AN ARCHAEOLOGICAL ASSESSMENT OF SHELL MIDDENS, HARBOUR DEVELOPMENT AREA, STILBAAI

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INTRODUCTION

The following pages contain a report on the archaeological potential of 3 Late Stone Age sites situated on Morris Point, Stilbaai. A portion of this area has been proposed as a possible hotel development site by the Stilbaai municipality. The concern of members of the Still Bay Trust over the environmental impact of the development including the possible destruction of archaeological sites on the proposed development zone has resulted in their commissioning a phase 1 archaeological investigation. This involved a survey of the development area followed by an examination of located shell middens. Our assessment of these archaeological sites focuses on the integrity (structure and preservation) of individual sites as well as their archaeological importance in terms of what is known of the regional sequence and general prehistory of the area.

ARCHAEOLOGICAL SITES ON MORRIS POINT

The proposed development area consists of densely vegetated dune that extends from the present residences in the west to beyond the eastern breakwater of the harbour (figure 1). The development zone is bounded to the south by Main Street West, and to the north by the harbour and slipway complex (figure 1). The dune itself is overgrown with a mixture of indigenous fynbos and intrusive Australian vegetation. The north face of the dune allows for a particularly pleasant view of Stilbaai, the beach front, harbour and estuary. Of particular interest is the close proximity of a number of *visvywers* situated to the north west of the harbour.

A survey of the dune area revealed the presence of three archaeological sites that would be in danger of destruction if the dune area were to be re-landscaped during development. These have been recorded and described in accordance with standard archaeological methods.

Site SB 1 lies due south of the western end of the harbour slipway. This consists of a single lense of shell eroding out along a 15m stretch of the dune cap. The site lies some 50m up-slope above the slipway and slightly to the east of the property of Mr John Muir. The outlook of the site is towards Stilbaai, the estuary, harbour and an extensive set of *visvywers* on the south eastern end of Stilbaai beach.

Although much of this site has been eroded, 3 test excavations (0.25x0.25m) into the crest of the dune behind the eroding shell demonstrated that *in situ* material still lies undisturbed under the sand. A sample of deposit from the eroded slope was passed through a 3mm sieve to obtain an indication of the midden contents. This was found to consist of mostly shellfish, some fragments of flaked stone and quartzite boulders. Little bone and no pottery was found in the surface sample from this site.

SB 1 is essentially a site containing the domestic refuse and discarded stone artefacts of Late Stone Age people encamped on the shore of Stilbaai where they were exploiting a variety of marine foods. Radio-carbon dates are not available for this site but we suspect that it not older than 2000 years BP (before present).

Site SB 2. This site lies at the crest of the dune 40m above the harbour master's office and public lavatory building. The visible portion of this midden consists of a well stratified exposure of compacted shell midden and an eroding talus slope. The exposed section of the midden is not only *in situ*, but contains at least 1 meter of clearly stratified deposit. A decision was made to further expose and clean the section in order to sample and record the contents of each unit. 6 stratigraphic units with quite different shell fish species contents were easily defined (figure 2). Initial indications are that faunal and vertebrate fish bone quantities may show species and quantitative differences from unit to unit through time. No ceramics were recovered from the section sample.

Site SB 2 can clearly provide information about prehistoric people who lived at Stilbaai during the later Holocene (last 3000 years). The sequence here merits protection and conservation.

Site SB 3. This is a small ephemeral scatter of shell that lies below, and to the west of the view point parking area on the top of the dune. We consider this site to be disturbed by previous roadworking. For this reason we do not consider it to be of importance.

ARCHAEOLOGICAL CONTEXT

The Stilbaai area has attracted a certain amount of interest from the scientific community but virtually no major archaeological studies have resulted from this. Observations and collections made by prehistorians in the Stilbaai area during the earlier half of this century resulted in the delineation of the Still Bay Culture, which referred to a characteristic set of stone artefacts first found on an open site near Stilbaai. Modern archaeologists no longer refer to this term, as the artefacts of the Still Bay culture are now considered to pertain to a period widely referred to as the "Middle Stone Age" (MSA). There is little doubt that there are many MSA sites in the Stilbaai area, although few of these have been subjected to scientific examination.

Other aspects of the archaeology of Stilbaai that have attracted the attention of the scientific community are the *visvywers* (tidal fish traps) that are quite common on the South Coast. Professor A.J.H. Goodwin writing in 1946 notes that tidal fish trapping had been largely ignored by the scientific community. He therefore published a paper on his own observations of the archaeology of *visvywers* of

the southern Cape coast. Although he noted that many *visvywers* were in use at the present time (Goodwin 1946), he went on to suggest that these structures had been in existence for hundreds of years. Many of the structures have suffered considerable deterioration over time, while others had been cemented into place by sea organisms. A large excavation of a prehistoric cave site (Oakhurst) near George showed that deposits attributed to the Later Stone Age contained a great deal more fish bone than deposits of greater antiquity. Goodwin (1946) concluded that prehistoric people of the Late Stone Age had invented a fishing method that enabled them to effectively exploit large quantities of vertebrate fish - namely, by means of *visvywers* at suitable areas on the coast. Unfortunately Oakhurst shelter is a number of kilometers from the coast which means that Goodwin's conclusions (at his own admission) need further corroboration. In his own words he states:

> "Our only certain method of dating these vywers will be the excavation of stratified midden or cave deposits in close association with these traps, and the correlation of stratification with these traps" (Goodwin 1946:1).

At this time, no such excavations had been conducted.

In 1975 Dr G. Avery of the South African Museum published the results of some of his research on *visvywers* of the Cape South Coast. He attempted to date the construction of these features by referring to what was known at the time about changing sea levels (Avery 1975). It was believed that sea levels had not changed in the last 3000 years (5000 years ago the sea was thought to be 1m lower than today). Factors such as the effectiveness of the traps being dependent on the stability of the intertidal zone, combined with the knowledge that traps are still working today, led Avery (1975) to believe that the *visvywers* could not be more than 3000 years old. Broader regional research also showed that shortly after 2000 years ago, significant economic changes had taken place among the prehistoric people of the Cape. This involved the introduction of domestic animals into what was previously an egalitarian hunting and gathering society. It is thought that the first building of *visvywers* may date back to 2000 years ago when social changes resulted in larger bands of pastoral people who could economically build and exploit *visvywers* (Avery 1975).

Despite these more recent observations, the *visvywers* of the southern Cape coast have not been directly or securely dated. Goodwin's (1946) statement that there was a need excavate a midden in close proximity to a fish trap still holds good in 1991.

Although shell middens are common along the coasts of South Africa, archaeologists rely on sites that retain stratigraphic sequences. Stratigraphy is the natural layering that takes place during the accumulation of archaeological deposits. These layers are the key to understanding the relative chronology of past events.

Sites with good stratigraphy are rare. Furthermore, sites with good stratigraphy that are closely associated with *visvywers* are all the more scarce. Besides the fact that all middens are protected by the national monument act, site SB 1 and to a lesser extent, SB 1 should be considered to be of importance. These sites that are directly geographically associated with *visvywers* hold the clues as to why, when and how these structures were built. Since the *visvywers* themselves cannot be dated by presently available technology, archaeologists are obliged to rely on the extrapolation of observations from associated shell middens. This could conceivably involve detailed studies of fish trap catch statistics compared with identified fish remains from midden sites. This however would be a very large or long term project involving several years, many excavations and expensive laboratory analysis. In the meantime, we are forced to acknowledge that the potential for this type of study should not be destroyed. Archaeological remains are finite - once they are damaged, some knowledge of the past is lost forever.

RECOMMENDATIONS

This study of the archaeological significance of 3 sites on the Morris Point development places us in a position to make two specific recommendations. These are detailed below.

Option 1

The best way to preserve an archaeological site is to leave it undisturbed and protected. A decision by an archaeologist to excavate a site is one that is not taken lightly. Archaeological studies at most times are based upon broad regional research strategies. Sites excavated in isolation do not provide good information about the past unless this can be integrated into a regional body of knowledge. In other words archaeologists generally excavate sites in response to specific research objectives. Unless such needs arise, a site is best left undisturbed. Although the archaeology of *visvywers* in relation to the lifestyles of people living on the coast is not being investigated at present, researchers (Goodwin 1946, Avery 1975) have already formulated a body of hypotheses that require investigation and verification. We believe that middens associated with *visvywers* are of sound research potential in terms of our understanding of the human past on the southern coast of South Africa.

It is our foremost recommendation that the 3 shell middens on the proposed development zone at Morris Point are allowed to remain undisturbed until such time that genuine research needs require that they be excavated.

Option 2

A second but less desirable option, is that a team of archaeologists be contracted to excavate and physically remove sites that are threatened by development. This is essentially involves the excavation of a site outside of any

research objectives. This however means that the excavation has to be conducted with extreme care so as to fulfil the needs of any conceivable research questions that may arise at any time in the future. The site has to excavated in such a way as to provide a set of complete information of a quality that is acceptable to the research community for years to come. Contracted excavations can be costly and time consuming as a result of detailed excavation and a long period of analysis. This means that the developer has to budget for the hire of a team of highly qualified professional archaeologists who will need work on the project for a period of anything from 3 months to a year or more (depending of the type and number of sites to be excavated).

If development is to take place on Morris Point (or anywhere), we recommend that the developers consider that disturbance of archaeological material without an excavation permit (granted to archaeologists only) is an infringement of the law. Developers are therefore obliged to budget time and money for the hire of a qualified archaeological team who will excavate the sites after they are issued with a permit to do so from the National Monuments Council.

SUMMARY

All middens are automatically protected by the National Monuments Act. In this particular report we have focussed on the archaeological potential of 3 middens that could be threatened by a proposed development. An examination of these middens, visvywer complexes and a coastal survey extending south of Stilbaai has shown that these middens are uniquely positioned in association with the Stilbaai visvywer complex. We consider the midden SB 2 and to a lesser extent, SB 1 to be of sound research value which leads us to assert that the site should be protected. If circumstances dictate that it is impossible to avoid development of the dune above the Stilbaai harbour, we suggest that would be developers should be made aware that they will need to fund an archaeological research program in order to avoid the destruction of archaeological evidence.

REFERENCES

Avery, G. 1975. Discussion on the age and use of tidal fish traps (visvywers). *S. Afr. archaeol. Bull.* 30:105-113.

Goodwin, A.J.H. 1946. Prehistoric fishing methods in South Africa. *Antiquity* 20:1-8.

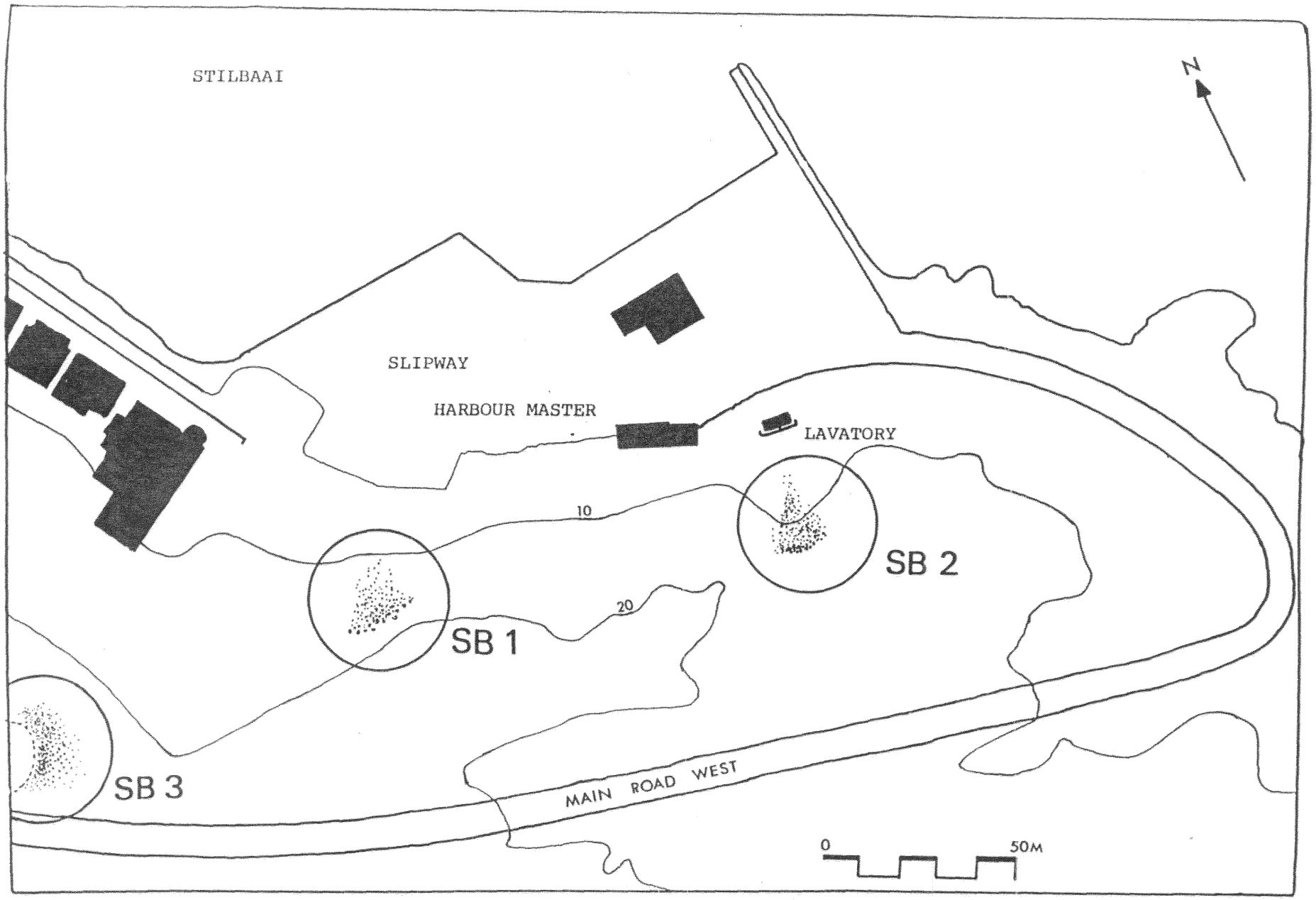
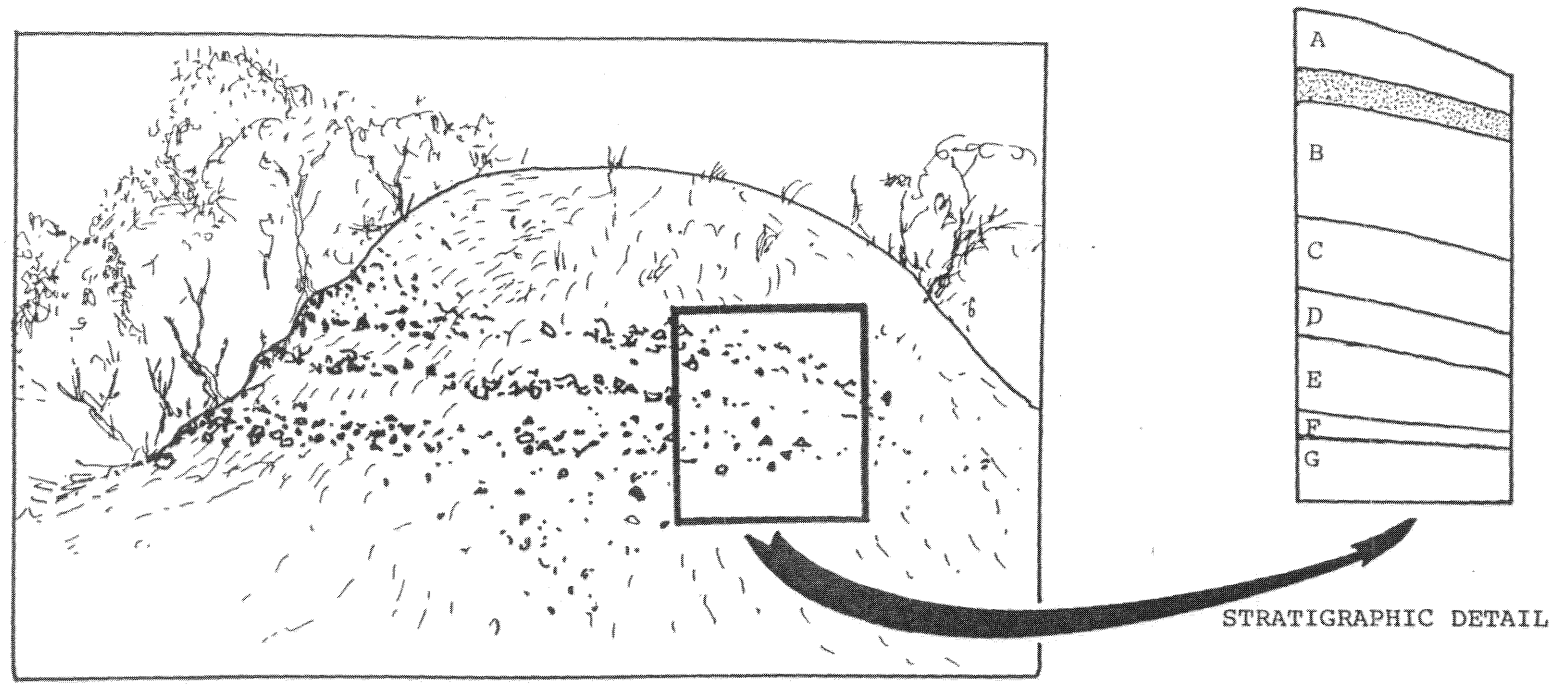


FIGURE 1. Midden locations in development zone



KEY TO STRATIGRAPHIC DETAIL

A. Mixed Patella sp., Turbo sarmaticus, Oxystele tigrina dominated.
B. Patella dominated, decreased amounts of Oxystele tigrina and other species.
C. Dominated by fragmented Oxystele tigrina, decreased Patella.
D. Patella dominated in a matrix of fragmented Oxystele.
E. Turbo sp. dominate together with Patella longicosta.
F. Yellow sand - shell dominated by fragmented Oxystele tigrina.
G. Final Patella and Turbo dominated lense overlying sterile dune.

FIGURE 2. Detail of SB 2.