

PHASE 1 ARCHAEOLOGICAL INVESTIGATION OF A PORTION OF THE FARM ZOETENDALS VLEI: BREDASDORP

Prepared for

Codev

July 1995



Prepared by

Archaeology Contracts Office

Department of Archaeology
University of Cape Town
Private Bag
Rondebosch
7700

Tel (021)650 2357
Fax (021)650 2352
Email DJH@Beattie.uct.ac.za

EXECUTIVE SUMMARY

The Archaeology Contracts Office of the University of Cape Town was instructed by CODEV to conduct a Phase I archaeological survey of "Sea Park" in the division of Bredasdorp, Cape Agulhas region, South Western Cape Province. Fifteen archaeological sites and an historic feature were located. It is not expected that the proposed development will directly impact archaeological material but recommendations have been made concerning secondary impacts that will occur with greater recreational use being made of the area.

1. INTRODUCTION

The Archaeology Contracts Office (ACO) of the University of Cape Town was commissioned by CODEV¹ to undertake a first phase archaeological assessment of portion 7, (a portion of portion 1) and remaining portion 8 of the Farm Zoetendals Vlei (no 280) in the Bredasdorp division, southern Cape. The area in question, which lies to the north of Struisbaai will be subject to development activities that could impact on cultural resources in the area.

The Archaeology Contracts Office was requested to:

1. Undertake an archaeological assessment of the area, especially the proposed development nodes and road alignments.
2. Record the locations of historical and archaeological sites.
3. Produce a report detailing the findings and making recommendations about ways of minimising impacts on cultural resources.

2. ARCHAEOLOGICAL BACKGROUND

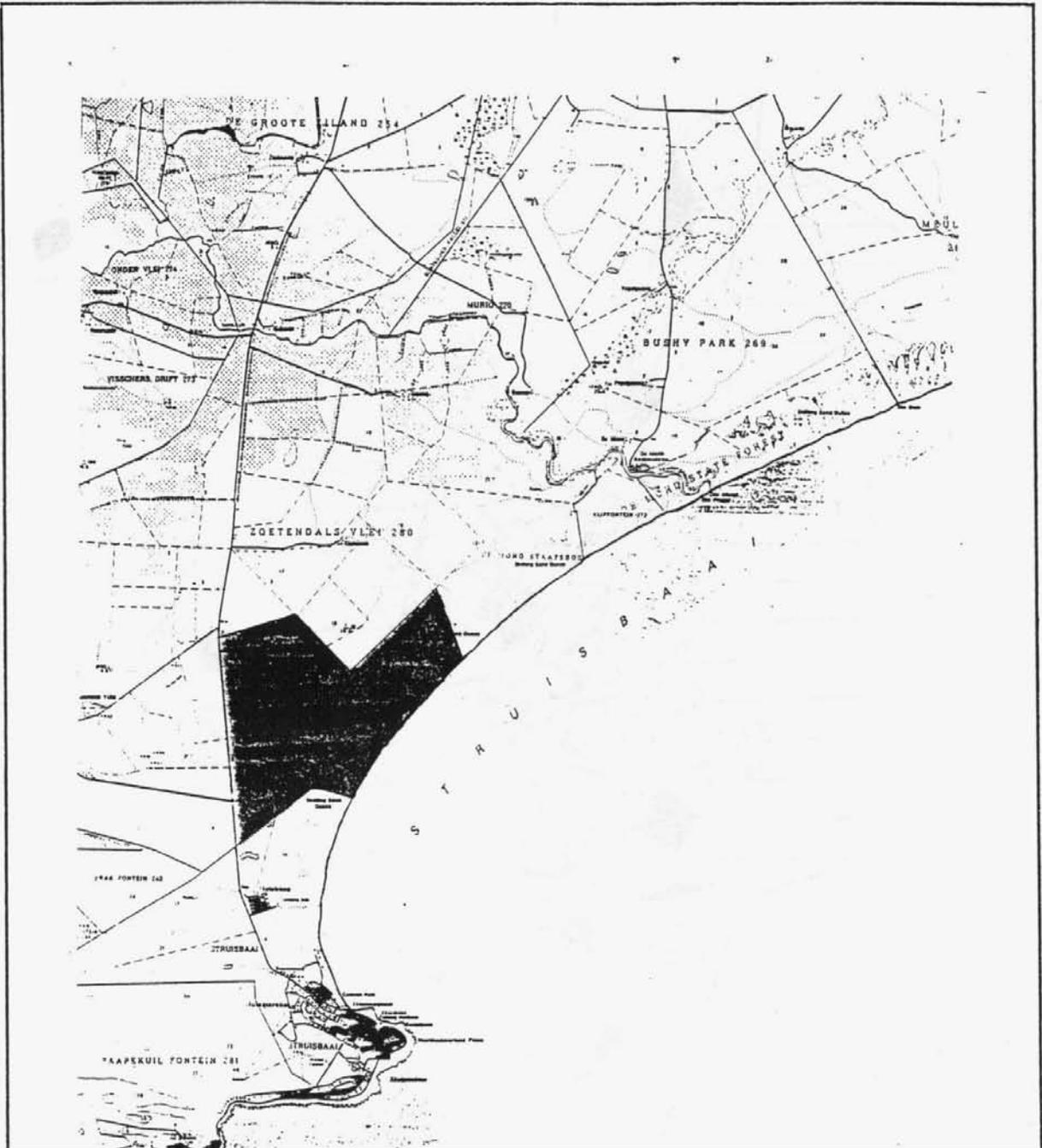
The first formal research into the prehistory of the southern Cape was that published by Professor John Goodwin in 1946. This research did not involve any excavations of archaeological sites on the southern coast but was based upon a series of observations of viswywers that had been built by prehistoric people - possibly the same people responsible for the accumulation of shell middens that contained numerous fish bones and fragments of pottery. Goodwin stressed the need for the archaeological investigation of sites that could provide evidence linking the contents of shell middens and the viswywers.

It was not until the 1970's that research by archaeologists of the South African Museum provided further insight into the prehistory of the southern Cape to the west of Cape Agulhas. Excavations by F.R. Schweitzer (1979) at Die Kelders cave near Gansbaai produced early evidence (1600 years ago) for the introduction of pottery technology and domestic stock into the Cape as well as a MSA (Middle Stone Age) occupation over 40 000 years old. Other excavations were carried out by the South African Museum at Byneskranskop 1 (Schweitzer and Wilson 1982) and again revealed a sequence of occupation extending back several thousand years. Excavations of shell middens in the Pearly Beach area by Graham Avery (1974, 1976) showed that the remains of early domestic sheep were to be found in some of the coastal middens as well. He suggested that the viswywers of this area were probably built by the same people (Khoi-Khoi herders) who were responsible for accumulating the shell middens.

It is now broadly accepted by archaeologists that shortly after 2000 years ago, a new economic system was introduced to Southern Africa - namely certain groups of people adopted transhumant pastoralism (in this case with herds of fat-tailed sheep and later cattle) instead of hunting and gathering which was universally practised in South Africa before this time. The origin of early stock keeping in Africa is still unknown.

In 1984 an area just to the west of Struisbaai was the focus of a study by archaeologists from the South African Museum and the University of Cape Town (Hall 1984). They were interested in the way in which prehistoric people were using the different kinds of

¹ CODEV - Coastal Conservation and Development Facilitation Services. Contact Chris Gaigher, PO Box 100, Wilderness, 6560 tel/fax: (0441) 8771182



1

3420 CA

environments represented in this area. The focus of this research was an area very similar in morphology to the site currently under investigation in this report in that it involved a shoreline, coastal dune field and flat coastal plains. An exhaustive survey of this area showed that the majority of archaeological sites were located directly on the shoreline, or on the edge of the inland dune field where large dunes overlook the coastal plain. The coastal plain itself was relatively devoid of archaeological material and was clearly not a popular area for Stone Age communities. The study showed that the dunefield had been favoured for occupation over the last 4000-6000 years by both earlier hunting and gathering people and possibly pastoralists later on. Prehistoric people were selecting the inland edges of the dunefields for encampments as this provided a good location from which to exploit the seasonal water and good grazing found on the coastal plain, or the marine resources of the nearby shore.

3. METHOD

The property on which the proposed development is to take place was visited. The location is shown in Figure 1. After reconnoitring the area we decided that the most likely places for archaeological sites to occur would be in the dune cordon parallel to the coast and on the various prominences which occur between the sand dunes and the main road. The absence of rocky shoreline made it impossible to predict where sites would cluster². According to the brief we paid particular attention to all the proposed development nodes and the proposed airfield site. Access routes were also given attention. The broad areas of land between the prominences were examined by frequent transects and through inspection of the access routes. The proposed nodes, access routes and airfield are shown on Figure 2.

While the shifting dune areas along the coast are not indicated on the proposals as targets for development, these nevertheless will be subject to increased use as a result of development in the vicinity. Experience has shown that severe impacts on archaeological sites can result from human activities such as souvenir hunting and illegal collection and excavation. Irresponsible use of off road vehicles also contributes greatly to the degradation of sites. For this reason it was necessary not only to search the development nodes, but also the broader area of the development zone as well.

As sites were located they were assigned a GPS (Global Positioning System) latitude/longitude co-ordinate. These positions are usually established by averaging 100 satellite fixes for each incidence. Site record forms are completed on which observations of artefactual and non-lithic remains are noted.

4. ARCHAEOLOGICAL SITES

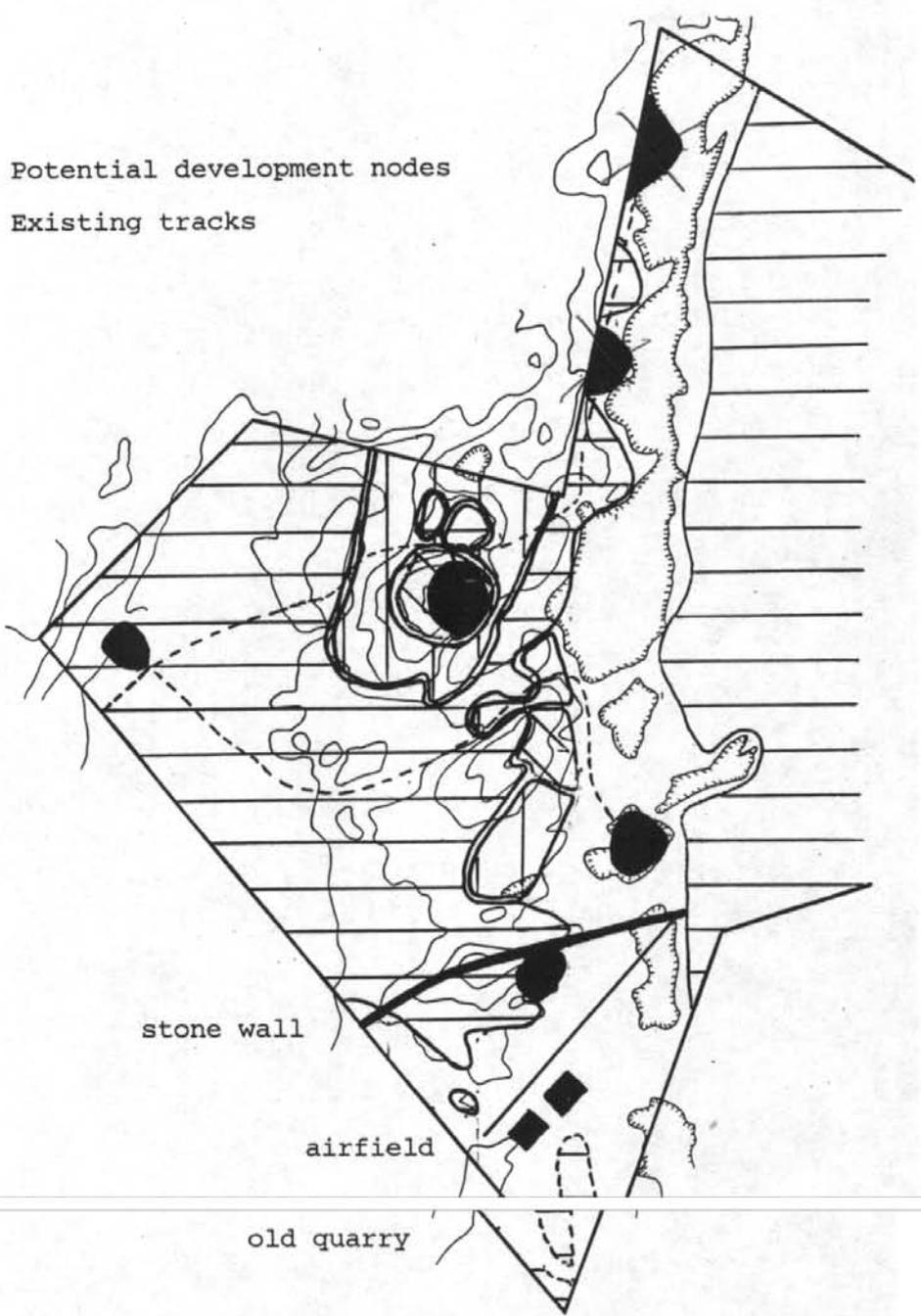
The following section contains short summary descriptions of the sites that have been located. The sites are plotted on excerpts from 1:10 000 orthophotos presented in Figures 3 and 4.

ZV1

GPS Location: 34°45.6286' S 20°03.0288' E

² Rocky headlands in the tidal zone form the habitat of many marine organisms, particularly shellfish. Since marine molluscs were actively collected by the original inhabitants, it is often the case that middens are found in the immediate vicinity of these points.

● Potential development nodes
- - - Existing tracks



stone wall

airfield

old quarry

2



A small surface site located on an exposed calcrete surface amongst the shifting dunes, approximately 10 meters in diameter, displaying clear spatial patterning of discarded sea shells, bone and stone artefacts. Of particular note is the presence of Cetacean bone on the edge of the site suggesting that this may have been a butchering area. Many other bones were observed including some large terrestrial mammal. Stone artefacts are mainly made on quartzite and limestone. Indigenous pottery was found and the fragments probably represent the remains of one pot. Shell species include *Turbo sarmaticus* (allekreukel), *Haliotis midae* (perlemoen) and *Oxystele* sp (periwinkel). Only occasional *Patella* (limpet) shells were observed. The artefactual material suggests that the site post-dates 2000 BP (before present).

Importance: High

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: This site should be mapped and collected prior to development proceeding.

ZV2

GPS Location: 34°45.6895' S 20°03.8816' E

A small surface scatter of sea shell and stone artefacts approximately 8 meters in diameter. Artefactual material includes quartzite, quartz and limestone flakes. A broken lower grindstone was also noted. Shell species observed consist almost exclusively of *Turbo sarmaticus*. No ceramics were observed. Bone is present and includes specimens of mammal, bird and reptile (mostly tortoise).

Importance: Low

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: No mitigation recommended.

ZV3

GPS Location: 34°44.3016' S 20°04.0731' E

A large surface scatter of stone artefacts, sea shells and other artefactual material approximately 70 meters in diameter. Parts of the scatter are covered by windblown sand. This is an exceptional occurrence in that it contains a range of formal stone artefacts and numerous fragments of decorated ostrich eggshell. Raw materials include quartzite, quartz, silcrete and limestone with most of the formal microlithic artefacts made on silcrete. Formal types recognised include segments, backed scrapers, other backed pieces, adzes (few), thumbnail scrapers (few). Several multiple use upper grindstones and a partially complete bored stone were also observed. A range of discarded marine shells were recorded. *Patella granatina* and *Patella longicosta* are well represented and *Turbo sarmaticus* and *Oxystele* sp are also numerous. No ceramics were noted. Ostrich eggshell fragments are plentiful with several showing traces of incised decoration of the outer surfaces. mammal, reptile and fish bone was observed. The artefactual material suggests that the site pre-dates 2000 BP possibly in the range of between 4000-6000 BP.

Importance: High

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: This site should be mapped and sampled prior to development proceeding.

ZV4

GPS Location: 34°44.5311' S 20°04.0743' E

Thin surface scatter of stone artefactual material and discarded marine shell lying on a calcrete platform. The site is approximately 8 meters in diameter. Artefactual material consists mainly of quartz flakes although 2 silcrete thumbnail scrapers were also observed. Shell species present are dominated by Turbo sarmaticus and Oxysteles sp. The only other shells present were a few Patella shells. No ceramics were observed but Ostrich eggshell fragments are numerous. Approximately 30-40 meters towards the sea is a pile of quartzite cobbles eroding out of the sand which may be a grave.

Importance: Low

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: Cairn should be sectioned to establish whether human remains are present. If this turns out to be the case they should be removed.

ZV5

GPS Location: 34°44.4262' S 20°04.0382' E

Thin scatter some 30 meters in diameter on a prominent limestone outcrop. Stone artefacts are made on quartz, quartzite, limestone and silcrete. Numerous cores and flakes and 1 backed scraper and 2 segments were also observed. Shell consists of Turbo sarmaticus with a few Patella also noted. No ceramics were observed although ostrich eggshell fragments are numerous. One decorated fragment was recorded and has a similar box-like motif to other material that we have seen in this area. No bone present.

Importance: Medium

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: The decorated ostrich eggshell fragments should be plotted and collected and a more detailed record made of the artefactual assemblage.

ZV6

GPS Location: 34°44.6926' S 20°03.9473' E

An ephemeral scatter of stone artefacts and marine shell. Artefactual material consists mainly of quartz and quartzite chunks, flakes and cores. The little shell that is present consists of Turbo sarmaticus. Many ostrich eggshell fragments were observed.

Importance: Low

Impact: Secondary impacts may occur as a result of increasing human use of the dunes.

Mitigation: None recommended.





ZV7

GPS Location: 34°44.5772' S 20°03.7413' E

A small surface shell midden lying in a deflation between two dunes. The shell is very fresh in appearance and consists exclusively of *Turbo sarmaticus* and *Oxysteles* sp. Very little stone. No ceramics or ostrich eggshell was observed.

Importance: Low

Impact: Secondary impacts may occur as a result of increasing human use of the dunes.

Mitigation: None suggested.

ZV8

GPS Location: 34°44.7387' S 20°03.6298' E

This feature consists of a scatter of 6 large stones 3 of which are deeply grooved lower grindstones. This feature is not directly linked to any other remains that could be seen. The stones probably represent a burial cairn which has been deflated.

Importance: Low

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: These grindstones should be collected.

ZV9

GPS Location: 34°44.8653' S 20°03.6616' E

The site consists of a thin scatter of shell and stone artefacts. Quartzite, silcrete and limestone flakes and cores were observed. Shell consists of *Patella granatina* and *Patella longicosta* with lesser amounts of *Turbo sarmaticus* and *Oxysteles* sp. Ostrich eggshell fragments were observed.

Importance: Low

Impact: Secondary impacts may occur as a result of increasing human use of the dunes.

Mitigation: None suggested.

ZV10

GPS Location: 34°44.8850' S 20°03.4796' E

A large surface scatter of shell and stone artefacts some 30 meters in diameter. Raw materials consist of quartzite, quartz, silcrete and limestone are present. Several adzes are the only formal tools seen and these were made on silcrete. Shell species include *Patella longicosta*, *Patella granatina*, *Turbo sarmaticus* and *Oxysteles* sp. Numerous ostrich eggshell fragments were observed and one of these was decorated. No ceramics were present.

Importance: Medium

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: The decorated ostrich eggshell should be plotted collected and a more detailed record made of the artefactual content.

ZV11

GPS Location: 34°45.3248' S 20°03.1581' E

A large scatter of stone artefacts and marine shell some 50 meters in diameter lying on a deflated surface surrounded by thick vegetation.. Part of the scatter is covered by wind-blown sand. Weathered human remains are found on the surface on the one extreme of the site. Quartz, quartzite, limestone and silcrete are present. Many of the silcrete flakes displayed cortex as if much preparation of raw material had taken place here. One backed scraper was observed. The distinct impression is gained that there may be a mix of MSA (Middle Stone Age) and LSA (Late Stone Age) components here. Shell includes *Turbo sarmaticus* and *Oxysteles* sp with some *Patella* species also noted. Many ostrich eggshell fragments of which some appears to be mineralized. Some bone is also noted. No ceramics were seen.

Importance: Medium

Impact: Secondary impacts may occur as a result of increasing human use of the dunes.

Mitigation: The human remains should be collected.

ZV12

GPS Location: 34°45.2902' S 20°03.1643' E

Scatter of stone artefacts and marine shell. Only limestone flakes and chunks were observed and the shell consists mainly of *Turbo sarmaticus*. No ceramics seen.

Importance: Low

Impact: Secondary impacts may occur as a result of increasing human use of the dunes.

Mitigation: None recommended.

ZV13

GPS Location: 34°45.1427' S 20°03.3955' E

An ephemeral scatter of shell and stone artefacts lying on an exposed platform of limestone. Many quartz flakes with a few fragments of silcrete are found in the hollows of the limestone platform. While there is very little shell the species again are made up by *Turbo* and *Oxysteles*. Indigenous ceramics are present and bone and ostrich eggshell is also noted³.

Importance: Low

Impact: Secondary impacts may occur as a result of increasing human use of the dunes.

Mitigation: None recommended.

³ The GPS locations of sites ZV 13, 14 and 15 are the same. All three sites lie in close proximity to each other in a deflation area.

ZV14

GPS Location: 34°45.1427' S 20°03.3955' E

A surface scatter, approximately 8x30 meters in size, containing a rich assemblage of formal stone artefacts and marine shell. The stone consists of a range of forms including thumbnail scrapers, adzes, backed scrapers and segments. Most of these are made on silcrete but quartz quartzite and limestone are also present. Shell is dominated by *Turbo sarmaticus* and *Oxysteles* sp with *Patella longicosta* also noted. Many fragments of ostrich eggshell were seen and bone is also present. The weathered skull and horns of a *Hartebees* are still preserved on the site. No ceramics were seen.

Importance: High

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: This site should be mapped and sampled prior to development proceeding.

ZV15

GPS Location: 34°45.1427' S 20°03.3955' E

This scatter contains a very similar assemblage to ZV14 and is some 30x15 meters in size. We consider that ZV14 and ZV15 may be parts of the same site but wind-blown sand has obscured the possible link. No ceramics were seen here.

Importance: High

Impact: Secondary impacts are likely to occur as a result of increasing human use of the dunes.

Mitigation: This site should be mapped and sampled in conjunction with the mitigation of ZV14 prior to development proceeding.

WALL

This is a packed stone feature extending across the lower portion of the investigation area. These walls are fairly common in the area and made use of the abundant limestone which forms suitable slabs for building purposes. The wall is obviously of some vintage and as such is probably worthy of some conservation.

Importance: Medium

Impact: This feature may be impacted as a result of the development of an airfield and occupation nodes in this vicinity.

Mitigation: As this is an historic feature of the area it would be advisable to preserve the wall in its entirety if at all possible. If not possible then at least a portion should be retained.

5. CONCLUSIONS

The lack of rocky headlands along the coastal frontage has greatly reduced the possibility of there being large numbers of archaeological sites in this area. The shellfish that we have noted on the sites would probably have been carried from the rocky headland at Struisbaai. The fact that sites have been found points toward there being other factors which attracted the early occupants to this area. Some of these may be proximity to water,

shelter from prevailing winds among the dunes, access to dead birds and other marine mammals along the shoreline.

The distribution of the located sites shows that there was a preference for occupation of the deflated areas between the dunes. The sites that we have located probably represent only a proportion of the sites that exist as an equal number probably still lie buried and will in time be exposed.

The artefactual material that we have seen indicates occupation of this area for at least the last 6000 years. One or two occurrences indicate much older occupation possibly as far back as 80 000 years (Middle Stone Age).

The presence of decorated ostrich eggshell is most interesting as the same items are being found in similar dune situations as far away as Namaqualand (Halkett and Hart 1991). These items have not yet been systematically recorded on open sites in this area. These fragments undoubtedly once formed part of whole eggs which were used to store water.

Unfortunately, whole pots as well as fragments of pottery, ostrich eggshell water containers, grindstones, bored stones and other artefacts are often collected by members of the public. While these items might have great attraction to the average collector, once they are removed from context they become worthless. It should be remembered that in the absence of written records, archaeological material is the only way of reconstructing the history of the area prior to colonisation.

6. RECOMMENDATIONS

1. We have indicated at the end of each site summary what action we see as necessary. Briefly the mitigation options can be grouped as follows:

ZV2, ZV6, ZV7, ZV9, ZV12, ZV13 - in our opinion require no mitigation.

ZV4, ZV8, ZV11 - require minimum intervention to remove items which otherwise may end up being picked up by the public.

ZV5, ZV10 - require some artefact plotting and collection and greater detail of recording.

ZV3, ZV14/15 - sites should be mapped and samples of the artefacts and non-lithics collected.

ZV1 - the entire site should be mapped and collected.

WALL - at least a portion to be conserved if not the entire structure.

2. These recommendations are subject to approval by the National Monuments Council. It is the task of the Plans Committee of the NMC to ensure that mitigation has been satisfactorily carried out. The contact person in this regard is:

Dr J Deacon
PO Box 4637
Cape Town
8000

Tel: (021) 4624502

fax: (021) 4624509

7. PROFESSIONAL TEAM

Fieldwork and report preparation

Dave Halkett
Tim Hart

8. REFERENCES

- Avery, G. 1974. Open station shell middens sites and associated features from the Pearly Beach area, south-western Cape. *S.Afr. Archaeol.Bull.* 30: 103-105.
- Avery, G. 1976. A systematic investigation of open station shell midden sites along the south-western Cape coast. Unpublished M.A. thesis, University of Cape Town.
- Goodwin A.J.H. 1946. Prehistoric fishing methods in South Africa. *Antiquity* 20: 134-141.
- Halkett, D. & Hart, T. 1991. Unpublished report presented to the Anglo American Chairmans Fund.
- Hall, M. 1984. Unpublished report presented to the HSRC.
- Schweitzer, F.R. 1979. Excavations at Die Kelders, Cape Province, South Africa: the Holocene deposits. *Ann.S.Afr.Mus.* 78(10): 101-203.
- Schweitzer, F.R. & Wilson, M.L. 1982. Byneskranskop 1: A late quaternary living site in the southern Cape Province, South Africa. *Ann.S.Afr.Mus.* 88(1): 1-203.