Kaplan 2000a). The site, measuring about 15 x 15 m in extent, is located in the north-western portion of the property, below a high, backward dune running alongside van Breda Street, and about 25 metres east of Harbour Road (Figure 4).

Ephemeral scatters of shellfish remains occur in three or four small patches on the surface of a wide flat area below the dune. The surface and surrounding area is well vegetated.

# PEARLY BEACH

## PROPOSED SUBDIVISION OF ERF 1679



SCALE 1:750

PEARLY BEACH ERF 1679	DATE: 1/1/2000
PROJECT NO: 1679/00	SCALE: 1:750


REGISTERED DRAWING	NO. 1679/00	ISSUED FOR CONTRACT NO. 1679/00	DATE: 1/1/2000
PROJECT NO. 1679/00	SCALE: 1:750	DRAWN BY: [Name]	
PROJECT NO. 1679/00		DATE: 1/1/2000	
PROJECT NO. 1679/00		DATE: 1/1/2000	
 <b>REGISTERED ENGINEER</b> CIVIL ENGINEER No. 1679/00			

Figure 1. Erf 1679, Pearly Beach. Study site and location of archaeological sites.

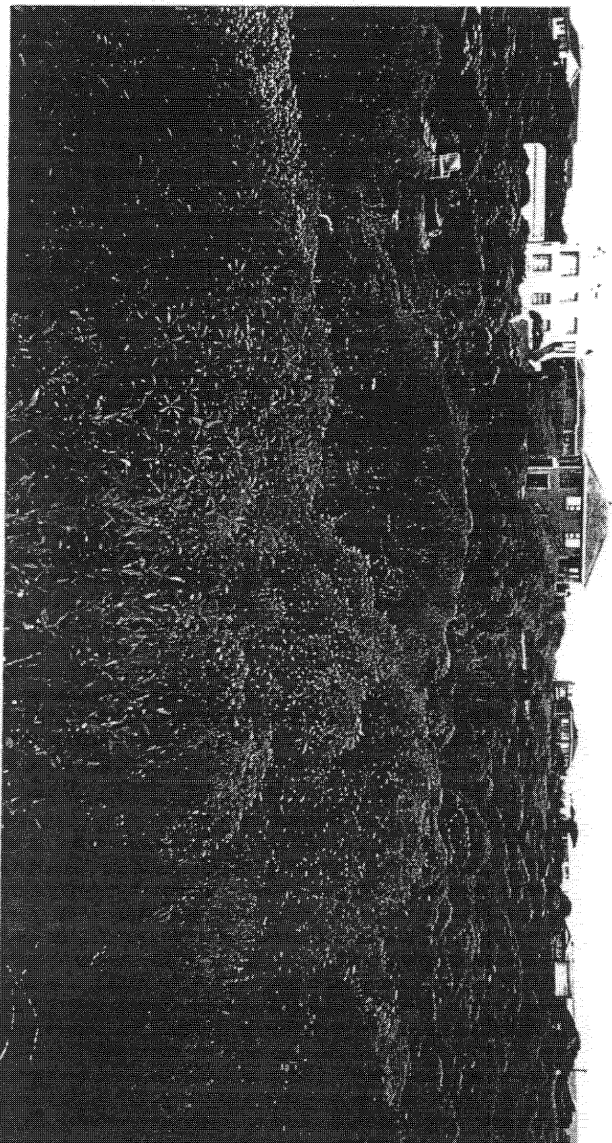


Figure 2. Etf 1679, Pearly Beach. The site looking north-west.



Figure 3. Etf 1679, Pearly Beach. The site looking south toward the sea.

No cultural remains such as ostrich eggshell bead, stone tools, or ceramics were present on the surface of the site.

Two, 2 x 1 m<sup>2</sup> grids (squares A 1 & A 2, and C 1 & C 2) were laid on different parts of the site. All surface shell from squares A 1 and C 1 was sieved and sorted on site. The shell contents from one bucket from each of square A 1 and C 1, were bagged for possible future research.

The surface deposits in A 1 and A 2 were excavated to a depth of about 4 cm. The deposits comprise a soft, loose, grey-coloured sandy soil, mixed with large amounts of leaves, twigs and humic material. Rootlets are numerous.

The surface shellfish remains are highly fragmented, with only a few large pieces of shellfish occurring. The shellfish remains in the surface deposits are dominated by *Turbo sarmaticus*, with much smaller amounts of perlemoen (*Haliotis midae*), Black mussel (*Choromytilus meridionalis*), *Patella oculus*, *Patella granatina*, and *Oxysteles*, occurring.

Below 4 cm in A 1, the deposit comprises soft, sterile, white dune sand. Fragments of perlemoen and a few whole *Patella granatina* were located in the deposits between 5 and 45 cm below the surface.

Shellfish densities increase below 45 cm, comprising a few large *Turbo sarmaticus*, a handful of *Patella granatina* and some *Burmupena* sp., and fragments of perlemoen, brown mussel (*perma pema*) and *Oxysteles*.

One quartzite chunk and one small piece of tortoise bone were recovered from these deposits.

Shellfish densities increase again slightly between 65 and 90 cm below the surface, with more whole limpets (mainly *Patella granatina*, and small amounts of *Patella longicosta*, *Patella oculus*, *Patella tabularis*, *Patella barbara* and *Patella argenvillei*), and fragments of black mussel, perlemoen and *Turbo sarmaticus*, occurring.

The shellfish in these deposits were collected, but the volumes are too small to allow for dating purposes. No shellfish remains/lenses are visible in the excavated sections.

Two rib bones (probably seal), one piece of tortoise bone, and two unidentifiable pieces of bone were found in these levels.

Two broken quartzite chunks, one manuport and one quartzite cobble flake were also found in these lower deposits.

Between 90 cm and 1.6 m below the surface, the deposit in A 1 comprises soft, white, sterile dune sand. A 50 cm quadrant was excavated to a depth of 1.7 m below the surface to test for more shell. None was located. The excavation was discontinued at 1.7m below the surface (Figure 5).

Significance of A 1 deposit: low

Suggested mitigation: no further work is required

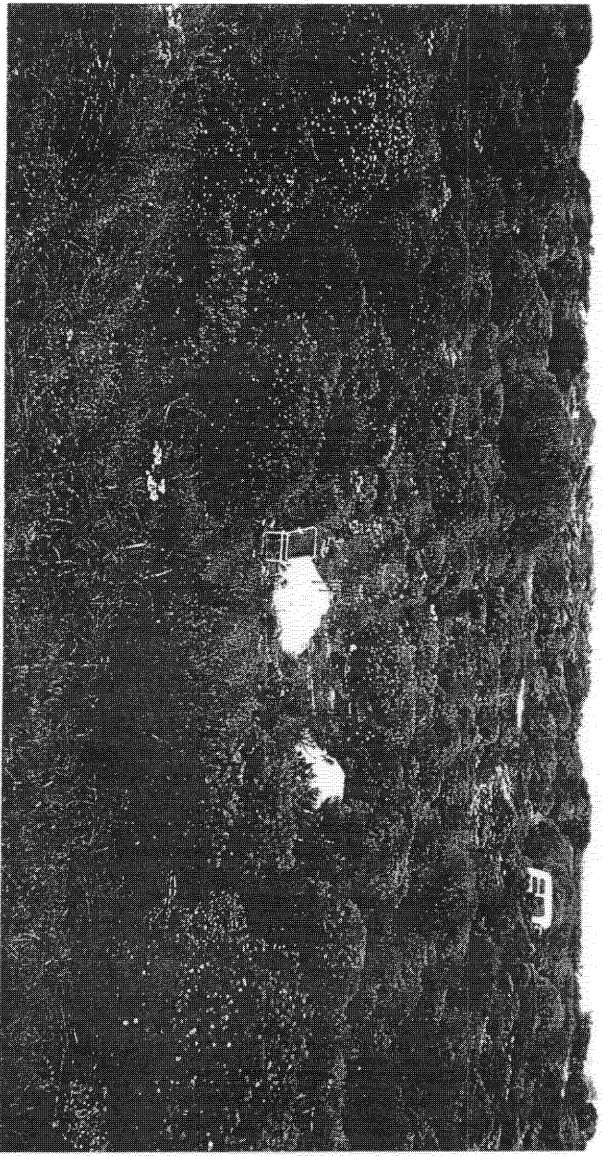


Figure 4. Etf 1679, Pearly Beach. PB 3.

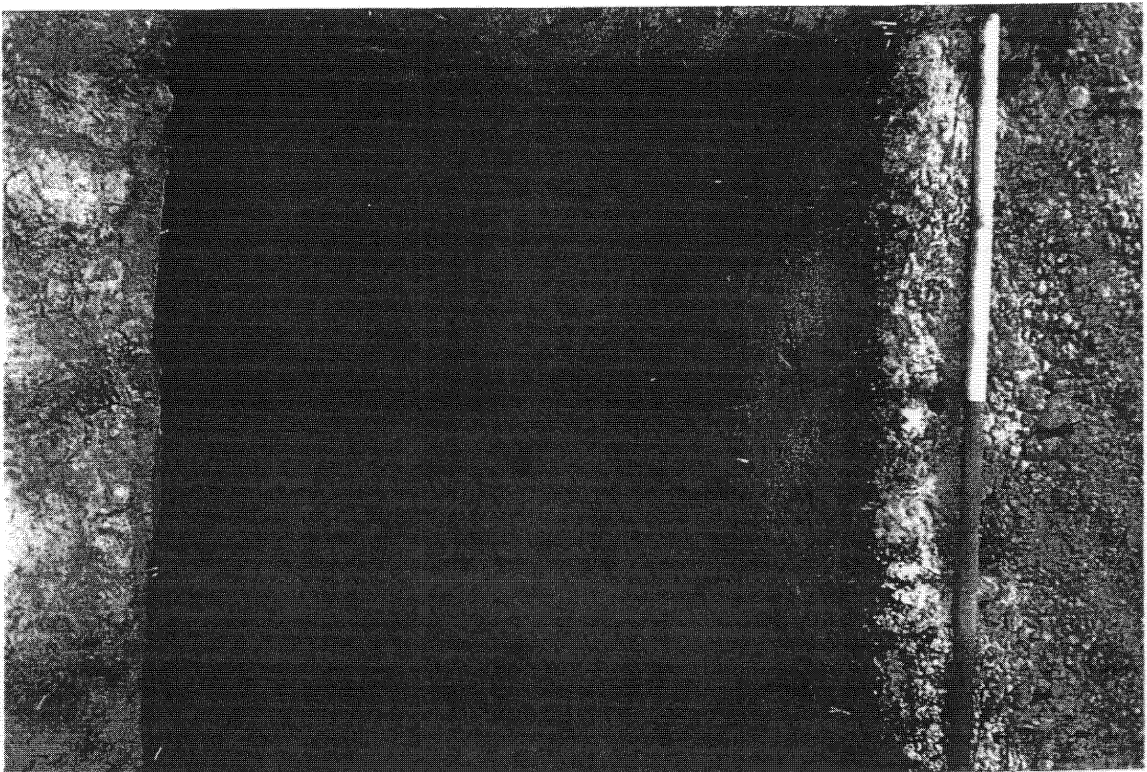


Figure 5. Etf 1679, Pearly Beach. PB 2, A 1; end of the excavation.



The surface deposits in squares C 1 and C 2 comprises a soft, loose, mottled grey-coloured sandy soil, mixed with large amounts of leaves, grass, twigs and humic material. Rootlets occur throughout the squares. These deposits were excavated onto a slightly more compact, white, sandy deposit, at a depth of about 4 cm below the surface.

Large *Turbo sarmaticus*, some whole *Burnupena* sp., and fragments of *perlemoen*, *Patella granatina*, *patella oculus* and *Patella argenvillei* dominate the shellfish remains in these surface deposits

A few fragments of *perlemoen* and *Oxysteie*, and three whole limpets (two *Patella granatina* and one *Patella barbara*), appear in the sandy dune deposits at between 25 and 30 cm below the surface in square C 2. One quartzite stone flake and one white mussel (*Donax serra*) were found in these deposits.

Shellfish volumes are too small to allow for collection for dating purposes.

Between 30 cm and 1.7 m below the surface, the deposit comprises soft, white, sterile dune sand. No shellfish remains/lenses are visible in the excavated sections.

Excavations were discontinued at 1.7 m below the surface (Figure 6). A 50 cm quadrant in C 2 was excavated to a depth of 1.9 m below the surface to test for more shell or cultural items. None were located.

Significance of deposit: low

Suggested mitigation: no further work is required

### **PB 3**

The site was recorded in 2002 (Figure 1). Measuring 8 m x about 2.5 m, PB 3 is located in a dune slack in the central portion of the property (Figure 7). Shellfish remains are thinly scattered in a few relatively large open patches, on a low, east-facing parallel dune. The surrounding dunes are well vegetated. Some disturbance has taken place in the northern tip of the scatter, where some fragmented shellfish remains lie scattered about. Three Later Stone Age (L<sub>SA</sub>) quartzite stone chunks, and one piece of ostrich eggshell occur on the surface of the whole site. No ostrich eggshell beads, or ceramic sherds were located.

Two, 2 x 1 m<sup>2</sup> grids (squares A 1, A 2 & C 1 and C 2) were laid on different parts of the site. All surface shell was sieved and sorted on site. The shell contents from one bucket from each of squares A 1 and C 1 were bagged for possible future research purposes.

The surface deposits in A 1 and A 2 comprise mainly grass, leaves and twigs, in a loose, grey-coloured sandy matrix. Shellfish densities are relatively higher in these immediate surface deposits (when compared to PB 2), dominated mainly by a few large *Turbo sarmaticus*, *perlemoen*, *Burnupena* sp., fragments of *Patella granatina*, *Patella granularis*, *Patella tabularis*, *Patella oculus* and *Patella barbara*, as well as fragments of *Black mussel* and *Oxysteie*.

One small piece of ostrich eggshell, one large quartzite chunk and one large quartzite cobble core, were found in the surface deposits.

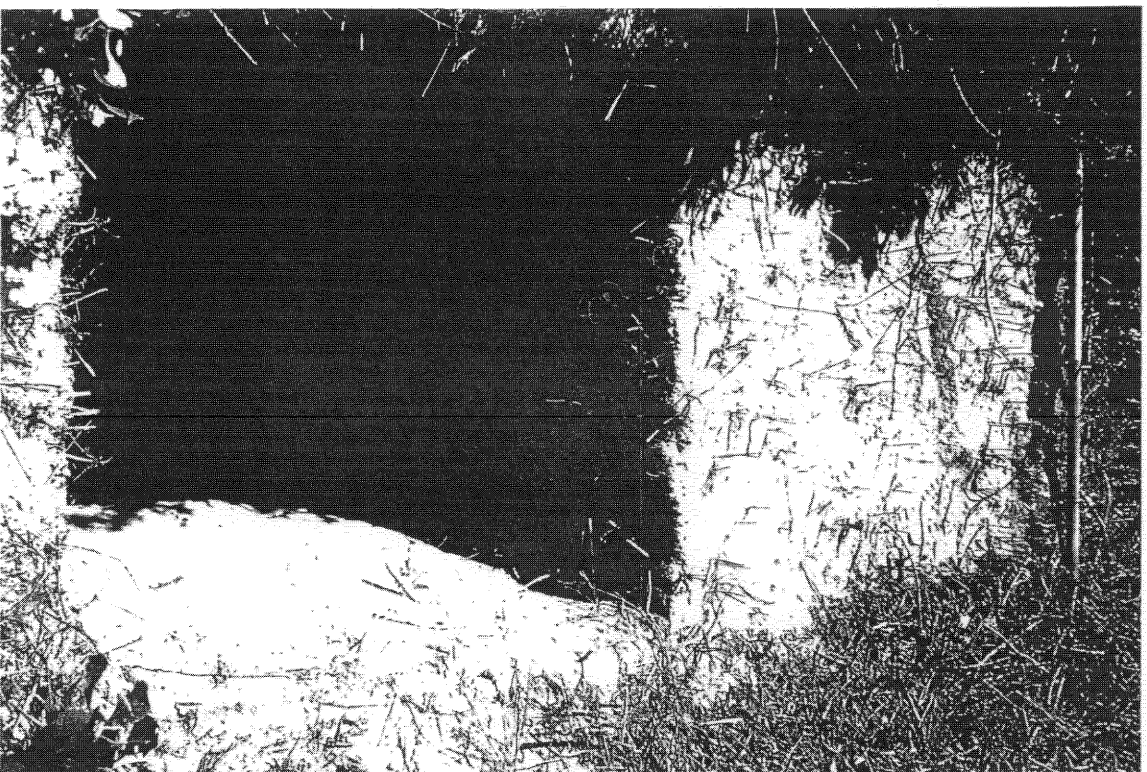


Figure 6. Erf 1679, Pearly Beach. PB 2, C 1; end of the excavation.

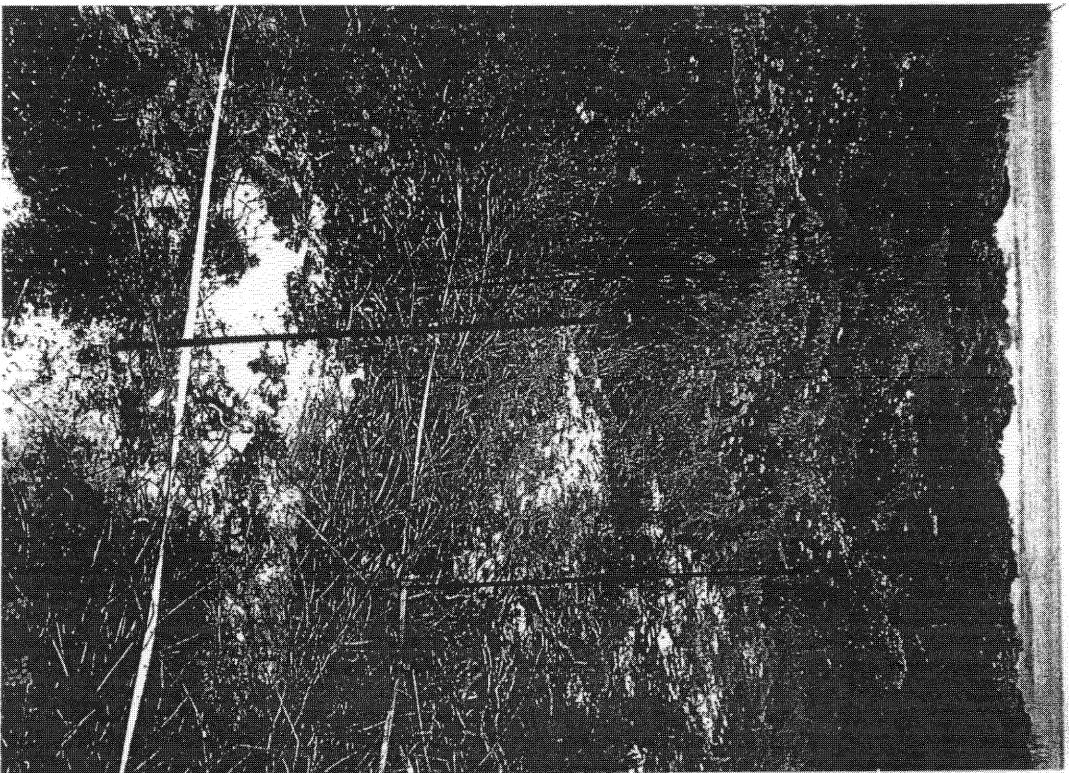


Figure 7. Eft 1679, Pearly Beach. PB 3.

A slightly more compact, soft, white dune sand underlies the surface deposits in A 1. The densities of shellfish decrease dramatically in these sandy, almost sterile, deposits.

No cultural items were located in these sandy deposits.

Some occasional large whole and partially complete *Turbo sarmaticus*, a few small pieces of *perlemoen*, and a few *Burnupena* sp., occur at about 1.3 m below the surface in square A 1.

Two large *Turbo sarmaticus* and two limpets (*Patella granatina*) occur at about 1.5 m below the surface. Excavations were discontinued at a depth of 1.7 m below the surface. A 25 cm quadrant in A 1 was shovel tested to a depth of 1.9 m (Figure 8). The deposit comprises white beach sand. No shellfish or cultural remains were noted.

No shellfish remains/lenses are visible in the excavated sections.

Shellfish volumes are too small to allow for collection for dating purposes.

In squares C 1 and C 2, the surface deposits were scraped to a depth of between 3 and 5 cm below the surface. These deposits comprise mainly leaves, twigs and rootlets in a soft, loose, grey-coloured sandy matrix. Shellfish densities are slightly higher than those in A 1 and A 2. No cultural items were found in these surface deposits.

Some whole and large fragments of *Turbo sarmaticus*, *perlemoen*, *Burnupena* sp., and fragments of limpets (*Patella granatina*, *Patella oculus* and possibly *Patella barbara*) dominate the shellfish remains in the C 1 surface deposits.

Between 5 and 80 cm below the surface, the deposit comprises white, almost sterile, beach/dune sand. A few large whole and incomplete *Turbo sarmaticus*, a few fragments of *Patella granatina*, and one quartzite stone flake were located at about 50 cm below the surface.

Between 80 and 120 cm below the surface, a few more incomplete *Turbo sarmaticus* occur in the sandy deposits, as well as a few whole limpet (*Patella granatina*). One large seal bone, and one chunk/core were also found in these levels. Some rodent activity is also present.

A few more pieces of shell (three *Turbo sarmaticus*, one *Patella granatina* and two *perlemoen*), and one quartzite cobble were found at 1.5 m below the surface.

Between 1.5 and 1.7 m below the surface, the deposit in C 1 comprise sterile, white beach/dune sand. A 25 cm quadrant was excavated to a depth of 1.9 m. No shellfish was noted in the quadrant. Excavations were discontinued at 1.9 m below the surface (Figures 9 ).

Significance of deposit: low

Suggested mitigation: no further work is required

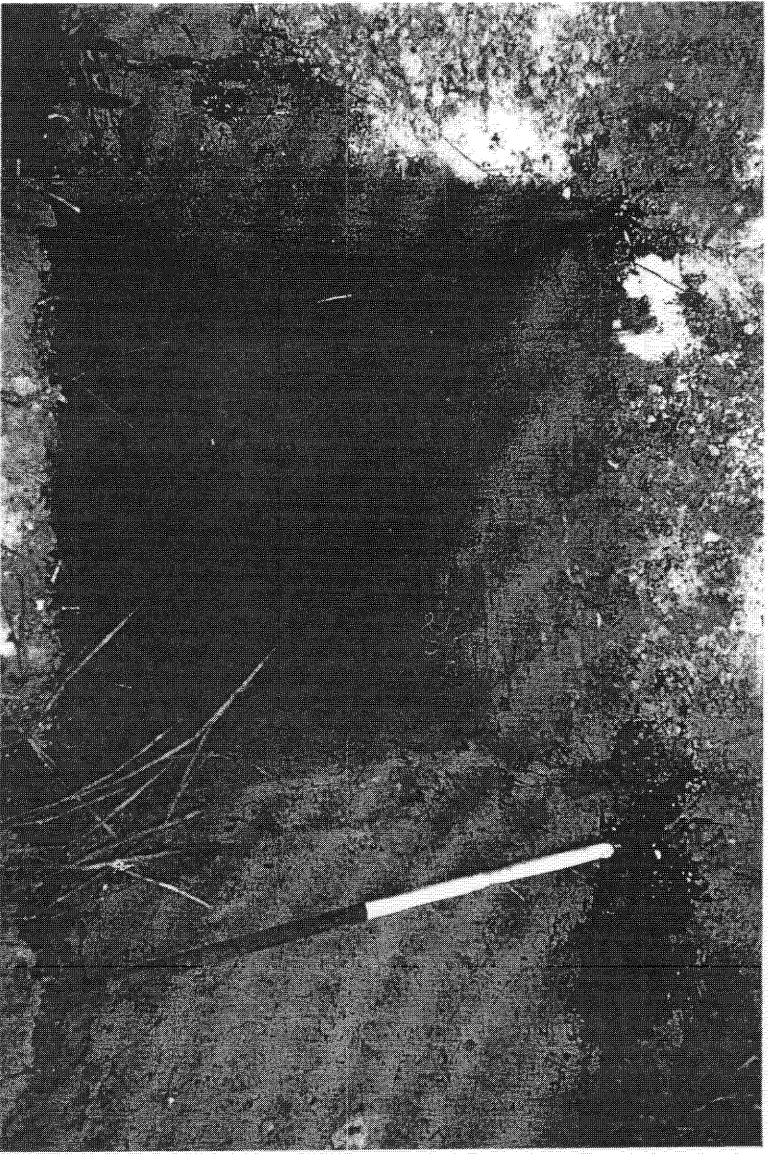


Figure 8. Etf 1679, Pearly Beach. PB 3, A 1; end of the excavation.

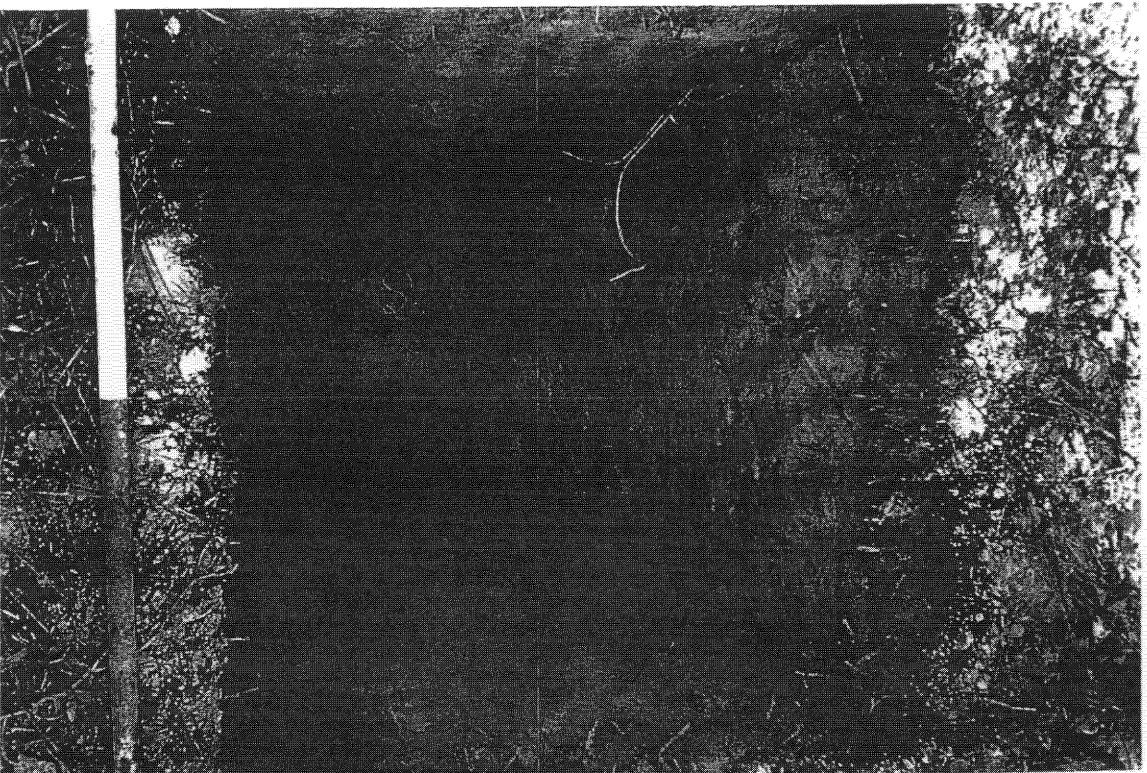


Figure 9. Erf 1679, Pearly Beach. PB 3, C 1; end of the excavation.

#### 4. Discussion

Although few shellfish remains and extremely low frequencies of artefacts were located from the shovel/test excavations at PB 2 and PB 3, some observations can be made.

Shellfish remains are mainly confined to the first 3-5 cm of deposit in each of the four squares tested. Turbo sarmaticus dominates the shellfish species in these surface levels, with smaller amounts of limpet sp., perlemoen, Burnupena sp., and Oxystele occurring.

Below 5 cm, the deposits in all squares are characterised by white, almost sterile, dune/beach sand. No natural stratigraphy occurs in any of the squares shovel tested.

Higher densities of shellfish remains were located in the lower levels of PB 2, square A 1, where low frequencies of Turbo sarmaticus, perlemoen, limpet sp. (mainly Patella granatina), brown and black mussel, occur. Some bone and a few stone artefacts also occur in these lower sandy deposits.

Overall artefact frequencies are extremely low throughout all squares excavated, with mostly a few quartzite chunks, one core, and a few flakes being found.

Non-lithic cultural remains are virtually non-existent in all the squares tested. One piece of ostrich eggshell was found in square A 1, PB 2 and one white mussel scraper was located in PB 2 (square C 1).

No ostrich eggshell beads or ceramic sherds were found.

One or two pieces of bone were found, with noticeably higher densities (n = 5) occurring in PB 2, square A 1.

Turbo sarmaticus was probably collected at normal low tides. Perlemoen were likely collected at low spring tides when Haliotis (perlemoen) could be reached. Mixed limpet and brown mussel and black mussel were collected at normal tides when the larger (Turbo and perlemoen) species were not available.

Shellfish appears to have been stripped off the rock with no preference for size, suggesting perhaps that the shellfish may represent small food parcels, consumed on the hoof. One piece of burnt shell was found in the surface deposits in PB 3, A1.

Avery (1974, 1976) identified three types of middens at Pearly Beach; those dominated by Haliotis (perlemoen), Turbo, and mixed Oxystele/Patella/Turbo. A perlemoen-rich midden excavated by Avery produced a date of  $1450 \pm 50$  BP (G. Avery, South African Museum, pers. comm.). Similar dates may perhaps be assumed for PB 2 and PB 3.

The PB 1 and PB 2 stone assemblage is very small, which compares with Avery's pers. comm. 2000) small Pearly Beach assemblage. This contrasts with the Danger Point (Gansbaai) stone assemblage, where relatively large numbers of tools occur (Kaplan 2000b). Like the Pearly Beach midden (Avery 1974, 1976), no pottery was found at PB 2, PB 3 and Danger Point (Kaplan 2000b). It is interesting to note that a white mussel scraper was also found in Layer 2 at Danger Point (Kaplan 2000b).

## 5. Recommendations

With regard to test excavations undertaken at PB 2 and PB 3, Erf 1679, Pearly Beach, the following recommendations are made.

- No further excavations are required at the site.
- Should any human burial remains or buried shell middens be uncovered or exposed during construction and excavation, these should immediately be reported to a professional archaeologist, or the South African Heritage Resources Agency (SAHRA).

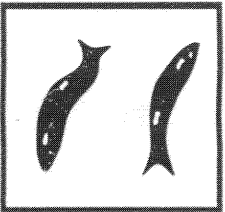
Human burial remains are protected under the National Heritage Resources Act (Act No. 25 of 1999). It is an offence to destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority.

- Building contractors and especially plant operators and staff should be informed about what to look out for, prior to earthworks commencing on the site.
- The development should be allowed to proceed.

## 6. References

- Avery, G. 1974. Open station shell midden sites and associated features from the Pearly Beach area. south-western Cape. South African Archaeological Bulletin. 29: 104-114.
- Avery, G. 1976. A systematic investigation of open station shell middens along the southwestern Cape coast. Unpublished MA thesis, Department of Archaeology, South African Museum.
- Kaplan, J. 2000a. Archaeological study, erf 1679, Pearly Beach. Report prepared for Doug Jeffery Environmental Consultant. Agency for Cultural Resource Management.
- Kaplan, J. 2000b. Archaeological excavations, Danger Point. Report prepared for I & J Abalone Culture Division. Agency for Cultural Resource Management.





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9 September 2002

Mary Leslie  
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Dear Mary

**REPORT TEST EXCAVATIONS, ERF 1679, PEARLY BEACH**

Please find a copy of the above report.

I believe that the requirements, according to David Hart's letter dated 25 August 2002, have been met.

Could you please address all correspondence with regard to the proposed development, to Doug Jeffery Environmental Consultants.

Yours sincerely

Jonathan Kaplan