

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PORTION 1 OF THE FARM DROOGFONTEIN 245
MOSEL BAY**

Prepared for

JOHAN NEETHLING ENVIRONMENTAL SERVICES

On behalf of

Papilio Investments 33 (Pty) Ltd

By

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Agency for Cultural Resource Management

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Handwritten note:
Archaeological
impacts to some areas
THE impact of development
on archaeological sites
Parameters will be

**MARCH
2003**

1. INTRODUCTION

1.1 Background and brief

Johan Neethling Environmental Services cc requested that the Agency for Cultural Resource Management undertake a Phase 1 Archaeological Impact Assessment (AIA) of Portion 1 of the

Farm Droogfontein 245, near Mossel Bay, on the southern Cape coast.

Phase 1 of the proposed Paradise Coast Golf Estate, comprises residential development (single and group housing) and a golf estate.

Provision is also made for public open space and a conservation zone.

Proposed future development (Phase 2 and 3) envisages a hotel and village development.

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

2. TERMS OF REFERENCE

The terms of reference for the study were:

1. to determine whether there are likely to be any archaeological sites of significance within the proposed site;
2. to identify and map any sites of archaeological significance within the proposed site;
3. to indicate the sensitivity and conservation significance of archaeological sites potentially affected by the proposed development;
4. to assess the status and significance of any impacts resulting from the proposed development;
5. to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the site, and
6. to propose actions for inclusion in the Construction Environmental Management Plan for the proposed project.

3. APPROACH TO THE STUDY

3.1 Method of survey

The approach followed in the AIA entailed a foot survey of Portion 1 (Phase 1-3) of the Farm Droogfontein 245.

A desk top study was also undertaken.

4. THE STUDY AREA

The study area is illustrated in Figure 1.

A plan of the proposed development is illustrated in Figure 2.

Paradise Coast Golf Estate is located about 7 km outside Mossel Bay, to the east of Dana Bay.

The bulk of the study site comprises a mix of indigenous veld and alien vegetation (Figures 3 & 4). A relatively large area in the northern portion of the study site has been disturbed and partially prepared for development of the golf course (Figure 5). A number of access roads have also been constructed on the site. The coastal portion of the property comprises steep, well-vegetated cliffs (Figures 6 & 7).

5. LEGISLATIVE REQUIREMENTS

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

5.1.1 Archaeology (Section 35 (4))

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

5.2 Application requirements and procedure

Permit applications must be made on the official form:

- *Application for permit to destroy: Archaeological and palaeontological sites and meteorites;* Permit application forms are available from Heritage Western Cape.

The Proponent, Papilio Investments 33 (Pty) Ltd must submit permit applications to Heritage Western Cape.

6. CONSTRAINTS AND LIMITATIONS

The field study was constrained by thick alien and natural vegetation across a large portion of the study site, resulting in low archaeological visibility.

7. IDENTIFICATION OF POTENTIAL RISKS

The following project actions may likely impact negatively on archaeological sites.

The actions are most likely to occur during the construction phase of the proposed project.

- Bulk earthworks and excavations may expose or uncover archaeological remains. Monitoring of bulk earthworks at the adjacent Pinnacle Point Beach and Golf Club by consulting archaeologist Dr Peter Nilssen has recorded and recovered in-situ Stone Age tools in a stratified context (Dr Peter Nilssen, pers. comm.).
- Excavations for proposed borrow pits may expose or uncover buried archaeological sites and possibly human burial remains.

8. IMPACT ASSESSMENT AND DESCRIPTION

Relatively large numbers of Early Stone Age^[1] (ESA) and Middle Stone Age^[2] (MSA) tools were found on the site. Most of the tools were located in the northern (top-end) portion of the

site, where large areas have already been cleared/prepared for the proposed golf course. Most of the tools were found in a sandy soil, beneath an overburden (of top soil) which is piled alongside the cleared areas.

The artefacts comprise a range of tool types, including large cores, (x 3) handaxes, split/flaked cobbles, flakes and chunks (ESA), as well as smaller triangular flakes, blade tools, utilised flakes and cores (MSA) (Figures 8 & 9).

ESA tools were also found in sandy soils in disturbed areas in the north-eastern portion of the site (Figure 10).

Tools were found embedded in compact clay deposits, and among exposed calcretes in the south-eastern portion of the site. A relatively large collection of tools were found in the road on the eastern boundary of the study site, adjacent to Pinnacle Point Beach and Golf Club (Figure 11).

ESA and MSA tools were noted in most of the recent roads constructed on the site.

ESA tools were also found among large piles of rocks removed from the site.

According to Dr Peter Nilssen (pers. comm.), large numbers of in-situ ESA and MSA tools occur in the overlying sandy deposits at Pinnacle Point Beach and Golf Club, underlain by thicker clays and calcretes respectively, which appear to vary in thickness across the area. Some tools were also found embedded in the thick clay deposits. Tools appear to be absent from the calcretes, although they do occur among exposed surface beds.

Importance of finds: **potentially high**

Suggested action: **bulk earthworks to be monitored by a professional archaeologist**

Two Later Stone Age^[3] (LSA) shell middens (ancient rubbish dumps) were located close to each other immediately alongside the Cape St Blaize hiking trail (Figure 2). LSA shell middens are widespread along the southern Cape coast (Kaplan 1993). They are usually clustered inshore of the rocky shoreline in the intertidal zone. It is here that large quantities of shellfish species were exploited, processed, and consumed by LSA hunter-gatherers.

PB 1. GPS reading S 34° 12 121 E 22° 04 102

PB 1 comprises a thin scatter of shellfish remains about 150 m from the steps leading down to the trail from the proposed future hotel site development (Figure 12). White mussel (*Donax serra*) dominates the shellfish remains, with a few pieces of limpet (*Patella cochlea*) and *Turbo samariticus* occurring. Two quartzite flakes were found.

A few pieces of white mussel shell was also noted in the cutting alongside the trail.

Importance of finds: **low**

Suggested action: **none required**

PB 2. GPS reading S 34° 12 156 E 22° 04 148

PB 2 comprises a very small patch of shellfish remains alongside a small, barely visible footpath alongside the Cape St. Blaize hiking trail. The shellfish remains are dominated by white mussel shell, with a few fragments of *Turbo samariticus* occurring. No tools were noted on the site.

Importance of finds: **low**

Suggested action: **none required**

PB 3. GPS reading S 34° 12 185 E 22° 04 105

PB 3 is located on a rocky promontory at the bottom of the steep cliffs, alongside a small sandy beach (Figure 13). The very visible midden (perhaps several metres deep in places) comprises a mix of highly fragmented and crushed shellfish, including white mussel, black mussel (*Choromytilus meridionalis*), Perlemoen (*Haliotis*), *Oxystele* (periwinkle) and various limpet species. One quartzite flake and one quartzite chunk were noted.

The site has been impacted upon for many years. A mix of precolonial archaeological, and possibly modern/recent shellfish, including bits of plastic, fishing line, and glass, is testament to the current use of the shoreline by local fishermen and hikers.

Importance of finds: **medium**

Suggested action: **signage should be erected**

9. IMPACT STATEMENT

The impact of the proposed Paradise Coast Golf Estate development on archaeological remains is likely to be potentially high.

The probability of locating significant archaeological remains in the area during implementation of the project is also likely to be potentially high.

With mitigation, however, archaeological impacts can be minimised and positive impacts enhanced.

Why is impact not recommended?

10. RECOMMENDATIONS

With regard to the proposed Paradise Coast Golf Estate development, the following recommendations, to be included in the Construction Environmental Management Plan, are made.

- Bulk earthworks (Phase 1-3) should be monitored by a qualified archaeologist. *4 Mitigation see above.*
- The Environmental Control Officer (ECO) is to be briefed by a professional archaeologist what to look out for, particularly during vegetation clearing operations and preparation of the site for construction purposes.
- Contractors, staff and plant operators should also be briefed by a professional archaeologist what to look out for, during vegetation clearing operations and earthworks.
- Heritage remains uncovered or disturbed during vegetation clearing and earthworks should not be disturbed until inspected by the ECO and verified by a professional archaeologist.

- Proposed borrow areas should be inspected for archaeological remains.
- A collection of Stone Age finds could be used for display purposes in the planned clubhouse, or hotel.^[5]
- An information/story board, similar to those used by the Coastcare programme should be erected at PB 3. Positioning of the signage should be determined by a professional archaeologist.
- The construction EMP should detail reporting procedures to manage the discovery of any heritage artefacts during construction.

11. REFERENCES

Kaplan, J. 1998. Archaeological study, Pinnacle Point, Mossel Bay. Report prepared for CODEV. Agency for Cultural Resource Management.

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 Environment Affairs and Tourism. Agency for Cultural Resource Management.

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- [1] A term referring to the period between 2 million and 200 000 years ago.
- [2] A term referring to the period between 200 000 and 20 000 years ago.
- [3] A term referring to the last 20 000 years of precolonial history in southern Africa.
- [4] Dr Peter Nilssen (082 783 5896), consultant archaeologist monitoring bulk earthworks at Pinnacle Point Beach & Golf Club, should be retained for Paradise Coast.
- [5] Pinnacle Point Beach & Golf Club are in the process of planning a display of tools (Dr Peter Nilssen pers. comm.).

From: "Jonathan Kaplan" <acrm@wccaccess.co.za>
To: "Hilland Associates" <info@hilland.co.za>
Sent: 16 March, 2006 7:43 AM
Attach: paradise coast sensitivity map - archaeology.doc
Subject: Re: Paradise Coast aerial

dear louise-mari, hi
please find attached with mossel-bay based archaeologist dr peter nilssen, i have rated the entire paradise coast site 3 i.e. High Sensitivity.
there is compelling evidence from pinnacle point (next door to paradise coast) where dr nilssen and his team have been monitoring earthworks since 2002, that all undisturbed areas are potentially highly sensitive from an archaeological perspective. it is estimated that between 50 and 70 000 mainly early stone age (esa) tools (between 200 000 and 2 million years old) have been plotted and collected during monitoring of bulk earthworks at pinnacle point, representing one of the largest controlled collections of esa tools undertaken to date.
there is great excitement in academic circles with regard to the significance of these finds.
according to dr nilssen, the majority of tools are coming from sandy deposits (comprising a mix of aeolian sands and silty sediments) underlying the top soil about 1 m below the surface. fewer artefacts appear in the underlying clay deposits up to 2 m below the surface, but the discovery of several pleistocene hyena lairs with well-preserved bone in the calcretes nearly 3 m below the surface highlights the importance of the site even more, and further justifies its high sensitivity rating.

according to dr nilssen the key point is that the archaeology below the surface is undisturbed (as opposed to the disturbed finds on the surface) and it is precisely the context of the finds that is so important for conservation purposes.

please reassure your client that there are no show stoppers, but that an effective monitoring programme must be put in place for the construction environmental management plan for the project. this was one of the recommendations in my report. the monitoring programme must be set up well in advance of earthworks commencing. i am proposing further that dr nilssen and his team be appointed to undertake this task and that the client engage with him. with appropriate archaeological monitoring, the negative impacts of the proposed development can be greatly minimised.

it should also be noted that there are shell middens on the coast (refer to my report), and these are also rated highly.

kind regards
jonathan kaplan

----- Original Message -----

From: Hilland Associates
To: Jonathan Kaplan
Sent: Wednesday, March 15, 2006 11:46 AM
Subject: Re: Paradise Coast aerial

Hello,

It seems from the Department's side they are more concerned about the southern coastal section in any event, much more so that the remainder of the property. Look forward to getting your map.

Kind regards,
Louise-Mari

----- Original Message -----
From: Jonathan Kaplan
To: Hilland Associates
Sent: Tuesday, March 14, 2006 3:12 PM



What not?

- Indicate site location in the layout map!!!
- Get the ROD

Figure 1. Archaeological sensitivity: Paradise Coast



PARADISE COAST

PLANNING & DEVELOPMENT

ROAD RESERVE

ERFBOORD GEBIED

KWANONQABA

LOUIS FOURIE ROAD

MOSSEL BAY

CROTZ ST

N2 CAPE TOWN

N2 ROAD RESERVE

Private Open Space

Conservation Area

Conservation Area

Remainder 2001

Proposed Development for Papilio Investments 33 (Pty) Ltd

PLANNED REPLAN DV, AA, RTJ
DRAWN GETEKEN AA
DATE DATUM 3 April 2008

DESCRIPTION BESKRYWING

Portion 1 of the Farm
Droogfontein 245, Mossel Bay

PLAN No.
272 / MOS / 03 / SDP (10)

TITLE TITEL

Development Plan

NAME NAAM
Site Development Plan Final

ALL MEASUREMENTS APPROXIMATE
ALLE AFMETINGS BY BENADERING

KOPERSOES VOORRESERVE / COPY RIGHT RESERVED



URBAN & REGIONAL PLANNING

Tel: 044 873 4566 • Email: planning@delplan.co.za

SEWERAGE LINE

ST BLAIZE
HIKING TRAIL

Conservation Area

Building Line

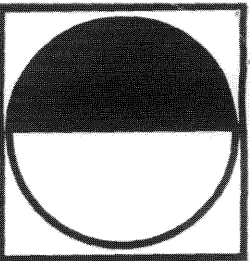
St Blaize Hiking Trail

Hotel Village Footprint

Hotel 200
Conservation Area
S. 202 m

Remainder 3438

St Blaize Trail + cliffs.



HILLAND ASSOCIATES

ENVIRONMENTAL MANAGEMENT CONSULTANTS

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Attention: Mr Ndukuyakhe Ndlovu
Heritage Western Cape

FAXED:

Date: 27/08/06

Time: 12:10

URGENT!

MOS03/366/97
29 August 2006

VIA EMAIL & FAX

ndlovu@pgwc.gov.za

021 483 9842

DEPT VAN KULTUUR, ERFSKAP PROVINSIALE DIENST ADMINISTRATIE REEUVIC 2006-08-30	KAAPSTAD/CAPE TOWN 6000 DEPT OF CULTURAL AFFAIRS AND SPORT
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RE: PARADISE COAST DEVELOPMENT ON PORTION OF THE FARM DROOGFONTEIN 245,
MOSSSEL BAY

Hilland Associates is the appointed independent environmental consultants responsible for facilitating the environmental impact assessment (EIA) process for the proposed residential development on Portion 1 Droogfontein 245, Mossel Bay.

This project has a long history of which I would like to inform you upfront to enable you to understand the context within which the EIA process is being done and also how important it is for us to obtain comment from Heritage Western Cape (HWC) as a matter of urgency.

This particular project was approved by the Mossel Bay Municipality and Provincial Authority (Development Planning) in 1996 as an integrated golf estate. Therefore, please keep in mind that his project has been allowed significant development rights. Due to a delay in project administration the project did not commence at the time and various applications for extension of the approval rights was **approved** by the Municipality at the time. With the very last application for such an extension, the Department Environmental Affairs & Development Planning (DEADP) requested that an alternative layout be investigated in light of the environmentally sensitive nature of section of the site, as well as new environmental legislation that came into affect post-approval.

The Applicant (developer) agreed to go through an EIA process in order to arrive at an alternative that would better suite the site and comply with the legislation. Various alternatives were considered and went through intensive public participation. At the time of public participation and obtaining all the relevant specialist studies, we consulted with SAHRA because HWC was not yet the delegated authority on heritage/archaeological matters. As such, HWC was never a registered Interested & Affected Party in this particular EIA process. Because of significant archaeological finds on a neighbouring development site, we were proactive in the process and involved Jonathan Kaplan who performed an Archaeological Impact Assessment for the property in 2003. A copy of this document is included for your urgent attention and comment.

Jonathan was again involved in 2006 when we requested him to participate in the assessment phase of the EIA process to evaluate the significance of developing the site. Mr Kaplan's professional, specialist finding was that the potential for finding and conserving artefacts of heritage/archaeologist value lies in the construction phase (similarly on the neighbouring property where they halted development in areas of significance and are actively preserving valued materials while construction is continuing on other phases of the development). The potential for heritage/archaeology will only be achieved during construction because the majority of artefacts come from underlying top soil (1m – 3m deep) that will only be discovered through development associated earthworks.

Mr Kaplan consulted with Dr Pieter Nilssen, who is involved on the neighbouring property also, and recommended the following: that an archaeologist be involved in monitoring earthworks during construction to help identify areas of significance and then adapt the construction programme in that areas to allow salvaging of the materials.

The site does not contain any permanent structures on it and the existing St Blaize Trail (pedestrian hiking trail) that runs along the border of the property, along the coast, is not affected by the development in any significant manner. This trail starts in the town of Mossel Bay and runs along the coastline through various developments and residential extensions including extensions of Mossel Bay, Dana Bay, Mquini, Pinnacle Point etc. Access to this trail is unfettered by this development and due to the topography of the site, hikers along this route will not experience a significant visual impact from this development (the trail is located along the coastal cliffs, 15 metres below the cliff edges and the development is set back another 40 metres from the cliff edges). A visual impact assessment evaluated the potential impact of the development on hikers along this route and found it to be insignificant.

A decision from the Department has been eminent for some time now. However, the Department requested this morning that we obtain comment from HWC. We do wish to accommodate the Department's request, despite it being unreasonable given that HWC was never a registered I&AP and that the process completed a while ago already, as well as that the necessary, proactive steps were taken in this regard. Given the circumstances associated with this project, as well as the history of involving an archaeologist and SAHRA at the time, it is of great importance that you please review the information included herewith and issue your comment at the earliest convenience. All aspects that can possibly be of relevance to an institution like HWC have been duly addressed through this process and we trust that this will only result in an administrative exercise on your behalf.

If, at the very most, you require a Notification of Intent to Develop (NID), which does not seem reasonable given the nature of this process, kindly consider making it a condition of approval (similar to the Simola development application in Knysna) to be incorporated into the Record of Decision that the Department will issue once we have obtained your comment.

Should you have any queries, please do not hesitate to contact me directly on 044-889 0229.

Kind Regards



Louise-Mari van Zyl
For Hilland Associates