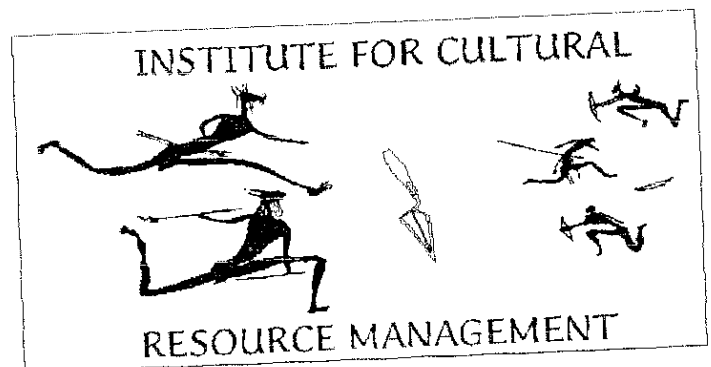
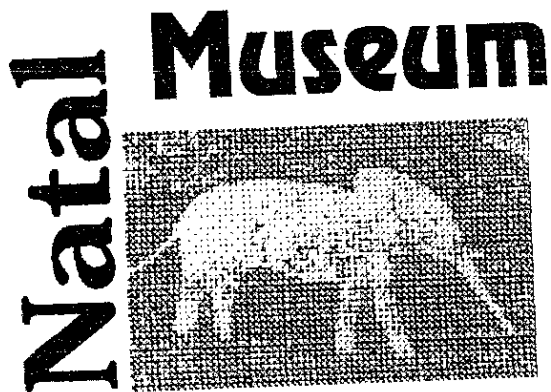


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Archaeological survey for Tongaat-Hulett on the Proposed Casino Site

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INTRODUCTION

The Natal Museum Institute for Cultural Resource Management was approached by TC Chetty of Tongaat-Hulett Properties to undertake an archaeological survey of land designated for future commercial development. The affected area is located between the coast and the N2 freeway, and between the Ohlanga River and Mdloti River (fig. 1). The development has the potential to damage or destroy archaeological sites, and mitigation will be needed for several sites. I propose a two phased approach for the future management of the archaeological sites.

The terms of reference for the survey are:

- to identify, record, and assess archaeological sites in term of future management in the face of potential impact.
- propose the required mitigation for these sites.

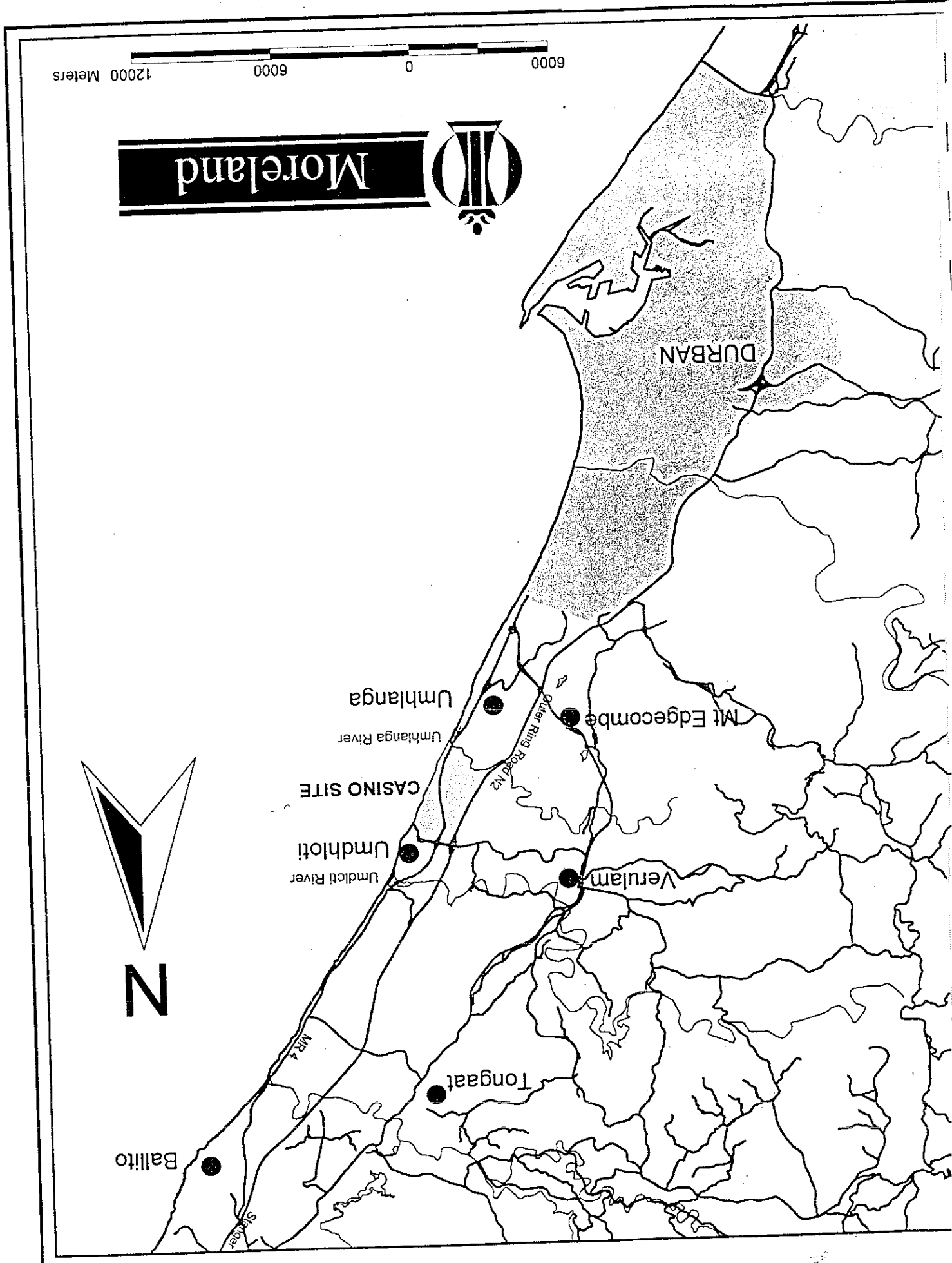
The land is partly used for sugar-cane farming, while other areas remain undeveloped, especially along the coastal dune margins. Some areas of the cane fields are densely vegetated and made survey observations difficult. The coastal areas tend to have dense bushes or *Strelitzia* 'forests'. These areas remain unsurveyed since visibility, and thus observations, is impeded by dense vegetation.

LEGISLATION PERTAINING TO ARCHAEOLOGICAL SITES

Archaeological sites are protected by various forms of legislation. The National Monuments Act makes it an offense to damage, alter, destroy or remove artefacts from archaeological, historical and palaeontological sites without permission from the National Monuments Council. Permission is granted in the form of a permit, which may include restrictions regarding the development of the site. This restriction often necessitates some form of archaeological mitigation. All buildings, sites, and structures older than fifty years are protected under this legislation.

In addition to the National Monuments Act, human graves are also protected by the Self-Governing Territories Constitution Act (Act 21 of 1971). This Act relates to, amongst other items, the exhumation of graves.

Fig. 1: Locality Plan



Forthcoming legislation, called the KwaZulu-Natal Heritage Bill of 1997, will call for the increased protection of heritage sites - heritage sites referring to sites of cultural significance.

METHODOLOGY

Both a desktop analysis and a foot survey were undertaken as part of this project. The desktop analysis took place at the Natal Museum, since this museum is the provincial repository for all known archaeological sites. All archaeological sites are allocated a National Site Number, which corresponds to the relevant 1:50 000 map. Material collected from these sites is given museum accession numbers, and forms part of the museum's collection for education, display and research.

The desktop analysis is primarily a method of determining the probability of archaeological sites occurring in a given area. This is achieved by analysing existing records of archaeological sites in the area, as well as noting the geology, topography, soil types and water sources. This method of site 'detection' is fairly accurate when dealing with agricultural sites since ecology and farming are interrelated. Six sites had been previously recorded in the affected area, namely 2931CA85, 2931CA89, 2931CA90, 2931CA98, 2931CA112, 2931CA151.

The foot survey entailed walking the study area and is limited in that it cannot detect subsurface features, or features obscured by tall or dense vegetation. Both of these constraints affected the foot survey. To counter these constraints we concentrated on specific areas that were likely to yield archaeological site information. These were:

- erosion gullies;
- mole hills;
- higher vantage points enabling a view of the remains of settlements;
- areas with less dense vegetation; and,
- recent and older cane fields, especially those that have been ploughed or worked.

In addition to these physical features, previous experience of Iron Age and Stone Age settlement patterns, as well as local topography, informed us of potential site locations.

DESCRIPTION OF ARCHAEOLOGICAL CONCEPTS

Archaeological sites in sub-Saharan Africa are grouped primarily into three categories. These three periods are further subdivided into various time units (Table 1). These nomenclatures are, however, used for convenience in dating and referring to specific technologies and/or economies. They do not reflect the subtle differences between socio-economic groups, nor do they imply some form of lineal social evolution or spatial separateness on the landscape. The people living in the study area were hunter-gatherers, Bantu-speaking farmers, and European colonists.

Table 1: Archaeological Periods Through Time

Category	Sub-division	Abbreviation	Approximate age
Stone Age	Early Stone Age	ESA	2 million years ago to 120 000 years ago
	Middle Stone Age	MSA	120 000 years ago to 30 000 years ago
Iron Age	Late Stone Age	LSA	30 000 years ago to the last century
	Early Iron Age	EIA	1 700 years ago to 1000 years ago
	Late Iron Age	LIA	1000 years ago to AD 1830
Historical Period		HIST	post-1830 AD

Archaeological significance

Archaeological sites may range from highly significant to virtually insignificant. Sites which are defined as significant would require further mitigation in the form of being mapped, excavated or sampled if they are threatened by development. Sampling involves the selective collection of artefacts from a site. Sampling takes place when artefacts are observed at a site, but there is no deposit worth excavating. Sampling thus removes a representative amount of artefacts from a site for future research.

RESULTS: DISCUSSION & MITIGATION

settlements, and places of spiritual/religious importance (Wahl 1996:11).

- “other artefacts” include engravings, graves, grindstones, stone walling, occur in association with other Iron Age and/or Stone Age artefacts”;
- more than “ten sherds, but [including] sites with fewer than ten sherds, but that

Iron Age

places of spiritual/religious importance.

- “other...artefacts” include art, beads, grinding stones, engravings, pottery, and association with other stone Age and/or Iron Age artefacts”;
- “ten or more stone artefacts; or fewer than ten stone artefacts but which occur in

Stone Age

These definitions vary according to the type of site analysed, and are:

Archaeological sites have been defined using various criteria. I use the definition used by the Natal Museum for a recent project to determine site significance and predictive modelling (Wahl 1996).

Definition of an archaeological site

- Is the site the only one of its kind so far recorded in the province or specific area?
- Does the site have any rare or unusual features?
- Is there good preservation of artefacts and is the site relatively undisturbed?
- Has the site the potential to answer any questions currently asked in the related research?

Significance is judged according to several factors:

Excavation can be undertaken in two phases. The first phase determines the extent of the deposit which is achieved by digging a few test pits. By ‘test-pit excavations’ I mean the excavation of a few small excavation holes to determine if the site has well preserved features and artefacts, or a stratigraphic sequence. These excavations allow me to determine the full significance of a site, and whether the site needs further excavation or only requires sampling. The second phase determines, amongst other things, the full extent and spatial arrangements of the site. For the purpose of this report, I have assumed that all sites will be affected by development, and I thus propose mitigation as such.

A total of 27 archaeological sites were noted during the course of the survey (fig. 2). These sites date to the Iron Age (EIA and LIA) Stone Age and Historical Period.

LIA sites are known to occur along the coastal plains. However, when an area is located with a high density of LIA sites, it will have high archaeological significance. In the study area the LIA sites may be related in time or represent the changing use of a landscape through time. These sites have the opportunity to provide archaeologists with a well defined area of a specific group of people and their socio-economic and ecological changes through time. The occurrence of at least ten known LIA sites in the affected area is thus significant.

SITE #1:

Site 1 is located on the spur of a hill and dates to the Historical Period. The faunal remains (bone) are disarticulated (probably by farming activity), well preserved and scattered over a wide area. The

artefacts include:

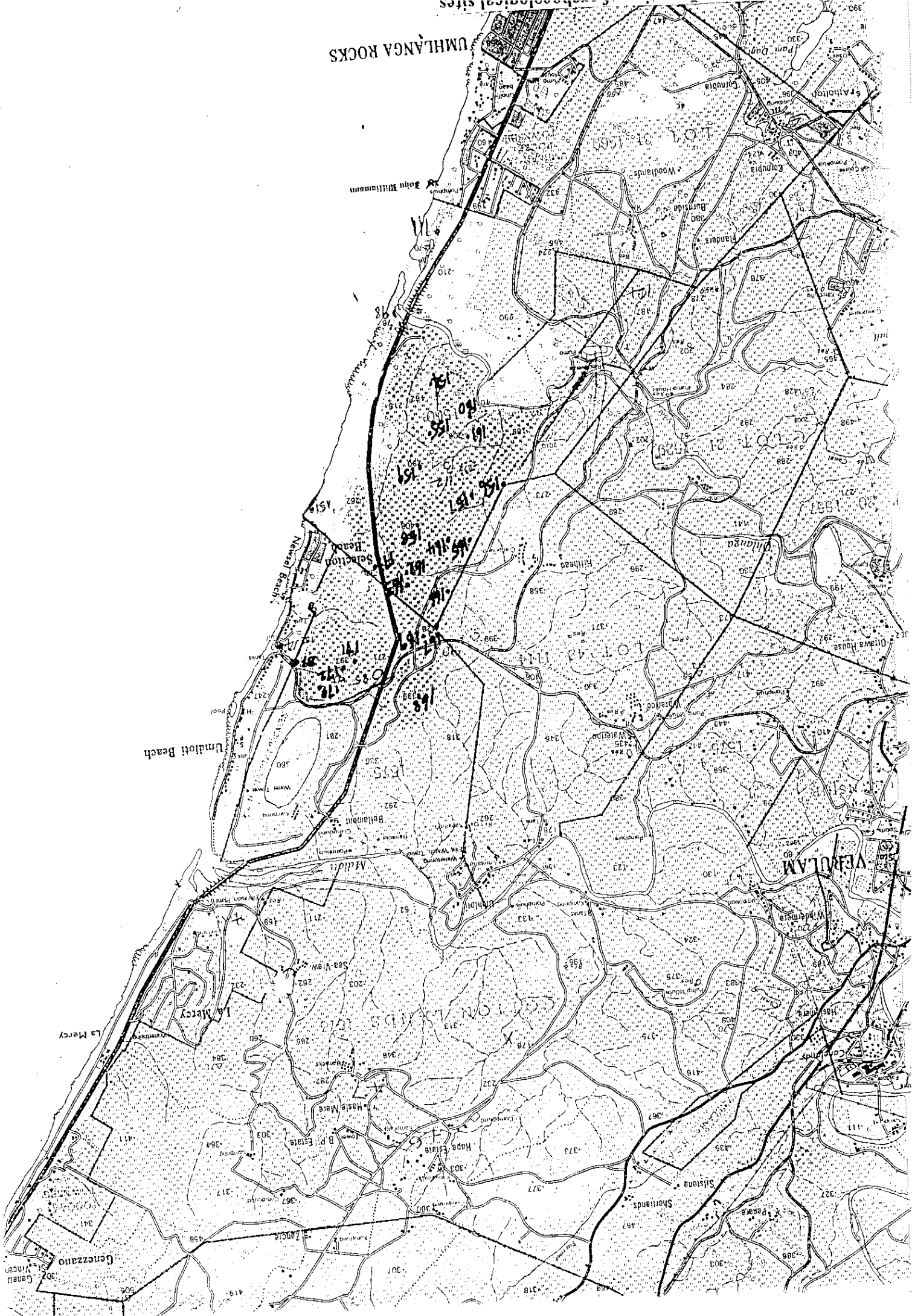
- white clay pipe,
- ceramics: blue with white pattern, earthenware fragments,
- glass bottle with an indented base and deep green in colour,
- fire burnt brick

The exact date of the site is difficult to determine, however, the clay pipe and bottle suggest a mid to late 1800s. An archaeologist/historian familiar with these artefacts would be able to date the site more

precisely.

This site is of medium significance since few historical/European sites, dating to this period, have been systematically studied by archaeologists in KwaZulu-Natal. While historians tend to use written sources in their field of study, archaeologists use the material remains. While the two sources are complementary they often yield different types of information (see Schrire 1980, 1984, 1990, 1991; for an example in the southwestern Cape) and often give rise to stimulating debates. The differences between historians and archaeologists is thus in their sources of information.

I suggest that a three phase procedure is used for this site. First an archive/deeds survey is undertaken to determine the approximate age of the site, the owner(s), and so forth. If the site is older than 60 years, as I suspect, then a permit would be needed for its destruction/damage. The second phase would



be to conduct test pit excavations at various locations of the site. This would allow one to test the degree of preservation at the site and the potential occurrence of subsurface features. If the second phase yields potentially valuable information, then further excavations would be required.

SITE #2:

Site 2 is located on the spur of a hill. The site probably dates to the LIA (although it may include the EIA) and consists of a shell midden, pottery and slag. The shell midden included fragmented brown mussel (*Perna perna*) and oyster (*Ostrea*). The pottery varied in thickness and included a decorated sherd.

The site is of medium significance and it requires further mitigation. This should be in the form of test-pit excavations to determine the full extent and degree of preservation of the site. If the site yields important information then further excavations may be necessary.

SITE #3:

This site is located on the top of a hill and dates to the early LIA (AD1050 to AD1250). The site is the remains of a village settlement that has well preserved faunal and botanical remains, pottery, grinding stones, marine shell, as well as several features (such as pits, house floors and hearths). It was partially excavated in 1968 (Davies 1972) and is the 'name site' for this phase of the early LIA. Four trenches were exposed by Davies where he located middens, house floors, iron, stone tools, storage pits, bone tools, and hearths with different artefacts and uses. The cultural horizon and artefacts were also well preserved.

This site is of high archaeological significance. It will require further mitigation in the form of a full excavation.

SITE #4:

This site is located near the spur of a hill and probably dates to the LIA. The site consists of marine shell and pottery. It is an extensive scatter and may have a cultural deposit.

The site is of medium archaeological significance and would require further mitigation in the form of test-pit excavations. This should be in the form of test-pit excavations to determine the full extent of,

SITE #8:

The site is of low significance, but requires further mitigation in the form of sampling the sherds.

marine shell and bone, as well as a few sherds.

This site is located near the top of the hill and dates to the LIA. The site consists of poorly preserved

SITE #7:

may be necessary.

The site is of medium archaeological significance and would require further mitigation in the form of test-pit excavations. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations

from medium to well preserved.

This site is located near the top of the hill and dates to the LIA. It contains marine shell, pottery and possibly a cultural horizon (ie layers in the sand indicating where people had lived). The remains vary

SITE #6:

I suggest that a three phase procedure is used for this site. First an archive/deeds survey is undertaken to determine the approximate age of the site, the owner(s). This information may be available in the Tongaat-Hulett records. If the site is older than 60 years, as I suspect, then a permit would be needed for its destruction/damage. The second phase would be to conduct test pit excavations at various locations of the site. This would allow one to test the degree of preservation at the site and the potential occurrence of subsurface features. If the second phase yields potentially valuable information, then further excavations would be required. If a third phase is not required, then artefacts should be sampled.

glass, European ceramics, and Iron Age pottery.

This site is located near the top of a hill and dates to the Historical Period. As with Site 1 the age and significance of this site is difficult to determine without further investigation. The site contains shell,

SITE #5:

may be necessary.

and degree of preservation of, the site. If the site yields important information then further excavations

SITE #12:

This site is of low archaeological significance and no further mitigation is required.

some pottery.

This site is ±200m west of the M4 on the top of the hill. The sparse remains make it difficult to estimate its age, however, it does date to the Iron Age. The site consisted of very fragmented shell and

SITE #11:

The site is of low archaeological significance and no further mitigation is required.

ephemeral scatter of sherds, shell and bone.

This site is located between two hills and dates to the Iron Age. The artefacts consisted of an

SITE #10:

The site is of low archaeological significance and should be sampled.

and rim-neck.

This site is located near the top of the hill and dates to the LIA. The site consists of an ephemeral scatter of sherds, of which some are decorated. One decorated piece had circular punctates on the lip

SITE #9:

placed in the ashy features.

The site is of low archaeological significance. However, this needs to be reaffirmed by a historian and/or a deeds analyses to estimate the age of the 'residence'. A few test pit excavations should be

feature (or hearth).

This site is located from halfway up the hill to its summit and dates to the Historical Period. Several European artefacts were observed and included plaster, brick, an iron pipe, ceramics, and glass. Some Iron Age pottery is also observed in association with the other artefacts, as well as a potential ash

This site is located on the eastern slopes of a hill near the indigenous forest. The site consists of a scatter of sherds.

The site is of low archaeological significance and no mitigation is required.

SITE #13:

This site is ±200m west and uphill of Site 12. The site consists of a scatter of sherds.

The site is of low archaeological significance and no further mitigation is required.

SITE #14:

This site is located on the summit of the hill with a good view to the west. Few artefacts were observed as a result of the dense vegetation. The artefacts were located in a road cutting, suggesting that the site may have more artefacts further upslope, and that it may be of some significance.

The site is of low archaeological significance; however this is a result of the vegetation. I argue that a few test pit excavations may reveal more of the site and its potential. Further mitigation is required. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations may be necessary.

SITE #15:

This site is located near the summit of the hill and probably dates to the early Late Iron Age. The artefacts include diagnostic bone, pottery and fragmented shell, in a medium state of preservation. A cultural horizon was observed at the site. The occurrence of bone in shell middens in this type of site is rare.

The site is of medium archaeological significance and further mitigation is required. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations may be necessary.

SITE #16: This site is located on the summit of a hill and dates to either the LIA and/or Historical Period. The artefacts include European and Iron Age pottery, and lower grindstone fragments. The rate of preservation is poor.

This site is of low archaeological significance and further no mitigation is required.

SITE #17: This site is on the top of a hill and dates to the LIA. The artefacts include bone, pottery, grindstone fragments, and a shell midden. These artefacts, especially the shell fragments, are located mostly on the seaward side of the hill. A cultural horizon may occur at the site. A spatial layout of the site exists: the shell midden faces one side of the hill, while the pottery and bone tend to be on the opposite side.

The site is of medium significance and requires further mitigation. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations may be necessary.

SITE #18: This site is on the spur of the hill overlooking the Umdloti River. The site consists of a few pottery fragments.

The site is of low archaeological significance. Mitigation should be in the form of sampling.

SITE #19: This site is located near the summit of the hill and dates to the Iron Age, probably LIA. The artefacts include pottery, bone and marine shell. There are no visible features, however, the vegetation is dense.

This site should be revisited once the vegetation has been burnt in order to fully assess the site's significance.

SITE #20: This site is located on the summit of the hill and dates to the Iron Age. Few sherds were observed on this hill, however this is due to the dense vegetation.

This site should be revisited once the vegetation has been burnt in order to fully assess the site's significance.

SITE #21:

This site is located on a flatish area of land and dates to the Iron Age, probably the LIA. The artefacts include stone, pottery and bone mixed with modern debris. Several isolated scatters were observed, suggesting that a spatial layout is present at the site, despite disturbances to the soil.

The site is of low-medium significance and further mitigation would be required. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations may be necessary.

SITE #22:

This site is located along the sand dunes by the beach and dates either to the LIA or Historical Period. The site consists of a shell midden and several human skeletons have been excavated, and/or exposed, from this site (Natal Museum records). Further inland, ±50m, a thicker shell midden was observed, and probably relates to the same site.

This site is of medium-high significance and further excavations are required. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations may be necessary.

SITE #23:

The site was located near the beach and dates to the Iron Age, probably LIA or Historical Period. The origins of the site appear to occur outside the affected areas boundary, and further upslope. Those artefacts found below the fence include pottery, shell and some bone.

The site is of medium significance and further mitigation is required if the development boundary changes. This should be in the form of test-pit excavations to determine the full extent of, and degree of preservation of, the site. If the site yields important information then further excavations may be necessary.

SITE 2931CA98 (a.k.a. Hidey Hole):

This site is located near the Umhlanga Lagoon and dates to the EIA, LIA and probably the Historical Period. The site is ± 20 m long and 2m thick. The site includes the whole sequence of the EIA. The finds from the site include shell, pottery, stone, beads, faunal remains, charcoal, and a human skeleton (dated between AD 1897-1904), as well as many ash features. The material from the site may yield valuable information regarding settlement patterns and shellfish exploitation. Even though part of the site has been excavated, further excavations should occur if the site is to be affected. This site is of high archaeological significance, especially since it is rare to find the whole EIA sequence stratified on one site.

The site is of high archaeological significance and mitigation should be in the form of excavation.

SITE 2931BA89:

This site probably dates to the LSA, and was recorded several years ago. The site consists of a shell midden with stone tools. It was only partially analysed.

The site is of medium-high significance and further mitigation is required. Few LSA shell middens have been excavated in KwaZulu-Natal, and this site has the potential to inform archaeologists more about the hunter-gatherer sequence/occupation along the coast. I suggest that the site has test-pit excavations to assess its full significance.

SITE 2931CA85:

This site was recorded several years ago and dates to the Iron Age. The site consists of shell and pottery, and is not well preserved.

The site is of low archaeological significance and no further mitigation is required.

SITE 2931CA90:

This site was recorded several years ago and dates to the Middle Stone Age. The site consists of stone tools, is not well preserved.

The site is of low archaeological significance and no further mitigation is required.

CONCLUSIONS AND RECOMMENDATIONS

Twenty-seven archaeological sites were recorded during the course of the archaeological survey. Of these sites, only six had been previously recorded.

Only two Stone Age sites were recorded in the survey. The MSA site was of low archaeological significance, while the LSA site is of medium significance. The low frequency of Stone Age sites in this area makes the recorded LSA site significant.

Two EIA sites were recorded in this area. While several of these types of sites occur along the coast, few have been fully excavated and/or studied. These sites may yield information regarding the incursion of the first Iron Age people into KwaZulu-Natal, some 1 600 years ago. The occurrence of faunal remains in these early sites is rare, and has the potential to answer questions regarding the socio-economy of EIA people. This site would need to be excavated.

The majority of recorded sites date to the early phase of the Late Iron Age, a time period of which little is known. Furthermore, there are several sites that have archaeological deposit and well preserved artefacts and features. These will thus require mitigation if they are to be affected by development. These sites tend to be significant since they may provide a unique opportunity to study the use of a small defined area through time. This has the potential to provide information regarding resource use and exploitation, differences in pottery styles (across geographical space and through time), and the socio-economic patterns from this time period. This information has the potential to further our understanding of the origins of the LIA and its relation to the people of the EIA and Historical Period. It is for this reason that several of the LIA sites will require test-pit excavations or sampling strategies, while two will need to be excavated (see Table 2).

The occurrence of Indeterminate Iron Age sites is probably a result of preservation and dense vegetation. Seven of these sites were recorded, and all have low archaeological significance. Two sites will need to be revisited once the vegetation has been cleared, or thinned out, since they could not be thoroughly assessed. One site has possible deposit and well preserved artefacts. This site should be excavated to determine its position in the chronological sequence of the area.

Only four sites dating to the Historical Period were recorded. Little analyses of the material remains from these sites, especially those belonging to European colonists, have occurred in KwaZulu-Natal. Archaeological excavations in the Western Province have clearly shown the benefits of undertaking archaeological excavations, as well as written sources, to understand the colonial impact on the landscape and other people. The interaction between European colonists, Zulu society, and indentured labourers, is a small but significant part of this country's (and province's) history. These sites will first require a deeds survey to indicate their approximate age, ownership, and so forth. If the sites are older than 60 years, then three should have test-pit excavations, and one should be sampled. If the test-pit excavations yield valuable information then further excavations should be undertaken.

By using test-pit excavations one can better determine the significance of a site, without resorting to a full excavation. This method is used when a site has archaeological potential. This does not imply that mitigation is complete after the initial phase, rather it demarcates those sites requiring further mitigation from those that may be damaged without further mitigation. Sites are often sampled, not excavated, if there is valuable material, but no archaeological deposit. In this way the material remains may be curated and research potential is still salvaged.

During the course of the survey several areas were inaccessible due to dense vegetation. Most of these areas occurred along the dunes. If development is to occur in these areas, further archaeological work will be required after the vegetation has been cleared - preferably not by bulldozers.

A final assessment of the affected area may be made in terms of tourism. The interest in developing archaeological sites for tourist 'recreation' has increased over the last year. While archaeological sites are often interesting, the logistics behind their development are not fully considered. Firstly, it is not the developer who owns the material or the site, but the state. In the case of KwaZulu-Natal this will be controlled by *Amafa akwaZulu-Natal* by the end of the year. The arrangement between this government organisation and the developer needs to be discussed prior to any development. Secondly, archaeological sites have the potential to educate, not only 'recreate'. Any development of archaeological sites should have an educational perspective. Thirdly, discussions regarding management and responsibility of a site are important: a developer may (not) be given both.

If any sites are to be developed in the affected area for education and tourism, then I suggest that these would require full excavation. Furthermore, it may be better to excavate several sites to give a 'sense of

time and place' to the sites/area. In this way each site may reflect a different time, socio-economy and/or activity, which in turn allows for an active interpretation of the Iron Age in KwaZulu-Natal.

See map 1b

Table 2: List of archaeological sites and the required mitigation

Site No.	National Site Number	Archaeological period	Significance	Type of Mitigation Required	Archaeological Content
-	2931CA98	EIA/LIA/ Historical	High	Excavation	Pottery, shell, deposit, features, bone
-	2931CA89	LSA	Medium	Test Pits	Stone, shell
-	2931CA85	IA	Low	None	Shell, pottery
-	2931CA90	MSA	Low	None	Stone
1	2931CA154	Historical	Medium	Deeds	Bone, European clay pipe & ceramics, brick
2	2931CA155	LIA?	Medium	Test pits / Sample	Pottery, slag
3	2931CA112	LIA	High	Excavation	Bone, pottery, shell, stone, deposit - Blackburn
4	2931CA156	LIA?	Medium	Test pits / Sample	Bone, shell
5	2931CA157	LIA/ Historical	Low - Medium	Deeds survey/Test pits / Sample	European ceramics, glass, shell, LIA pottery
6	2931CA158	LIA	Medium	Test pits / Sample	Shell, pottery, deposit
7	2931CA159	LIA	Low	Sample	Bone, pottery, deposit - poor preservation
8	2931CA160	Historical	Low	Test pits / Sample	Glass, pottery
9	2931CA161	LIA	Low	Sample	Pottery
10	2931CA162	IA	Low	None	Bone, shell, pottery
11	2931CA163	IA	Low	None	Pottery, shell
12	2931CA164	IA	Low	None	Pottery, shell
13	2931CA165	IA	Low	None	Pottery, shell
14	2931CA166	IA	Low	Test pit/ Sample	Pottery
15	2931CA167	EIA	High	Excavation	Bone, pottery, shell, deposit
16	2931CA168	LIA/ Historical	Low	Sample	Pottery, European ceramics, glass, lower grindstone
17	2931CA169	LIA	Medium	Test pits / Sample	Bone, pottery, shell, grindstone fragments
18	2931CA170	IA	Low	Sample	Pottery
19	2931CA171	IA	Low?	Revisit	Pottery, shell
20	2931CA172	IA	Low?	Revisit	Pottery, dense vegetation
21	2931CA173	IA	Low - Medium	Test pits / Sample	Bone, pottery, stone, deposit?
22	2931CA151	IA	Medium	Excavation	Stone, shell, deposit
23	2931CAx	IA	Low - Medium	Test pits / Sample	Pottery, shell, deposit

ESTMAY

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