9/2/072/25

DWARSKERSBOS SURVEY:

REPORT ON THE ARCHAEOLOGICAL SURVEY UNDERTAKEN ON 9 APRIL 1994, AT PROPOSED RESTUARANT SITE NEAR DWARSKERSBOS, CAPE WEST COAST.

PREPARED BY: JOHN GRIBBLE
SURVEY BY : JOHN GRIBBLE AND GAIL EUSTON-BROWN

INTRODUCTION:

An archaeological survey of an area adjacent to the coast on the farm Dwarskersbos, on the Cape west coast, was undertaken on Saturday 9 April 1994. The survey was commisioned as part of the first phase of the development of a "muisbosskerm"-type restuarant on the site by Mr Danie van Schalkwyk of Dwarskersbos. It was undertaken by John Gribble and Gail Euston-Brown, on behalf of Jonathan Kaplan of the Agency for Cultural Resource Management.

SITUATION:

The site of the proposed development is on a piece of land 3 hectares in size, which Mr van Schalkwyk is leasing from the owner of the farm, Dwarskersbos. It is situated approximately 3 kilometers south of the town of Dwarskersbos, and is an area between the Velddrif road and the coast - a strip approximately 200 m wide. An untarred farm road runs from the boundary fence to the sea, and there are two further dirt roads that cross the site, parallel to the main Velddrif road.

Although north of this area, the coast of St. Helena Bay is fringed by a double row of dunes, one of the reasons this particular section of the coastline was probably chosen for the site of the restuarant, is that there is no coastal dune cordon in this area The site is thus relatively flat across its width, and at the boundary fence is probably only 3-4 m above mean sea level.

The flatness of the coastline between the mouth of the Berg River and Dwarskersbos is due mainly to an extremely important geological occurence. This section of coast is one of only a few in South Africa, that is actively prograding (Miller, Yates, Parkington and Vogel 1993). The low energy of the marine environment in this area means that more sediment is being deposited on the coast than is being eroded by wave action. In consequence, the shoreline is gradually moving out to sea, and this has meant the preservation of Holocene and Pleistocene beach levels that have been destroyed elsewhere by more modern high sea levels.

The site can be divided into three distinct areas:

Behind the modern active beach is a low-lying area, which from its elevation and vegetation would appear to be a marsh during the wet season.

Inland from this marshy area a low ridge represents the remains of a raised Holocene beach, now covered in low bush and scrub. This is one of a number of such beach ridges that can be found inland of the coast in the area between Veldrif and Dwarskersbos (Miller et al 1993).

THE SURVEY:

There are two main areas on this piece of land that will be affected by the development. The first is an area approximately 25 m wide on either side of the road to the sea, where parking for the restuarant is envisaged. This area is likely to be levelled, and gravelled. The survey therefore covered a 30 m wide strip on either side of the roadway.

In the marshy area, which should only see the gravelling of the existing road and no other major disturbance, a similar 30 m wide strip was surveyed on either side of the road.

The second area to be impacted by the development is immediately above the modern beach, where the muisbosskerm itself will be situated. Here an open area ±50 m across was surveyed.

The survey was carried out by two people, and the whole area was exhaustively covered by two metre transects. Each surveyor walked for an hour and a half, making a total of three hours.

The survey concentrated on finding surface manifestations of prehistoric human occupation and exploitation of the area. Rodent mounds and burrows were examined for evidence of sub-surface archaeological material.

RESULTS:

Although the whole area was exhaustively searched, no evidence of archaeological material was found. However, geological evidence of prehistoric beach levels was found over most of the site.

The marshy area was made up of a soft white sand, which on the surface was almost devoid of any marine shell. Inspection of rodent burrowings however, showed them to contain quantities of choromytelus, or Black Mussel shell, which had been brought up from beneath the surface. This shell contained no humanly derived cultural material, and probably represents Holocene beach levels.

The raised beach ridge was found to be scattered with large quantities of marine shell, but none of this accumulation would appear to be attributable to prehistoric human activities. No cultural material was found, and although the quartz nodules scattered on the surface were examined, none were found to be flaked or worked. A close inspection of the shelly deposit, both on the surface, and in animal burrowings, revealed that aside from containing no charcoal or bone, most of the shell in the deposit was waterworn. Quantites of waterworn local schist were mixed with the shell, and all of this together tended to suggest a geological, rather than archaeological origin for the material. This material is also probably a Holocene beach, with possible areas of extrusive, calcified Pleistocene beach deposit also exposed on the surface.

RECOMMENDATIONS:

It is clear from the survey that the area of the proposed development contains no obvious, surface archaeological remains. Although there may be archaeological material buried beneath the surface, no evidence of this was found in the animal burrows examined.

Instead, extensive evidence of the prehistoric Holocene, and possibly Pleistocene beach levels, known to border this coastline, was found.

It must also be noted that this development is taking place on one of South Africa's only known prograding shorelines.

The importance of this occurence is that this process, which has been in progress for thousands, perhaps hundreds of thousands of years, offers archaeologists and geologists alike a unique opportunity for understanding the past climatic and sea level fluctuations of the area.

In the light of the above, the importance of the geology of this stretch of coast, between the Berg River Mouth and Dwarskersbos, cannot be stressed enough. This area has not yet been extensively studied, but the prograding shoreline offers an opportunity almost unrivalled anywhere along the South African coast.

No large-scale development of this coastline should therefore be undertaken without a prior, detailed archaeological and geological study of the area.

However, as it stands, the lack of any discernable archaeological material, and the small scale, and fairly uninvasive nature of this particular development, seems to offer no reason why it should not take place.

CONCLUSION:

The archaeological survey of the site of the proposed restuarant development revealed no surface evidence of archaeological material. It did however confirm the presence of substantial Holocene and possibly Pleistocene beach deposits, in an area of known coastal progradation.

The development, as planned, however, will not impact too heavily on this record, and should therefore be allowed to proceed.

REFERENCES:

Miller, D.E., Yates, R.J., Parkington, J.E., and Vogel, J.C. (1993) Radiocarbon-dated evidence relating to a mid-Holocene relative high sea-level on the south-western Cape coast, South Africa. South African Journal of Science **89**, 35-44