

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED HOUSING DEVELOPMENT ON
PORTION 4 (PORTION OF PORTION 2) OF THE
FARM BONTEHEUWEL NO. 1
PIKETBERG**

Prepared for

ENVIRO LOGIC

By

Agency for Cultural Resource Management

P.O. Box 159

Riebeek West

7306

Ph/Fax: 022 461 2755

Cellular: 082 321 0172

E-mail: acrm@wcaccess.co.za

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Executive summary

Enviro Logic requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment (AIA) for a proposed housing development on Portion 4 (Portion of Portion 2) of the Farm Bonteheuwel No. 1, in Elands Bay (Piketberg District), in the Western Cape Province.

The extent of the proposed development (about 3.5 ha) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

The aim of the study is to locate and map archaeological heritage 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.

Heritage consultant Graham Jacobs has been appointed to undertake a Heritage Impact Assessment (HIA) of the proposed project.

The archaeological assessment forms part of the HIA.

Several, low-density scatters of fragmented shellfish was located during the assessment of the affected property, but these are spread very thinly over the receiving environment. Apart from a few dispersed stone flakes, no other cultural remains were found.

Given its location - alongside the Elands Bay-Redelinghuis Road - the study site is fairly severely degraded as a result of heavy pedestrian traffic, widespread dumping, construction of roads and earthworks.

It is important to note, however, that shellfish remains, stone tools, about a dozen pieces of pottery (including a decorated potsherd), a broken bone point or link shaft, several sand mussel scrapers, and some ostrich eggshell was located on the slopes of a sand bank in the road reserve at the Redelinghuys/Dwarskersbos Intersection, **directly alongside the affected site** (my emphasis). Mixed among the pre-colonial archaeological remains are modern domestic material items such as glass, metal, plastic and burnt wood. The site therefore occurs in a severely disturbed and degraded context.

The presence of a scatter of shellfish remains on the elevated dune in the proposed site, alongside the intersection does, therefore, suggest that potentially important below-ground archaeological deposits may occur on the affected property.

Archaeological heritage sites, such as shell middens and hunter-gatherer campsites, as well as human burials may also be exposed or uncovered during bulk earthworks and excavations on the affected property.

With regard to the proposed housing development on Portion 4 (Portion of Portion 2) of the Farm Bonteheuwel No. 1, Piketberg District, the following recommendations are made:

- Shovel testing must be undertaken on the proposed site (before the development proceeds), in order to determine the significance of below ground archaeological deposits.

Should significant archaeological heritage remains be located, systematic archaeological sampling will be required.

1. INTRODUCTION

1.1 Background and brief

Enviro Logic requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment (AIA) for a proposed housing development on Portion 4 (Portion of Portion 2) of the Farm Bonteheuwel No. 1, in Elands Bay (Piketberg District), in the Western Cape Province.

The proposed rezoning (and subdivision) of the affected property, from Agriculture to Single Residential I and General Residential, provides for the development of 22, single residential units, and one General Residential. Associated infrastructure such as services and roads are also planned.

The extent of the proposed development (about 3.5 ha) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

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

Heritage consultant Mr Graham Jacobs has been appointed to undertake a Heritage Impact Assessment (HIA) of the proposed project.

The archaeological assessment forms part of the HIA.

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 potentially affected by the proposed development;
- to assess the 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 site is illustrated in Figure 2

A proposed site development plan is illustrated in Figure 3.

The study site is located east of Elands Bay, on the northern bank of the Verlorenvlei. The Elands Bay-Redelinghuis Road borders the property on the northern side and the Elands Bay-Dwarskersbos Road borders the property on the eastern side (Figures 4-7).

The site is relatively flat, but slopes gently south toward the northern bank of the Verlorenvlei. Wind blown sands cover the site, which is well vegetated with open spaces occurring in places. The south-eastern portion of the site is covered with alien trees. Numerous small footpaths cut across the site, while the lower portion of the affected property is very disturbed, mainly as a result of a 2-track road running through the property. Several sand roads occur over the western portion of the site, which is also fairly degraded. Dumping of domestic refuse and material items (including modern shell dumps) is widespread alongside the Elands Bay-Redelinghuis Road.

Two old buildings occur on the northern bank of the Verlorenvlei (Figures 8 & 9).

4. APPROACH TO THE STUDY

4.1 Assumptions

Since the receiving environment is located within a known archaeologically sensitive area (see for example Kaplan 1993), the archaeological assessment assumes that:

- Damage to heritage resources potentially will occur in the development of the property.

4.2 Method of survey

The approach used in the archaeological study entailed a foot survey of the study area.

Archaeological heritage remains recorded during the study have been plotted using a Garmin Gecko 201 GPS set on map datum WGS 84.

The specialist survey took place on the 3rd of January 2006.

A desktop study was undertaken.

Professor John Parkington of the Department of Archaeology, University of Cape Town, was also consulted.



Figure 1. Locality map (3218 AD Elands Bay)



Figure 2. Aerial photograph of the study area indicating the proposed development site

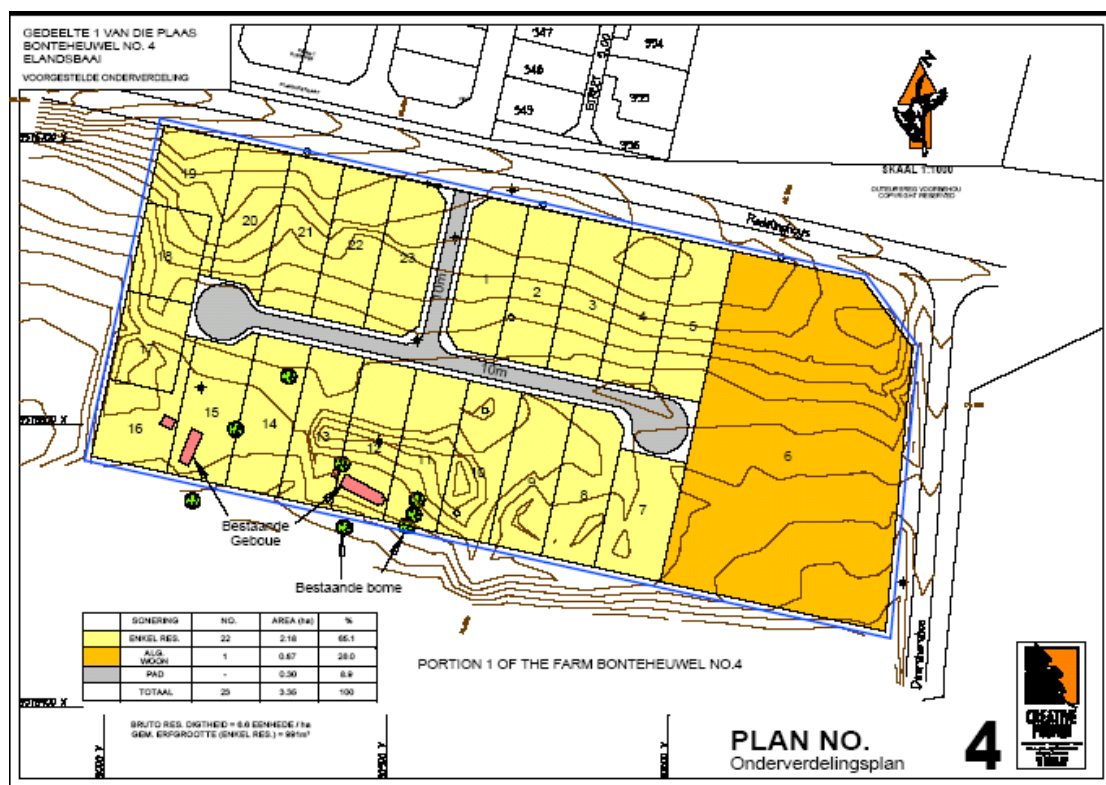


Figure 3. Proposed site development plan.



Figure 4. View of the site facing south west. Baboon Point can be seen in the distance.



Figure 5. View of the site facing north. Low cost and formal housing alongside the Elands Bay-Redelinghuis Road can be seen in the background of the plate.



Figure 6. View of the site facing south east, taken from the Elands Bay-Redelinghuis Road. An old building can be seen near the top right hand corner of the plate.



Figure 7. View of the site facing south west. The two old buildings can be seen in the distance.



Figure 8. Old building on the affected property



Figure 9. Old building on the affected property.

5. A BRIEF OVERVIEW OF EXSITING ARCHAEOLOGICAL INFORMATION IN THE STUDY AREA

5.1 Historical settlement at Verlorenvlei

By the early seventeenth century, little was known about the Verlorenvlei area as it was slightly to the west of the main routes of exploration along the West Coast. Most of the early traveller's along the Cape west coast, such as Bergh in 1682, Simon van der Stel in 1685, Thurnberg in 1774, Le Vaillant in 1783, Barrow in 1797 and Barnard in 1800, passed through the Verlorenvlei area, crossing the river much further upstream and did not venture along the vlei toward the sea. The names of many of these early traveller's can still be seen on the walls of the cave known as the 'Heerenlogement' which was used as an overnight shelter and is situated further north, between Graafwater and the Olifants River.

By at least the late 1600's, it would appear that no colonists had yet settled in the Verlorenvlei area, although it was being used to graze herds of cattle, supervised by local Khoi. It would also appear that indigenous San people were living in the area under Keyser or Caesar, and that they probably used as their base the land called Caesar's Kraal (behind Muishoekberg), to the east of the Verlorenvlei Settlement (Sinclair 1980). Starrenburg also visited the kraal of 'Hannibal' in the Verlorenvlei area in about 1700 (Sinclair 1986).

From the late 1700s grazing of cattle and wheat cultivation continued and occupation of the land became more permanent, with the building of farmhouses and probably also the beginnings of the Verlorenvlei settlement (Sinclair 1980; Gribble 1990).

Previously wheat was grown only for local use because of the difficulties of transport to the Cape Town market, but with the introduction of marine transport, and the removal of a fixed price, incentive was provided for export of surplus wheat to Cape Town. The cutters of the Stephen brothers are reported to have collected the grain from the Verlorenvlei area. The grain was taken by farmers to the Plan House near Baboon Point, and stored there until the arrival of the cutters, which apparently landed for loading at a point between the present crayfishing jetties and the sand bar across the river (Sinclair 1980).

The economic incentive, combined with favourable conditions for wheat cultivation, stimulated the growth of the Verlorenvlei settlement. The presence of the horse-mill and the bakery within the settlement suggests that a small community already existed, their way of life closely associated with the cultivation and processing of wheat (Sinclair 1980).

While the mid-nineteenth century saw the boom of the wheat era in the Verlorenvlei area, certain factors contributed to its decline, probably during the early twentieth century. The introduction of machinery and the growth of co-operative facilities rendered local processing by animal labour unnecessary. Environmental factors, such as a declining soil fertility and water catchment potential due to poor farming methods, overutilisation and overgrazing, and possible climatic change, may also have led to the areas decline (Sinclair 1980).

The Verlorenvlei area still retains some fine examples of the many development phases in the vernacular architecture of the West Coast Sandveld (Gribble 1990).

5.2 Verlorenvlei/Elands Bay

The Verlorenvlei/Elands Bay area is without doubt an extremely sensitive archaeological environment, and is probably one of the most intensively researched areas in South Africa. Archaeological sites occur in abundance. Research has shown that people have occupied the coastline and inland areas here for well over 100 000 years (Parkington 1976).

There are approximately 100 archaeological sites near the lower reaches of the Verlorenvlei and among the cliffs immediately opposite Baboon Point (Kaplan 1993). Most of the sites are located either on rocky kopjes or along the immediate coastline.

The area is rich in prehistoric campsites, caves and rock shelters with rock paintings, shell middens and geoarchaeological features. Well known sites include Elands Bay Cave at Baboon Point, Spring Cave on Bobbejaansberg, Tortoise Cave above the quarry near Danielsdrif, and Diepkloof Cave west of Grootdrif.

At least 90 rock art sites have also been recorded, most of them in the Table Mountain Sandstone Group outcrops along the south bank of the Verlorenvlei (Manhire *et al* 1993). Rock paintings record the remarkable artistic achievement of the indigenous San or Bushman of southern Africa who created them for religious purposes as part of a changing cultural tradition that persisted for over 20 000 years. Well-known painting sites occur in Elands Bay Cave on the Bobbejaansberg, and the Diepkloof/Witklip/Grootdrif complex, while many more painted sites have been recorded among the inland Sandveld kopjes (Manhire 1981, 1987).

6. IDENTIFICATION OF POTENTIAL RISKS

The following project actions may impact negatively on archaeological heritage remains.

The actions are most likely to occur during the Construction Phase of the proposed project.

- Bulk earthworks and excavations may expose or uncover buried shell middens, hunter-gatherer campsites, and human burials.

7. CONSTRAINTS AND LIMITATIONS

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

The north eastern bank of the Verlorenvlei is infested with alien vegetation, resulting in low archaeological visibility.

8. LEGISLATIVE REQUIREMENTS

8.1 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).

8.1.1 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.

8.1.2 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.

8.1.3 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.

9. FINDINGS

Several, low-density scatters of fragmented shellfish were located on the affected site, but these are spread very thinly over the surrounding environment.

Slightly more coherent scatters of shellfish and some whole shell were located in a few open spaces on the elevated (degraded) dunes alongside the Elands Bay - Redelinghuys Road, and at the Redelinghuys - Dwarskersbos intersection.

Several small scatters of shellfish were also noted on loose, wind blown sands in the central portion of the proposed site.

A very thin scatter of shellfish fragments and one silcrete flake was found in a small wind deflated basin surrounded by alien trees in the south eastern portion of the site.

The above shellfish scatters are dominated by fragments of Black Mussel (*Choromytilus meridionalis*), *Scutellastra argenvillei* and *S. granularis*. A few large whole shell of *S. argenvillei* also occur.

Apart from three or four stone chunks and flakes in quartzite and (one) in silcrete found scattered over the site, no other cultural items were located.

9.1 Other finds

Shellfish, as well as relatively large numbers of stone tools, about a dozen pieces of pottery (including a decorated potsherd), a broken bone point or link shaft, several highly weathered sand mussel scrapers, and several small pieces ostrich eggshell were found on either side of the road and on the slopes of a sand bank in the road reserve at the Redelinghuys - Dwarskersbos intersection, **directly alongside the affected property** (my emphasis) (Figures 10 and 11).

The shellfish is dominated by fragments of Black Mussel (*Choromytilus meridionalis*) while fragments of *S. argenvillei*, *S. granularis*, *C. compressa* and *C. miniata* also occur, including some large and small whole shell of all the above mentioned species. The shellfish is wind blasted and very weathered.

The stone tools include mostly silcrete, quartz and quartzite chunks and flakes, broken/split quartzite cobbles, an upper grindstone, and a small hammer stone. One small silcrete convex scraper, a retouched silcrete flake, and a small silcrete bladelet core, was also counted.

One (highly weathered) broken bone point/link shaft was found on the sandy slopes (Figure 12).

Of the dozen, or more, small pieces of pottery (all body sherds) found on the 'site' one sherd is decorated. The potsherd has running lines of dots (or oval jabs) on the body (Figure 12). It is interesting to note that a similar decorated body sherd was located from the Dunefield Midden (DFM) site about 1.5 kms north of Elands Bay (Steward 2005). DFM is dated to between 700-600 BP, suggesting a similar date for the 'Bonteheuvel' sherd. With regard to temper, the pot sherds are tempered with both, sand/crushed quartz, as well finer-grained clay.

Mixed among the pre-colonial archaeological remains are fairly amounts of modern domestic items such as glass, metal, plastic, and burnt wood.

The site occurs in a severely disturbed and degraded context.

The presence of a thin scatter of shellfish remains on the elevated dune in the **proposed site** (my emphasis), directly alongside the Redelinghuys - Dwarskersbos intersection does, therefore, suggest that potentially important below-ground archaeological deposits may occur on the affected property.



Figure 10. Shellfish, stone tools and pottery were found in the road reserve and on a bank of sand alongside the affected property at the Elands Bay-Dwarskersbos intersection. Arrow indicates the study site.

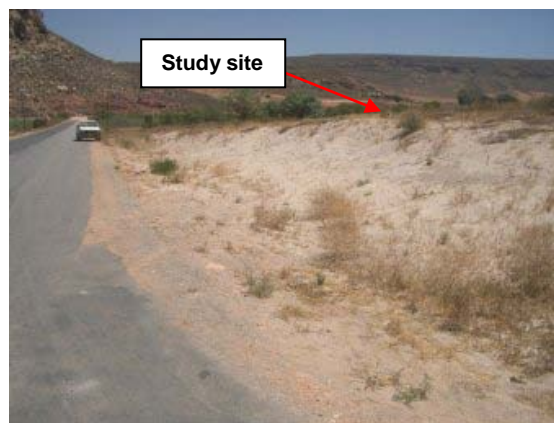


Figure 11. Shellfish, stone tools and pottery were found in the road reserve and on a bank of sand alongside the affected property at the Elands Bay - Dwarskersbos intersection. Arrow indicates the study site.



Figure 12. Broken bone point/link shaft and decorated potsherd. Note the rows of oval jabs. Scale is in cm.

According to Professor John Parkington of the Department of Archaeology, University of Cape Town (pers. comm.) no archaeological sites have been recorded on the proposed site, although the sites known as Verlorenvlei A, B, C and D are located north east of the Eland Bay-Redelinghuis Road. These sites have been collected, however and occur well away from the proposed development site.

10. IMPACT STATEMENT

The impact of the proposed project on important archaeological heritage remains is potentially high.

Potentially important below ground archaeological deposits may occur in the extreme north eastern portion of the proposed site, at the Redelinghuys – Dwarskersbos intersection.

Bulk earthworks and excavations for services may also uncover or expose buried shell middens, hunter-gatherer campsites and human burial remains.

11. RECOMMENDATIONS

With regard to the proposed residential housing development on Portion 4 (Portion of Portion 2) of the farm Bonteheuwel, the following recommendations are made.

- Shovel testing must be undertaken in order to determine the significance of below-ground archaeological deposits on the proposed site.

Shovel testing must focus on the elevated dunes at the Redelinghuys - Dwarskersbos intersection, but random testing among the thinly dispersed shell scatters over the remainder of the site is also recommended.

Should significant archaeological heritage remains be located during shovel testing, systematic sampling of archaeological deposits will be required.

Shovel testing must take place before development of the site proceeds.

12. REFERENCES

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