

# PRELIMINARY REPORT ON PHASE TWO ARCHAEOLOGICAL EXCAVATIONS AT SOOPJESHOOGTE, CLANWILLIAM MAGISTERIAL DISTRICT, WESTERN CAPE

(Excavations conducted under HWC permit No. 2009-02-001)

Prepared for

**Mr J.A. Pretorius**

Address: P.O. Box 72634, Die Boord, 7613  
Phone: 082 565 3630 Fax: (021) 808 5911  
Email: jan@tokara.com

05 March 2009



Prepared by

**Jayson Orton**

**Archaeology Contracts Office**

Department of Archaeology  
University of Cape Town  
Private Bag  
Rondebosch  
7701

Phone (021) 650 2357  
Fax (021) 650 2352  
Email Jayson.Orton@uct.ac.za

## EXECUTIVE SUMMARY

The Archaeology Contracts Office was asked by Mr Jan Pretorius of the Soopjeshoogte Home Owners Association to conduct archaeological mitigation at sites identified on the farm Otterdam 90. The area is some 7 km north of Lamberts Bay on the west coast. This preliminary report serves the purpose of informing decisions pertaining to permitting such that development may proceed. A full, more detailed report will follow later.

The sites lie along the crest of a long, low dune some 100 m inland of the beach. Vegetation in the area is of variable density but generally gets denser as one moves inland. Other sites have been excavated to the north and generally show very limited cultural content. One site dated to the mid-Holocene and contained richer deposits.

Standard excavation techniques in 1 m by 1 m squares were employed and the deposits sieved through 3 mm mesh. They showed that the sites were variable density and depth shell middens with very little cultural material. One exception yielded a large sample of small ostrich eggshell beads and only one formal tool, a backed point, was seen in any of the sites. A single *Nassarius krausianus* bead was the only other interesting object noted on site. In some areas it was necessary to conduct shovel tests in order to determine where the best archaeological deposits lay and so inform on where to excavate. It became apparent that DSS4 was in actual fact two sites so we renamed the eastern part DSS8 (16 m<sup>2</sup> excavated). DSS3 was also mitigated (29.5 m<sup>2</sup> excavated) and DSS5 was explored for archaeological potential and to help plan future mitigation.

Mitigation has been successfully completed on DSS3 and DSS8 while DSS4 required no subsurface sampling within the development footprints. Tests were carried out at DSS5. This report finds that construction may proceed on Plots 7 to 11 inclusive, as well as on Plots 17, 19 and 20. Further mitigation at DSS5 is required on Plots 16 and 18 only.

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# 1. INTRODUCTION

The Archaeology Contracts Office was asked by Mr Jan Pretorius of the Soopjeshoogte Home Owners Association to conduct archaeological mitigation at sites identified on the farm Otterdam 90 by an earlier survey (Halkett & Hart 1995). The sites lie on residential erven within the private nature reserve known as Soopjeshoogte, some 7 km north of Lamberts Bay (Figure 1). The general area is also been known as Doorspring. The purpose of this report is to describe the work done and provide information that can be used for further permit procedures in terms of the destruction of remaining material and erection of houses. A full report on the excavations and their findings will follow.

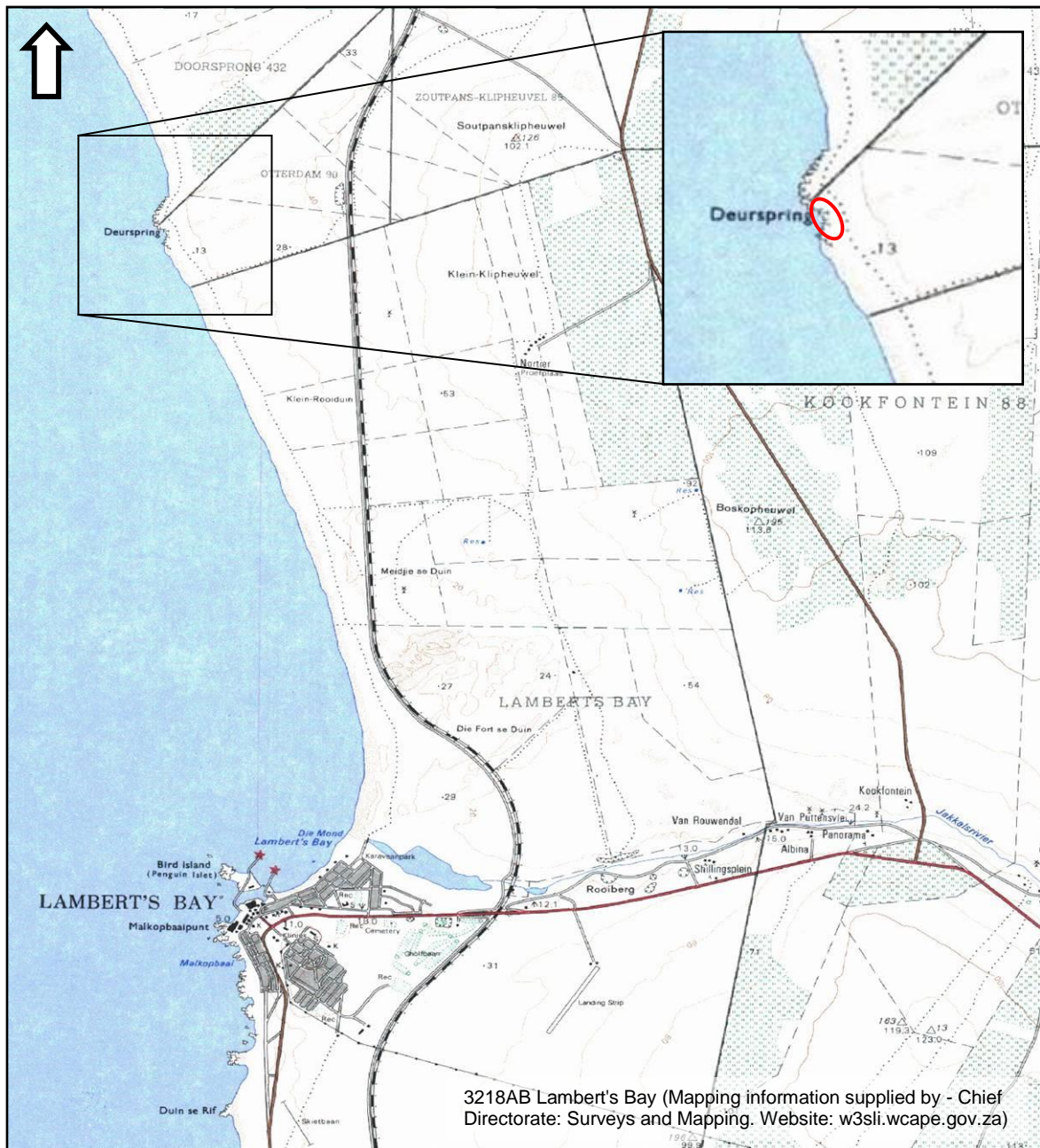


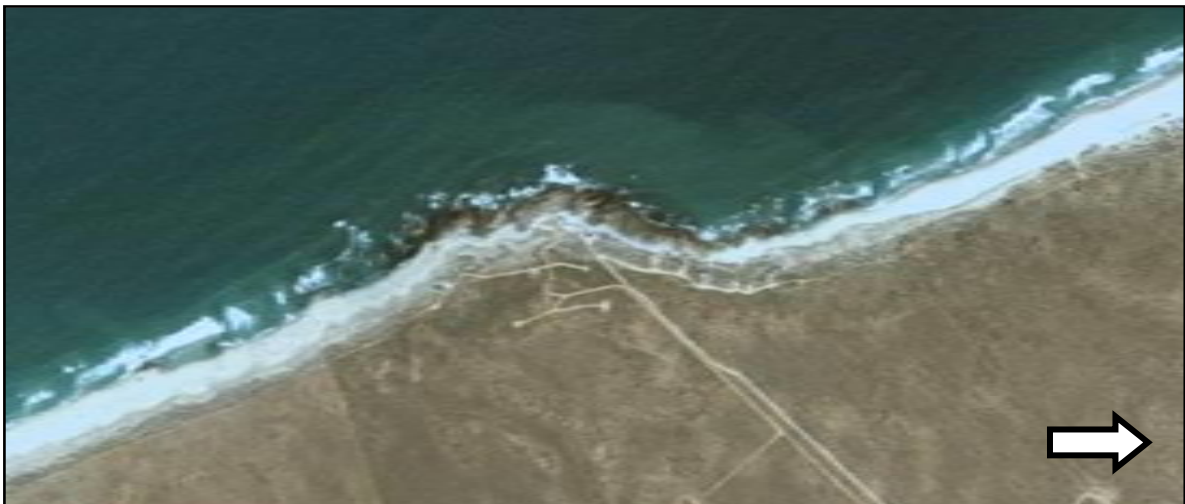
Figure 1: Map showing the location of the study area.

## 2. HERITAGE LEGISLATION

The National Heritage Resources Act (NHRA) No. 25 of 1999 protects a variety of heritage resources including palaeontological, prehistoric and historical material (including ruins) more than 100 years old (Section 35), human remains (Section 36) and non-ruined structures older than 60 years (Section 34). Landscapes with cultural significance are also protected under the definition of the National Estate (Section 3 (3.2d)). All the archaeological sites excavated here thus fall under Section 35 of the NHRA. The excavations were conducted under permit No. 2009-02-001 issued by Heritage Western Cape.

## 3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

The area occupied by archaeological sites lies just east of the sea shore immediately behind a rocky outcrop which is flanked by long, sandy beaches (Figure 2). A gentle slope leads up from the beach to the low, flat dunes which peak some 100 m inland of the beach. The sites are mostly located along the crest of this dune. Vegetation is variable in density but on the dunes is generally quite sparse (Figures 3 to 5). In places denser clusters occur and inland, away from the dunes, it is far denser. Unfortunately the fauna on the rocky coast are somewhat depleted due to scavenging by local people.



**Figure 2:** Aerial view of the coastal stretch in the vicinity of Doorspring showing the rocky promontory and surrounding sandy beaches.



**Figure 3:** View to the west from DSS3. It looks straight down the gentle slope from the dune crest towards the rocky beach.



**Figure 4:** View towards the southwest over site DSS3.



**Figure 5:** View to the north over sites DSS4 and DSS8.

## 4. HERITAGE CONTEXT

The property was subjected to an archaeological survey in 1995 but this was focussed only on those areas for which development was planned. Seven archaeological sites were recorded, of which two lay to the south of the area now being targeted for development (Halkett & Hart 1995). Other archaeological work in the area has focussed on the northern part of the rocky promontory and excavations have also been done there. Kaplan (1994b) found that most sites in the area had very few cultural remains but also reported on one site (DSP16) that contained rich mid-Holocene deposits (Kaplan 1994a). A small collection of formally retouched stone tools was found, with those from the lowest level being predominantly backed. This supports a mid-Holocene age which was subsequently confirmed through radiocarbon dating (Table 1; Vogel 1995). Further work on the same site was done

by Hart and Halkett (personal communication 2009) but this was in an academic context. They report that scrapers occur throughout the sequence with backed tools being more common lower down in levels older than 2400 BC.



**Figure 6:** Aerial view of the study area showing identified sites. Note that DSS8 was not previously recorded but was found during the recent mitigation project reported on here. DSS1 and DSS2 lie to the south, out of the picture.

**Table 1:** Radiocarbon dates from Doorspring 16, just north of the study area. All dates on shell. Those dates with laboratory numbers unknown are from Hart and Halkett (pers. comm.) while the other two are from Vogel (1995).

Lab No.	C14 date	Calibrated date (1 std dev.)
Unknown	2360 ± 45	AD 105 (150) 214
Unknown	3290 ± 50	1011 (947) 888 BC
Unknown	4400 ± 60	2463 (2407) 2308 BC
Pta-6742	4490 ± 35	2551 (2489) 2459 BC
Unknown	4990 ± 70	3302 (3139) 3046 BC
Pta-6740	5530 ± 50	3845 (3778) 3730 BC

Moving further afield, a large rocky outcrop occurs some 3 km inland, due east of the study area. We examined this area informally so as to gain some more understanding of the general context of the area. The entire outcrop is covered with copious quantities of shell,

although particularly noticeable were the very high densities on open scatters at the northern end of the outcrop. At least eight rock art sites are also present.

Further south of the Doorspring area Jerardino (1996, table 4.1) has reported dated sites near Lamberts Bay falling in the range between about 2800 BC and 400 BC. What is particularly striking when reading through the date list she presents is the extreme preponderance across the whole area of dates falling between 2000 and 3000 years ago. This suggests very extensive use of the coastline around that time and Jerardino (1996) interprets this as reflecting an increase in both population density and in the degree of permanence of settlement. Massive shell middens, known informally as 'megamiddens' occur along the western Cape coast between Doorspring and the area south of Elands Bay (Buchanan 1988). They date to this period. One was present at Doorspring (DSP3) and many others are present to the south (Jerardino 1996). These sites are typically poorer in cultural material than other sites, although this may simply be a function of the extreme quantities of shell brought onto them (Jerardino & Yates 1997).

The most significant site in the area is Steenbokfontein Cave (Jerardino & Yates 1996) which documents deposits extending through most of the Holocene (Jerardino & Swanepoel 1999) and older deposits are certainly present below the current excavation. It is 8 km south of Lamberts Bay and 2 km inland.

## 5. METHODS

Excavations were conducted between 16<sup>th</sup> and 27<sup>th</sup> February 2009. Standard techniques were employed with excavation proceeding in 1 m by 1 m squares. Excavation units followed natural stratigraphic layers where possible but where this was not possible then a best attempt was made to determine vague changes while at the same time trying to avoid taking too much depth in one spit. At times archaeological material was extremely sparse and spits did reach more than 20 cm, but most were in the region of 10 cm to 15 cm thick. All sieving was conducted with a 3 mm sieve for two reasons: (1) the deposits were generally very poor in cultural material and it is expected that virtually nothing would have been lost by not using the 1.5 mm sieve and (2) there were massive quantities of very fine vegetable matter trapped in the 1.5 mm sieve that would have been impractical to take back to the laboratory for analysis. On occasions when archaeological material seemed not to be present during the smaller, more exploratory excavations we shovelled out sand in order to speed up the process. Furthermore, when it appeared that the base of the deposits was reached small shovel holes were dug further down to determine whether any deeper lenses might occur.

Shellfish sampling was kept to a minimum due to the storage constraints at the IZIKO SA Museum where everything is required to be curated. Where densities were very low we retained shell from individual units over a full square meter, while in higher density areas a 50 cm by 50 cm column was excavated specifically for shell sampling. This method avoids possible bias that can occur during later sub-sampling of shell in the laboratory. Shell was often not retained from the surface levels due to excessively high fragmentation and charcoal was not collected from every unit.

GPS co-ordinates on the WGS84 datum were obtained by means of a hand-held GPS receiver at each location where excavations were conducted. Earlier co-ordinates are reported by Halkett and Hart (1995) but it was felt that due to the size of the sites as visible on the surface it would be useful to locate each excavation as appropriate. Also, modern



reading will have greater accuracy. No surveying was done and the sections presented below are thus schematic only and based on measurement of layer depths.

In some areas we conducted small shovel test excavations in order to determine where the best deposits lay beneath the surface. This served to help us target the most important areas for excavation. It was also useful in suggesting that DSS4 was in actual fact two separate archaeological occurrences whose surface shell scatter had overlapped. As a result we named the eastern part DSS8.

Most excavated material was returned to the laboratory at the University of Cape Town for sorting, although some material was sorted on site in order to gauge what was being found so we could know where to continue excavations.

## 6. FINDINGS

### 6.1. DSS3

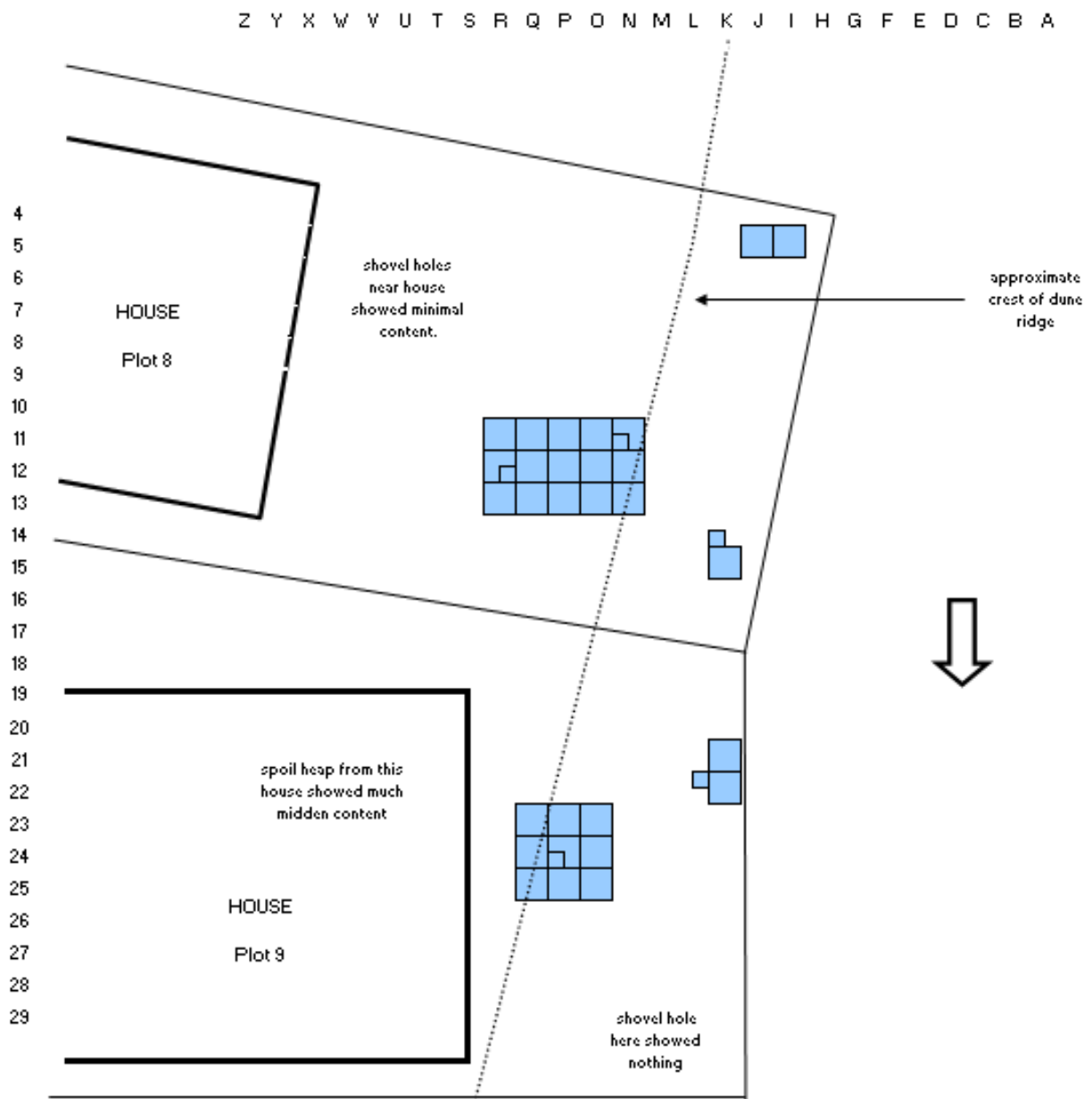
#### 6.1.1. Excavation details

Altogether we excavated 29.5 m<sup>2</sup> of deposit to variable depths from DSS3. This included three smaller excavations of 1.25 m<sup>2</sup>, 2.0 m<sup>2</sup> and 2.25 m<sup>2</sup> along the western edge of the site (just inside the affected erf boundaries) and two larger ones of 9 m<sup>2</sup> and 15 m<sup>2</sup> in what seemed to be the central part of the midden (Figure 7). A GPS co-ordinate taken directly between the two large excavations is as follows: 32° 01' 26.7" S 18° 17' 43.4" E. The excavations were all sited within the footprints of Plots 8 and 9.

In general stratigraphic layers were not very well defined but in the largest excavation around square O12 the midden layers were distinct and clearly separable in the upper part of the deposit. Schematic section drawings to scale are provided in Figure 8 and photographs of the various excavations follow in Figures 9 to 14.

#### 6.1.2. Findings

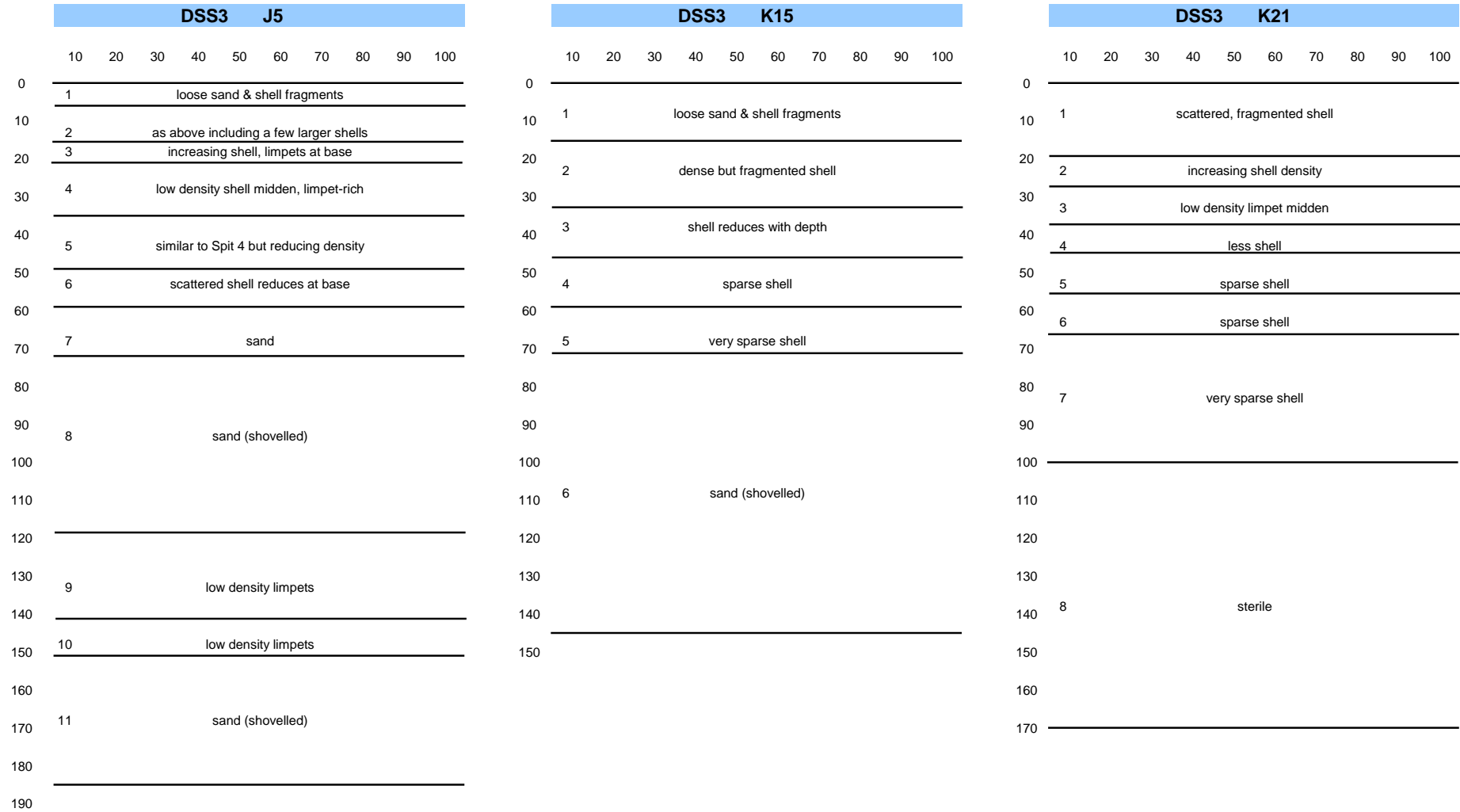
Although sorting is not complete, some basic statements on the content of the midden can be made. In general, artefactual material was very sparse across the site but with one exception: a large collection of beads, perhaps numbering above 50, was obtained from the excavation around square O12. All beads that we saw appeared to be very small and this supports an age of perhaps 3000 years for the deposits. Ostrich eggshell was very rare, stone artefacts were relatively rare, very informal and mostly in quartz. Silcrete was also present. Although pottery was entirely absent from both the excavations and the surface, it is noted, however, that Halkett and Hart (1995) saw pottery on the surface during the initial survey. A single *Nassarius krausianus* bead was recovered from Spit 6 of square Q25. This species of shell is estuarine and was presumably collected in the Jakkals River estuary.



**Figure 7:** Plan of DSS3 showing the positions of excavations and houses in construction.

Animal bones and crayfish mandibles were present throughout with the former generally only as very small fragments. Tortoise appears to dominate very strongly throughout. Charcoal fragments were variably distributed throughout the midden deposits although the O12 area seemed ashier than the rest and charcoal fragments were more frequent.

A stone feature was also found. This comprised a loose scatter of rocks with an ashy area to its west. It may thus have been a hearth in the past but with the rocks seemingly no longer in original position. Some had fractured *in situ*, presumably due to exposure to heat, indicating a relatively low level of disturbance (Figures 15 & 16).



**Figure 8:** Schematic section diagrams of the DSS3 excavations. Scale in cm.

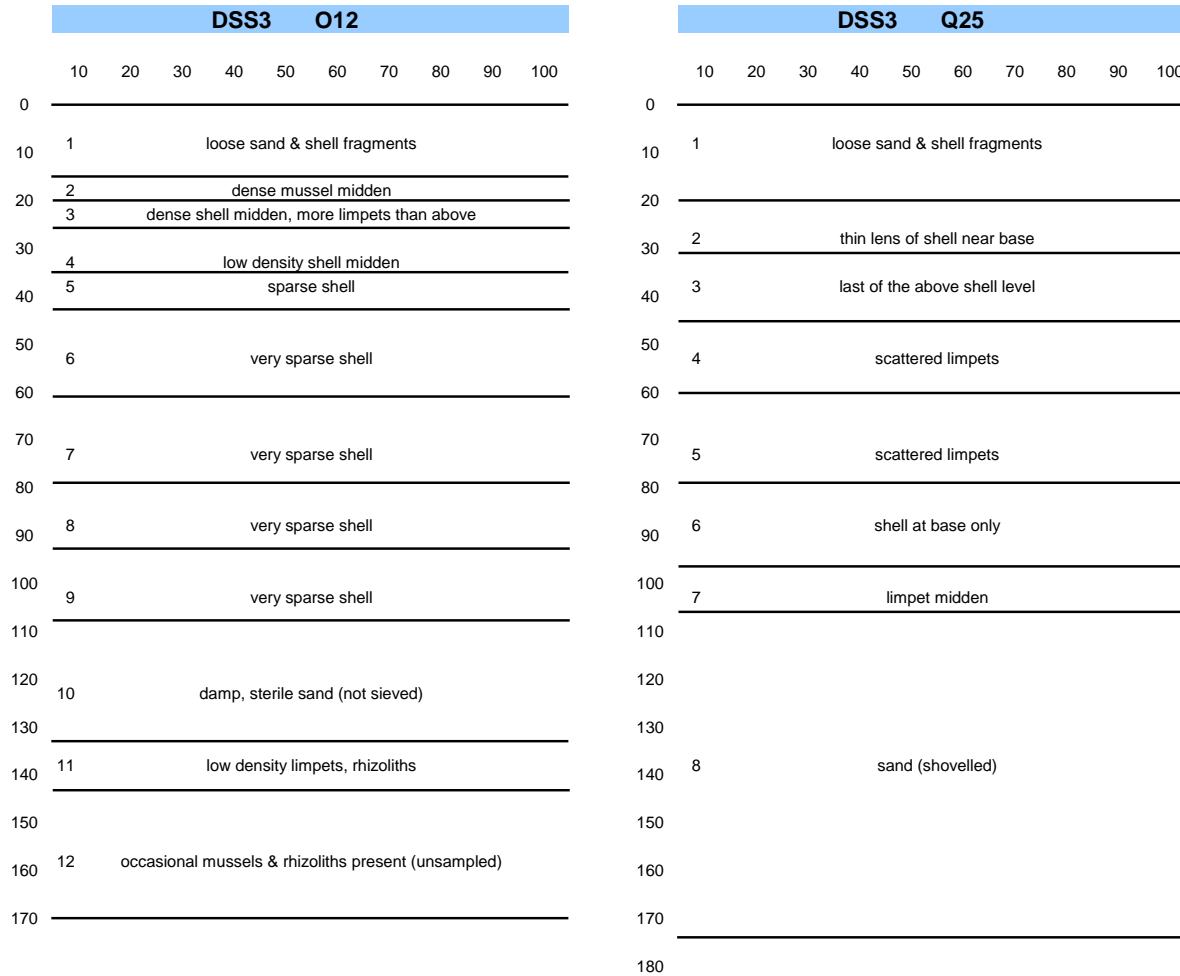


Figure 8 continued.



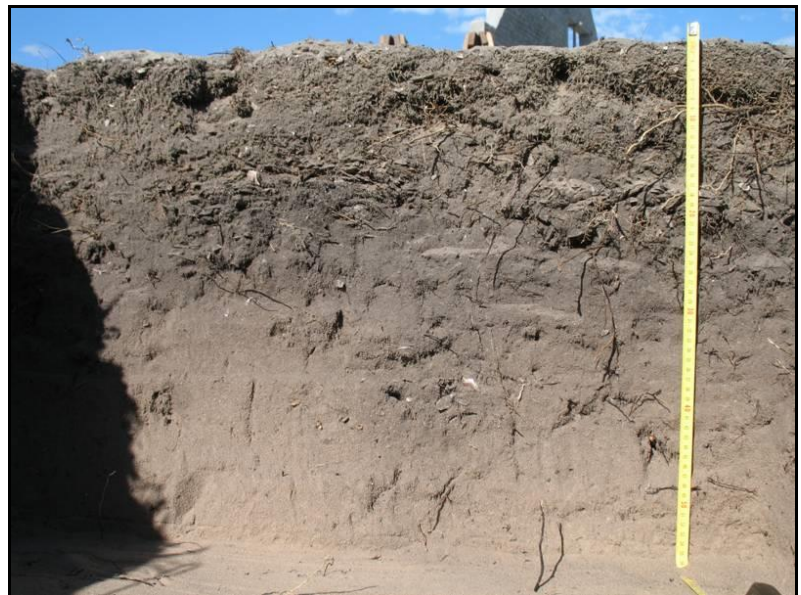
**Figure 9:** Squares J5 & I5.



**Figure 10:** H5/I5 section looking west.



**Figure 11:** K20/K21 section looking south.



**Figure 12:** P12/Q12 section looking east.



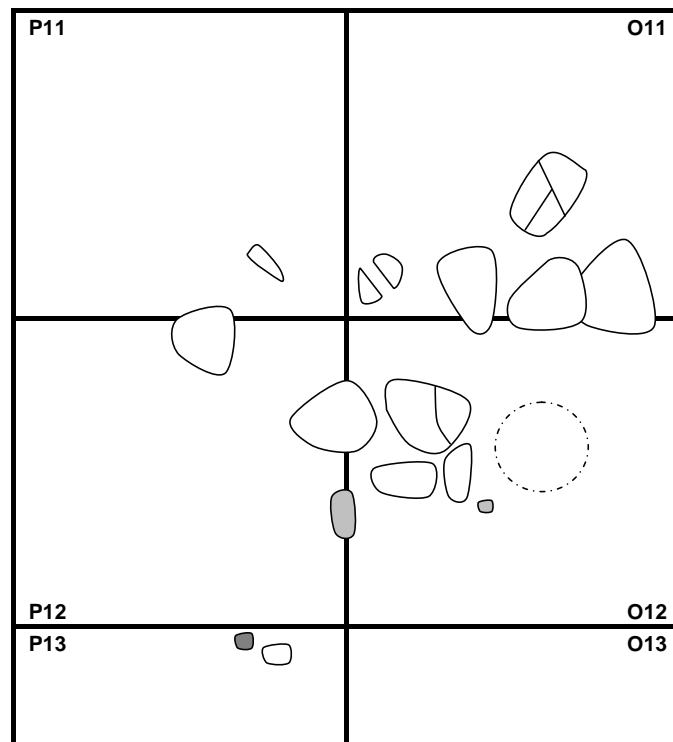
**Figure 13:** The full 5 m section (columns R to N) along the 10/11 rows.



**Figure 14:** Squares P24 & P25 in progress looking west.



**Figure 15:** Photograph of the partly excavated stone feature with north to the right.



**Figure 16:** Schematic plan of the stone feature. The dark grey rock was in Spit 1, the two light grey ones in Spit 3 and the rest all in Spit 2. The dotted circle represents the location of the ash area and the right hand-most rock in the diagram had faint grinding on its underside.

## 6.2. DSS4

This site, as recorded in the 1995 survey, was focussed outside of the erven. However, a substantial but very variable density surface scatter of shell extended into the footprints of Plots 10 and 11. The core of the site was very clear due to its extremely high shell density

just to the north-west of Plot 11. We conducted some small shovel tests in order to establish just what subsurface deposits would be intersected and thus impacted. These revealed that along the seaward, western edge of the plots there was virtually no subsurface material. However, shell middens were found further east on the crest of the low dune which bisects Plots 10 and 11 from north to south. This indicated the presence of two actual sites beneath the surface but whose surface shell scatters had become merged with time. As a result we named the new site DSS8 and undertook to explore and sample its deposits. DSS4 has thus not been sampled as it is virtually entirely outside the development footprint and protected from impacts.

### **6.3. DSS8**

#### **6.3.1. Excavation details**

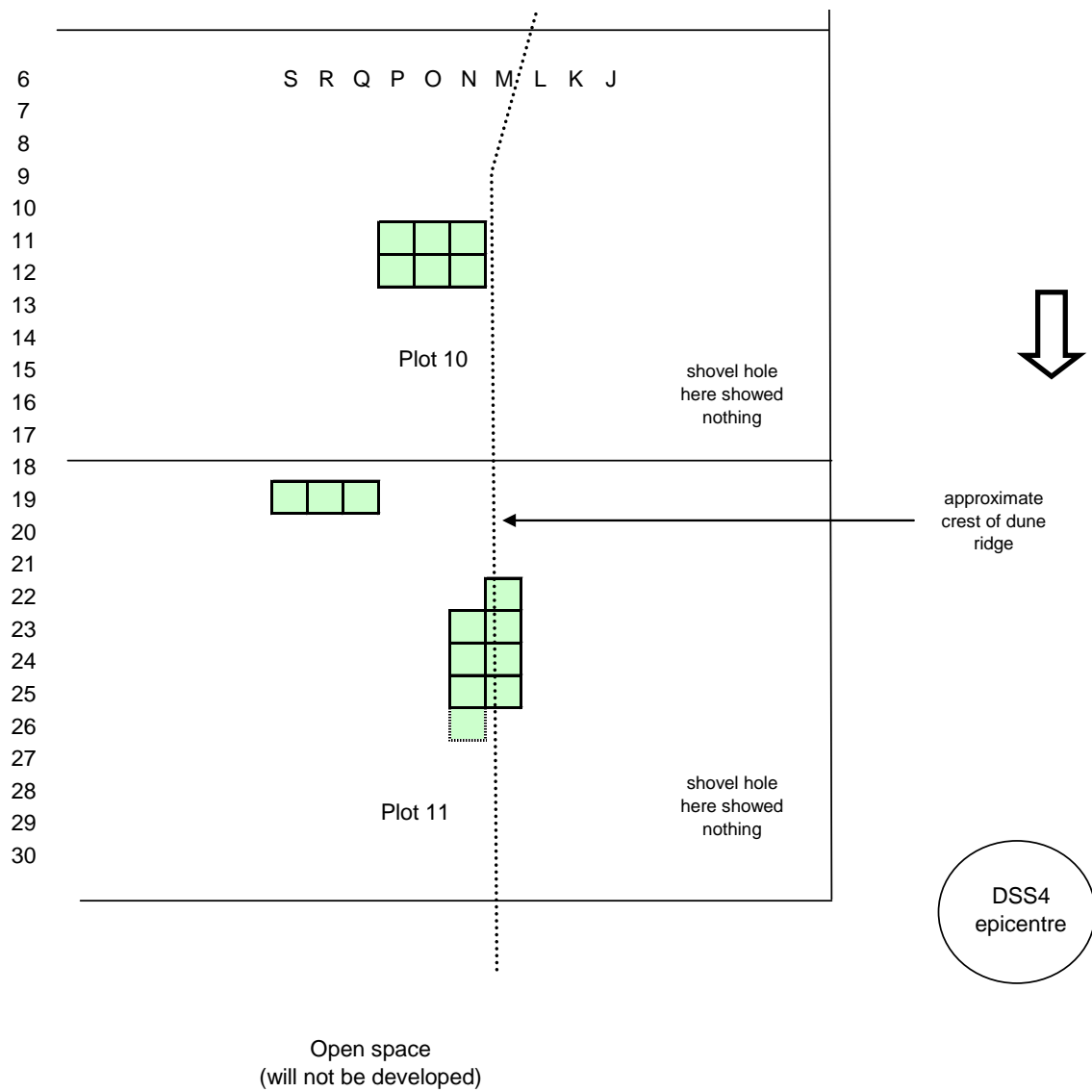
A total of 16 m<sup>2</sup> was excavated to full depth while the surface deposit only was removed from one further square metre. Three separate excavations were sites in the middle of Plots 10 and 11, on the crest of the low dune ridge where the subsurface shell was thickest (Figure 17). The excavations were of 6 m<sup>2</sup>, 3 m<sup>2</sup> and 8 m<sup>2</sup> of which one metre did not go deeper than 'surface'. A GPS co-ordinate taken at square M22 is as follows: 32° 01' 25.4" S 18° 17' 43.2" E.

Although few proper shell midden layers were encountered, the various zones of shells were fairly readily separable during excavation. Schematic drawings of the excavation sections are presented in Figure 18 and photographs of the excavations in Figures 19 to 22.

#### **6.3.2. Findings**

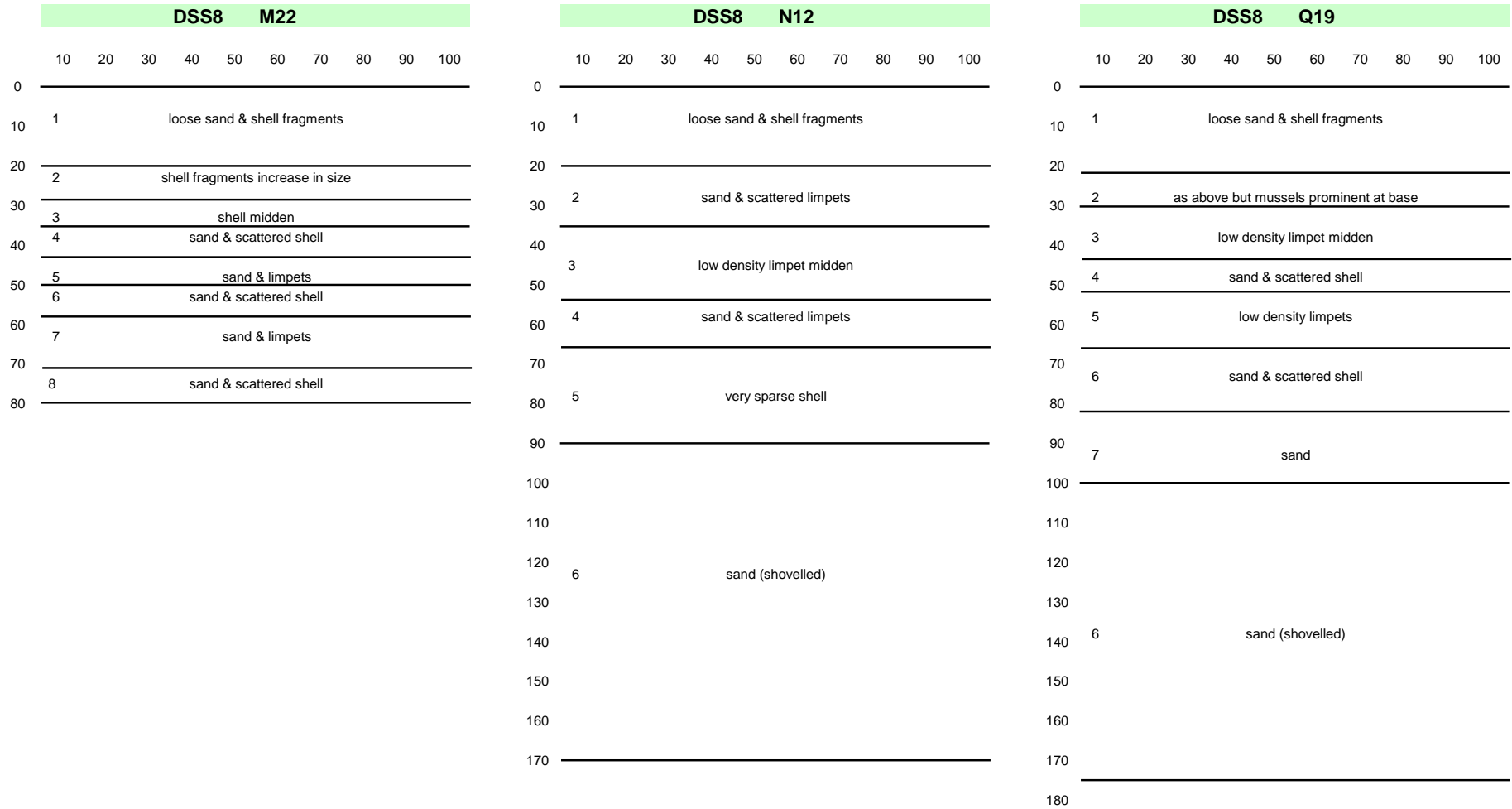
The artefacts recovered from this excavation are much the same as those from DSS3 except that only a few beads were found. Again, all were small. A single retouched piece, a backed point, was found in this site and also two choppers made on cobbles. OES was again rare and kreek was present in small numbers. Bone fragments were ubiquitous. Again, no pottery was present either in the excavations or on the surface.

In general, the shellfish at this site were far more strongly limpet-dominated than was the case at DSS3 although many mussels are also present.



**Figure 17:** Plan of DSS8 showing the positions of excavations on the plots. The square with a dotted outline only had its surface level excavated.





**Figure 18:** Schematic section diagrams of the DSS8 excavations. Scale in cm.



**Figure 18:** The M22/N22 section looking east.



**Figure 19:** The P19/Q19 section looking west.

## 6.4. DSS5

### 6.4.1. Excavation details

Although not part of the brief for this excavation, we were able to devote one day to some testing of the deposits at DSS5, a large site located over the top of the biggest dune in the area. The shell scatter is variable in density but very extensive. As a result of the earlier survey, the developer had already moved the footprints of the erven in this area further to the east so as to avoid as much as possible of DSS5. This has resulted in the impact zone being largely restricted to the inland-facing slopes of the dune, while the crest and seaward side will remain unaffected.

Our excavations consisted of a combination of formal test excavations and shovel tests as indicated in Figure 20 at a total of 12 locations.

### 6.4.2. Findings

Most of the excavations were informal shovel tests. The majority yielded little or no significant subsurface shell deposits but two each in Plots 16 and 18 did intersect dense shell middens. Three more formal excavations were conducted, one each on Plots 17, 18 and 20. All were 1 m<sup>2</sup> only. That in the northeast corner of Plot 18 revealed the best quality stratified deposit seen anywhere during the excavation season with no fewer than eleven layers present in a total depth of 54 cm. The shellfish in all layers were dominated by limpets and the two layers between 10 cm and 20 cm below surface contained vast quantities of tortoise bone. A few beads were also found in DSS5 and, interestingly, they were distinctly larger than those seen on the other sites. A single large potsherd was found on the surface on Plot 18. Given the vast quantity of the site that is located out of the development footprint, sparse archaeological remains can be allowed to go unmitigated but the four more significant locations should be excavated further.



**Figure 20:** Map showing the locations of the test excavations on Plots 16 to 20 (numbered from left to right as seen here). The red dotted line indicates the approximate distribution of surface shell scatter. The blue circles are the test excavations and those with an orange surround require further work.

## 7. CONCLUSIONS AND RECOMMENDATIONS

This mitigation project aimed to clear sites DSS3 and DSS4 for development. It turned out that DSS4 actually comprised two sites so the new one was named DSS8. All sites yielded low quantities of cultural material with the exception of one excavation which contained many small beads. Together mitigation of DSS3 and DSS8 has been successfully completed and all work on Plots 7 to 11 may continue. At site DSS5 we located significant archaeological deposits on Plots 16 and 18 only. These will require further work but construction may proceed on Plots 17, 19 and 20 with no further archaeological work required.

**Table 2:** Summary of plots, sites and mitigation status.

Plot	Sites implicated	Mitigation status
7	DSS3	Mitigation complete
8	DSS3	Mitigation complete
9	DSS3	Mitigation complete
10	DSS8 & DSS4	Mitigation complete

Plot	Sites implicated	Mitigation status
11	DSS8 & DSS4	Mitigation complete
16	DSS5	Tested: <b>Mitigation required</b>
17	DSS5	Tested: no mitigation required
18	DSS5	Tested: <b>Mitigation required</b>
19	DSS5	Tested: no mitigation required
20	DSS5	Tested: no mitigation required

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## 9. INVESTIGATION TEAM

Fieldwork: J. Orton  
M. Tusenius  
N. Mjikeliso  
M. Sasa

Report: J. Orton

## 10. APPENDIX: GPS co-ordinate list

A full set of modern co-ordinates for all sites visited is included here. Note that at DSS7 a single point was taken at each shell scatter noted.

DSS3	32 01 26.7 S 18 17 43.4 E	at square P18
DSS4	32 01 25.1 S 18 17 42.3 E	epicenter of surface shell
DSS5	32 01 17.6 S 18 17 42.3 E	DSS5 (Plot 20 western excavation)
	32 01 18.6 S 18 17 42.2 E	DSS5 (Plot 18 north-western excavation)
	32 01 19.7 S 18 17 41.6 E	DSS5 (Plot 17 south-western excavation)
DSS7	32 01 19.0 S 18 17 50.5 E	
	32 01 20.6 S 18 17 51.0 E	upright sandstone
	32 01 20.5 S 18 17 50.2 E	
	32 01 18.4 S 18 17 51.7 E	
	32 01 19.2 S 18 17 50.9 E	
	32 01 19.6 S 18 17 50.6 E	
	32 01 20.3 S 18 17 50.9 E	
	32 01 20.9 S 18 17 50.5 E	
	32 01 22.6 S 18 17 50.9 E	
	32 01 22.1 S 18 17 50.8 E	4 potsherds seen on this scatter
	32 01 21.8 S 18 17 50.5 E	
	32 01 22.1 S 18 17 50.1 E	
DSS8	32 01 25.4 S 18 17 43.2 E	at square M22