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**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT OF
PORTIONS 8 AND 43 OF GANSE VALLEI 444, PLETTENBERG
BAY**

Prepared for:

Grant Johnston Associates cc
Landscape design
P O Box 1026
Plettenberg Bay
6600

Prepared by:

Dr Lita Webley
Albany Museum
Somerset Street
Grahamstown
6139

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INTRODUCTION

This report presents the results of a Phase 1 archaeological impact assessment undertaken on behalf of Grant Johnston Associates cc (Landscape Design and Environmental Planning) to assess the possibility that archaeological sites and material could be negatively impacted during the re-zoning and subdivision of Portions 8 and 43 of the farm Ganse Vallei 444.

An archaeological impact assessment of this property is considered mandatory in terms of both the National Heritage Resources Act (Act No. 25 of 1999) and the Environmental Conservation Act (Act No 73 of 1989).

ARCHAEOLOGICAL BACKGROUND

The area under consideration lies mid-way between the important archaeological cave site of Majjies River Rock Shelter(at Keurboomstrand) and the large number of archaeological midden sites on the Robberg Peninsula (including the site of Nelson Bay Cave). Nelson Bay Cave is particularly important as it covers the period between the Late Pleistocene and the Holocene (Deacon & Deacon 1999). The shellfish deposits in the cave provide information on changes in ocean temperatures and sea levels which can be correlated with global climatic changes. The area between these headlands is potentially of great interest as it may contain shell middens from this period which may shed further light on human occupation at this time.

RESEARCH METHODS

The area (Portions 8 and 43) is located on a hill and is some 23 ha in extent. Most of the development will take place on the top, more level section, of the hill. The slopes are considered too steep for development.

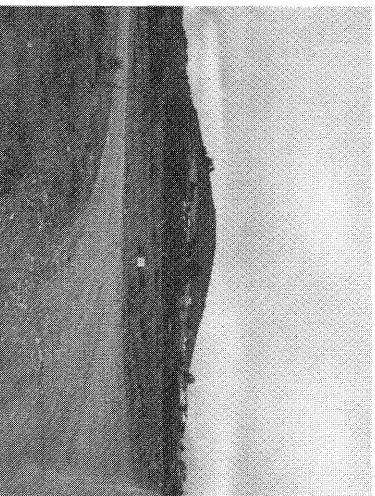


Figure 1: A view of the hill (Ganse Vallei) which will be developed.

The site was visited on the 23 and 24 August 2004. The boundaries of the area were first covered on foot, and then the areas ear-marked for development were examined in greater detail. During the first ascent of the hill on the 23rd August, it was observed that there was a clearly visible cobble horizon at approximately 65-75m above sea level. The rounded quartzite cobbles were generally very weathered and appeared to suggest a previous river terrace. There is another plateau of river cobbles on the top of

the hill on the north-eastern side (at an elevation of approximately 100m above sea level) close to the boundary fence with 444/42 and 444/7. This cobble plateau is some 10m in extent and is a very dense cobble area.

In general, surveying was undertaken in chest-high bush. The vegetation around the gravel dam is mainly exotic, including blue gums, pine trees and rookrantz. These form dense clumps which are difficult to survey on foot. As discussed below, both the 'river terraces' as well as the intervening areas contain sparse scatters of Early and Middle Stone Age tools (see Terminology) which will be impacted negatively by the proposed development.

RESULTS

A number of scatters of stone tools were found on the hill between the 65m and 100m contour lines. Their locations are indicated very roughly on the accompanying map (Figure 2).

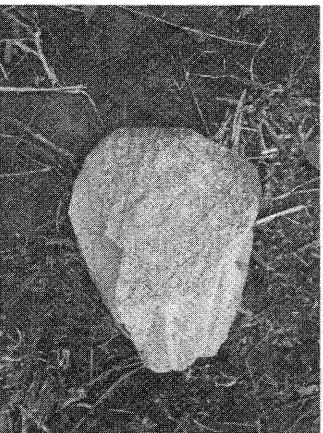
Site 1

A quartzite core and a quartzite flake (possibly of Middle Stone Age origin) was located some 2 metres apart at a height of 69m above sea level, on a clear band of river cobbles. These stone tools are on a steep ridge overlooking the farmhouse below and, since this part of the ridge will not be developed, the archaeological material is not in any danger of destruction.

GPS reading:

S 34° 00' 50,3"

E 23° 22' 12,1"



Site 1: A core on the left and flake on the right.

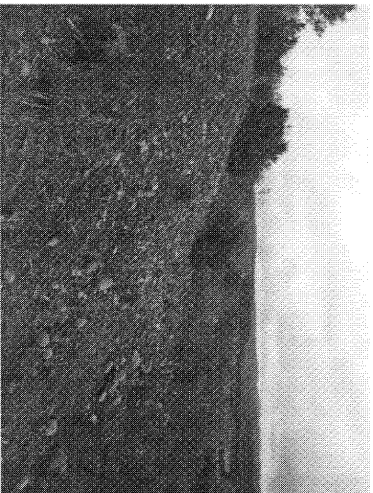
Site 2

Site 2 consists of stone tools scattered on and around a terrace or plateau of river cobbles on the top of the hill, on its north-eastern edge. There is one possible handaxe in this area. From the survey map this appears to be an area which will be developed (properties 1-14). The elevation of this second terrace appears to be around 100 m above sea level.

GPS reading:

S 34° 00' 52,2"

E 23° 22' 04,7"



Site 2: The cobble horizon is clearly visible.



Site 2: A possible handaxe on the left and quartzite flakes and cores on the right.

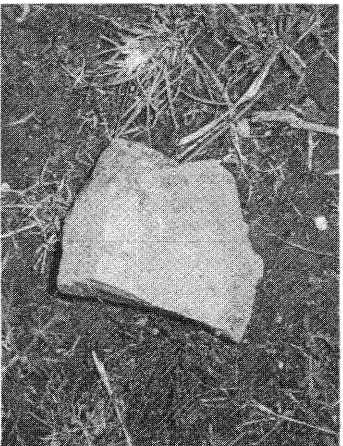
This site was re-visited on the 24th August and its elevation found to be 100m asl. Further quartzite flakes (possibly of Middle Stone Age origin) were found on top of the quartzite plateau, at a height of 103m asl. These flakes were located at:

GPS reading:
S 34° 00' 54,8"
E 23° 22' 04,6"

Site 3

After walking along the northern and north-western borders of the property, the gravel dam was approached from the west. A single quartzite flake was discovered in a cleared area of land, close to a small copse of trees which also contained 3 square cement drain (?) covers.

GPS reading:
S 34° 00' 55,4"
E 23° 21' 55,0"



Site 3: Quartzite core.

Site 4

The gravel dam has been created by bulldozing a hollow in the side of the hill. It is therefore inevitable that stone tools should be found in its gravel walls. Some weathered cores were discovered on the eastern side of the dam.

GPS reading:

S 34° 00' 54,7"

E 23° 22' 09,3"



Site 4: Gravel dam on the left, and some weathered quartzite cores on the right.

Site 5

A scatter of blue and white ceramics was found, below the dam, in the lower road. It is difficult to date these ceramics, but they are at least 50 years old. Just above the road, in a clump of trees, is a rubbish hollow containing modern glass bottles. This suggests the presence of a dwelling (perhaps now in ruins) in the clusters of alien pines and blue gums. Although the area was searched, no ruins could be traced in the thick vegetation.

GPS reading:

S 34° 00' 56,2"

E 23° 22' 13,3"



Site 5: Some blue and white transfer ware from the lower road.

Site 6

Following the newly created gravel road up the hill towards the location of erven 1-14, a further weathered (and perhaps utilized) quartzite flake was discovered in the road. The shape of the flake suggested that it was of Middle Stone Age origin. The flake, and associated unmodified quartzite cobbles, were located some 82m asl, at:

GPS reading:

S 34° 00' 51,7"

E 23° 22' 08,4"



Site 6: A very weathered Middle Stone Age flake.

DISCUSSION

A surface survey, undertaken on the property Ganse Vallei on the 23rd and 24th August 2004, has revealed stone artifacts associated with two levels (horizons) of quartzite cobbles which appear to represent early river terraces. These levels are at approximately 65-75 metres above sea level and 100m above sea level, respectively.

However, these stone artifacts do not appear to represent habitation sites, but seem to be randomly scattered in the cobble horizons. In other words, the artifacts are not clustered in a specific area, suggesting the results of a prehistoric occupation of the area. It would appear that their presence on the hill could be explained in two possible

WAYS:

a) The artifacts were manufactured upstream of the river course in prehistoric times, and carried downstream during previous floods. However, while some of the artifacts appear extremely weathered suggesting they have been rolled in the river, others are unpatinated and show little signs of weathering;

b) Early inhabitants of the area deliberately visited the hillside at Ganse Vallei because they were aware of the quartzite cobble deposits on the hill and used them as a source of raw materials for their artifacts. The hillside could thus have functioned as a very informal quarry site and the random distribution of artifacts would therefore reflect their discard over extended periods of time.

It is also possible that both of the above scenarios may have taken place at different times in the past.

The stone artifacts are, in the majority of instances, merely flakes and cobbles and it is not possible to assign them to a specific period or date. There are some quartzite flakes, which have a Middle Stone Age appearance, and there is one artifact that resembles an Early Stone Age handaxe (see Terminology). This would put the date for these artifacts as older than 30 000 years ago. There is no evidence for more recent prehistoric occupation.

However, in addition to the stone artifacts, this survey also located a distribution of ceramics with blue and white transfer decoration. It is difficult to date these ceramics but they are at least 50 years old, and perhaps as much as 100 years old. This suggests that there may have been a structure (either an old farmhouse or a dwelling belonging to a farm worker/manager) located somewhere on the hill. It is unlikely that the ceramics are related to the present farmhouses at the foot of the hill, as rubbish dumps are seldom located at such a considerable distance (and up a steep hill) from a dwelling. All buildings older than 60 years are protected by law (National Heritage Resources Act of 1999) and if any ruins are present, they should be fully investigated before they are destroyed. No ruins were located during the survey but it is possible that such ruins may be found during the clearing of the alien vegetation on the hill.

ASSESSMENT OF SIGNIFICANCE AND POSSIBLE MITIGATION

The National Heritage Resources Act (No 25 of 1999) protects all archaeological sites and it is an offense to destroy, damage, excavate, alter, deface or disturb archaeological sites without a permit issued by the South African Heritage Resources Agency (SAHRA).

Two areas of stone artifact distribution have been identified on the hill. The stone tools are associated with very clear cobble horizons which may represent old river terraces.

1. The cobble horizon at the 65-75m elevations will not be significantly impacted by development as these contour lines appear to form part of the steep section of the hill which is topographically unsuitable for development.

2. However, the dense cobble accumulation at the 100m elevation on the north-eastern side of the property, will be significantly impacted by the development of erven 1-14.

This cobble accumulation will be at least partially destroyed by the construction of houses and/or gardens in this area.

It is important to consider whether the distribution of stone artifacts in this second area are of such significance that mitigation needs to be undertaken. As I have indicated above, there is no evidence that the stone artifacts are in primary context. They are both sparsely and randomly distributed and are not associated with any other artifacts or features which would suggest human occupation. I have a high degree of confidence that the artifacts are in secondary context and are of low significance. Their destruction will not result in the loss of important information.

RECOMMENDATIONS

In view of the low significance of the artifact distributions on the hill (Ganse Valley) I would recommend that development might proceed. However, every care should be taken to avoid destroying any possible archaeological sites which may be buried beneath the soil surface. While I consider this to be unlikely, in view of the terrain and distance from the coast, it is important to alert contractors to the following when leveling of the soil takes place for development:

- 1) Concentrations of bone associated with the stone artifacts
- 2) Human remains, including burials
- 3) Remains of earlier (European) stone structures

If any of the above is discovered, further development of the property must stop immediately and archaeologists as well as the South African Heritage Resources Agency should be contacted to determine the significance of the discovery.

TERMINOLOGY

Early Stone Age: the earliest ESA assemblages date from 1,7 million years ago. By around 1,5 million years ago distinctive stone tools called hadaxes appear and this seems to coincide with the appearance of *Homo erectus* peoples. These tools continue to be made in the same pattern until around 200 000 years ago.

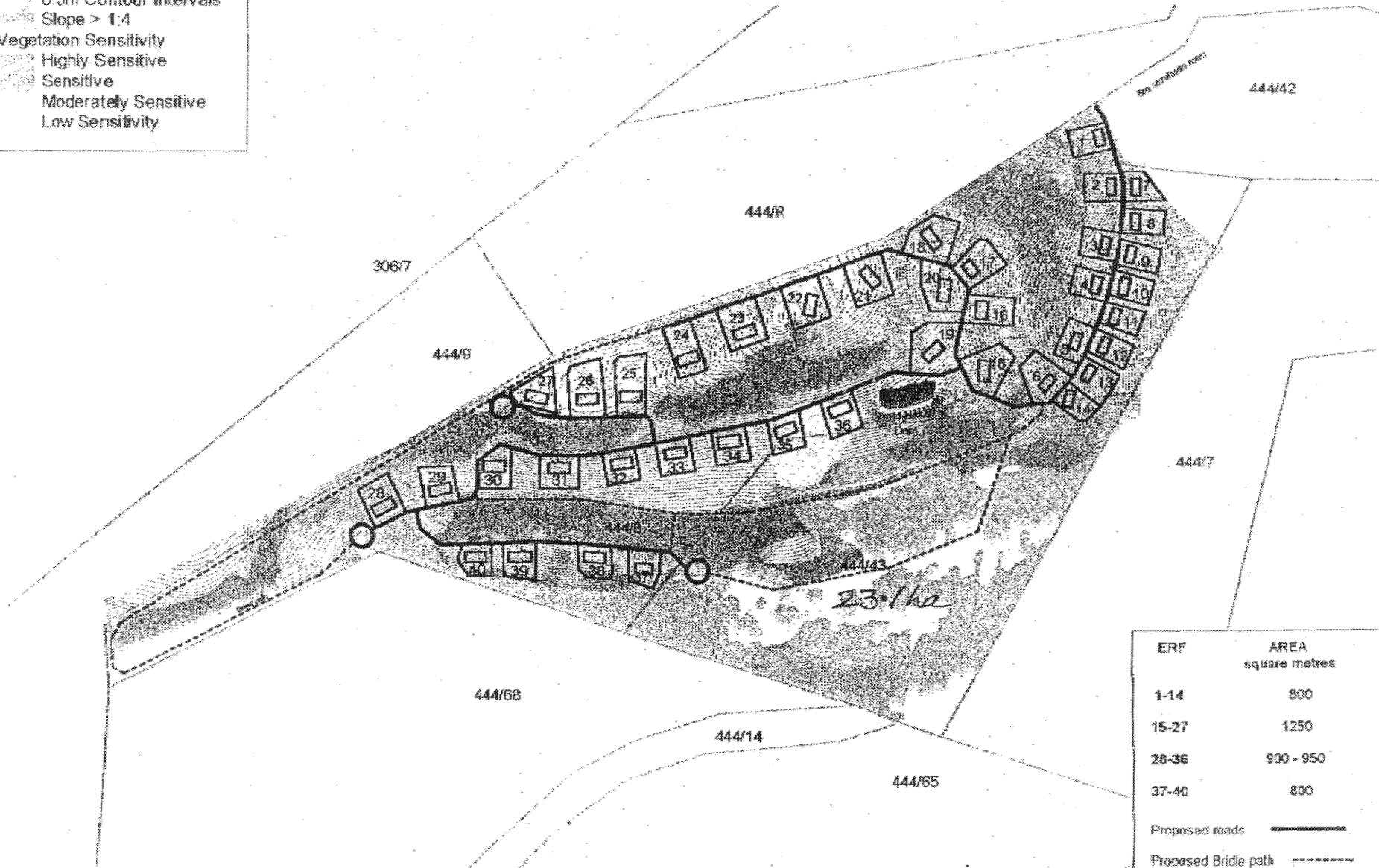
Middle Stone Age: Stone tools from this period are quite different from those of the ESA; they are often made of fine-grained stone and they reflect a more controlled use of flaking properties. These tools date between 200 000 and 40 000 years ago. In some circumstances (such as Nelson Bay Cave) these tools may be found in caves in association with marine shell.

Middens: are open-air shell accumulations which have resulted from human occupation in the area. Middens may measure between 1m and 20m in diameter. They consist primarily of shellfish but may also contain bone remains and cultural artifacts. They are the most common type of archaeological site found within 5km of the coast.

REFERENCES

Deacon, HJ & Deacon, J. 1999. Human Beginnings in South Africa: Uncovering the secrets of the Stone Age. David Philip: Cape Town.

- 0.5m Contour Intervals
- Slope > 1:4
- Vegetation Sensitivity
 - Highly Sensitive
 - Sensitive
 - Moderately Sensitive
 - Low Sensitivity



ERF	AREA square metres
1-14	800
15-27	1250
28-36	900 - 950
37-40	800
Proposed roads	
Proposed Bridle path	

situate in
 Bitou Municipality
 Administrative District of Knysna
 Division of the Western Cape

**PROPOSED NEW DEVELOPMENT ON
 PORTIONS 8 AND 43 OF THE FARM No. 444**

June 2004
 Scale 1:5000
 Ref 444.R.0213

