

A PHASE 1 ARCHAEOLOGICAL INVESTIGATION OF A PORTION OF MALKOPPAN

Prepared for

BCD Inc.
Town and Regional Planners

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EXECUTIVE SUMMARY

The Archaeology Contracts Office of the University of Cape Town was requested by BCD Inc. (Architects and Planners) to conduct a Phase 1 archaeological assessment of a portion of "Malkoppan" south of Lamberts Bay, Western Cape Province. The survey has shown that the area was intensively occupied by Late Stone Age prehistoric people resulting in much of the area containing archaeological material. If this area is to be developed, it is expected that a programme of mitigation will be required.

1. INTRODUCTION

The Archaeology Contracts Office (ACO) of the University of Cape Town was commissioned by Brandt Crous and Du Toit¹ (Architects and Regional Planners) to conduct a Phase 1 survey of a portion of "Malkoppan" south of Lamberts Bay, Western Cape Province. The ACO agreed to:

1. Search the area for archaeological sites.
2. Evaluate the significance of any archaeological material and suggest options for mitigation should the land be developed.
3. Produce a report detailing the findings.

2. BACKGROUND

The west coast south of Lamberts Bay has been subjected to research by archaeologists during the last three decades. This work has shown that the west coast has been occupied by people for at least a million years. During the LSA (Late Stone Age) period which began about 20 000 years ago, the ancestors of the San (Bushmen) hunter/gatherers occupied the Cape. They were attracted to the coastline which provided a predictable marine food supply. As a result of this, the existing late Holocene coastline (last 5000 years) is extremely rich in archaeological sites, especially shell middens in the immediate coastal zone. The archaeological sites associated with this period that have been identified are associated with stretches of rocky shoreline where black mussels could be collected. Human settlement patterns of this period are not well understood and are currently being researched. Just after 2000 years ago the Khoi Khoi (Hottentot) herders moved into southern Africa via the west coast. They brought with them domestic sheep, goats, cattle and the art of making pottery. It appears that the San were marginalised as a result of this new economic order until their decimation during the historic period.

Specific research in the area immediately south of Lamberts Bay has been conducted by Jerardino (1994) who has been sampling the large *Choromytilus meridionalis* middens (megamiddens) which are unique to the Elands Bay - Lamberts Bay area. Most of these sites have been dated between 2 - 3 000 years ago, but Jerardino recently obtained dates from material found at Malkoppan that is older than 4000 years. A copy of her interim report is included in Appendix A.

Archaeological sites of the west coast are an important cultural resource because they contain information about the history of indigenous people and their interaction with the natural environment. The destruction or disturbance of an archaeological site can represent a loss of information about the past, which unlike other environmental resources can never be renewed. Shell middens are specifically protected by the National Monuments Act (as amended).

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3. METHOD

Fulfillment of the brief required the ACO to visit and systematically search the target area (as identified on the plan provided with the brief) on foot for archaeological sites. Sites located were plotted by global positioning system (GPS) and have been evaluated for their archaeological significance and mitigation requirements. Small test holes were excavated to verify the presence of archaeological material below the surface. Figure 1 shows the extent of the property and the location of archaeological sites.

4. RESULTS

The Malkoppan area, being very close to the coast is rich in archaeological material. Almost all the raised ground on the foredune to the west of the Lamberts Bay road is covered with a scatter of midden material. In some places this has affected the vegetation of the area giving rise to colonies of succulent plants that seem to thrive in the ashy shelly soil. The only way to establish the significance of the scatters was to dig test excavations to locate areas where there are stratified sequences. Very little stone artefactual material was noted on any of the sites. Places where stratified material was found were recorded and located by using GPS fixes (100 averages per fix). Summary descriptions of the finds are contained in the following pages.

4.1 MKP 1

32° 07.4239'S 18° 18.3496'E

This site was sampled by Jerardino (1994). It is exposed in the side of a borrow pit that is visible from the road. Two major layers of archaeological material were noted. The first of these was a dark ashy lens dominated by *Choromytilus meridionalis* which lay about 300 - 400 mm below the surface. Some 250 mm below this was a *Patella granatina* and *Patella granularis* lens underlain by an ancient Pleistocene beach deposit. Jerardino has described the finds in detail and obtained dates for the archaeological material (see Appendix A).

Importance: High.

Impacts: Development of the dune will disturb the site further, if not destroy it.

Suggested mitigation: Jerardino (pers comm.) has indicated that it would be most important to obtain a good sample of material from the lower *Patella* lens which has been dated to over 4000 years old. Excavation and sampling in this location will be required.

4.2 MKP 2

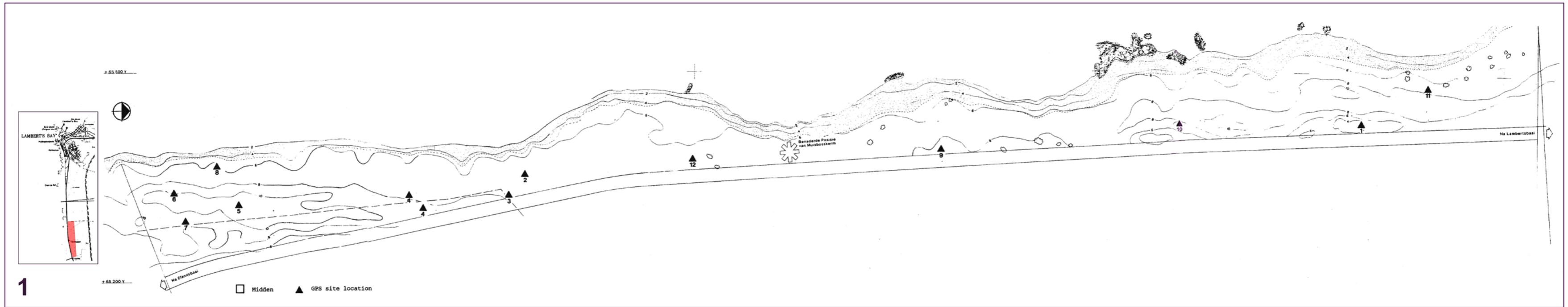
32° 08.3184'S 18° 18.4049'E

This is a small scatter of predominantly *Choromytilus meridionalis* shell. No bone or artefactual material was seen. A test excavation excavated to a depth of 1 m showed no consistent layers of material below the surface.

Importance: Low

Impacts: The site could be damaged or destroyed by development activities.

Suggested mitigation: None required.



4.3 MKP 3

32° 08.4401'S 18° 18.3349'E

This location marks the start of an extensive scatter of mostly limpet shell that extends along the raised area close the fence south of Muisbosskerm. A test excavation indicated that a very ephemeral scatter of *Patella* sp shell exists at a depth of 300 mm below surface. *Patella Argenvillei* and *Choromytilus meridionalis* are the dominant species.

Importance: Low

Impact: Development activities may damage or destroy the site.

Suggested mitigation: None required. Time could be more profitably used on other sites in the area.

4.4 MKP 4

32° 08.4425'S 18° 18.4386'E

32° 08.4600'S 18° 18.4509'E

This is a denser patch of shell on a virtually continuous scatter that covers the higher vegetated dunes towards the south end of the survey area. Two trial excavations (to a depth of 1 m) indicate varying sub-surface conditions. The first of these showed no evidence of any shell lenses while the second revealed that the first 100 mm contained dense *Choromytilus meridionalis* (with some *Patella* sp) followed by a layer of light soil and a *Patella* lens (*P. granatina*, *P. argenvillei*, *P. granularis*) at a depth of 300 mm. Fragments of pottery on the surface indicate that some components of this scatter date to after 2000 years ago. Initial indications are that the area of the scatter contains material dating to after 2000 years ago, between 2-3000 years ago (megamidden period) and possibly older (*Patella* lens).

Importance: High (in places).

Impact: Some parts of the site contain stratified material which will be disturbed or destroyed by excavation or earthmoving.

Mitigation: If development activities are planned for this area, the site will have to be subject to a pattern of excavation and sampling.

4.5 MKP 5

32° 08.6254'S 18° 18.4457'E

This is a dense scatter of mussel and limpet shells on a virtually continuous scatter on the ridge. A trial hole excavated to a depth of 1 m revealed two lenses of shell. The first of these was a dense lens dominated by *Choromytilus meridionalis* with bone (surface - 200 mm) followed by a limpet dominated lower lens (*P. argenvillei*, *P. Barabara*, *P. granatina*, *P. granularis*, some *Choromytilus meridionalis*).

Importance: High.

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: The various lenses within the site will have to be sampled, the material sorted and curated.

4.6 MKP 6

32° 08.6956'S 18° 18.4298'E

This site is located on a raised area close to the southern boundary of the property. There is a dense limpet and mussel (dominant) scatter on the surface with bone. A trial excavation showed that this continued to about 100 mm below surface. At a depth of some 300mm we encountered an extremely dense *Patella* lens (*P. granatina*, *P. granularis*, *P. argenvillei*, *P. barbara*) that extended to beyond a depth of 700 mm at which point the excavation was terminated.

Importance: High

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: The various stratigraphic units within the site will need to be sampled, the material sorted and curated.

4.7 MKP 7

32° 08.6830'S 18° 18.4679'E

This is a dense limpet and mussel scatter on the surface. A trial excavation to a depth of 1 m showed that the first 350 mm consists of a fragmented mixture of shell and soil. Dense ashy megamidden (*Choromytilus meridionalis* dominated) lies between 350-650 mm. This is followed by a thin sterile layer then a lens of limpet shell at a depth of 750 mm. This continued to beyond a depth of 1 m.

Importance: High. This site has a well developed stratigraphy.

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: The various lenses within the site will have to be sampled, the material sorted and curated.

4.8 MKP 8

32° 08.6486'S 18° 18.3983'E

This site consists of two mounds of limpets 80 m apart and close to the beach. One of the mounds has two ashy hearths associated with it. The content of the mounds is different to other sites in the area as they consist of largely *P. granatina* and *P. granularis*. A jeep track which has passed nearby may have damaged the spatial integrity of the sites.

Importance: High.

Impact: Since most of this site lies on the surface it is not only sensitive to earthmoving activities but also vehicular traffic which may destroy its spatial integrity.

Mitigation: The shell mounds need to be sampled and the hearths excavated and carbon samples taken. The material will need to be sorted and curated.

4.9 MKP 9

32° 07.8731'S 18° 18.3831'E

This largely buried site was indicated by a scatter of mussel shell which was quite dense in places. A trial hole revealed a very dense ashy lens dominated by *Choromytilus meridionalis* lying 150 mm below the surface. This was some 500 mm thick. At the base of this was a limpet lens made up of *P. argenvillei*, *P. granatina* and *P. granularis*.

Importance: High. The site is stratified and undisturbed.

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: The various lenses within the site will have to be sampled, the material sorted and curated.

4.10 MKP 10

32° 07.6238'S 18° 18.3529'E

A shell lens has been exposed in a borrow pit on the close to the Lamberts Bay road. It is dominated by *P. granatina*. *P. granularis*, *P. argenvillei*, *P. Barbara* and *Choromytilus meridionalis* are present.

Importance: Medium.

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: The lens will have to be sampled, the material sorted and curated.

4.11 MKP 11

32° 07.4610'S 18° 18.3039'E

A surface scatter of limpets and some mussel covers a small mound on the edge of the foredune. No buried lenses were located.

Importance: Low.

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: None required.

4.12 MKP 12

32° 08.1395'S 18° 18.3951'E

32° 08.1802'S 18° 18.3884'E

Three separate trial excavations were dug on this enormous scatter which extends southwards from Muisbosskerm down the eastern side of the property. Below surface conditions are variable with the third trial hole indicating a dense lens of mussel and limpet below the surface (second GPS location). Shell densities seem to vary from place to place.

Importance: Variable - high. The most sensitive area is the third trial hole.

Impact: Earthmoving, excavation in the immediate vicinity will destroy the site.

Mitigation: The various lenses within the vicinity of the third trial hole will have to be sampled, the material sorted and curated.

5. CONCLUSION

There is prolific archaeological material on Malkoppan to the extent that almost half the area that we were requested to survey may be described as being covered by midden. The reason for this extraordinary density may be related to reefs of rock on the shoreline which are exposed at low tide. These would have supplied abundant shellfish. In addition, fresh water was available in pans behind the dune cordon (most of these have been pumped dry in recent years). Jerardino (1994) has documented a sequence from the site MKP 1 which has shown that the sequence of occupation started here before 4000 years ago. The sequence of occupation involves an early period when people exploited limpets. This followed by a change in exploitation strategy that involved mass harvesting of black mussels giving rise to the "megamiddens" that are characteristic of this area. The pattern changed again after the introduction of ceramics and domestic animals 2000 years ago. Many of the sites described in this report are similar to site MKP 1. It would appear that there is local and distinctive occupation pattern that took place in the Elands Bay/Lamberts Bay region before 2000 years ago. As yet the cause of this is not known but is currently a topic of enquiry by Jerardino and her colleagues in the Spatial Archaeology Research Unit.

6. RECOMMENDATIONS

The large quantity of archaeological material on this land is going to have implications for any development planned here. It is very unlikely that the National Monuments Council will issue a permit for the destruction of these sites unless an extensive mitigation programme is implemented. This will have significant ramifications in terms of cost and scheduling of development activities, depending on the nature and extent of any development planned. If development is envisaged, it may be possible to keep it away from the higher vegetated area back from the beach, however the quantity of land available for this is limited. It is suggested that if development activities are planned, the following procedure should be followed:

6.1 Application be made to the National Monuments Council to destroy archaeological material. It is likely that the NMC will require a programme of mitigation to be carried out by an archaeologist before this can happen.

6.2 The degree of mitigation required is subject to the approval of the National Monuments Council.

6.3 The mitigation of archaeological material usually requires excavation, sampling and curation of the finds by an appropriate institution.

7. PROFESSIONAL TEAM

Fieldwork

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Report

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