

PHASE 1 ARCHAEOLOGICAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED “ST FRANCIS COASTAL RESERVE” ON PORTIONS OF THE REMAINDER OF THE FARM NEW PAPIESFONTEIN NO. 320, KOUGA MUNICIPALITY, DISTRICT OF HUMANSDORP, EASTERN CAPE

New consultants – June 2009

Bronco Environmental Consultants
Contact person: Liezl Beukes
P.O. Box 74875
Lynnwoodridge
0040
Fax: 021 8076939
Cell: 082 8592129
Email: liezlbeukes@telkomsa.net

Originally prepared for: Envirovision Consulting

Contact person: C.P. Linde
545 Reitz Street
Pretoria
0002
Fax: 012 3439199
Cell: 082 4440367

Original date: September 2008

Compiled by: Dr Johan Binneman

On behalf of: Eastern Cape Heritage Consultants

P.O. Box 689
Jeffrey's Bay
6330
Tel: 042 962096
Cell: 0728006322

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On behalf of: Eastern Cape Heritage Consultants
P.O. Box 689
Jeffrey’s Bay
6330

SUMMARY

Proposal

To conduct a Phase 1 Archaeological Heritage Impact Assessment of the proposed establishment of the “St Francis Coastal Reserve” on Portions of the remainder of the farm New Papiessfontein No. 320, Kouga Municipality, Eastern Cape; to evaluate the importance of the archaeological heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

The investigation

A large number of archaeological sites were found during the investigation. The area investigated is an extremely sensitive area for archaeological heritage sites, and although the majority of the sites fall outside the two footprints, a development of this nature will have an indirect impact on the archaeological heritage of the area.

Cultural sensitivity

The sensitive areas were in the coastal dune field and the elevated areas along the wetlands on the land side of the coastal dune field. The field significance of a large number of sites is unknown and must still be established by testing. No visible grade I or II (national or provincial significance) sites were found and apart from a few IIIA/B (of local significance) sites, the rest are rated as between IVA and IVB (of general medium significance - depending on testing) (see appendix A).

Recommendations

1. All construction work must be monitored. A person must be trained as a site monitor to report to the foreman when archaeological sites are found.
2. If any concentrations of archaeological material are exposed during construction, all work in that area should cease and it should be reported immediately to the nearest museum/archaeologist or to the South African Heritage Resources Agency.
3. Potential home owners should be made aware of the cultural heritage of the immediate region. This could take the form of a ‘management strategy’ which could be included in the constitution of the Home Owners Association.

Community consultation

Consultation with the Gamtkwa KhoiSan First Nation was conducted as required by the National Heritage Resources Act No. 25 of 1999, Section 38(3e). They will communicate their recommendations to Bronco Environmental Consultants.

PROJECT INFORMATION

Status

The report is part of an Environmental Impact Assessment.

The type of development

Residential and hotel development

The Developer

St Francis Riviera (Pty) Ltd
P.O. Box 1521
Jeffreys Bay
6330

The Consultant

Bronco Environmental Consultants
Contact person: Liezl Beukes
P.O. Box 74875
Lynnwoodridge
0040
Fax: 021 8076939
Cell: 082 8592129
Email: liezlbeukes@telkomsa.net

Terms of reference

To conduct a Phase 1 Archaeological Heritage Impact Assessment of the proposed establishment of the “St Francis Coastal Reserve” on Portions of the remainder of the farm New Papiessfontein No. 320, Kouga Municipality, Eastern Cape; to evaluate the importance of the archaeological heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

BRIEF ARCHAEOLOGICAL BACKGROUND

Literature/research review

Little is known of the very early prehistory of the region, the only evidence being large stone tools called handaxes and cleavers which are from a time period called the Earlier Stone Age and may date between 1 million and 250 000 years old (Laidler 1947). These large stone tools are often found associated with the gravels in the area, and were later replaced by smaller

stone tools called the Middle Stone Age (MSA) flake and blades industries. Evidence of MSA sites occur throughout the region and date between 120 000 and 30 000 years old. Fossil bone may in rare cases be associated with MSA occurrences along the coast. (See appendix for a list of possible archaeological sites that maybe found in the area).

The most common archaeological sites found in the area are shell middens (Binneman 1996, 2001, 2005; Rudner 1968). They are relatively large piles of marine shell and are in generally referred to as 'strandloper middens'. In general these shell middens date from the past 6 000 years and consist of two types. They are found mainly opposite rocky coasts, but also occur along sandy beaches if there was a large enough source of white mussel. These concentrations of shell represent the campsites of San hunter-gatherers (dating from as old as 6 000 years ago), Khoi pastoralists and KhoiSan (dating from the past 1 800 in the region) peoples who lived along the immediate coast and collected marine foods on a daily basis. The Khoi people were the first food producers in South Africa and introduced domesticated animals (sheep, goat and cattle) and ceramic vessels to southern Africa as early as 2 000 years ago. The oldest sheep remains recovered from the middens at Kabeljous River Mouth were radiocarbon dated to 1 560 years old - the oldest date for the presence of sheep in the Eastern Cape (Binneman 1996, 2001).

Shell middens are usually within 300 of the high water mark, but can be found up to 5 km inland. Mixed with the shell and other marine food waste are other terrestrial food remains, cultural material and often human remains are found buried in the middens. Also associated with middens are large stone floors which were probably used as cooking platforms.

Cultural sensitivity of the nearby Kabeljous River estuary and adjacent coastal areas

Archaeological research conducted and observations made in the region indicate that places like the Kabeljous River estuary were popular areas for the hunter-gatherer and pastoralists to live due to the wide variety of food resources within easy walking distance, i.e., shellfish along the beach, fish in the estuary and game in the nearby hills. A large number of sites (37) were found in the area between New Papiessfontein farm and the Kabeljous River. Two KhoiSan skeletons were also found on New Papiessfontein farm during the past few years (Die Burger 27-09-2005).

Research at a rock shelter some four kilometres upstream indicated that this part of the coast was well utilised by prehistoric people from 6 000 years ago (research report available on request). During 1983 several middens were badly damaged and eventually demolished by a bulldozer where houses were being built near the present day caravan park. These were found to be extremely rich in archaeological material (Binneman 1985, 1996, 2001, 2005). The following results were obtained from the limited research project.

1. Two of the shell middens were occupied by San hunter-gatherers ('Bushmen') and one was radiocarbon dated to 2 570 years old. Although the middens were situated along a sandy beach, the hunter-gatherers preferred to collect brown mussel from the rocky shore almost a kilometre away, rather than the white mussel which could be collected 50 metres away.
2. Two shell middens were of Khoi pastoralist origin. A similar shellfish collecting pattern was followed by the Khoi.
3. The Khoi were the first food producers in South Africa and the sheep remains recovered from the middens were radiocarbon dated to 1 560 years old - the oldest date for the presence of sheep in the Eastern Cape.

4. These middens yielded more fish remains than any other open-air shell midden along the Eastern Cape coast. The remains were mainly from mullet species and taken from the nearby estuary. The method of capture is unknown because it is known from historical records that the indigenous groups did not process nets of any kind.

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Relevant impact assessments

A phase 1 archaeological heritage impact assessment for the proposed Kouga development of portions of the farms Kabeljauws River No. 322 and Papiesfontein No. 319 in Jeffreys Bay, Kouga Municipality, District of Humansdorp, Eastern Cape

Prepared for: CEN Integrated Environmental Management Unit, 36 River Road, Walmer, Port Elizabeth, 6070.

Compiled by: Dr Johan Binneman, on behalf of: Eastern Cape Heritage Consultants, P.O. Box 689, Jeffreys Bay, 6330.

Description of the property

Location of the surveyed property

The development on portions of the remainder of the farm New Papiesfontein No. 320, Kouga Municipality, Eastern Cape, is situated west of the Gamtoos River Mouth, between the coast and the R102 main road, some 18 kilometres from Jefferys Bay (Maps 1-2). The property composed a high beach terrace which slopes steeply to wetlands. The wetlands run parallel to the coastal shifting dune belt. The entire property is covered by dens grass, Fynbos, Thicket and alien vegetation.

Map

1:50 000 - 3424BB Humansdorp and 3324 DD Hankey

ARCHAEOLOGICAL INVESTIGATION

Methodology

The investigation was conducted on foot by two people. The entire coastal dune system was investigated and all visible sites were recorded. Dense vegetation made the survey for archaeological heritage sites/materials difficult in the rest of the property, but where possible tracks, foot paths and clearances were investigated. Spot checks were also conducted from a vehicle while driving through and around the property.

Description of the sites

GPS readings were taken with a Garmin Plus II

All the sites were open-air sites and included shell middens, shell scatter and stone artefact occurrences. Apart from occasional Middle Stone Age stone tools finds, sites were mainly from Holocene Later Stone Age. The following rating system was used for shell occurrences/accumulations:

1. Shell middens: accumulation/concentration of shell at least 1 shell depth and 50 x 50 cm.
2. Midden scatters: concentrations of shell fragments (but also occasional whole shells) with no evident depth spread over a restricted or large area.
3. Shell scatters: random spreads of mainly shell fragments over a restricted or large areas with no evident depth.
4. Stone features: accumulations of roughly circular fire cracked stones of varying sizes, usually closely spaced and filled in with charcoal and occasionally with marine shell fragments.

For the Field rating/significance of the sites, see Appendix A.

Note: Rating of sites is conducted on visibility and visual impression and may not reflect the real situation. In the case of midden and shell scatters, accurate ratings can only be established with testing. All shell middens are *Donax serra* dominated, unless reportedly differently.

THE COASTAL DUNE SYSTEM

The immediate coastline consists of high shifting dunes. Many shell middens and other archaeological sites are situated here and are continuously covered and exposed as dunes move slowly eastwards (Figs 1- 4).



Figs 1 & 2. General views of the high shifting coastal sand dunes.



Figs 3 & 4. General views of the south-western low dune area.

The south-western dune area

This area consists of a low dune field (Figs 3 & 4) which gradually changes to high shifting dunes (Figs 2 & 3). There is a large number of shell middens, midden scatters, shell scatters and stone features concentrated in this area.

Low dune field area

Site 1: Shell midden scatter/shell midden - 33.58.791S; 24.58.728E (GPS reading at the shell midden) (Figs 5 & 8).

- Shell midden scatter with shell midden
- Current observation is a shell midden, but the exact size is not known. A large part of the accumulation may be covered by dunes.
- Shell midden is a Local Grade IIIB site and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is directly under threat from horse trail which passes over the site.

This is a large *Donax serra* shell midden scatter with a midden, occasional quartzite stone tools and a concentration of bone (33.58.786S; 24.58.723E runs for approximately 30 metres). It is most probably part of a larger complex of shell middens scatters and middens covered by a dune. The midden was 3 x 2 metres in size and approximately 5 cm thick.



Fig. 5 General view of the shell midden scatter and Fig. 6 a view of the small *Donax serra* shell midden.

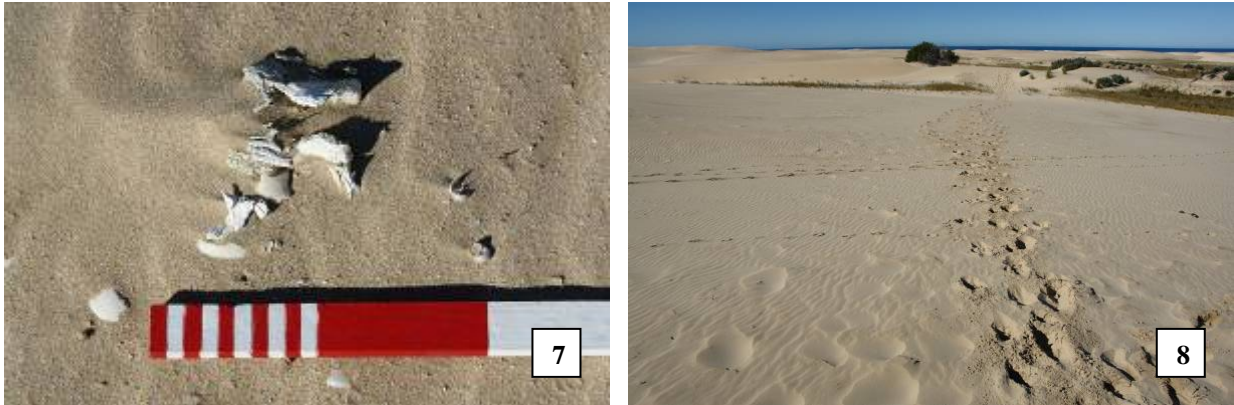


Fig. 7 & 8. Bone remains at Site 1 (7) and the horse trail which runs over the site (8).

Site 2: Shell midden scatter/shell midden and stone feature - 33.58.812S; 24.58.640E (Figs 9 & 8).

- Shell midden scatter with shell midden and dispersed stone feature.
- Shell midden is a Local Grade IIIB site and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is directly under threat from horse trail which passes over the site.

Shell midden is 5 cm thick and the feature measures some 40 x 10 metres. The stone feature consists of fire cracked stones and most probably represent a cooking platform. Apart from *D. serra* there was no other food remains associated with the stone feature or the shell midden. No cultural material was found either.

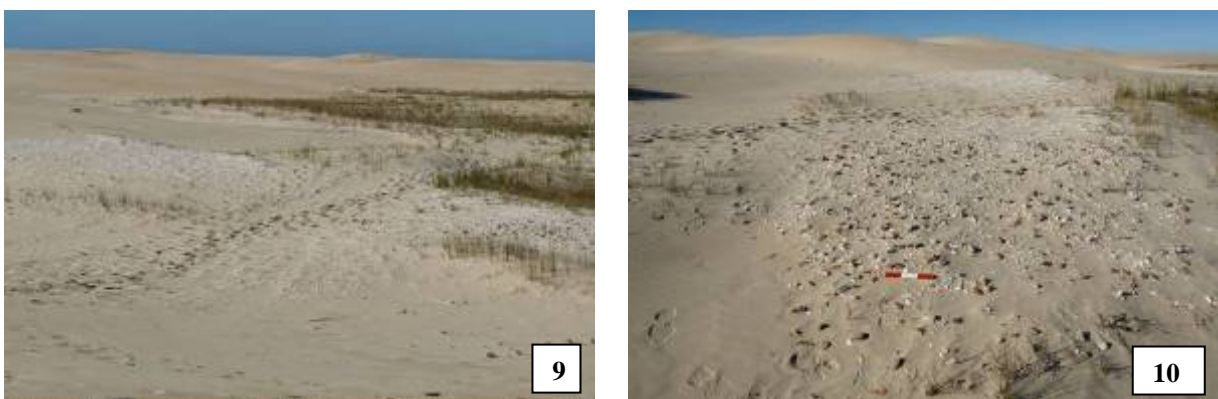


Fig. 9 & 10. Views of Site 2 in the south-western dune area. Note the horse trail which passes over the site.

Site 3: Shell midden scatter/shell middens - 33.58.825S; 24.58.689E (Figs 11 & 12).

- Shell midden scatter with shell middens and a stone scatter.
- Shell middens are Local Grade IIIB sites and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is directly under threat from horse trail which passes over the site.

This large shell midden scatter measured some 58 metres long and between 5-8 metres wide. Several small shell midden patches/accumulations occurred in the scatter. Among these was one small accumulation of *Oxysteles* spp. and *Turbo sarmaticus* shells. Apart from occasional quartzite stone tools or other cultural or food waste was found.

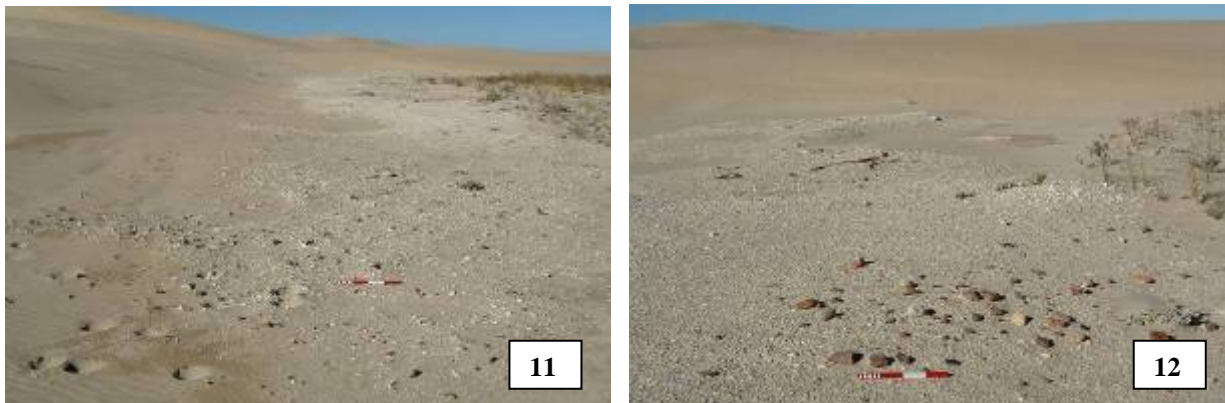


Fig. 11 & 12. Views of Site 3 with a stone scatter and a small patch of shell midden in the background.

Site 4: Shell middens and stone feature - 33.58.830S; 24.58.688E (Figs 13 & 14)

- Shell middens, stone feature and stone scatters
- Shell middens are Local Grade IIIB sites and of medium to high significance.
- The sites fall outside the footprint and are not directly under threat from the proposed development, but are directly under threat from horse trail which passes over the site.

In this area which measured some 30 x 30 metres, there were four small shell accumulations, one large midden of 5 x 5 metres and a stone feature. Apart from occasional quartzite stone flakes and flaked cobbles, no other cultural material or food waste were found.

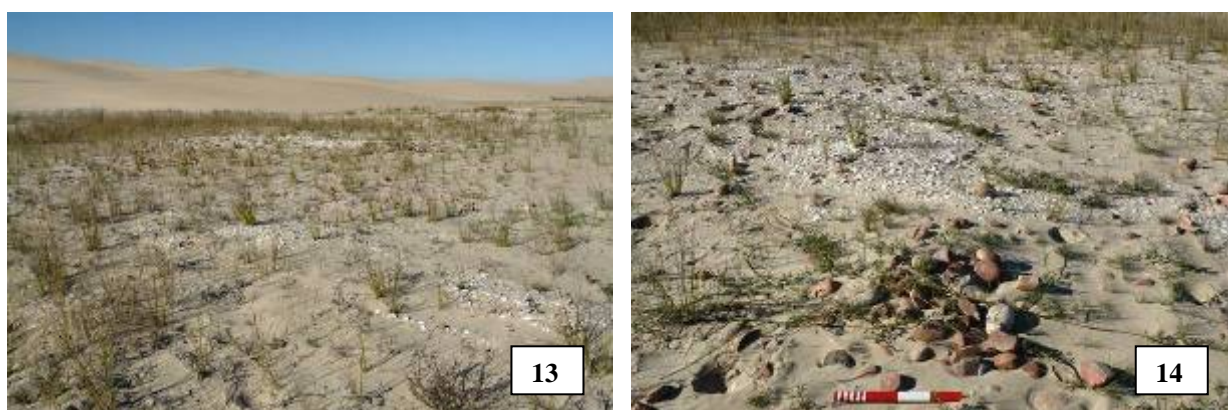


Fig. 13 & 124 View of Site 4 with small patches of shell midden and a close-up of the stone feature.

Site 5: Shell midden scatters/shell midden - 3.58.843S; 24.58.711E (Fig. 15)

Site 6: Shell midden scatters/shell midden - 33.58.850S; 24.58.670E (Fig. 16)

Site 7: Shell midden scatters/shell midden - 33.58.859S; 24.58.657E (Figs 17 & 18)

- Shell midden scatters with shell middens.
- Shell middens are Local Grade IIIB sites and of medium to high significance.
- The sites fall outside the footprint and are not directly under threat from the proposed development, but are directly under threat from horse trail which passes over the site.

All three sites were large shell midden scatters with several isolated shell middens 'cores'. The shell middens were shallow accumulations of some 5 cm thick. Site 5 was 55 x 20 metres, Site 6 was 60 x 13 metres and Site 7 10 x 3 metres. Occasional quartz stone flakes and flaked cobbles were scattered throughout the area. No other food waste was found.



Fig. 15. View of Site 5 and Fig. 16 view of Site 6



Fig. 17. View of Site 7 and Fig. 18 is a close-up view of the shell midden.

Site 8: Stone feature -33.58.862S; 24.58.650E (Figs 19 & 20)

- Large stone feature with shell fragments.
- A Local Grade IIIB site and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

Site 9: Shell midden scatter/midden/stone feature - 33.58.864S; 24.58.636E (Figs 21 & 22)

Site 10: Shell midden scatter/midden/stone feature - 33.58.847S; 24.58.640E (Figs 23 & 24)

- Shell midden scatters with shell middens and stone features.
- Sites are Local Grade IIIB sites and of medium to high significance.

- The sites fall outside the footprint and are not directly under threat from the proposed development, but are indirectly under threat from the public.

Site 9 was associated with a shell midden (8 x 9 metres), a few pottery shards, quartzite stone flakes and two small stone features (both were 2 x 2 metres). The site represents Khoi occupation and may date some 1800 years old. Site 10 measures some 18 x 16 metres with a shell midden (4 x 4 metres) and a small stone feature (2 x 2 metres).

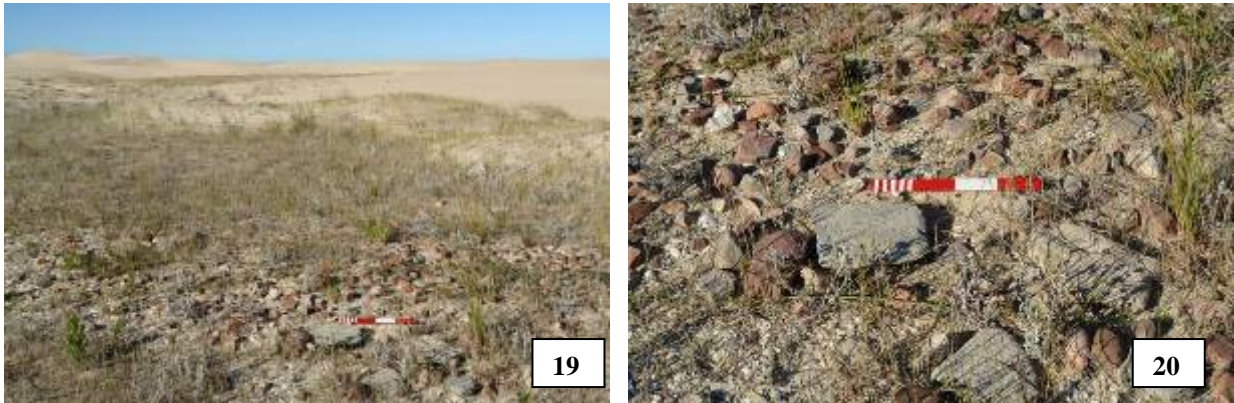


Fig. 19. View of Site 8 and **Fig. 20** is a close-up view of the stone feature.

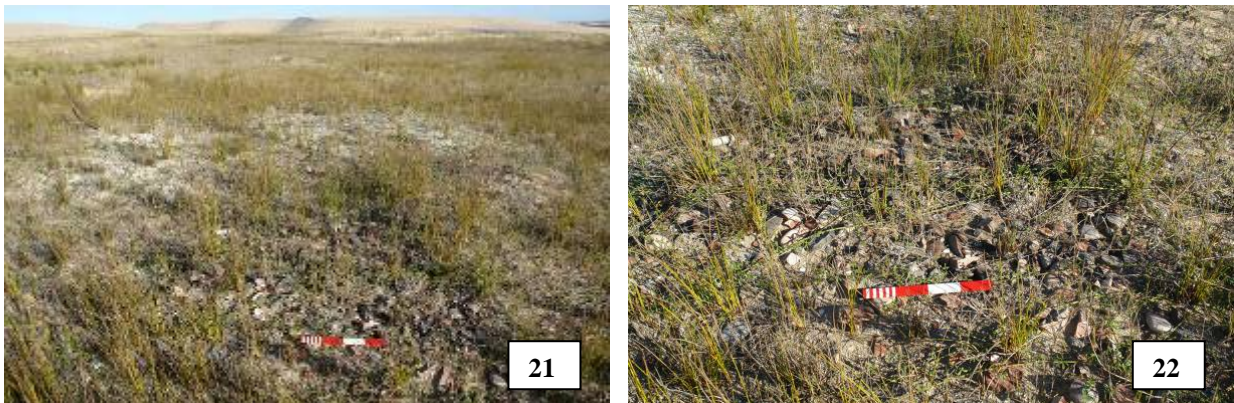


Fig. 21. View of Site 9 and **Fig. 22** is a close-up view of the stone feature.

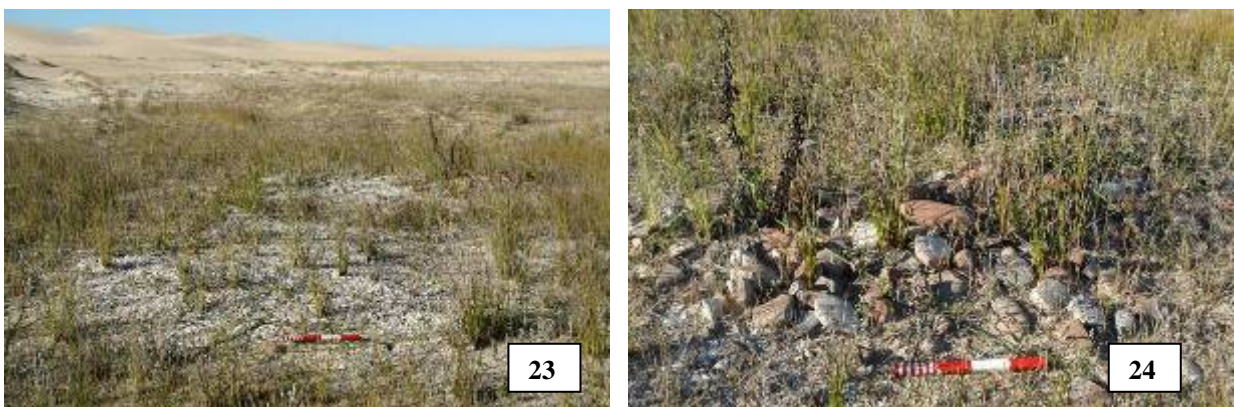


Fig. 23. View of Site 10 and **Fig. 24** is a close-up view of the stone feature.

Site 11: Stone feature - 33.58.861S; 24.58.616E (Figs 25 & 26).

Site 12: Stone scatter - 33.58.868S; 24.58.611E (no photographs).

Site 13: Small stone feature - 33.58.927S; 24.58.555E (Figs 27 & 28).

Site 14: Small stone feature - 33.58.917S; 24.58.535E (Figs 29 & 30).

Site 15: Small stone feature - 33.58.813S; 24.58.616E (Figs 31, 32 & 33).

- Stone features with shell fragments and a small shell midden.
- Local Grade IIIB sites and of medium to high significance.
- The sites fall outside the footprint and are not directly under threat from the proposed development, but are indirectly under threat from the public.

Sites 11, 13 and 14 were small circular stone features and both measured 3 x 3 metres set among shell scatters. Apart from a few quartzite stone tools no other cultural material or food waste were found. Site 15 was a large stone feature of fire cracked stone filled with charcoal which suggests that this feature represent a cooking platform.

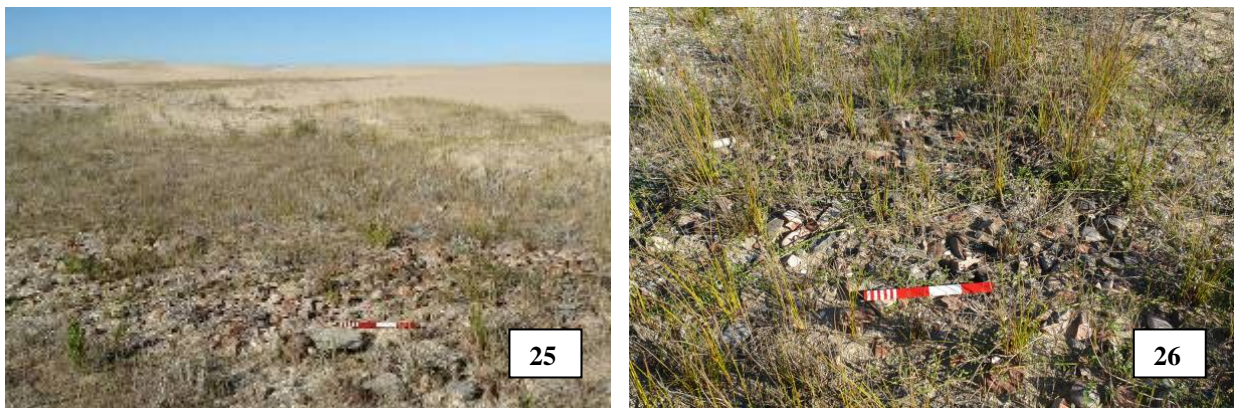


Fig. 25. View of Site 11 and **Fig. 26** is a close-up view of the stone feature.

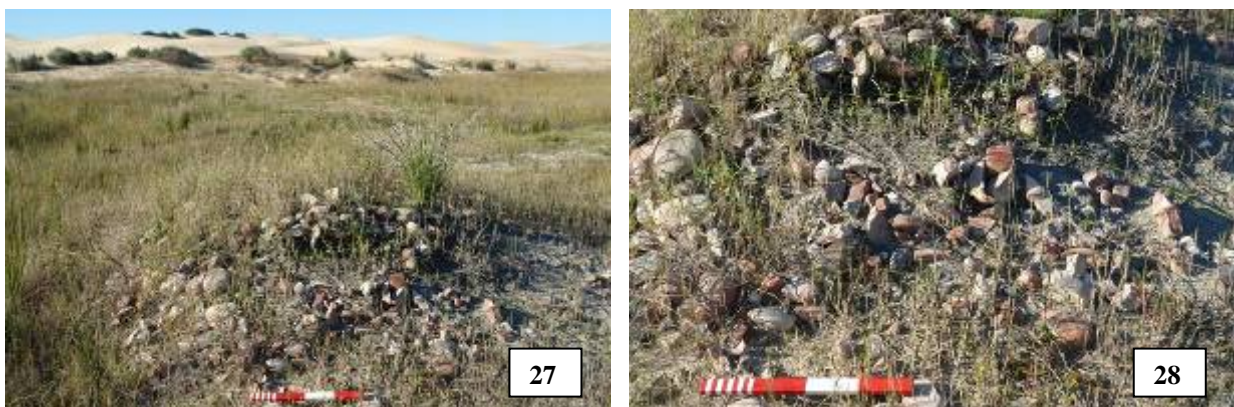


Fig. 27. View of Site 13 and **Fig. 28** is a close-up view of the stone feature.



Fig. 29. View of Site 14 and Fig. 30 is a close-up view of the stone feature.



Fig. 31. View of Site 15, Fig. 32 is a close-up view of the stone feature and Fig. 33 of charcoal between the fire cracked stones.

Shifting dune area

Site 16: Shell midden scatter – 33.58.793S; 24.58.798E (Figs 34 & 35)

- Current observation is a shell midden scatter, but is most probably part of a larger accumulation which may be covered by a dune.

- Appears to be a Generally Protected IVA or B site.
- The site falls outside the footprint and may be directly under threat from the proposed development.

A large part of this *Donax serra* midden scatter is covered by a huge dune and will probably be covered completely soon. Some 12 x 5 metres were still exposed. No cultural material or other food waste remains were found, but large numbers of *Nassarius kraussiana* shells were found among the shells and the adjacent hard grey soil. The grey soil may represent the remains an old vlei/water logged area between the dunes and *Nassarius kraussiana* shells may have lived in these pools of water.



Fig. 34. View of Site 16 and Fig. 35 is a close-up view of the *Nassarius kraussiana* shells.

Site 17: Shell midden – 33.58.786S; 24.58.795E (Figs 36 & 37)

- Shell midden.
- Shell midden is a Local Grade IIIB site and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This shell midden is situated on a hard grey floor, measures 7 x 4 metres in size and is 5 cm thick. Large numbers of *Nassarius kraussiana* shells were also found among the marine shell. Cultural material found on the midden included several quartzite flakes, a lower grindstone, rubber, hammer stone and a few pot shards. The site appears to be of Khoi origin and date younger than 1800 years old.

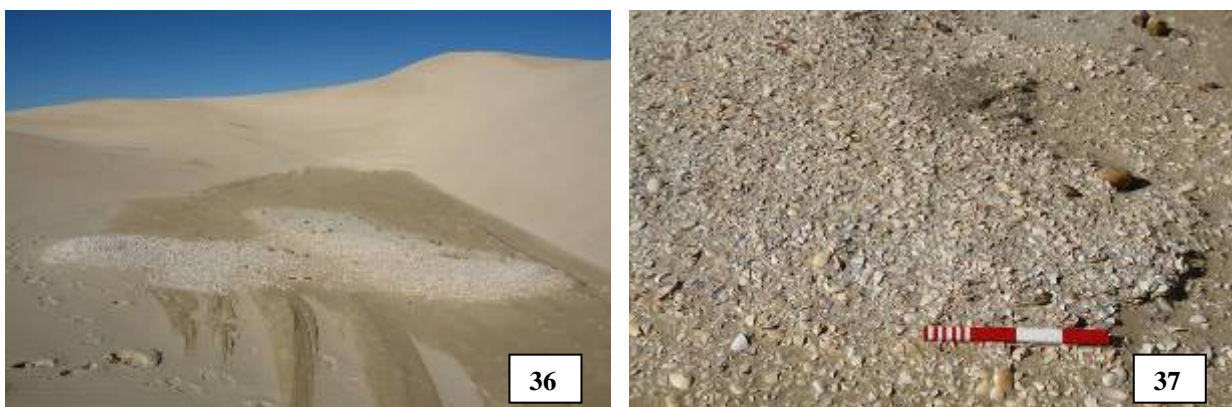


Fig. 36. View of Site 17 and Fig. 37 is a close-up view of the shell midden.

Site 18: Stone feature – 33.58.786S; 24.58.795E (Figs 38 & 39)

- Shell scatter with stone feature.
- Stone feature is a Generally Protected IVA or B site and of medium significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This partly exposed stone feature measured 10 x 2 metres and represent most probably a dispersed cooking platform. No cultural material was.

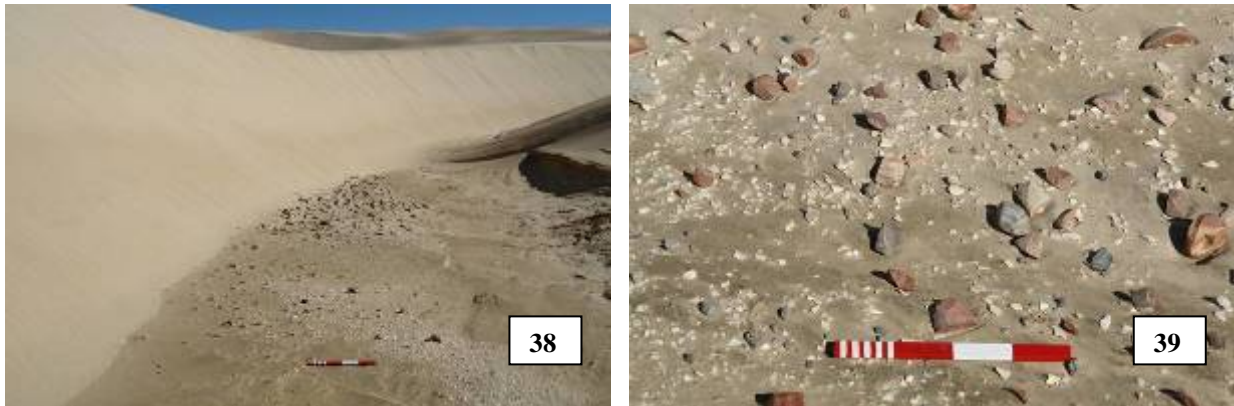


Fig. 38. View of Site 18 and **Fig. 39** is a close-up view of the shell midden.

Site 19: Shell midden – 33.58.736S; 24.58.752E (40 & 41)

- Shell midden.
- Shell midden is a Local Grade IIIB sites and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

Only about 4 x 2 metres of the shell midden was exposed between two dunes. The midden was some 5 cm thick and yielded a few quartzite stone tools.

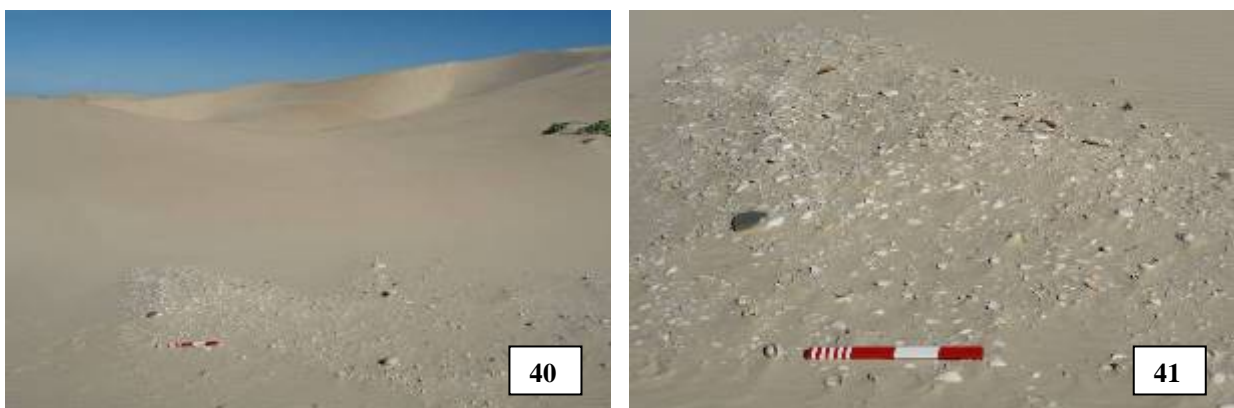


Fig. 40. View of Site 19 and **Fig. 41** is a close-up view of the shell midden.

Site 20: Shell midden scatter – 33.58.711S; 24.58.755E (Figs 42 & 43)

- Current observation is a shell midden scatter, but is most probably part of a larger accumulation which may be covered by a dune.
- Appears to be a Generally Protected IVA or B site and is of medium significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

Only some 10 x 2 metres of the midden scatter was exposed, while the rest is most probably covered by a dune. Apart from a single seal bone, no other food waste or cultural material was found.

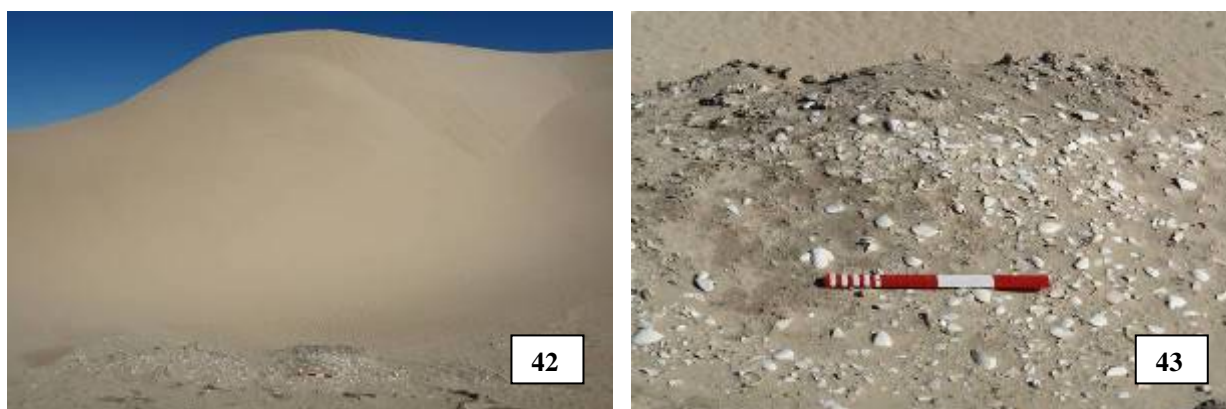


Fig. 42. View of Site 20 and Fig. 43 is a close-up view of the shell midden scatter.

Site 21: Burial 1 – 33.58.695S; 24.58.706E

A KhoiSan skeleton was found exposed in the shifting sand dunes during September 1997. The remains were radiocarbon dated to 725 years old

Site 22: Burial 2, reburial – 33.58.628S; 24.58.831E

A second KhoiSan skeleton found in the sifting sand dunes during November 2005, was reburied at this location in March 2008. The remains were radiocarbon dated to 540 years old.

Site 23: Shell midden scatter – 33.58.708S; 24.58.881E (Figs 44 & 45)

- Current observation is a shell midden scatter, but is most probably part of a larger accumulation which may be covered by a dune.
- Appears to be a Generally Protected IVA or B site.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This shell midden scatter measured 15 x 15 metres. A large number of typical KhoiSan thin-walled pottery fragments were found, but none were decorated. The presence of pottery suggests that the site date younger 1800 years old.

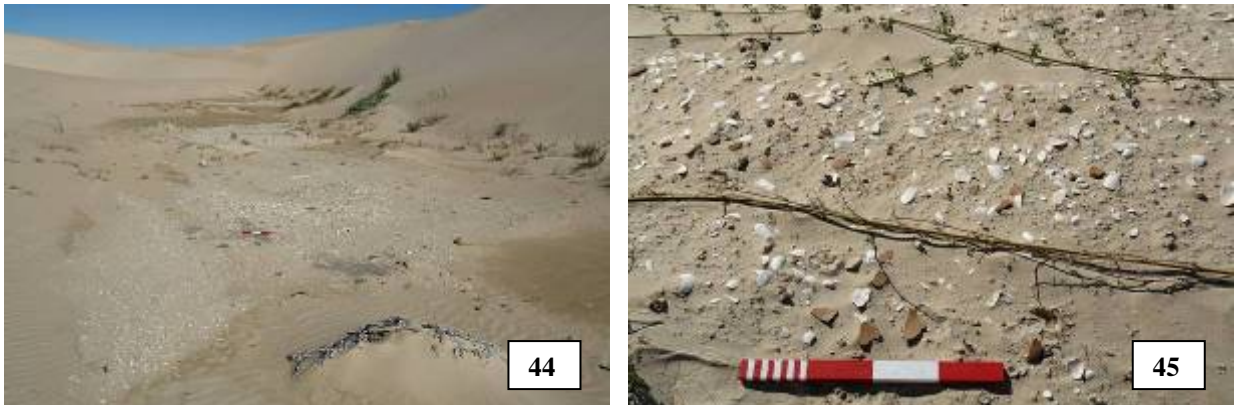


Fig. 44. View of Site 23 and Fig. 45 is a close-up view of the shell midden scatter and pot shards.
Site 24: Shell midden – 33.58.723S; 24.58.892E (Figs 46 & 47)

- Shell midden and scatter.
- Shell midden is a Local Grade IIIB sites and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

The shell midden was situated on a hard grey soil floor and measured 18 x 4 metres. Occasional quartzite stone tools and pottery fragments were found, but none were decorated. The presence of pottery suggests that the site date younger 1800 years old.

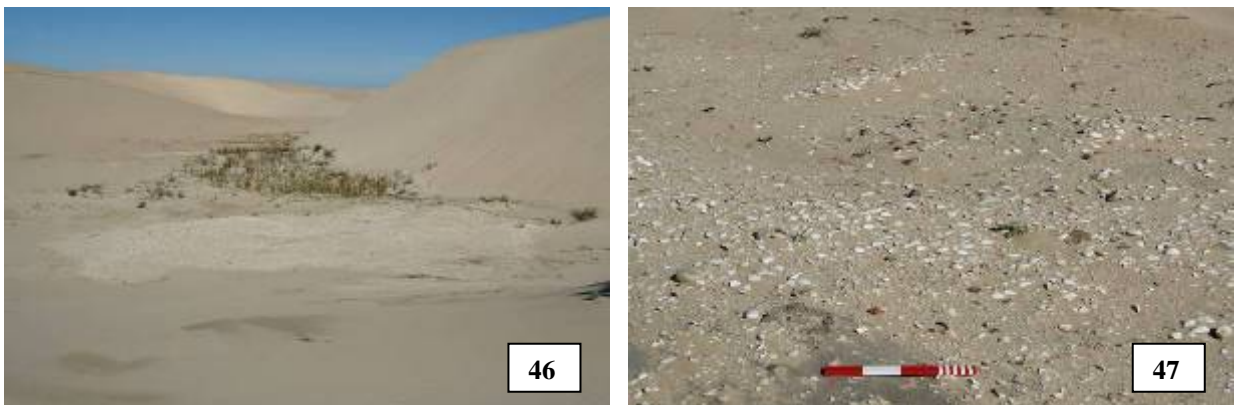


Fig. 46. View of Site 24 and Fig. 47 is a close-up view of the shell midden scatter and pot shards.

Site 25: Shell midden – 33.58.738S; 24.58.885E (48 & 49)

- Shell midden.
- Sites are Local Grade IIIA/B sites and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This small shell midden was situated on a hard grey soil and measured 5 x 2 metres. Large numbers of *Nassarius kraussiana* shells were also found among the marine shell.

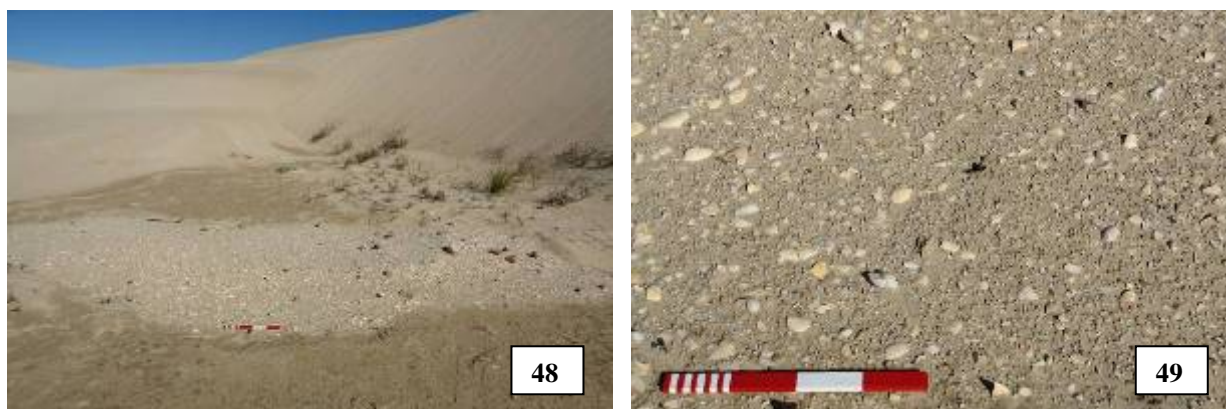


Fig. 48. View of Site 25 and Fig. 49 is a close-up view of the shell midden and *Nassarius kraussiana* shells.

Site 26: Shell scatter – 33.58.672S; 24.59.014E

Site 27: Shell midden – 33.58.634S; 24.59.086E (Figs 50 & 51)

- Shell midden scatter with shell middens.
- The exact size is not known. Because a large part of the accumulation may be covered by dunes.
- Sites are Local Grade IIIB sites and of medium to high significance.
- The sites fall outside the footprint and are not directly under threat from the proposed development, but are indirectly under threat from the public.

Only a small part, some 20 x 6 metres, of what must be a much larger feature was situated on an exposed calcrete floor. A large part appeared to be covered by a dune. Six small shell middens were situated on the scatter. Large numbers of *Nassarius kraussiana* shells were also found among the marine shell.

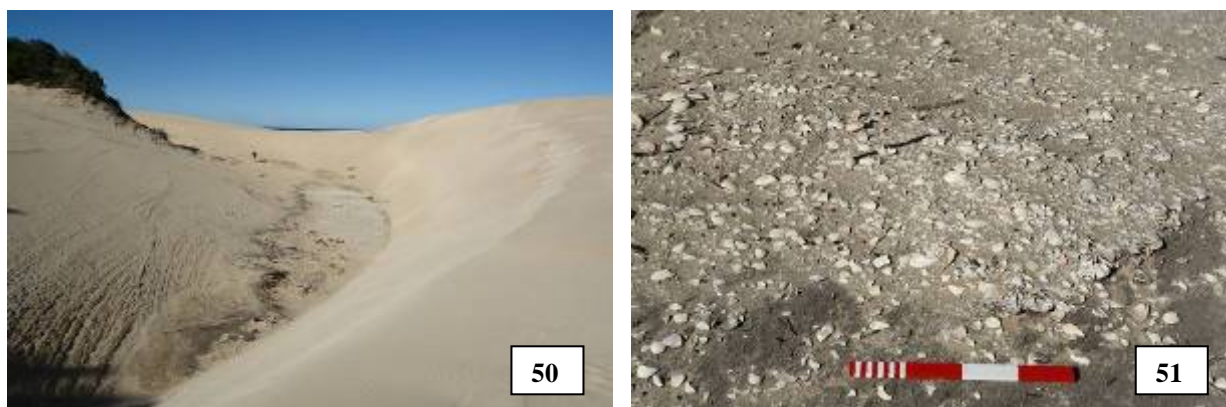


Fig. 50. View of Site 27 and Fig. 51 is a close-up view of the shell midden.

INLAND AREA

Wetlands/Calcrete ridge

The wetlands run parallel to the coast and separates the coastal dune belt from the adjacent

inland high beach terrace (Figs 52 & 53). Elevated calcrete ridges are exposed in the wetlands and carry shell scatters.



Fig 52. View of the wetlands and Fig. 52 a view from the high beach terrace.

Site 28: Shell scatter – 33.58.528S; 24.58.470E

Site 29: Shell scatter – 33.58.519S; 24.59.490E

Site 30: Shell scatter – 33.58.549S; 24.58.577E and 33.58.575S; 24.59.485E (spot check)

Site 31: Shell scatter – 33.58.499S; 24.58.435E

Site 32: Shell scatter – 33.58.437S; 24.58.542E

Site 33: Shell scatter – 33.58.715S; 24.57.868E

Site 34: Shell scatter – 33.58.662S; 24.57.944E

Site 35: Shell scatter – 33.58.501S; 24.58.347E

- Shell scatter.
- Appears to be a Generally Protected IVA/B site.
- Significance must first be established by testing before any recommendations can be made. The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

The scatter measured approximately 18 x 12 square metres with occasional quartzite stone tools.

Site 36: Shell scatter – 33.58.629S; 24.58.340E

- Shell scatter.
- Appears to be a Generally Protected IVA/B site.
- Significance must first be established by testing before any recommendations can be made. The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

The scatter measured approximately 18 x 12 square metres, but may be part of a larger site.

Site 37: Shell scatter – 33.58.750S; 24.58.147E (Fig. 54)

- Shell scatter.
- Appears to be a Generally Protected IVA/B site.

- Significance must first be established by testing before any recommendations can be made. The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This scatter was spread over a vast area and measures some 100 x 50 metres with occasional quartzite stone tools.

Site 38: Shell scatter – 33.58.774S; 24.58.203E

- Shell scatter.
- Appears to be a Generally Protected IVA/B site.
- Significance must first be established by testing before any recommendations can be made. The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This scatter was spread over a vast area and measures some 100 x 20 metres with occasional quartzite stone tools.

Site 39: Shell scatter – 33.58.730S; 24.58.263E (Fig. 55)

- Shell scatter.
- Appears to be a Generally Protected IVA/B site.
- Significance must first be established by testing before any recommendations can be made. The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This scatter was spread over a large area and measures some 55 x 5 metres with occasional quartzite stone tools.

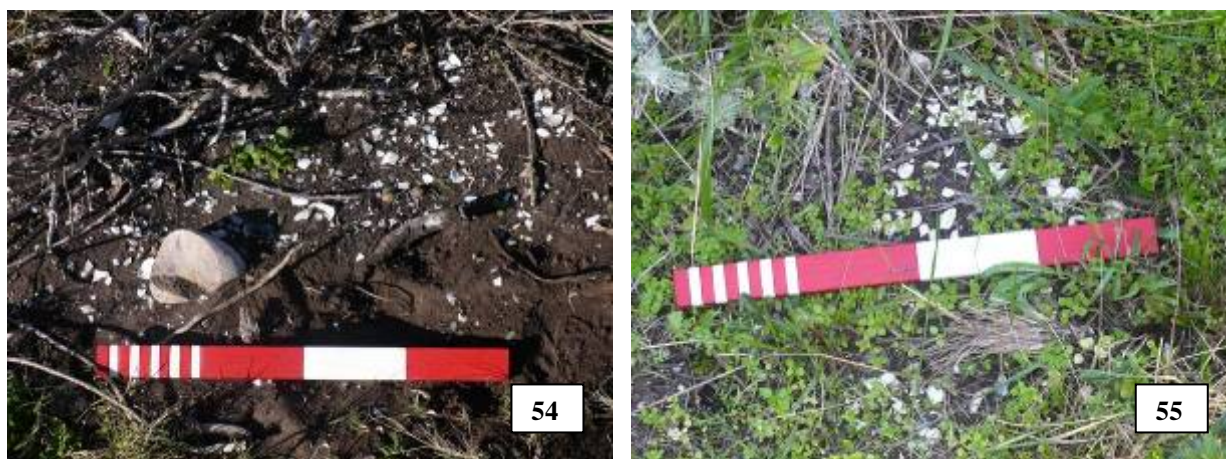


Fig. 53. View of Site 37 and Fig. 54 is a view of Site 39.

Gamtoos River Mouth Dune Fields

The coastal side of the Gamtoos River Mouth area consists of large shifting sand dunes, while the inland side is well covered by vegetation (Figs 56 & 57). Archaeological sites were found on hard grey soil surfaces between the dunes.

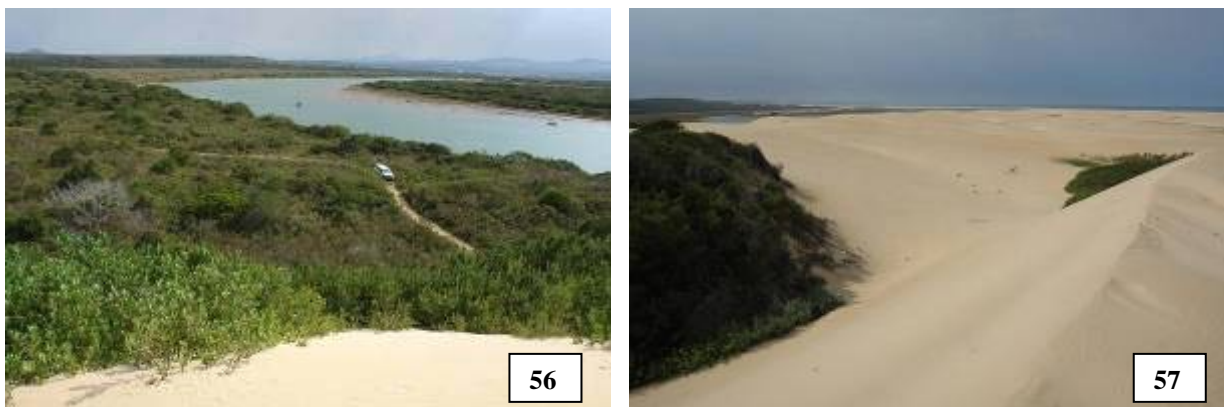


Fig. 55. Inland view of the Gamtoos River Mouth area and Fig. 56 the coastal shifting sand dunes.

Site 40: Shell midden/scatter – 33.57.875S; 25.00.932E (Figs 58 & 59)

- Shell midden/scatter.
- A Local Grade IIIB site and of medium to high significance.
- The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

This large mainly *Donax serra* shell midden scatter measures some 35 x 35 square metres and situated on a hard grey land floor. A few *Solen capensis* shells were also found among the *D. serra* shell. These must have been collected from the nearby Gamtoos River estuary. Occasional quartzite stone tools and pot shards were found on the site. A surprised find were the occasional fossilised bone remains found on the site.

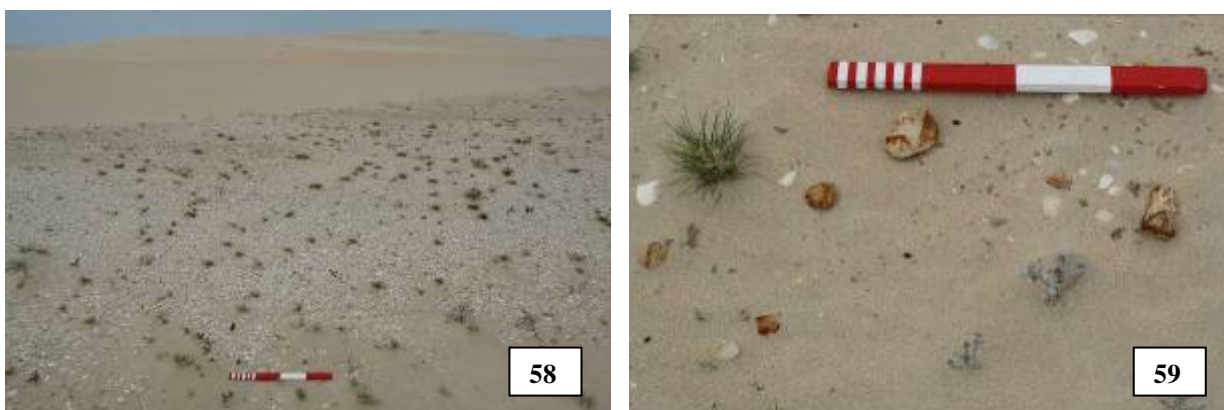


Fig. 57. A view of Site 40 and Fig. 58 a close-up of the fossilised bone.

Site 41: Shell scatter – 33.57.944S; 24.00.949E

- Small (1 x 1 square metre) shell scatter with a few quartzite stone flakes.
- Appears to be a Generally Protected IVA site of low significance.
- The site falls outside the footprint and may be directly under threat from the public.

Site 42: Shell scatter with shell midden cores – 33.57.909S; 25.00.966E (60 & 61)

- Shell midden scatter with shell midden cores.
- Shell midden is a Local Grade IIIB site and of medium to high significance.

- The site falls outside the footprint and is not directly under threat from the proposed development, but is directly under threat from horse trail which passes over the site.

A large shell midden scatter which measured some 30 x 30 metres with five shell midden cores. The two larger ones measured 5 x 10 metres and 3 x 5 metres. Apart from a few quartzite stone tools no other cultural or food waste were found.

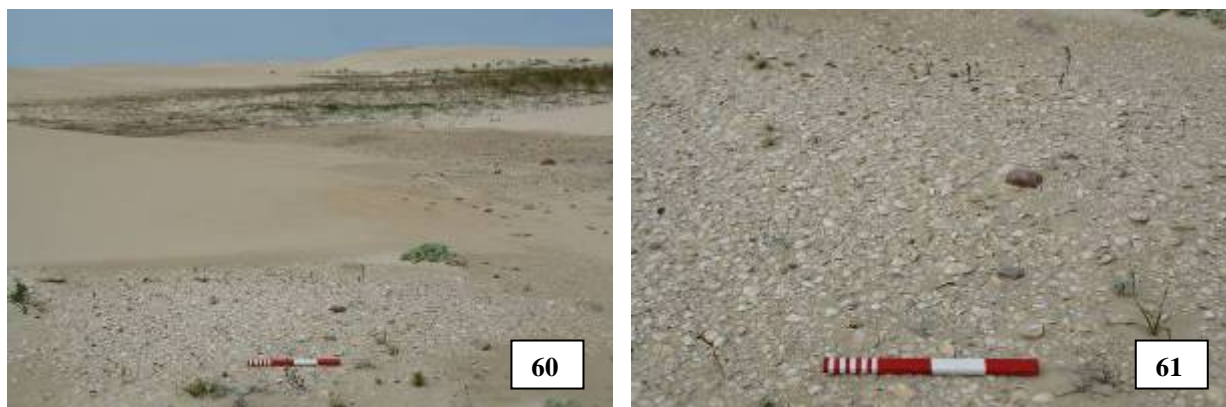


Fig. 59. View of Site 59 and Fig. 60. a close-up of the Shell midden.

Site 43: Shell scatter – 33.57.748S; 25.00.843E

Site 44: Shell scatter – 33.57.741S; 24.00.802E

Site 45: Shell midden – 33.57.733S; 24.00.668E (Fig. 62)

Site 46: Shell scatter – 33.57.675S; 24.00.541E

Site 47: Shell scatter – 33.58.1079S; 24.59.674E

- Shell scatters.
- Appears to be Generally Protected IVA/B sites.
- Significance must first be established by testing before any recommendations can be made. The site falls outside the footprint and is not directly under threat from the proposed development, but is indirectly under threat from the public.

All the above sites were in or next to the vehicle track running behind the dunes to the Gamtoos River (Fig. 63).

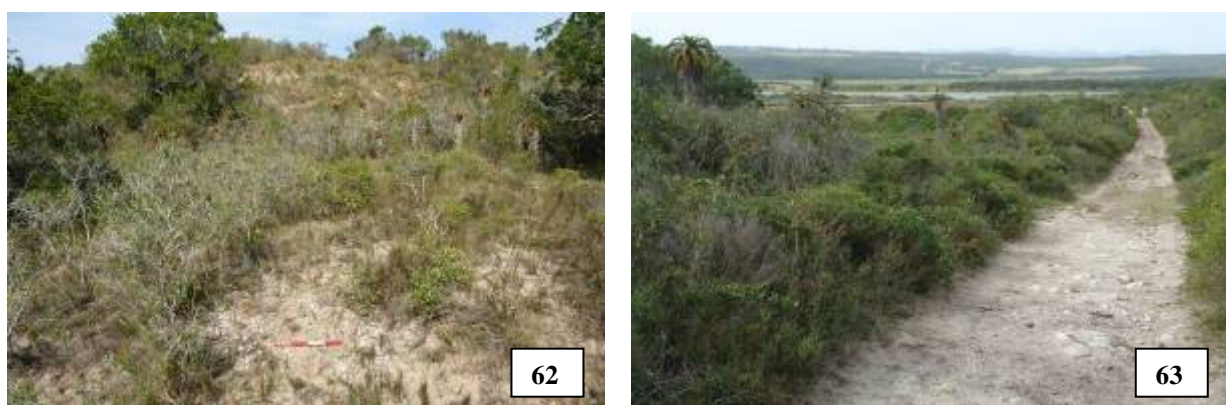


Fig. 61. View of Site 45 and Fig. 62. the track behind the coastal dunes.

Site 48: Middle Stone Age stone tools – 33.57.678S; 24.00.140E (64 & 65)

Occasional Middle Stone Age stone tools were found on the edge of the calcrete ridge which lines the Gamtoos River flood plain.

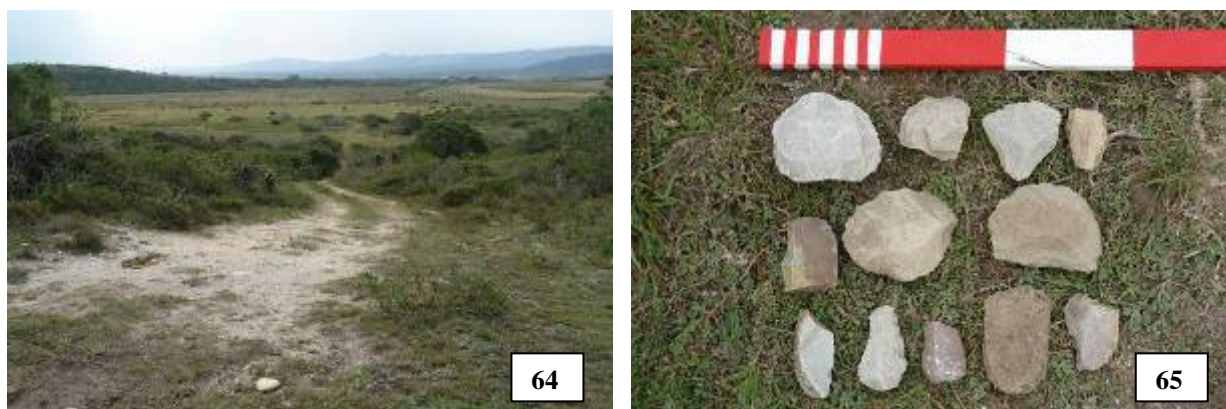


Fig. 63. View of the calcrete ridge exposed by a vehicle track and **Fig. 64.** an example of the occasional Middle Stone Age stone tools found in the area.

Conclusions

A large number of archaeological heritage sites were found during the survey. The area is potentially rich in archaeological heritage sites, but the full extent is unknown because many sites are most probably buried under dunes, soil and vegetation. However, no sites were found in the proposed footprints.

A large number of shell middens, shell midden scatters and stone features were found during the investigation, but these sites yielded little cultural material or food remains other than marine shell. In many cases the size or depths of deposits (if any) represented by the shell scatters are unknown. Concentrations of these shell scatters are present in all areas, also on the high ground along the wetlands. Testing (spade and testpit testing) must be conducted to establish the extent and context of these scatters. In general, it would appear that the shell scatters are of medium significance.

Information from the survey indicates that the area has been occupied at least from Middle Stone Age times, probably the past 120 000 years. Occasional stone tools were found on the high coastal gravel terrace. Also it would not be surprising to find Earlier Stone Age handaxes and cleavers dating some 1 million years old in the beach gravels. Although there is little substantial data available from the sites surveyed, research from the adjacent Kabeljous River region indicated that Later Stone Age San hunter-gatherers were living in the area from at least 6 000 years ago. A few sites found during the survey also yielded Khoi pottery fragments dating from approximately 1 800 years ago.

The development will provide easy access to areas previously difficult to get to for the general public. It will therefore have an influence on the wider region and increase pressure on the archaeological heritage resources.

RECOMMENDATIONS

Although no sites were found in the footprints, the proposed development takes place within five kilometres of the coast, and therefore falls within the sensitive zone where marine related archaeological sites, such as shell middens may be found. It is therefore recommended that:

1. If any concentrations of archaeological material are exposed anywhere during construction, all work in that area should cease and it should be reported immediately to the nearest museum/archaeologist or to the South African Heritage Resources Agency, so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material (See Appendix A for a list of possible archaeological sites that maybe found in the area).
2. All construction work must be monitored. A person should be trained as a site monitor to be on site to report to the site foreman when sites are found.
3. Although there are few visible archaeological sites in close proximity of the property, the proposed development will have an impact on cultural resources in the surrounding areas (see Fig. 66). Important archaeological and historical sites and material are in walking distance and residents will no doubt visit or 'discover' these through their recreational activities. Against this background the following recommendations are proposed:
 - Terms of conditions, in the form of a 'management strategy' should be included in the constitution of the Home Owners Association or into any other relevant legal organisation. The purpose of this 'management strategy' would be to inform the home owners and visitors to the development of possible heritage resources on the property and surrounds, and to prevent or at best minimize possible damage of sites or prevent the collecting of material by residents and/or visitors. This 'management strategy' document (terms of conditions) can be compiled by the South Africa Heritage Resources Agency in cooperation with the Home Owners Association.
 - The developers should consider a small display/information centre at a central place in the development where relevant information can be displayed regarding the archaeological heritage resources of the area. This should include a 'management strategy' which inform the visitors/tourists about the protection, conservation and protocol of visiting these heritage resources. Such a facility will be a constructive contribution towards the potential protection and conservation of the heritage resources of the region and may prove to be a valuable 'investment' to the development. Notice boards should also be placed at sensitive area to inform the public on the laws protecting the sites and site etiquette.

Motivation for recommendation 3

There is no doubt that the development will have an impact and ripple effect on the archaeological heritage resources of the region. The impact will be indirect, but will increase over time. It is therefore the responsibility of the developers to inform potential homeowners and visitors to the development of the importance of the archaeological heritage of the area. In this way, the developers will make a contribution to the potential protection and preservation of these archaeological resources of the region.

The immediate and adjacent areas to the proposed development are rich in archaeological heritage sites, i.e. open-air sites, caves and shelters with extremely valuable and important unique archaeological deposits. There are sites within walking distance from the development and these sites and others will be 'discovered' by landowners and visitors during their stay/visit to the estate and region.



Fig. 66. A cross made from archaeological material illegally removed from nearby shell middens.

GENERAL REMARKS AND CONDITIONS

Note: This report is for a Phase 1 archaeological heritage impact assessment **only** and do **not** include or exempt other required heritage impact assessments (see below).

The National Heritage Resources Act (Act No. 25 of 1999, section 35) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects

It must be emphasised that the conclusions and recommendations expressed in this archaeological heritage sensitivity investigation are based on the visibility of archaeological sites/material and may not therefore, reflect the true state of affairs. Many sites may be covered by soil and vegetation and will only be located once this has been removed. In the event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed. The onus is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

In terms of Section 35 (4) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) no person may, without a permit issued by the relevant heritage resources authority, destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or material or any meteorite; or bring onto, or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

It must also be clear that Phase1 Specialist Reports (AIAs) will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites. Application for these permits must be submitted well in advance of any such actions.

APPENDIX: A. FIELD RATING OF THE SITES (to comply with section 38 of the national legislation).

National: This site is considered to be of Field Rating/Grade I significance and should be nominated as such (mention should be made of any relevant international ranking);

Provincial: This site is considered to be of Field Rating/Grade II significance and should be nominated as such;

Local: This site is of Field Rating/Grade IIIA significance. The site should be retained as a heritage register site (High significance) and so mitigation as part of the development process is not advised.

Local: This site is of Field Rating/Grade IIIB significance. It could be mitigated and (part) retained as a heritage register site (High significance);

Generally Protected A (Field Rating IV A): This site should be mitigated before destruction (generally High/Medium significance);

Generally Protected B (Field Rating IV B): This site should be recorded before destruction (generally Medium significance);

Generally Protected C (Field Rating IV C): This site has been sufficiently recorded (in the Phase 1). It requires no further recording before destruction (generally Low significance).

APPENDIX: B. IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL: guidelines and procedures for developers.

1. Shell middens

Shell middens can be defined as an accumulation of marine shell deposited by human agents rather than the result of marine activity. The shells are concentrated in a specific locality above the high-water mark and frequently contain stone tools, pottery and bone remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m² in extent, should be reported to an archaeologist.

2. Human Skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this.

3. Fossil bone

Fossil bones may be found embedded in calcrete deposits at the site. Any concentrations of bones, whether fossilized or not, should be reported.

4. Stone artefacts

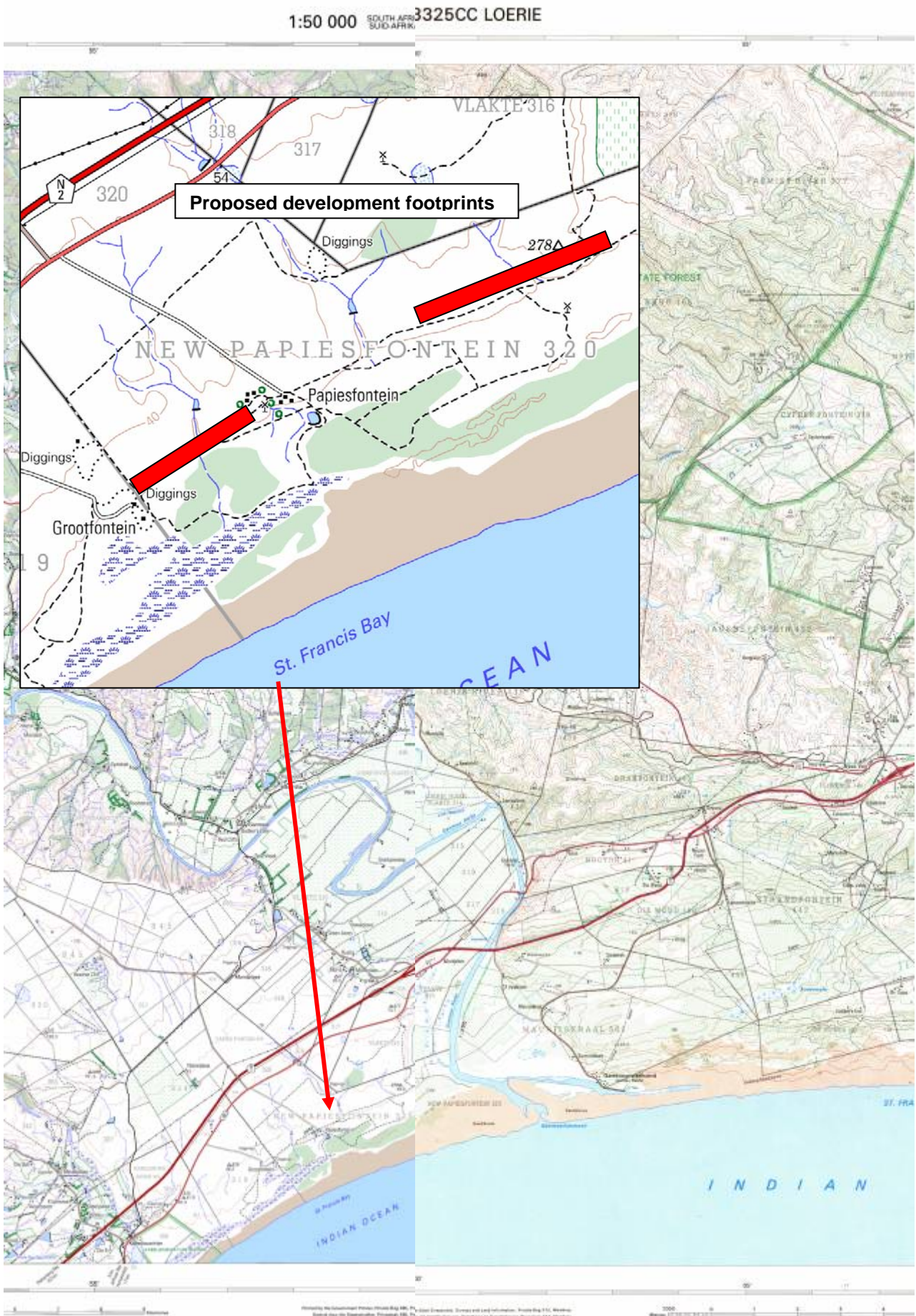
These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally, should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

5. Stone features and platforms

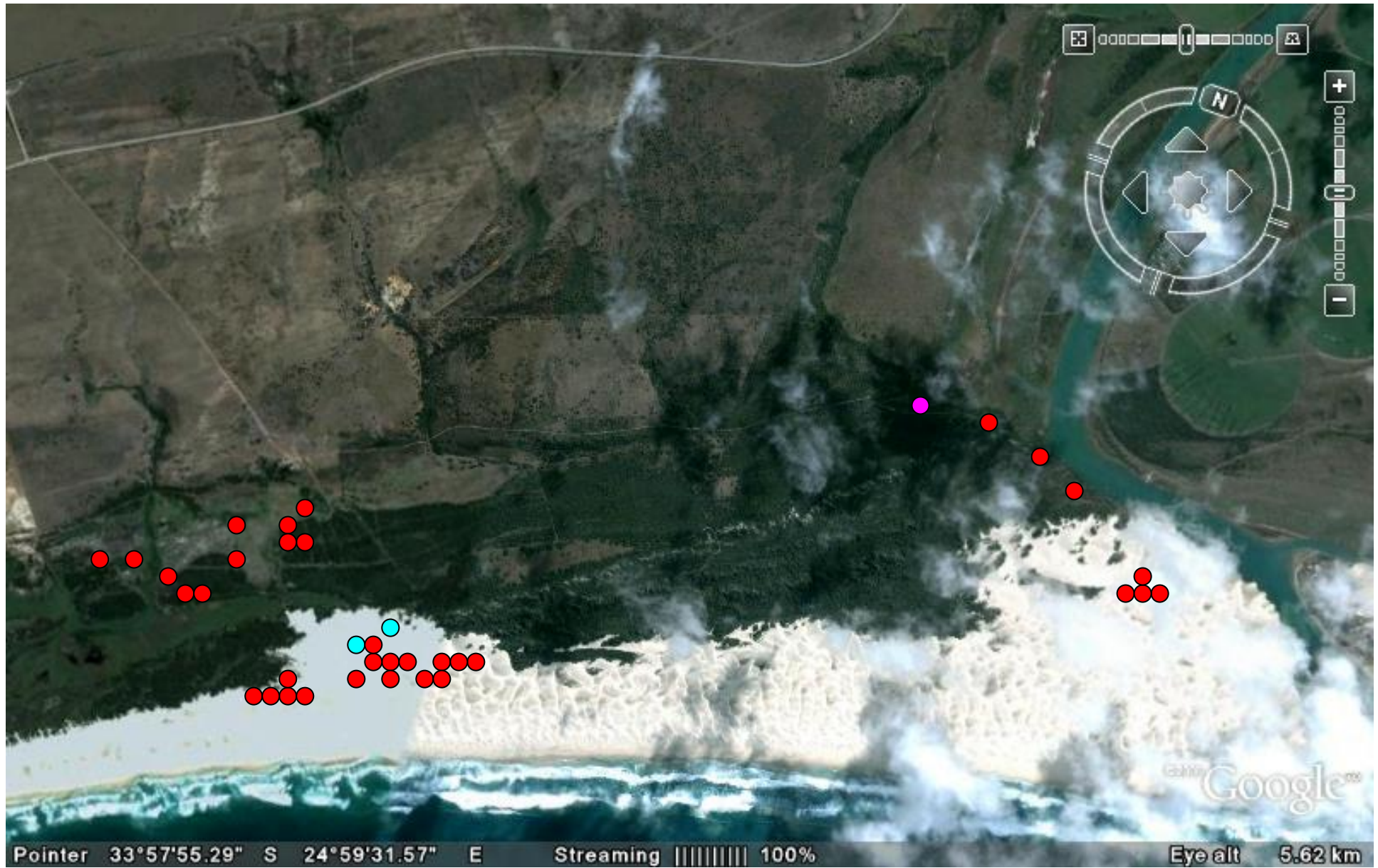
They come in different forms and sizes, but are easy to identify. The most common are an accumulation of roughly circular fire cracked stones tightly spaced and filled in with charcoal and marine shell. They are usually 1-2 metres in diameter and may represent cooking platform for shell fish. Others may resemble circular single row cobble stone markers. These are different sizes and may be the remains of wind breaks or cooking shelters.

6. Historical artefacts or features

These are easy to identified and include foundations of buildings or other construction features and items from domestic and military activities.



Map 1. 1:50 000 map indicating the location of the proposed development and footprints.



Map 2. Aerial photograph of the archaeological sites found during the investigation. Red dots = shell middens, Blue dots = human remains and Pink dot = Middle Stone Age stone tools. Note: one dot may represent several sites.