

**ARCHAEOLOGICAL IMPACT
ASSESSMENT:
16 MILE BEACH NATURE RESORT,
YSTERFONTEIN**

Prepared for
SALT LAKE SYNDICATE

By
AGENCY FOR CULTURAL RESOURCE MANAGEMENT
P.O. Box 159
Riebeek West
7306
Ph/Fax 02246-855

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EXECUTIVE SUMMARY

This study is designed to augment a previous archaeological study completed in 1994, and forms part of the Environmental Impact Assessment for the proposed Sixteen Mile Beach Nature Resort Development. Those areas not covered in the 1994 study included the proposed nature reserve, golf course, country lodge, country club, equestrian centre, sewerage farm and the Rooipan chalets on the eastern edge of the salt pan.

Apart from a few dispersed and isolated scatters of fragmented shell and some stone implements, only one additional archaeological site was located in those areas not covered in the 1994 study. This was the result of a detailed survey of the proposed Sixteen Mile Beach Nature Resort development.

The archaeological significance of these new finds is considered to be low to negligible, and no mitigation is required.

The majority of archaeological sites located in the 1994 study were found at the coast on low frontal dunes that form the cordon between Rooipan and the sea. Further inland at the Ysterfonteinsoutpan, scatters of shell midden material were found on both the high ground and the raised platform around the salt marsh periphery of the pan.

Of the 24 archaeological sites described and mapped in the 1994 study, 14 were found at the coast, four at Rooipan, and six at Ysterfonteinsoutpan. Five of the sites are considered to be of high significance, 10 of medium significance, and nine of low significance. Some form of archaeological mitigation is required at 15 of the sites.

If the proposed Sixteen Mile Beach Nature Resort Development proceeds, there is also a high probability that Stone Age burials and shell middens lie buried beneath the low frontal dunes, and possibly further inland in the study site. Large earthmoving or excavation will likely impact negatively on these below surface cultural resources. Any remains uncovered or exposed during the above activities should be immediately and closely assessed by a professional archaeologist who should be allowed to intervene where necessary. Intervention may require emergency excavations to take place.

1. INTRODUCTION

1.1 Background and brief

The Agency for Cultural Resource Management has been requested by Salt Lake Syndicate, to undertake a baseline archaeological survey of those areas within the planned Sixteen Mile Nature Resort Development. This report will augment a previous survey undertaken in the area by Dr Graham Avery of the South African Museum in 1994.

The aim of the study is to locate, identify and map any archaeological remains that may be negatively impacted by the planned development within these areas, and to propose measures to mitigate against the impact.

The terms of reference for the archaeological study were:

1. an archaeological survey of Sixteen Mile Beach Nature Resort, focussing specifically on the proposed nature reserve, golf course, country lodge, country club, equestrian centre, sewerage farm, and those areas not covered by the 1994 survey;
2. the identification and assessment of any sites of archaeological interest that may exist in the area, including their status, impact and significance;
3. an identification of the project benefits; and
4. a significance rating for the impacts identified, including significance ratings for the impacts identified in the 1994 study.

1.2 The study site

The study site for the proposed Sixteen Mile Beach Resort Development are portions 18, 20, 22 and 27 of Farm No. 560, Ysterfontein. The proposed site is located immediately to the north and north-east of Ysterfontein.

The study site is largely undeveloped, but some disturbance to the site has already taken place. This includes several access tracks into the site and the construction of a few buildings on the western edge of Rooipan and the Ysterfonteinsoutpan.

Except for the low dune cordon of the coast and the fringes of Rooipan and Ysterfonteinsoutpan, and the pans themselves, the proposed site is heavily vegetated resulting in low archaeological visibility. The extent of the site is about 726 hectares.

2 STUDY APPROACH

The approach used in the study is the standard archaeological procedure for a study of this nature. It entails a detailed foot survey of the planned area to be developed.

The proposed nature reserve, golf course, country club and country lodge sites are heavily vegetated, with few open clearings, resulting in low archaeological visibility. This necessitated searching these areas in multiple transects.

The proposed equestrian centre and sewerage farm sites have been severely disturbed as a result of overgrazing and dumping. Dune mole rat activity is extensive.

According to Avery (1994:3), shell middens have previously been described among the high frontal dunes of the study site and at the saltpan at Blombos. In his survey of the study area Avery (1994) also mapped and described 24 sites.

3. RESULTS OF THE 1994 IMPACT ASSESSMENT

Avery (1994 Figure 1) mapped and described 18 archaeological sites in the low frontal dunes that form the cordon between Rooipan and the sea, and six sites on both the high ground and the raised platform around the salt marsh periphery of the Ysterfonteinsoutpan. His study was confined to these areas.

4. RESULTS OF THE 1996 IMPACT ASSESSMENT

4.1 Nature reserve

The area is heavily vegetated resulting in low archaeological visibility. A few open clearings occur in some places. Thin patches of highly fragmented shell were located, however. In addition, a few isolated flakes in silcrete and quartz were also found. Dune mole rat activity is also fairly extensive.

Significance of finds: low

Suggested mitigation: none required.

4.2 Rooipan chalets on the eastern edge of the salt pan

One excavated or severely (naturally) eroded calcrete bank has been exposed on the eastern edge of Rooipan directly opposite the Strandkombuis. A single layer of in situ fossilised whole white mussel shell, and quartzite cobbles can be seen embedded in the calcrete banks. A few small in situ patches of fragmented white mussel also occur in some places. One upper grindstone fragment and one Middle Stone Age (MSA) shale flake were found above the bank.

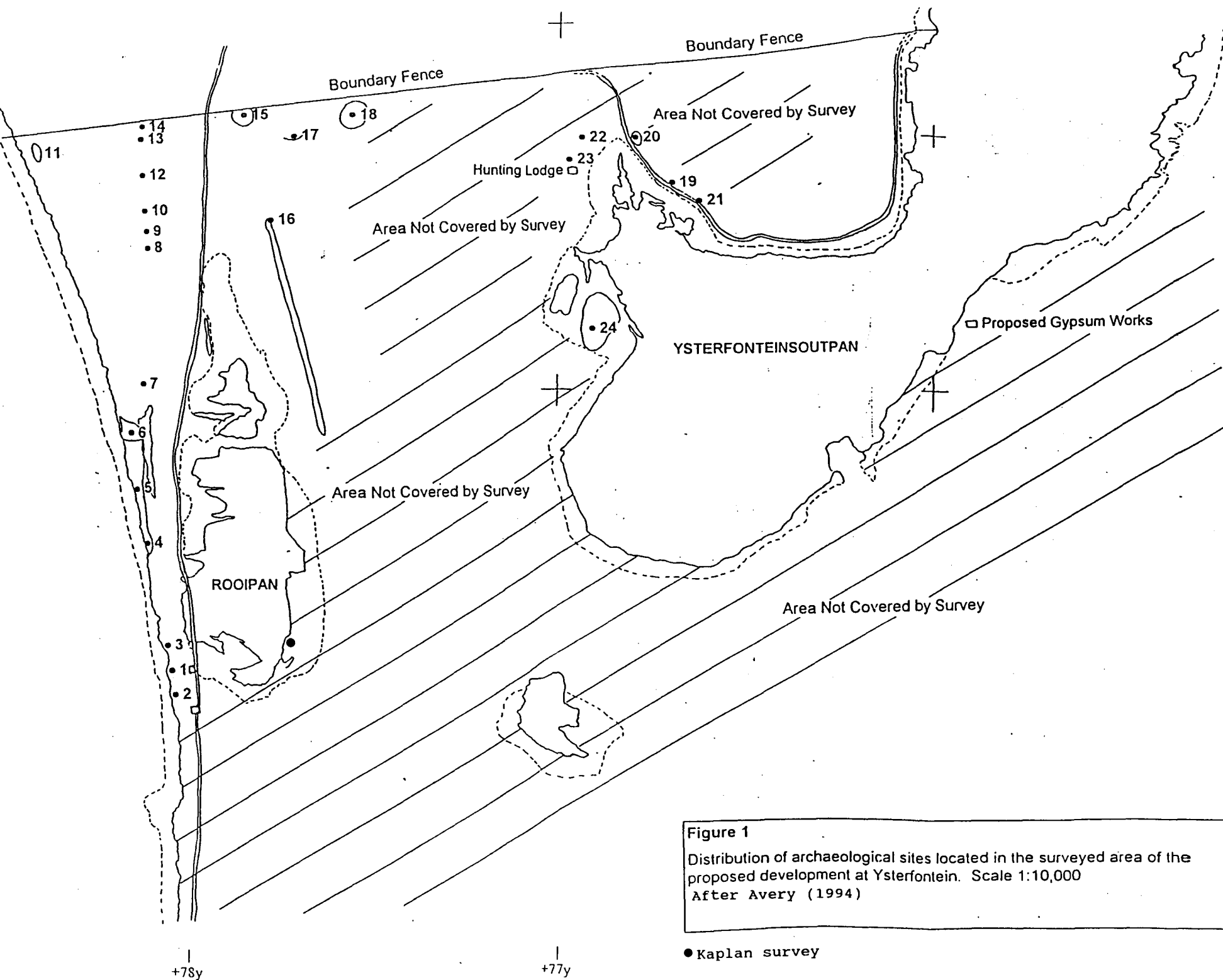


Figure 1
 Distribution of archaeological sites located in the surveyed area of the proposed development at Ysterfontein. Scale 1:10,000
 After Avery (1994)

● Kaplan survey

Significance of finds: medium

Suggested mitigation: none required

4.3 Golf course, country lodge and country club

This area is heavily vegetated with few open clearings, resulting in low archaeological visibility. A few dispersed patches of fragmented shell were found.

Significance of finds: low

Suggested mitigation: none required

4.4 Equestrian centre and sewerage farm

This area is severely disturbed as a result of overgrazing and dumping. Dune mole rat activity is extensive. No archaeological material was found.

5. IMPACT STATEMENT

Except for the coastal dune cordon, Rooipan and Ysterfonteinsoutpan, the study site is heavily vegetated resulting in low archaeological visibility. The impact of the planned development on archaeological sites in the proposed golf course, country lodge, country club, equestrian centre and sewerage farm sites, is considered to be low to negligible.

Since the proposed nature reserve will not be heavily impacted by the development, (although there will obviously be a human impact), the impact of the planned development on sites here is considered to be low.

It is in the dune cordon, however, that the impact of the planned development will be both high and negative. The majority of archaeological sites were found here in the 1994 study. The impact of the planned Sixteen Mile Beach Resort Development on these coastal sites where the low frontal dunes form the cordon between Rooipan and the sea, is therefore considered to be high (Avery 1994:12). The significance of these dune cordon finds range from low to medium to high (Table 1).

The impact of the planned Sixteen Mile Beach Resort development on the scatters of shell midden material on the high ground and the raised platform around the salt marsh periphery of Ysterfonteinsoutpan is also considered to be high (Avery 1994:12). The significance of these finds similarly ranges from low to medium to high (Table 1).

The impact of the planned development on the Rooipan chalets on the eastern edge of the pan is considered to be medium.

* No of sites	Significance rating	Residual impact
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a) coast

1	H	Low
2	L	Low
3	L	Low
4	L	Low
5	M	Low
6	L	Low
7	L	Low
8	M	Low
9	M	Low
10	H	Low
11	M	Low
12	H	Low
13	M	Low
14	M	Low

b) Rooipan

15	M	Low
16	L	Low
17	M	Low
18	L	Low
** 1	M	Low

c) Yesterfonteinsoutpan

19	L	Low
20	M	Low
21	H	Low
22	M	Low
23	L	Low
24	H	Low

* After Avery (1994)

** Kaplan survey

Residual Impact refers to the impact after mitigation.

Table 1. Sixteen Mile Beach Nature Resort: archaeological significance ratings for the impacts identified.

6. RECOMMENDATIONS

With regard to the planned Sixteen Mile Beach Resort development, the following recommendations are made:

1. Avery (1994:3-11) has recommended that his sites 1, 5, 8-15, 17, 19-22 and 24 be subjected to some form of controlled archaeological mitigation.

2. Consideration should be given to the erection of conveniently placed information boards. This would alert residents and visitors to the importance of the protection of archaeological sites in general. The presence of such cultural resources will also 'add value' to the planned development, and thus be of benefit to it.

3. Any buried archaeological material uncovered during earthmoving or excavation, such as burials or shell middens, should be closely assessed by a professional archaeologists, who should be allowed to intervene where necessary. This may require emergency rescue excavation to take place, for which the developer should assume financial responsibility.

4. Once all archaeological mitigation work has been completed at Sixteen Mile Beach Nature Resort, a permit to destroy those remaining archaeological sites directly affected by the planned development, should be applied for by Salt Lake Syndicate.

5. Avery (1994:14) makes the following detailed recommendations with regard to the planned 16 Mile Beach Nature Resort development.

5.1 Given the known (archaeological) site distribution it will be easier for the planners to plan the position of units with a view to minimising the impact on archaeological and palaeontological sites. This could also reduce some costs.

5.2 Positions of sites should be checked against a proper land survey of the proposed erven. This should be undertaken at an early stage to enable small modifications to be made, if necessary. This is the stage at which it will be possible to make final estimates of mitigatory action required and to establish whether there are appropriate alternatives to excavation.

5.3 Bearing in mind that sub-surface occurrences might exist, provision should be made for the salvage of any additional material or occurrences of importance that might be identified during the development. During the course of construction an archaeologist should be contracted to monitor any excavations required by construction, laying of services, roads, borrow pits, etc. It is particularly important in this context that any human burials be carefully excavated by an archaeologist and sensitively treated. The costs of

excavation of any additional archaeological sites or burials uncovered during the course of the excavation should be covered by a contingency fund.

5.4 A local Management Plan should include protection for the surrounding archaeological sites by means of clearly demarcated routes that will minimise the impact of construction and, later of increased public access. Mitigation of all sensitive sites prior to the development taking place would minimise the need for such protection and reduce long-term costs to the developer and subsequent owners.

The above recommendations are subject to approval by the National Monuments Council Plans Committee.

7. REFERENCES

Avery, G. 1994. Archaeological survey at Ysterfontein: coast to Ysterfonteinsoutpan (3318AC). Report prepared for Bernard Oberholzer Landscape Architects and Environmental Planners.