

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED UPGRADING OF THE
PREEKSTOEL DAY VISITOR FACILITY
WEST COAST NATIONAL PARK**

Prepared for

ENVIROAFRICA

By

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Executive summary

EnviroAfrica requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment of the proposed upgrading of the Preekstoel day visitor facility in the West Coast National Park, in the Western Cape Province.

The proposed upgrading of the `site' (a portion of the Farm Stofbergfontein No. 365) provides for the development of an ablution facility and 10 new braai sites.

The affected site is currently zoned Indeterminate 7.

The applicant, South African National Parks, is applying for Resort Zone I status in order to affect the proposed development.

Technically, the extent of the proposed development (2 400 m²) does not fall within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999), but due to the known archaeological sensitivity of the region, the AIA was nevertheless commissioned.

The aim of the study is to locate and map archaeological heritage sites and remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

A `Notification to Heritage Western Cape of Intent to Develop' form has been completed by the archaeologist and submitted to Heritage Western Cape Built Environment and Landscape Committee (BELCOM) for comment. A copy of the Phase 1 Archaeological Impact Assessment report has been included with this submission.

Remnants of relatively well preserved, but badly damaged and disturbed shell midden deposits were located during the baseline study. These remains occur along the edge of the limestone and sand cliffs directly overlooking the western shore of the Langebaan Lagoon. Substantial shell midden deposits have spilled down the steep cliffs onto the beach, and into several informal footpaths leading down to the beach.

Damage to archaeological heritage remains has clearly been caused as a result of human-related disturbance.

The archaeological heritage remains have been graded medium-high local significance.

The Phase 1 Archaeological Impact Assessment has identified significant impacts to pre-colonial archaeological material that will need to be mitigated prior to development activities.

The proposed activities will not necessarily impact directly on sensitive and fragile archaeological heritage remains, but cumulative (i.e. secondary) impacts, such as an increase in the number of visitors to the proposed new facility, are likely to hasten the destruction of potentially valuable archaeological shell midden deposits located within the development footprint.

Bulk earthworks and excavations for the proposed ablution facility, may also expose or uncover human burials.

With regard to the proposed development and upgrading of the day visitor facility at Preekstoel in the West Coast National Park, the following recommendations are made.

- A hedge or other physical barrier should be erected along the edge of the cliffs, in order to protect the remaining shell midden deposits.
- The fossil dunes along the cliff edge should be rehabilitated, which will also stabilize the remnant shell middens. Rehabilitation of the dunes must be done in consultation with Heritage Western Cape, the delegated provincial heritage authority.
- If the above measures cannot be implemented, then as an alternative, the already highly threatened and vulnerable (and severely damaged) shell midden deposits along the cliff edge must be rescued. Systematic sampling and rescue of archaeological heritage deposits will therefore be required.
- Visitors to Preekstoel must not be allowed to use informal footpaths leading down to the beach. Only the dedicated boardwalks must be used. The informal footpaths must be closed off and rehabilitated.
- The erection of information signage should also be considered, alerting visitors to the presence of archaeological sites in the area and the need to protect them.
- Pamphlets and brochures should be produced and handed to day visitors at the entrance to the park highlighting the overall archaeological significance of the West Coast National Park, with particular reference to popular visitor sites such as Preekstoel (and Kraalbaai).
- Bulk earthworks for the proposed ablution facility must be monitored by a professional archaeologist.
- Should any human remains be disturbed, exposed or uncovered during earthworks, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie @ 021 462 4502).

1. INTRODUCTION

1.1 Background and brief

EnviroAfrica requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment (AIA) of the proposed upgrading of the Preekstoel day visitor facility in the West Coast National Park, in the Western Cape Province.

The proposed upgrading of the `site' provides for the development of an ablution facility and 10 new braai sites.

The affected site is currently zoned Indeterminate 7.

The applicant, South African National Parks (SANParks) is applying for Resort Zone I status in order to affect the proposed development.

Technically, the extent of the proposed development (2 400 m²) does not fall within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999), but due to the known archaeological sensitivity of the region, the AIA was nevertheless commissioned.

The aim of the study is to locate, identify and map archaeological remains that may be negatively impacted by the planning, construction and implementation of the proposed project, and to propose measures to mitigate against the impact.

A `Notification to Heritage Western Cape of Intent to Develop' form has been completed by the archaeologist and submitted to Heritage Western Cape Built Environment and Landscape Committee (BELCOM) for comment.

A copy of the Phase 1 Archaeological Impact Assessment report has been included with the above submission.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed site;
- to identify and map any sites of archaeological significance within the proposed site;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed site;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed site

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the study area is illustrated in Figure 2.

A proposed site development plan is illustrated in Figure 3.

The existing Preekstoel day visitor facility (on a portion of the Farm Stofbergfontein No. 265) is located on the western shore of the Langebaan Lagoon in the West Coast National Park. Previously privately owned, the farm was acquired by Sanparks in 1997.

An asphalt parking area and temporary ablution facilities exist within the proposed development footprint. Several dedicated wooden boardwalks lead down to the beach. A storm water culvert underneath the road and ditch west of the parking area is also present.

Comprising mostly natural vegetation with a few open spaces, the site is heavily disturbed due to the use and movement by people/day visitors to the site (Figures 4 & 5).



Figure 1. Site locality (3317 BB Saldanha Bay)



Figure 2. Aerial photograph of the affected property

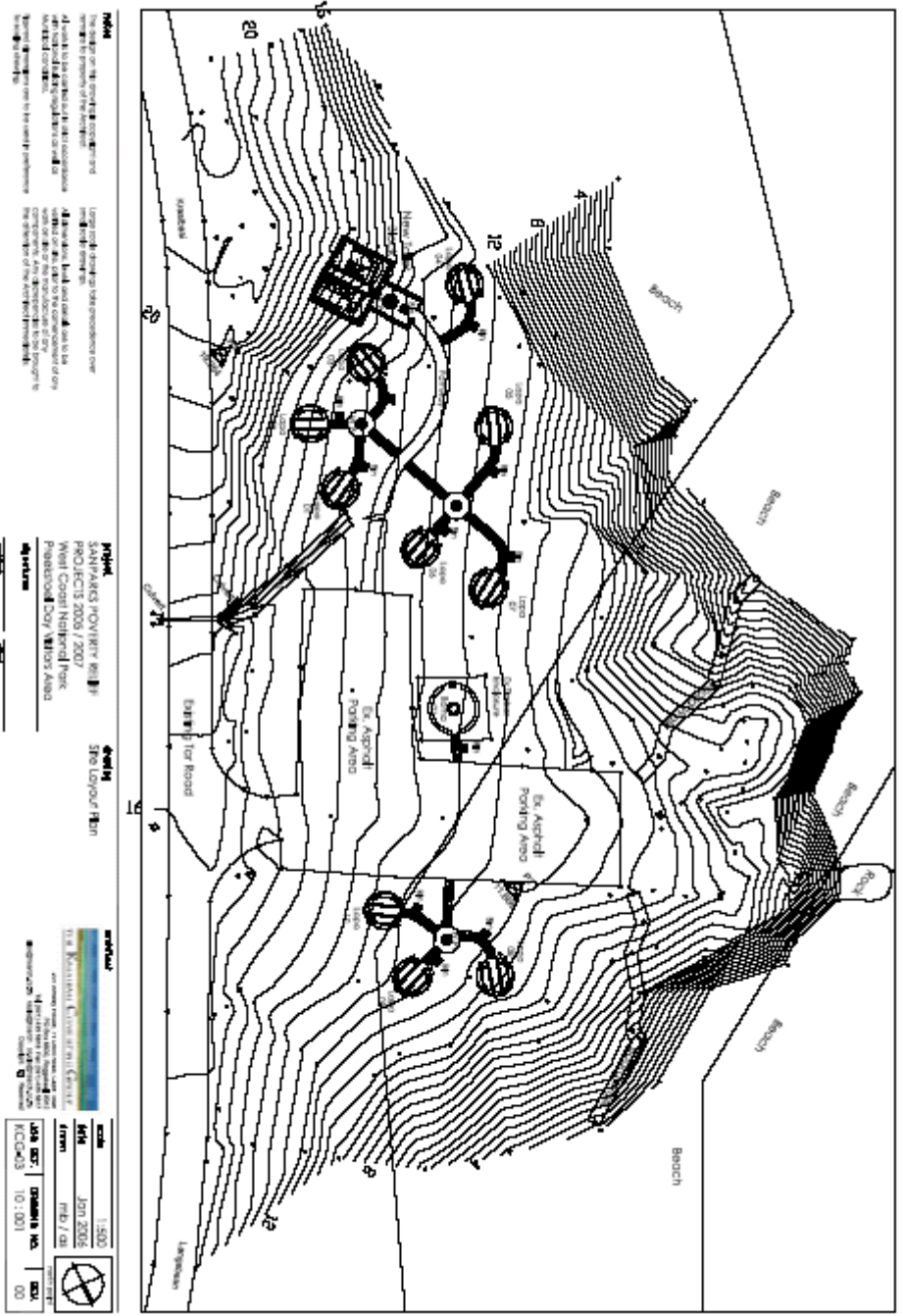


Figure 3. Proposed site development plan.



Figure 4. View of the site facing south east. Note the asphalt parking area and temporary ablutions facilities.



Figure 5. View of the site facing north east.

4. APPROACH TO THE STUDY

4.1 Method of survey

The approach followed in the archaeological study entailed a detailed foot survey of the proposed site.

A desktop study was also undertaken.

The site visit and assessment took place on the 27th of October 2005.

5. A BRIEF OVERVIEW OF THE ARCHAEOLOGICAL SIGNIFICANCE OF LANGEBAAN

Archaeological visibility in Langebaan is extremely high (Kaplan 1993). More than 40 sites have been recorded between Lentjiesklip 1 and Lynch Point (Hart & Halkett 1992; Kaplan 1999; Parkington & Poggenpoel 1987) on the eastern shore of the Langebaan Lagoon. Excavations and studies have shown that the rocky shoreline at Lentjiesklip and Lynch Point acted as a foci, that attracted Later Stone Age¹ (LSA) people as they offered greater opportunities for the exploitation of marine foods particularly shellfish (Hart 1991; Kaplan 2000).

The archaeology suggests that the pattern of occupation of the Langebaan area in pre-colonial times involved people locating themselves at the coast where large quantities of shellfish was consumed, as well as seals, fish, bird, tortoise and small antelope. Evidence also suggests that LSA people may have been scheduling their visits to collect lower tidal zone shellfish such as limpets and perlemoen (Hart 1991).

Excavations at Lentjiesklip 4 (Parkington *et al* 1988) and Lentjiesklip 2 (Hart 1991) show that some of the sites in the region date to between 4000 and 1800 years ago (Hart 1991), some of which have been found buried up to three metres below the sand body. The domestic and material cultural items generated from these and other excavations, indicate a wide range of human responses to opportunities and needs over time.

A human burial was also uncovered during excavation of a service trench at Lentjiesklip 2 (Hart 1991).

A desk-top study undertaken on behalf of the Department of Environment Affairs and Tourism (Kaplan 1993) established that many sites also occur on the western shore of the Langebaan Lagoon, at Posberg, Kreefbaai, Kraalbaai, Stofbergfontein and Geelbek (on the eastern shore).

Archaeological excavations have also been conducted in the Posberg Nature Reserve (Smith *et al* 1992:36), which gives a broad picture of aboriginal material culture and economic remains within the past 1000 years in the area.

Excavations at Oudepost I, a 17th century Dutch colonial outpost at Kraalbaai, about 2 kms north of Preekstoel, has also provided evidence for interaction between soldiers at the small garrison and local Khoi pastoralists more than 300 years ago (Schrire 1992).

¹ A term referring to the final 20 000 years of pre-colonial history in southern Africa

It is also well established that vertebrate fossils and archaeological occurrences in the Langebaan Limestone (calcrete) formations and associated deposits in the region are extremely valuable sources of information on the sedimentary, chronological, palaeoenvironmental and palaeoecological context of the development of modern human behaviour during the Middle Stone Age² (MSA) and perhaps even the Early Stone Age³ (ESA) (Avery 1997).

More recently, 120 000 year old fossil footprints were discovered in ancient fossil dunes at Kraalbaai (Roberts 1996), among the oldest modern human footprints in the world.

The reasons for the abundance of fossil archaeological and palaeontological remains in the Langebaan area is in part related to the highly calcareous character of the aeolianites (fossil dunes) and shallow marine sediments. Bones and implements are readily preserved by the rapid carbonate cementation of the strata in which they become entombed.

6. LEGISLATIVE REQUIREMENTS

6.1 The National Heritage Resources Act (Act No. 25 of 1999)

...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment in terms of the National Heritage Resources Act (No. 25 of 1999).

6.1.1 Structures (Section 34 (1))

No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the South African Heritage Resources Agency (SAHRA), or Heritage Western Cape.

6.1.2 Archaeology (Section 35 (4))

No person may, without a permit issued by the SAHRA or Heritage Western Cape, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

6.1.3 Burial grounds and graves (Section 36 (3))

No person may, without a permit issued by SAHRA or Heritage Western Cape, 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.

² A term referring to the period between 200 000 and 20 000 years ago.

³ A term referring to the period between 2 million and 200 000 years ago.

7. CONSTRAINTS AND LIMITATIONS

There were no limitations or constraints associated with the proposed study.

8. FINDINGS

Two coherent archaeological sites were located during the baseline study (refer to Figure 2).

PKS 1 (GPS reading S° 33 08 863 E 18° 01 849)

The remains of a highly disturbed shell midden were located at the collapsed edge of the limestone and sand cliff in the extreme north eastern portion of the proposed site (Figure 6). Much of the shell midden has been damaged and destroyed as a result of uncontrolled human activity and subsequent related erosion processes. Shellfish has spilled down the steep cliffs and in several highly eroded informal footpaths leading down to the beach. However, about a 30-40 cm thick layer of in-situ shell midden deposit caps the edge of the cliff and appears to extend several metres further inland for an unknown distance. Save for the exposed edge, the remainder of the midden appears to be relatively well protected by vegetation cover which holds it in place.

The exposed profile of the midden is dominated by large (whole) Black Mussel (Choromytilus meridionalis) while some large whole Scutellastra argenvillei and fragments of Scutellastra, are also present. One slightly nicked whole sand mussel (possibly a scraper blank), and one large piece of unidentified bone (possibly seal) were noted embedded in the midden and fine sand and soft ash deposit.

One fine-grained quartzite flake, one small piece of ostrich eggshell, and one crayfish mandible were also noted lying on the eroded slopes.

The archaeological heritage remains have been graded high local significance.



Figure 6. View of the steep cliffs at Preekstoel facing north west. The photograph was taken from the main boardwalk leading down to the beach.



Figure 7. PKS 1. View of the site facing north. Arrow indicates shell midden remains at the eroded cliff edge.



Figure 8. PKS 1. Close up of the shell midden.

PKS 2 (GPS reading S° 33 08 868 E 18° 01 872)

A scatter of fairly substantial shell midden deposit occurs on the steep, exposed and eroded sandy slope, alongside a small informal footpath, at the edge of the cliff overlooking the beach, about 30 m north east of the temporary ablution facility (Figures 9 & 10).

Like PKS 1, much of the midden has been damaged and destroyed as a result of uncontrolled human activity. Shellfish has also spilled down the steep cliffs onto the beach, and is scattered in the informal footpath leading down to the beach. Less in-situ archaeological deposits occur here than at PKS 1, with the bulk of the deposit already severely damaged. However, some in-situ archaeological deposit occurs buried (and protected) beneath the surrounding bushes, but its integrity appears to be severely compromised. More shellfish is scattered along the edge of the cliff toward the wooden boardwalks, but is likely part of the larger concentration of shell midden that appears in Figure 10.

The shellfish at PKS 2 is dominated by Black Mussel with some Scutellastra argenvillei, Scutellastra granularis, Cymbula miniata and Cymbula granatina also present but in much smaller quantities.

One small quartz chunk, one small piece of haematite, one possible weathered bone tube and one small piece of ostrich eggshell, was found in the surrounding area.

It is interesting to note that the shellfish species (and size of shellfish present) differs markedly between PKS 1 and PKS 2, perhaps indicating chronological differences between the two sites.

The archaeological heritage remains have been graded medium local significance.



Figure 9. PKS 2. View of the site facing south. Note the boardwalk and parking area in the background.



Figure 10. PKS 2. Close up of the shell midden.

8.1 Other finds

A few fragments of shellfish were noted among open patches of wind-blown sand in the vegetated area north of the temporary ablution facilities but these are spread very thinly over the surrounding environment. No cultural items were found in this area.

Crushed and heavily fragmented shellfish remains were also located on the rocky headland either side of the boardwalks leading down to the beach at Preekstoel. These remains are heavily disturbed. No cultural items were found in this area.

Fragmented shellfish occurs near and alongside the boardwalks and several small informal footpaths leading down to the beach at Preekstoel, but these remains are severely damaged and disturbed.

Some marine shell bits were also noted near the edge of the dunes in the southern portion of the proposed site.

No palaeontological or fossil heritage remains were located on the proposed site, nor on the sides of the steep limestone and fossil-dune cliffs, although it should be noted that the well-known 'Eve' footprints were located about one kilometre north of the affected property, at Kraalbaai (Roberts 1996).

9. IMPACT STATEMENT

The impact of the proposed upgrading of the Preekstoel day visitor facility in the West Coast National Park, on important archaeological heritage remains is likely to be high.

The proposed activities will not necessarily impact directly on sensitive and fragile archaeological heritage remains, but cumulative (i.e. secondary) impacts, such as an increase in day visitors to the facility, are likely to hasten the destruction of (already severely damaged) archaeological shell midden deposits located within the proposed development footprint.

Human burials may also be exposed or uncovered during earthworks and excavations for the proposed ablution facility.

10. RECOMMENDATIONS

With regard to the proposed development and upgrading of the day visitor facility at Preekstoel in the West Coast National Park, the following recommendations are made.

- A hedge or other physical barrier should be erected along the edge of the cliffs, in order to protect the remaining shell midden deposits.
- The fossil dunes along the cliff edge should be rehabilitated, which will also stabilize the remnant shell middens. Rehabilitation of the dunes must be done in consultation with Heritage Western Cape, the delegated provincial heritage authority.
- If the above measures cannot be implemented, then as an alternative, the already highly threatened and vulnerable (and severely damaged) shell midden deposits (PKS 1 & PKS 2) must be rescued. Systematic sampling and rescue of archaeological heritage deposits will therefore be required.
- Visitors to the facility at Preekstoel must not be allowed to use informal footpaths leading down to the beach. Only the dedicated boardwalks must be used. The informal footpaths must be closed off and rehabilitated.
- The erection of information signage should also be considered, alerting visitors to the presence of archaeological sites in the area and the need to protect them.
- Pamphlets and brochures should be produced and handed to day visitors at the entrance to the park highlighting the overall archaeological significance of the West Coast National Park, with particular reference to popular visitor sites such as Preekstoel (and Kraalbaai).
- Bulk earthworks for the proposed ablution facility must be monitored by a professional archaeologist.
- Should any human remains be disturbed, exposed or uncovered during earthworks, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie @ 021 462 4502).

11. REFERENCES

Avery, G. 1997. Alpha Saldanha Cement Project: archaeological potential of limestone and other calcareous deposits. Report prepared for Mark Wood Consultants.

Schrire, C. 1992. The historical archaeology of the impact of colonialism in 17th-century South Africa. *Antiquity* 62:214-225

Smith, A.B., Sadr, K., Gribble, J. & Yates, R. 1992. Witklip and Posberg Reserve. In: Guide to archaeological sites in the South Western Cape. Edited by A.B. Smith and B. Muti. 31-40.

Hart, T. 1991. Archaeological excavations at Lentjiesklip 2. Archaeology Contracts Office, University of Cape Town.

Hart, T. & Halkett, D. A first phase archaeological survey of a portion of Farm 1065 (Oliphantskop) near Langebaan.

Parkington, J. & Poggenpoel, C. 1997. An archaeological survey of the Lynch Point Lentjiesklip area. Department of archaeology, University of Cape Town.

Parkington, J., Poggenpoel, C. & Hart, T. 1988. Report on the first phase of excavations at Lynch Point, Langebaan. Report prepared for Club Mykonos, Langebaan. Archaeology Contracts Office, University of Cape Town.

Kaplan, J. 1993. The state of archaeological information in the coastal zone from the Orange River to Ponta do Ouro. Report prepared for the Department of Environmental Affairs and Tourism. Agency for Cultural Resource Management.

Kaplan, J. 1999. Archaeological assessment, Erf 2078, Langebaan. Report prepared for Crowther Campbell & Associates. Agency for Cultural Resource Management.

Kaplan, 2000. Archaeological test excavations, Erf 2078, Langebaan. Report prepared for Langebaan Cove (Pty) Ltd. Agency for Cultural Resource Management.

Roberts, D.L. 1996. Footprints in the sand. Abstract, 8th Biennial PSSA Conference, Stellenbosch