

REPORT ON SAMPLING OF SHELL MIDDENS AT THE FISHERMAN'S WORLD DEVELOPMENT, HOUT BAY, SOUTH WESTERN CAPE PROVINCE

Prepared for

Cape Coast Properties

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1. INTRODUCTION	4
2. BACKGROUND: ARCHAEOLOGY OF THE CAPE PENINSULA	4
3. FISHERMAN'S WORLD ARCHAEOLOGICAL SITES	6
3.1 FW 2.....	6
3.2 Surface site FW 3.....	7
3.3 Monitoring of the cut and fill operation	8
4. DISCUSSION	8
5. RECOMMENDATIONS	10
6. REFERENCES	11
7. PROFESSIONAL TEAM.....	11
APPENDIX A	12
APPENDIX A	12
APPENDIX B	14
APPENDIX C.....	15
APPENDIX D.....	16

EXECUTIVE SUMMARY

The Archaeology Contracts Office was commissioned by Cape Coast Properties to sample shell middens at Fisherman's World, Hout Bay, Cape Province. The study involved excavations at three localities. Two sites produced adequate samples. A further deeply buried site was exposed by earthmoving and grab samples were taken. Indications are that all the archaeological material post-dates the ceramic period at the Cape and may have been deposited by indigenous groups such as Khoi Khoi herders who resided in Hout Bay valley during the early historic period.

1. INTRODUCTION

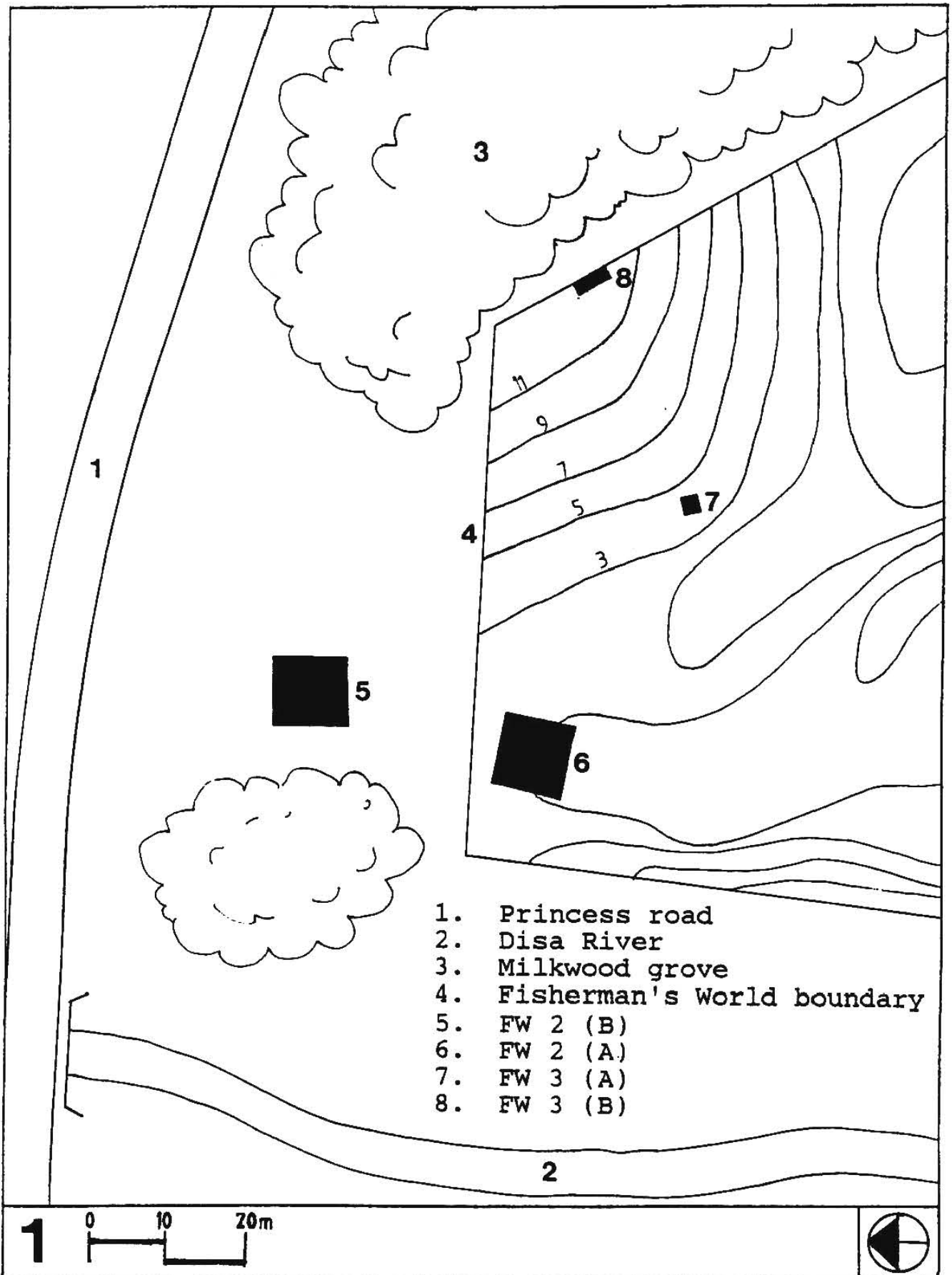
The Archaeology Contracts Office of the University of Cape Town was commissioned by Douglas Roberts and Peter Loebenberg Architects to conduct a second phase of archaeological investigation to mitigate the destruction of sites at Fisherman's World (Phase 2), Hout Bay, Cape Peninsula. A phase 1 survey of the development area revealed that a recent historic site and two prehistoric sites would be impacted. Consequent to a meeting held on the 9th February 1995 at Mr Dorman's office in Hout Bay which was attended by representatives from the National Monuments Council, the ACO (Archaeology Contracts Office) and the developers, it was agreed that the ACO should undertake mitigation of archaeological material and monitor the cut and fill operation to prepare the site for development. This has now been completed and the findings are contained in this report. The locations of the sampled areas are indicated on Figure 1.

2. BACKGROUND: ARCHAEOLOGY OF THE CAPE PENINSULA

People have been living on the Cape Peninsula for least half a million years or more. Ancient stone artefacts dating to the earliest period (called the Early Stone Age by archaeologists) have been found at various locations in the Cape Point Nature Reserve. The humans who lived on these archaeological sites are believed to have been members of the species *Homo erectus*. They were capable of making a variety of stone and wooden artefacts but differed from modern humans in terms of their cranial morphology.

During the first half of the 20th century a number of amateur archaeologists excavated several large rock shelters at Kalk Bay and in the Fish Hoek valley discovering Middle and Late Stone Age deposits. Unfortunately the standard of excavation practised by these early archaeologists was not adequate - lots of important information was lost and some of the finest sites on the Peninsula were destroyed. Middle Stone Age people lived between forty thousand and two hundred thousand years ago. It is known that they made complex forms of stone artefacts. They hunted animals, collected plant foods and shellfish, lived in rock shelters and camped on open sites. The few human bones that have been found from this period indicate that Middle Stone Age people may have been an early form of *Homo sapiens* who were very similar to modern humans.

The most recent phase of prehistoric occupation of the Cape Peninsula is known as the Late Stone Age. This period has been subject to detailed study by archaeologists. Late Stone Age people lived between twenty thousand years ago up to the arrival of European colonists at the Cape. Late Stone Age people were the ancestors of the San (Bushmen) and Khoi Khoi (Hottentots) who were present throughout the South West Cape and Northern Cape during the historic period. Throughout most of the Holocene (last 10 000 years) the Peninsula was inhabited by San hunter gatherers who resided in small groups which were highly mobile. They hunted with bows and arrows, snared small animals and gathered shellfish. They used digging sticks to find a variety of vegetable foods. The San had complex belief system, aspects of which are represented in many of the rock paintings sites of the South West Cape. It is now broadly accepted by archaeologists that shortly after 2000 years ago, a new economic system was introduced to Southern Africa. Certain groups of people (the Khoi Khoi) 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. At the same time the art of making clay pottery was introduced. The origin of early stock keeping and pottery in Africa is still unclear.



Most of the sites in the Hout Bay area (including those that are the subject of this report) are from the Late Stone Age period. Many sites in the Hout Bay valley have been destroyed over the years by unchecked development, particularly along the coastal strip. Middens are known to exist in the area but have never been systematically recorded (ACO 1994). Four sites have been excavated in the Hout Bay area. These are Logie's Rock at Sandy Bay (Rudner & Rudner 1956), and the Sandy Bay Midden, excavated by Townley Johnson but not published. Human burials were removed during this excavation and are housed at the medical school at UCT. A student excavation was conducted at Hout Bay Cave near the Harbour (Buchanan 1977). The cave contained five layers of archaeological material from which Buchanan recovered stone artefacts, pottery, shellfish samples and faunal material, all of which has been analysed in some detail. Layer 1 of this site was dated to 1460±50 BP (Pta 2035) while layer 5 was dated to 1840±50 BP (Pta 2037) indicating that the entire sequence built up after the advent of pastoralism 2000 years ago. Recently Mr. M. Wilson of the SA Museum excavated a buried midden on the Baviaanskloof River. This site has been radiocarbon dated to within the last 2000 years (Wilson pers. comm.). The successful compilation of the chronology of human habitation of any area is dependent upon adequate sampling of many archaeological sites from different time periods. Although there is some information about Hout Bay more excavated samples are required to complete the picture.

3. FISHERMAN'S WORLD ARCHAEOLOGICAL SITES

3.1 FW 2

This site is a large dispersed open shell midden that continues within and beyond the boundary of the development area into the public open space in the proximity of the proposed access road. Although the portion of the site which lay within the public area (portion FW 2 (B)) was not subject to a phase 1 investigation, it was agreed at the meeting that the ACO would mitigate this as part of the sampling program.

FW 2 (A) This portion of the site lay within the development area. This was sampled using standard archaeological procedure. A 100m² of the densest part of the site was gridded into 1m² squares. Visible surface archaeological material in 31 squares was scraped off and passed through a 1mm sieve. All the material was bulked and transported to UCT for curation. That fact that no archaeological material was located below the immediate surface indicates that this site has been subjected to long periods of deflation. Furthermore, the area had recently been an informal settlement which would have had an effect on both the spatial integrity and possibly the faunal component. The sample was fairly fragmented but contained sufficient shellfish for comparative purposes.

Surface Scrape: The analysis of the material indicated that it was highly fragmented and had probably been impacted in the past. The analysis of the shellfish showed that the sample was dominated by *Choromytilus meridionalis* (79%) with the remainder of the sample being made up of *Patella* sp. Bone was present but in a highly fragmented state. Fragments of Cape Coastal Pottery were located in the form of a base and a lug, but no stone artefactual material was found.

FW 2 (B) This part of site lies within the public space in the proximity of the proposed access road. Inspection of the site showed that it was very much less fragmentary than the portion within the development area. The sampling strategy employed was identical to that used

within FW 2 (A). Shell from 38m² (surface scrape) was excavated and bulked while any other artefactual material that could be seen on the site was plotted and collected. Since this area had not been subjected to a phase 1 excavation, a deep sounding was sunk to check for buried lenses. A layer of shell was located below 600mm of sterile soil. The material was in good condition and contained bone, whole shell and pottery. A further 9m² was opened and the lens was sampled and bulked. Unfortunately the deposit was extremely moist so a 3mm screen had to be used to process the soil.

Surface Scrape. The surface sample was very similar to that from FW 2 (A) but less fragmented. Pottery was present, stone artefacts and bone was extremely scarce. Of interest was the presence of two Dutch smoking pipe stems (18th century) among the assemblage. The most commonly preserved remains were shellfish (Appendix A). The analysis of the shellfish sample has shown the dominant species is the Black Mussel *Choromytilus meridionalis* (68%). The remainder was made of limpets including *Patella argenvillei*, *Patella granatina*, *Patella granularis* and *Patella cochlear*. Faunal material from the surface sample was very fragmentary and quite scarce. The vicinity of site FW 2 has been subject to informal settlement in recent times which means that it is likely that the sample has been contaminated with modern garbage. Appendix D presents the results of a preliminary examination of the faunal material. Artefactual material contained in the sample consists entirely of fragments of Cape Coastal Pottery (Appendix B) and a small quantity of ostrich eggshell beads (mostly 5-6mm diameter) (Appendix C). No stone artefacts were recovered.

Lower lens. The underlying lens was thickest and densest towards the west side of the exposed lens. It is quite likely that it continues under the dune on the edge of the Milkwood grove. Besides shellfish, the excavated sample from the lower lens contained numerous fragments of pottery and some well preserved bone (medium bovid, sheep, fish bone, seal, tortoise). The material was in a sealed context and not subject to recent contamination as is with the case of the surface material. The shellfish sample was dominated by *Choromytilus meridionalis* (80%) while *Patella* species made up the remainder (Appendix A). The excavated sample included a well preserved collection of faunal remains which included a variety of types of fish, birds, terrestrial and marine mammals (Appendix B). Like the material found on the surface, artefactual material included fragments of Cape Coastal Pottery - some with cooking deposit on the interior. Ostrich eggshell beads are present but no stone artefacts were recovered.

3.2 Surface site FW 3

This site lies on and around the densely vegetated high dune on the north west side of the development area. Areas where archaeological sampling could take place were confined to parts of the site that were not covered in thick bush. In order to obtain an adequate sample of material, two separate areas FW 3 (A) and FW 3 (B), were excavated.

FW 3 (A): A 4m² excavation was positioned in a clear area on the slope of the dune. The surface shell continued to a depth of not more than 50mm after which sterile sands and roots were encountered. At a depth of 620mm 5 shells (*Patella* sp) were found at a similar level indicating that a marginal occupation may have taken place.

FW 3 (B) was situated on the very top of the dune in a clear area close to the fence. After vegetation had been cleared, 5m² of surface deposit was excavated. This was sieved (1mm mesh), bulked and transported to UCT for curation. A deep sounding (1m) was sunk into the dune but no archaeological material was found.

Results to date indicate that FW 3 is a surface site. Its characteristics are similar to FW 2 in that stone artefacts are non-existent, pottery is present. No bone has been preserved. The finds which are fragmentary have been sorted and curated.

3.3 Monitoring of the cut and fill operation

With reference to site FW 3 the ACO (1995) commented: "It must be noted that the vegetated dunes rise some 4-5m above the deflation bays which means that there is a possibility buried lenses may occur. Provision has been made for sampling such material should it be exposed during the process of preparing the site for construction work". An archaeologist was on site while the high vegetated dune was levelled in preparation for building. First the vegetation was removed by a front-end loader and then a very large caterpillar (Komatsu D9) was used to do the bulk earth moving. Small but isolated fragments of shell were seen in the dune but no significant lenses of material were seen in the top 2m of material. A dense shell and ash deposit was encountered at a depth of 2m below surface (Plate 1). The caterpillar was then directed to expose a section through the midden which contained three distinct major stratigraphic units. These were then photographed (Plate 2) and bulk samples taken. This buried midden contained well preserved bone, spatial information in the form of ash patches and dense shellfish. Had we known of its existence before earth moving began, a second phase of excavation would have been recommended. The agreement with the developers was that should material be uncovered during the earth moving operation, "grab samples" would be taken. To this end both the developers and earth moving contractors (Power Construction) were very co-operative. Although we were able to sample the shellfish content of the midden, it is quite likely that a lot of information has been lost. It is highly likely that further deeply buried material exists under the Milkwood grove between the development site and Princess Street. It is very important that the grove should not only be conserved for its botanical content, but also as an archaeological witness section.

4. DISCUSSION

With regard to buried archaeological material, the current method of Phase 1 assessment used by the Archaeology Contracts Office is based upon a combination of visual assessment and test excavation. It is not possible to locate deeply buried sites in this kind of context without hiring heavy earth moving equipment which is very expensive and has wider implications in that testing on this scale is liable to result in other environmental impacts. Hand augers have been experimented with but these devices will not penetrate soils with dense root growth. Furthermore geotechnical testing on the dune failed to produce any disconformities in soil hardness. Without some form of remote sensing, deeply buried archaeological sites are very difficult to detect and will inevitably be impacted by earth moving operations.

The most prominent observation resulting from these archaeological excavations is the similarity between the three samples of archaeological material that have been examined. All the material was characterised by dominance of the *Choromytilus meridionalis* among the shell species. No modified stone artefactual material was recovered from any the samples. The presence of Cape Coastal pottery on all three sites indicates that most of the occupation of this area post-dates 2000 years ago when pottery and domestic stock are thought to have been introduced into South Africa. Low frequencies of stone artefacts are often encountered on shell middens that post-date the ceramic period which is consistent with the findings of this study. It is quite possible that people were encamped on the banks of the Disa river which would have provided fresh water and grazing for domestic animals. It appears that people were enjoying a varied diet - contained within the archaeological material are the



1



2

remains medium and small antelope, sheep, tortoises and birds and rodents. The sample of bone from site FW 2 (B) Lower lens contains the remains of a variety of fish. Shellfish, especially the black mussel was a staple food. No plant remains were preserved but it is likely that it would have formed a substantial part of prehistoric diet.

Other sites that have been excavated in the area, namely Hout Bay Cave (Buchanan 1977) and Baviaanskloof River (M. Wilson pers. comm.) also shows a dominance of Black Mussels in the sample. The results of the analysis of the Hout Bay Cave site show that virtually all the occupation of the site took place after 2000 years ago. The kinds of animals that were exploited by people ranged from large and small terrestrial animals (baboons, wild cats, dassies, mongoose, molerats, antelope) to marine animals (seals gannets, penguins and cormorants). In addition, many fish (probably caught in the Disa river estuary or off the rocky shores) were exploited. These include Hottentot, Galjoen, many Haarders and White Stumpnose. The initial examination of the faunal remains from site FW 2 LL shows a similar mix of marine and terrestrial animals as well as lots of fish. The period of occupation of the sites is similar as well. It appears that the Hout Bay Valley was fairly intensively occupied by prehistoric people after the beginning of the ceramic period 2000 years ago. This certainly points to a change in regional settlement patterns after the arrival of Khoi Khoi pastoralists which caused Hout Bay to become popular. Clues to the reasons for this are contained in the historic record which indicates the ecological significance of Hout Bay after the earliest European settlement. The diary of Jan van Riebeeck (Moodie 1834:35-36) makes mention of the fact that cattle stolen from the VOC were driven by the "Hottentots" to Hout Bay. The "Hottentot" Kaptein, Herry and his people, the Caepmans apparently spent the summer months with their cattle at Hout Bay and refused to visit Van Riebeeck at this time because of the lack of grazing for his cattle in the Table Valley. Elphick (1985:321) mentions that when the Cochoqua were in conflict with the Peninsular Hottentots in 1661, they took measures to cut the Peninsulars off from the "valuable pastures" at Hout Bay. Eventually the VOC kept one of their herds of 78 cattle in this lucrative area (Moodie 1834:356). The Hout Bay valley is an ideal area for prehistoric settlement in that it is well watered with a wide variety of resources. It is one of the few areas on the Cape Peninsula with granite geology nearby. This would have provided cattle with some of the trace elements necessary for their survival. These are not contained in Table Mountain Sand Stone based soils. It is these factors that account for the apparent popularity of Hout Bay after 2000 thousand years ago when the herding economy is thought to have been introduced into the Cape. Intensive modern development of the area has unfortunately destroyed the majority of archaeological sites.

5. RECOMMENDATIONS

5.1 The results of this project have shown that significant amounts of archaeological material can lie deeply buried within the vegetated dune bodies in the Hout Bay area. These are liable to be impacted by development activities as it is very difficult to establish their presence with existing field methods employed by archaeologists. The existing planning bodies should be alerted to the fact that the Hout Bay Valley, especially in areas close to the shoreline is archaeologically sensitive. It is very likely that cut and fill operations will expose deeply buried archaeological sites.

5.2. The milkwood grove adjacent to the development area must be conserved, not only for its indigenous vegetation but also for its archaeological potential.

6. REFERENCES

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7. PROFESSIONAL TEAM

Excavations

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Report

Tim Hart

APPENDIX A

SHELLFISH

FW 2 (A) SURFACE SCRAPE

Species	n	%
PATELLA SP.		
granatina	13	10
granularis	1	1
argenvillei	4	3
barbara		
cochlear	7	5
oculus		
TURBO SP.		
cidaris		
sarmaticus		
OXYSTELE SP		
OTHER		
Burnupena sp		
Haliotis midae		
C. Meridionalis	108	79
Perna Perna		
C. Porcellana		

FW 2 B SURFACE SCRAPE

Species	n	%
PATELLA SP.		
granatina	43	8
granularis	4	1
argenvillei	34	6
barabara	2	0
cochlear	15	3
oculus	5	1
TURBO SP.		
cidaris		
sarmaticus		
OXYSTELE SP		
OTHER		
Burnupena sp		
Haliotis midae	1	0
C. Meridionalis	259	69
Perna Perna		
C. Porcellana		

FW 2 (A) SURFACE SCRAPE

Species	n	%
PATELLA SP.		
granatina	13	10
granularis	1	1
argenvillei	4	3
barabara		
cochlear	7	5
oculus		
TURBO SP.		
cidaris		
sarmaticus		
OXYSTELE SP		
OTHER		
Burnupena sp		
Haliotis midae		
C. Meridionalis	108	79
Perna Perna		
C. Porcellana		

APPENDIX B

CERAMICS

FW 2 (B) SURFACE SCRAPE

Unit	BODY SHERDS
B92	1
B90	1
B88	1
B80	4
B73	1
B71	1
B68	2
B69	1
B55	1
B54	1
B34	2
TOTAL	16

FW 2 (B) LOWER LENS

Unit	BODY	NECK
B92	3	-
B91	12	-
B82	1	-
B72	7	-
B18	2	1
TOTAL	25	1

APPENDIX C

OSTRICH EGGSHELL BEADS

FW 2 B SURFACE SCRAPE

UNIT	n	EXT. DIAMETER	INT. DIAMETER
B96	1	4mm	2.5mm
B92	1	5mm	2mm
B90	1	6mm	2mm
B58	1	4mm	2mm
B54	1	6mm	2mm
TOTAL	5		

FW 2 B LOWER LENS

UNIT	n	EXT. DIAMETER	INT. DIAMETER
B91	1	6mm	1.5mm
B83	1	5.5mm	3mm
B82	1	6.5mm	2mm
TOTAL	3		

APPENDIX D

INITIAL FUANAL EXAMINATION

FW 2 (B) SURFACE SCRAPE

- B97 Tortoise carapace fragment
Fragment Tortoise carapace
Frag long bone shaft - small mammal
- B96 Molar - sheep
Fish Bone
- B95 Adiagnostic fragments
Fish bone
- B94 Adiagnostic fragments
- B93 Adiagnostic fragments
Fish bone
- B92 Adiagnostic fragments
Seal
- B90 Frag rib - small mammal
- B88 Adiagnostic fragments
Small bovid
- B84 Tortoise
Adiagnostic fragments
- B82 Adiagnostic fragments
- B80 Adiagnostic fragments
- B78 Adiagnostic fragments
- B77 Adiagnostic fragments
Dune molerat
Small mammal
- B75 Molar - Steenbok.
Bird
Small bovid
Tortoise carapace frag
- B73 Adiagnostic fragments

- B72 Molar - medium bovid
Small bovid
Adiagnostic fragments
- B71 Adignostic fragments
- B70 Bird
- B69 Adiagnostic fragments
- B68 Adiagnostic fragments
- B65 Medium bovid
- B57 Dune molerat
Adiagnostic fragments
- B55 Adiagnostic fragments
- B54 Adiagnostic fragments
- B45 Adiagnostic fragments
- B44 Molar (?) sheep
- B43 Frags - mammal bone
- B34 Adiagnostic fragments
Fish
- B33 Molar - Sheep
- B5 Modern cut bone shaft
Bird.

FW2 (B) LOWER LENS

- B93 Fish
Adiagnostic fragments burned
Seal
Medium bovid
Juvenile samll bovid
Large bird
Adiagnostic fragments
- B92 Many fish
Bird
Medium bovid
Dune molerat
Adiagnostic fragments

- B91 Many fish
Fish
Steenbok
Large bird
Cape Rock Lobster
Adiagnostic fragments
- B83 Molerat
Steenbok
Large bird
Adiagnostic fragments
- B82 Seal
Dune molerat
Adiagnostic fragments
- B81 Birds
Large birds
Small bovid
Adiagnostic fragments
- B73 Fish
Large fish
Sheep
Adiagnostic fragments
- B72 Fish
Steenbok
Adiagnostic fragments
- B71 Large and small fish
Fish
Adiagnostic fragments