

**Archaeological Survey of the Port Edward area**

**For the Mtumvuma TLC & Bradford and Conning**

**By**

**By Gavin Anderson**

**Institute for Cultural Resource Management, Natal Museum, Private Bag 9070,  
Pietermaritzburg, 3200**

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## **Introduction**

The Institute for Cultural Resource Management was contracted by Bradford and Conning to undertake an archaeological desktop survey of selected areas between Margate and Port Edward. Several archaeological sites are known to occur in the affected area.

The terms of reference for this study are:

1. Undertake a database search for recorded archaeological sites;
2. Assessment of significance and mitigation required of known sites
3. Survey aerial photographs for potentially sensitive area – general demarcations
4. General assessment of the archaeological significance of areas
5. Suggest management plan of known and potential archaeological sites of the affected area.

## **Methodology**

The desktop analysis took place at the Natal Museum, since this museum is the provincial repository for all known archaeological sites. All previously recorded sites in KwaZulu-Natal are listed in this database. 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 agriculturist sites since ecology and farming are interrelated. Aerial photographs were also used in the survey. This method is however limited to archaeological sites with (sub-)surface features and generally relate to Iron Age sites. In addition to the above, previous experience of site location and settlement patterns was used.

## **Defining significance**

Archaeological sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:
  - 1.1. Organic remains:
    - 1.1.1. Faunal
    - 1.1.2. Botanical
  - 1.2. Rock art
  - 1.3. Walling
  - 1.4. Presence of a cultural deposit
  - 1.5. Features:
    - 1.5.1. Ash Features
    - 1.5.2. Graves
    - 1.5.3. Middens
    - 1.5.4. Cattle byres
    - 1.5.5. Bedding and ash complexes
2. Spatial arrangements:
  - 2.1. Internal housing arrangements
  - 2.2. Intra-site settlement patterns
  - 2.3. Inter-site settlement patterns
3. Features of the site:
  - 3.1. Are there any unusual, unique or rare artefacts or images at the site?
  - 3.2. Is it a type site?
    - 3.2.1. Does the site have a very good example of a specific time period, feature, or
    - 3.2.2. artefact?
4. Research:
  - 4.1. Providing information on current research projects
  - 4.2. Salvaging information for potential future research projects
5. Inter- and intra-site variability
  - 5.1. Can this particular site yield information regarding intra-site variability, ie spatial relationships between varies features and artefacts?
  - 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities.
6. Archaeological Experience:
  - 6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.
7. Educational:
  - 7.1. Does the site have the potential to be used as an educational instrument?
  - 7.2. Does the site have the potential to become a tourist attraction?
  - 7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. These test-pit excavations may require further excavations if the site is of significance. Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

## **Definition of terminology**

Archaeological sites in sub-Saharan Africa are grouped primarily into three ages, or time periods. 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.

### Definition of an archaeological site

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

1.     **Stone Age**
  - a)     “ten or more stone artefacts; or fewer than ten stone artefacts but which occur in association with other stone Age and/or Iron Age artefacts”;
  - b)     “other...artefacts” include art, beads, grinding stones, engravings, pottery, and places of spiritual/religious importance.
2.     **Iron Age**
  - a)     more than “ten sherds, but [including] sites with fewer than ten sherds, but that occur in association with other Iron Age and/or Stone Age artefacts”;
  - b)     “other artefacts” include engravings, graves, grindstones, stone walling, settlements, and places of spiritual/religious importance (Wahl 1996:11).

## **Description of known archaeological sites**

The archaeological database has notes on many archaeological sites along the affected area. These notes are not officially recorded sites, but those seen by lay people who have reported them to the Natal Museum. The notes are not specific, but do suggest that many (over 40) archaeological sites have been observed over the last sixty years in the Port Edward - Margate areas. Many of the sites described below require re-assessment in terms of archaeological significance, and thus I have not fully assessed them.

Only a few archaeological sites have been recorded. These are described according to their National Site Number – which correlates with the 1:50 000 map number.

### Red Desert site

The largest site on this map (3130AB) is that of the “Red Desert”. This site has been visited for several decades and has palaeontological, geological and archaeological significance. It has received much research attention as well (Davies 1970; King 1972; van Riet Lowe 1947). The site includes a large part of the Stone Age – both ESA and MSA – and dates over the last 1.5 million years. According to Davies (1954 site report, 1970) it has palaeoenvironmental information as well.

The site is of high archaeological significance and mitigation would be required. Mitigation would be in the form of re-analysing the archaeological value of the site.

### Tragedy Hill (3130AB)

This site was noted in the early 1980s and was partially excavated. The excavations centered around a burial that had been exposed. The artefacts associated with the burials included spear heads and pottery fragments. The site is of medium significance and further mitigation would be required. Mitigation will be in the form of test-pit excavations. More sites may be located in this vicinity.

### Ivy Bay (3130AB)

Several sites dating to the Historical Period have been recorded in this area. Maggs (1984) argues that the São João was wrecked in the vicinity of Ivy Bay.

### 3030CD25

This site is a coastal stratified shell midden. The artefacts associated with the midden include pottery, burnt clay and marine shell. The midden also has a stratified deposit, ie there are more than one layers of human occupation. The site is of medium significance and further mitigation would be required. Mitigation will be in the form of test-pit excavations.

### 3030CD27

This site consists of MSA and LSA stone tools (Davies 1951 site report). The site is of low-medium significance and further mitigation will be required. Mitigation will be reanalysing and possibly sampling aspects of the site.

### 3030CD29

This site is a LSA shell midden. It would need to be revisited before any management plans are made.

### Ramsgate - Trafalgar

The area between Ramsgate and Trafalgar have several known, but unrecorded, EIA and LSA shell middens.

#### 3030DD45

This site is a shell midden near Banana Beach. It may be of medium significance and require further mitigation. Mitigation will be in the form of re-analyses.

#### 3030DD58

This site is an LSA shell midden with well preserved features and artefacts. The artefacts include stone tools, pottery and bone. The site is of medium significance and will require further mitigation. Mitigation will be in the form of test-pit excavations.

#### 3030DD59

This site is a stratified shell midden of at least two layers. The artefacts include organic remains such as bone and charcoal, and inorganic remains such as pottery and stone. The site is of medium significance and further mitigation will be required. Mitigation would be in the form of test-pit excavations.

#### 3030DD66

This site is a scatter of MSA stone tools. The site will need to be revisited.

#### 3030DD67

This site is a MSA scatter near Makosi Bridge (Davies 1951 site report). The site would need to be revisited.

#### 3030DD70

This site is a geological, or palaeontological, site. I am not qualified to assess its importance.

#### 3030DD75

The site is a MSA stone tool scatter (Davies 1948 site report). The site will need to be revisited.

3030DD77

This site is a well preserved Iron Age shell midden with organic and inorganic remains. The site appears to be of medium significance. Further mitigation in the form of test-pit excavations, will be required for this site. Mitigation will be in the form of test-pit excavations.

### Assessment of Aerial photographs

Colour aerial photographs were analysed for potential archaeological sites, that is, areas that appear to be archaeologically sensitive. The assessment is descriptive and is not intended to give specific areas of sensitivity, rather general ones.

Strip1/1 (2684/) : coastal margins up to 10 km from beach (Howritz *et al* 1991); main river areas; open areas near roads.

Strip 1/2 (2682/4) : coastal margins up to 10 km from beach; near main rivers; sandy/deflation areas.

Strip 1/3 (2682/6) : coastal margins up to 10 km from beach; main river areas; hills

Strip 1/4 (2682/8) : coastal margins up to 10 km from beach; left hand side of freeway; main river areas.

Strip 1/5 (2682/10) : coastal margins up to 10 km from beach; between two main roads; left hand side of photo.

Strip 1/6 (2682/12) : coastal margins up to 10 km from beach; rock outcrops on both sides of freeway; sandy deflation areas between beach and freeway.

Strip 1/7 (2683/2) : coastal margins up to 10 km from beach; river and estuary areas; open undeveloped areas.

Strip 2/8 (2684/1) : Main river areas; sand banks and deflation areas; rock outcrops; indigenous forests.

Strip 2/7 (2684/2) : Rock outcrops; sand deflation area; some open areas.

Strip 2/6 (2684/7) : Unlikely.

Strip 2/5(2684/8) : Whole area appears to be sensitive, and may contain historical sub-surface features.

Strip2/4 (2684/12) : Possible sensitive areas.

Strip2/3 (2685/6) : Main river areas

Strip 2/2 (2685/7) : Top left hand side of map.

Strip 2/4 (2685/10) : Right hand side of road; above and below current development has potential sites.

#### Photographed on 11/03/09:

Un-numbered: coastal margins up to 10 km from beach; large hill between main roads; some sugar cane hills.

Strip coastal margins up to 10 km from beach; area near roads and deflation/sandy areas.

Strip 1812/11 : coastal margins up to 10 km from beach; forest areas.

Strip 1/1 : coastal margins up to 10 km from beach; deflation/sandy areas

Strip 2/1 : river areas; deflation/sandy areas

Strip 3/1 : hills; river

Strip 1/2 : coastal margins up to 10 km from beach; undeveloped areas.

Strip 2/2 : river banks and surrounds; some hills

Strip 3/2 : river banks and surrounds; some hills.

Strip 1/3 : coastal margins up to 10 km from beach; hilly areas.

Strip 1/3 : coastal margins up to 10 km from beach; deflation/sandy areas; some of the hills.

Strip 1/3 : coastal margins up to 10 km from beach; hills especially between the two main roads; some sugar cane

Strip 2/3 : hills

Strip 3/3 : hills; river banks and surrounds; some hills.

Strip 1/4 : coastal margins up to 10 km from beach; hills; river banks and surrounds.

Strip 1/6 : coastal margins up to 10 km from beach

The aerial photographs indicate that the affected areas are mostly in a highly sensitive archaeologically area. This is in accordance with other reports regarding the coastal plains (Anderson 1996a-b, 1997a-c, 1998a-b; Anderson and Whitelaw 1996; Horwitz *et al* 1991; Maggs 1980; Whitelaw 1994). In addition the data base indicates that the hills just inland of the coast as well as main river courses are also archaeologically sensitive.

In addition to the above, sugar cane farming does not damage archaeological sites beyond the need for mitigation. Most sites occur below the level of the roots of the sugar cane (Anderson 1996a-b, 1997a-c, 1998a-b). Thus areas where sugar cane farming occurs should not be automatically discounted.

### **Miscellaneous Resources**

Several other resources exist in the affected area that will require some form of management plan.

Palaeontological sites occur along the coastal margins. I am not qualified to deal with these resources, and I suggest that a palaeontologist is contacted regarding these. The University of Durban-Westville has such a department.



Historical buildings greater than sixty years of age are protected by the KwaZulu-Natal Heritage Act. I am not qualified to deal with some of these resources and I suggest that Amafa aKwaZulu-Natali, Pietermaritzburg, is contacted regarding these buildings.

At least two known shipwrecks are listed on the 1:50 000 map, and another shipwreck has been studied (Maggs 1984). While these resources are unlikely to be disturbed, the artefacts from these wrecks may be washed ashore. The location of the artefacts is as important as the artefacts themselves.

Cultural sites, that is sites that have spiritual and/or emotional significance, should be considered as well. A cultural anthropologist trained in recording oral history (*amasiko*), as well as local communities, should identify such sites if they exist.

### **Management Plans for Cultural Resources**

It is not possible to develop a management plan of specific sites and areas unless they have been surveyed. It would be too costly to survey the whole affected area, and more importantly, one cannot survey sections of the affected area and postulate the occurrence of other sites. However, a general management plan may be appropriate.

All areas undergoing development should have an archaeological survey undertaken. Both the Natal Museum, Institute for Cultural Resource Management, and Amafa aKwaZulu-Natali should be involved in this management plan and they should be notified of any development. In this way both organisations will be able to comment on those areas deemed significant and/or requiring further mitigation. I believe that the above is necessary especially since the desktop study has indicated that the affected area is of high archaeological significance, and that over fifty archaeological sites are known and/or have been officially recorded.

Each development application should include the following information:

1. Relevant 1:50 000 map
2. Affected/development area clearly marked
3. Infrastructure and servitudes stated and marked
4. The proposed use of the affected area

With this information it will be possible to determine the potential impact the development may have on a site, will allow me to determine whether an area survey will be needed, and also to fully assess the significance of a site. The costs of the surveys and/or excavations are to be covered by the developer.

### **Conclusion**

The Umtumvuma TLC contracted an archaeological desktop survey to assess the real and potential occurrence of archaeological sites in the Port Edward environs. Over fifty archaeological sites were noted, as well as the potential occurrence of many more archaeological sites. That is, much of the affected area is in an archaeologically sensitive area. In summary the first 10 km – 15 km from the beach to the interior is of high archaeological significance.

A full archaeological survey would be too costly and not time effective, and I suggested that each individual development program is sent to myself and Amafa aKwaZulu-Natali (c/o Assistant Director: Professional Services) for comment.

In addition to the above other cultural resources such as shipwrecks and (Colonial) buildings older than sixty years of age, would require mitigation and management. I also noted that palaeontological and palaeoenvironmental features exist in the affected area and that an expert in those fields be consulted.

A final point that needs to be mentioned is the consideration of developing sites for cultural tourism. Alternatively the material excavated from sites may be used to develop an interpretive centre(s) in the area. Such a heritage centre (the Mananga Heritage Centre) has been recently opened at Richards Bay, and serves as a good example of a low-cost, informative centre, developed for the community by the community, consultants and local business. An alternative is developing existing sites for cultural tourism, that is creating a (pre-)historical trail/walk.

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**TABLE 1: ARCHAEOLOGICAL PERIODS THROUGH TIME**

<b>Period</b>	<b>Sub-division</b>	<b>Abbreviation</b>	<b>Approximate age</b>
<b>Stone Age</b>	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
	Late Stone Age	LSA	30 000 years ago to the last century
<b>Iron Age</b>	Early Iron Age	EIA	1 700 years ago to 1000 years ago
	Late Iron Age	LIA	1000 years ago to AD 1830
<b>Historical Period</b>		HIST	post-1830 AD