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PHASE 1 ARCHAEOLOGICAL SURVEY OF KLIPFONTEYN

Prepared for
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1. INTRODUCTION

The Archaeology Contracts Office was asked to conduct a Phase 1 investigation on a piece of land lying between the resort towns of Franskraal and Van Dyksbaai on the southern Cape coast. The location of the investigated portion of land is shown Figure 1. The purpose of the survey has been to identify any archaeological sites and to assess the negative impacts on them that may occur as a result of the land being developed. In terms of the National Monuments Act of 1969 (as amended) all shell middens are protected and may not be disturbed or removed without the authority of the National Monuments Council.

The survey has recorded 6 archaeological sites all identified as shell middens. The significance of these sites as well as options for mitigating damage are discussed in the following pages.

2. PREVIOUS RESEARCH IN THE SOUTHERN CAPE

The first formal research into the prehistory of the southern Cape was published by Professor John Goodwin in 1946. While this work did not include any excavations, it recorded the presence of many tidal fish traps (visvysers), common in the Agulhas region, and associated shell middens (Shell middens, or mounds, accumulated as a result of exploitation of marine molluscs in the intertidal zone as a major food source). He concluded that the same people were responsible for both the fish traps and shell middens and stressed that excavation was necessary to test this hypothesis (Goodwin 1946).

It was not until the 1970's that a programme of research instituted by archaeologists at the South African Museum provided further insight into the prehistory of the area. Excavations at Die Kelders Cave (Schweitzer 1979), Byneskranskop 1 (Schweitzer and Wilson 1982) have showed that occupation of the area first took place many thousands of years ago. In the case of Die Kelders, more recent excavations have suggested the presence of human remains in Middle Stone Age deposits dating back over 40 000 years ago. While these excavations have concentrated on caves, as these offer the most potential for finding long vertical sequences of occupation, other work has focussed on open shell middens around Pearly Beach (Avery 1974) and Hawston (Avery 1976). More recently research has been carried out further up the coast at Stilbay (Hart and Parkinson 1991. Henshil wood, in prep).

It is generally accepted by archaeologists that shortly after 2000 years ago, a new economic system was introduced into southern Africa. This involved the adoption of transhumant pastoralism (in the case of the southern Cape herding of sheep and much later, cattle) over the traditional hunting and gathering lifestyle although the latter was probably never completely discontinued. The presence of pottery and the bones of domesticated animals are indications of the introduction of this economic system and are usually only found in the upper parts of excavated sequences or in some shell middens.

3. ARCHAEOLOGICAL SITES AT KLIPFONTEYN

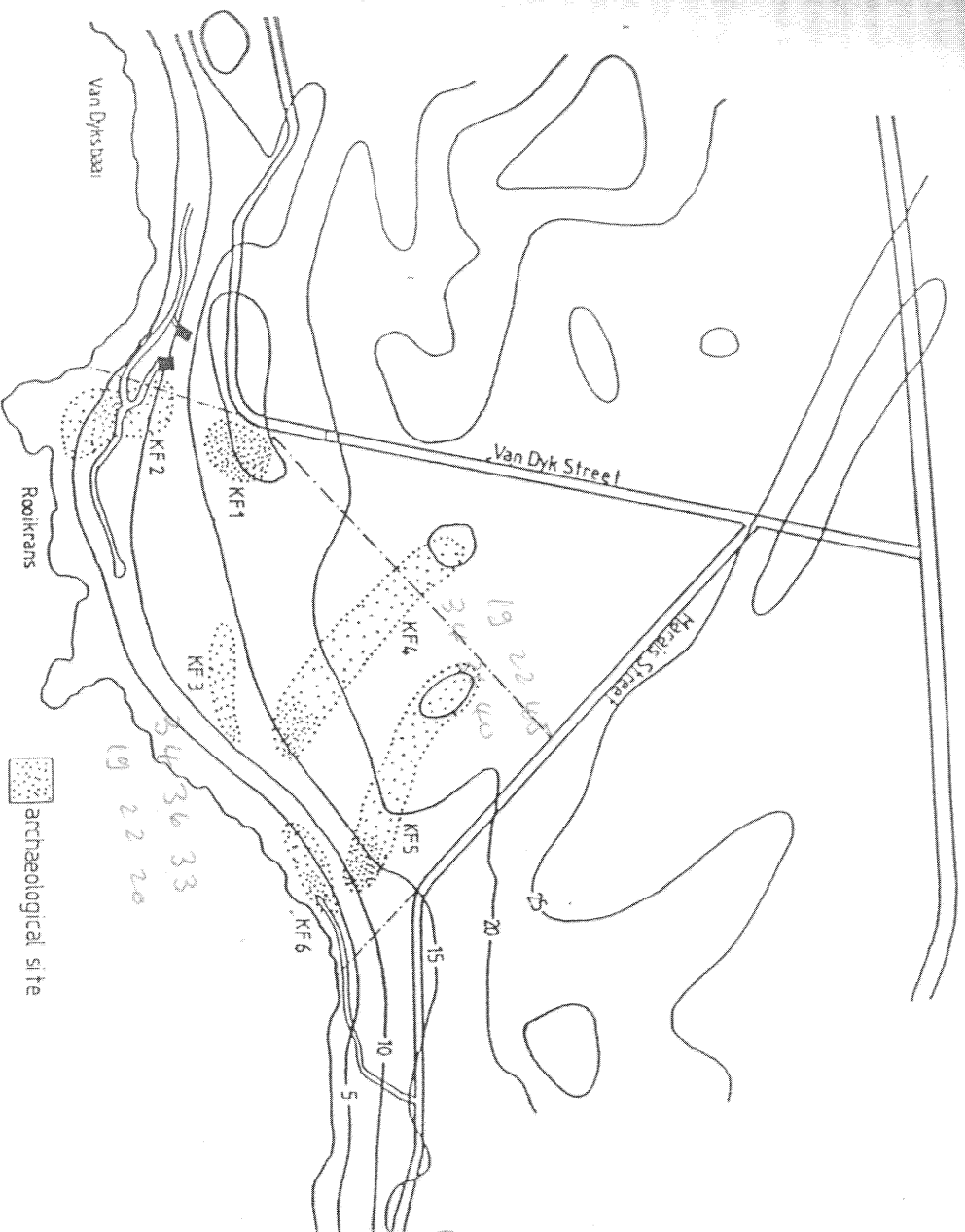
Six shell middens have been identified on the property. All of these are characteristic of middens dating to the Late Stone Age (LSA)¹. The thick bush cover present hampered observations to a degree, especially the identification of rarer artefacts such as stone tools and ceramics. Observations have shown that a preference was exercised for higher lying areas with the result that sites are located on the numerous prominence that occur even though these are only on average marginally higher than the surrounding land. A plan showing the location of the sites is shown in Figure 1.

KFN 1

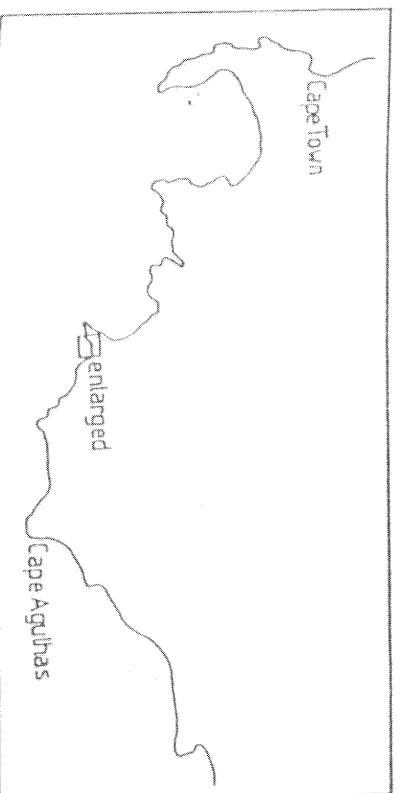
$-31^{\circ}17'21''S$ $21^{\circ}55''E$ $\pm 34^{\circ}57'45''S$

A fairly dense surface scatter of marine shell and other artefactual material. The site seems to be confined to the top of the small prominence immediately to the east of the entrance to Van Dyksbaai. A part of this site has been damaged by the existing road although we estimate the remaining portion to be in the order of 40x40 meters.

¹ A broad term referring to the last 20 000 years of prehistory in South Africa.



Ref 1:10000 Orthophoto 3419CB13



Dyksbaai. A part of this site has been damaged by the existing road although we estimate the remaining portion to be in the order of 40x40 meters.

Examination of the surface shell scatter (* denotes dominant species) showed that the following species were present: *Turbo samaticus* (allekreukel), *Turbo sidaris*, *Burnupena* sp (whelk), *Oxystele* sp (winkle), *Choromytilus meridionalis* (black mussel), *Haliotis midiae* (perlemoen), *Patella argenvillei* (limpet), *Patella granatina*, *Patella granularis*, *Patella tabularis*, *Patella longicosta*. Stone artefactual material includes a silcrete bipolar core, several quartzite flakes and a hammerstone, and some quartz flakes. One fragment of ostrich eggshell was observed.

Two small test holes were excavated to estimate the thickness of the surface layer and to establish if other lenses of shell were buried lower down. Both of these holes showed that the surface layer was not very thick, not extending much deeper than a few centimeters. A second lens of shell was located at between 30 and 40 centimeters below the surface. This was also not very thick or dense but contained a number of large quartzite pieces including two hammerstones and a grindstone. One hole was dug to a depth of 60 centimeters where a change in soil colour occurred. This changes from grey humic soil to a lighter coloured soil with pieces of decomposing sandstone present. Because these holes were very small it is difficult to comment on the species represented in the buried layer other than to say that we observed *Turbo samaticus*, *P argenvillei* and *Burnupena* sp.

Research potential: Medium. Sampling of the surface and sub-surface layers is required.

KFN 2 $\pm 17^{\circ} 21' 53''$ $34^{\circ} 36' 55''$ S

This site lies closer to the coast and is on level ground. Disturbance has occurred here with much mole activity evident. Proximity to houses and a dirt track has resulted in builders rubble being dumped here. The dirt track which continues along the lower part of the property adjacent to the sea, appears to have cut through the lower part of the site. Building of the house to the west of the site on the adjoining property has also resulted in some damage. Shell species observed on the surface include: *Turbo samaticus*, *Oxystele* sp, *Haliotis* sp, *P longicosta*, *P argenvillei*. Stone artefactual material observed includes quartzite flakes and chunks. One perforated pot lug and a body sherd were also observed. This material is characteristic Cape coastal pottery (Rudner 1968) and indicates that at least some of the site post-dates 2000 BP (years before present).

Research potential: Medium. Sampling of the surface shell should be carried out.

KFN 3 $\pm 17^{\circ} 22' 30''$ $34^{\circ} 36' 45''$ S

This site lies on a low hummock to the south of site #4. The shell here is not particularly dense though some of the same species as observed at other sites occur here as well. Shell species observed include *Turbo* sp, *Burnupena* sp, *Oxystele* sp, *P argenvillei*, *P Granatina*. Stone artefactual material consists of some quartzite flakes.

Research potential: Low. This site seems to be of the same type as others. Better samples can be obtained on other sites.

KFN 4 $17^{\circ} 22' 20''$ $34^{\circ} 36' 33''$ S

This site lies on a ridge running through the centre of the property. The site consists of a shell scatter that begins just beyond an old fence line and continues down towards the end of the ridge. The length of the scatter must be in the order of 70 meters long and while most of this is fairly sparse, a denser patch of shell is located at the southern end of the ridge. The thickness of bush makes it impossible to assess whether or not this is one site or a number of overlapping sites. For the purpose of this survey we have treated it as one site. Shell species observed include *Turbo* sp, *Burnupena* sp, *Oxystele* sp, *P argenvillei*, *P longicosta*, *P granatina*, *Haliotis* sp. Stone artefacts include several quartzite flakes and chunks.

Research potential: Low. This site seems to be of the same type as others. Better samples can be obtained on other sites.

19° 22' 45" 0 / 36° 36' 40" S.

KFN 5

This shell scatter lies on a second ridge at the north-east part of the property. This lies parallel to Marais Street and the ridge on which site #4 is found. The scatter is very similar to #4 in that it is long and rather sparse for most of this length except for a dense patch at the southern end of the ridge closest to the coast. Shell species observed on the surface include *Turbo* sp, *Burnupena* sp, *Oxystele* sp, *P. argenvillei*, *P. longicosta*, *P. granatina*, *Haliotis* sp, *Choromytilus meridionalis*. Other artefactual material included quartzite flakes and chunks and one fragment of ostrich eggshell.

Two small test holes were excavated. The first in the northern part and the second in the dense scatter at the southern edge of the site. Both holes showed the surface scatter to be limited to a few centimeters at the surface with a second shell lens occurring at a depth of approximately 40 centimeters below the surface. The northern hole was dug to depth of 60 cm and was stopped without any colour changes being noted or more shell being encountered. The southern hole shows a colour change from grey to a light colour at between 50 and 60 cm. The below surface lenses in both holes produced stone artefactual material. Holes were too small to really comment on the shell other than to say that the lower lens appears to contain the same species as the surface unit.

Research potential: Medium. Sampling of the surface and sub-surface layers is required.

KFN 6

19° 22' 45" S.

This midden lies amongst the rocks adjacent to the turning circle of the dirt track along the coast. The shell here is densely packed and has been degraded by use of the road. In addition and included within the delineation of site #6, is a general scatter of shell on the slope to the north. Some of this probably comes from sites #4 and #5. * Shell species observed include *Turbo* sp, *Burnupena* sp, *Oxystele* sp, *P. argenvillei**, *P. longicosta*, *P. granatina*, *Haliotis* sp, *Choromytilus meridionalis*.

Research potential: Medium. Some sampling is necessary if the site is to be disturbed.

4. DISCUSSION

The sites that have been described here all date to the Later Stone Age and are all probably less than 5000 years old. The presence of pottery on one site suggests that part of the occupation occurred after 2000 years ago and it may be that others also date to this time. Heavy bush cover has made it difficult to make time observations of artefacts and has also made it difficult at times to estimate the extent of individual sites.

Notwithstanding the low visibility, it seems that only minute-quantities of bone occur. The apparent predominance of two shell species namely *Turbo samnaticus* and *Patella argenvillei* indicates that tidal rock pools as well as the lower balanoid zone were being exploited. Although we have not observed any it is likely that fish bones will be found with the shells in the middens. The numerous quartzite flakes and chunks and occasional hammerstones and grindstones are fashioned on the abundant raw material found in the beach gravels. These implements are common on south coast middens where it appears a very informal and expedient use of local material was made.

Excavations of open middens along this portion of coast have taken place at Pearly Beach and Hawston (Avery 1976). The results of the former excavations are relevant here as Pearly Beach is relatively close by. The photographs of Avery's excavations show clearly that many of his middens are very different from what we have observed. Some of the excavated sections show thick lenses of *Turbo* and *Haliotis* shells unlike the Klipfontuyn sites. However, middens observed by us at road cuttings within the built up areas of Franskrail suggest that the Pearly Beach pattern seems to extend to this area. Avery also describes *Oxystele*, *Patella*, *Turbo* middens with a greater variety of shell species which appear to be similar to the pattern at Klipfontuyn. It must be remembered that we have not yet conducted any sampling and can make only very subjective comparisons at this stage.

5. RECOMMENDATIONS

1. In our opinion sites KF1, 2, 5, 6 will require some form of mitigation if they are to be affected by the development. In the case of sites KF1 and KF5 this appears to be unavoidable as these lie on the landward side of the building setback line (established by observation of marker pegs). Site 6 lies close to the sea and will probably not be affected by any development *per se*. Increased volumes of people and traffic along the coast will however have an adverse affect on archaeological sites and this will have to be taken into consideration. Site KF2 may fall within the developed area and if so will be subject to the same provisions as established for sites KF1 and KF5.

Mitigation for sites KF1 and KF5 should take the form of surface sampling of enough surface area to characterise the shell species and other archaeological material present. At the same time excavations should be carried out to examine the content of the buried layers.

2. Sites KF6 could easily be protected through limiting vehicular access to the area. A similar situation pertains to site KF2 although the potential for development is greater here if not now then at a later stage. The status and possible mitigation of this site needs to be established after development plans have been finalised.
3. Sites KF3 and KF4 are similar to KF1 and KF5 but of lower research potential. They will not require further investigation if recommendations 1 and 4 are strictly adhered to.
4. Human skeletal material is often found in association with shell middens. It is not possible to predict where (and if) burials have occurred. It must be made clear to building crews what procedures are to be followed in the event of skeletal material being found. Firstly, these remains should be treated with the same dignity that would be afforded to any other burial. The remains should, if possible, be left in place. Secondly, an archaeologist should be contacted to record and remove the remains if they have to be disturbed.
5. Measures for the mitigation of sites threatened by development are subject to the approval of the National Monuments Council.

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Fieldwork and report preparation

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