## EXECUTIVE SUMMARY

*The Institute for Cultural Resource Management was contracted by Moreland Estates (Pty) Ltd in February 1999 to undertake a rescue excavation of an archaeological site to be effected by the Zimbali golf course as well as an archaeological survey of land adjacent to the golf course. All of these sites date to the Iron Age occupation of KwaZulu-Natal*

*The archaeological excavations concentrated on the in tact shell middens at the site, and it sampled various artefacts. The emphasis on the excavations and sampling was to retrieve as much research information as possible. This included the differences in spatial information, the collection faunal remains that are rare on Mzonjani (Early Iron Age) sites, and the explotation of marine resources*

*The archaeological survey recorded fourteen archaeological sites. Of these fourteen, three are of high significance and would require full excavations. However, two of these latter sites occur just outside of the affected area and do not presently require mitigation. Five other sites would require test-pit excavations to determine the full archaeological potential of each site.*

# ARCHAEOLOGICAL EXCAVATIONS AT ZIMBALI GOLF COURSE

## INTRODUCITON

The Institute for Cultural Resource Management was contracted by Moreland Estates (Pty) Ltd in February 1999 to undertake a rescue excavation of an archaeological site to be effected by the Zimbali golf course. The archaeological site (referred to as ZIM1) was first recorded several years ago by members of the Natal Museum Archaeology Department. The site was noted as being of high archaeological significance due to the high density of faunal remains. Furthermore potential intrasite spatial patterns exists at the site. The site was subsequently radiocarbon dated to 1560 ± 50 years ago, or AD 562. The date came from a shell midden 20 – 45 cm below the surface. On a recent inspection the site had been exposed by bulldozer activity and partly disturbed, however there was sufficient material to warrant further work.

This report presents the preliminary results from the excavations and sampling from ZIM1.

## STRATIGRAPHY

ZIM1 is located on the top of a hill overlooking the Indian Ocean to the east, extending over an area of ±150 m x 100 m. The soil profile for the site consists of fine light brown aeolian sand varying in depth. A harder red-coloured sand, known as the Berea Reds, occurred below.

Several artefacts occurred in the light brown sand, however, due to the fine context most of the artefacts had filtered down to the harder sand. The latter soil was the main cultural horizon where the most of the shell middens and fire pits were located.

## METHODOLOGY

The site was both excavated and sampled. The aim of the mitigation was to save as much of the site for future research since it was to be permanently destroyed. The emphasis was thus on both archaeological features and spatial relationships between features and artefacts. To achieve this the site was gridded into 9 m x 9 m squares, and certain features were plotted and excavated within each square (fig. 1).

Certain artefacts, diagnostic and special finds, were collected from each square. The use of larger squares tend to counter post depositional disturbances. The relative densities of these artefacts may be plotted to give an overall spatial pattern of the site.

## ARTEFACTS

### Ceramics

The ceramics are described according to the method used by Maggs (1980).

**1. Lip:**

1.1. Flat with circular impressions
1.2. Flat with square impressions
1.3. Flat with horizontal incisions
1.4. Flat and undecorated

1.5. Round and undecorated

**2. Rim:**

2.1. Undecorated
2.2. Horizontal groove at base

**3. Body:**

3.1. No complete pots have been refitted yet.
3.2. Lugs
3.3. Decorated
3.4. Undecorated

**4. Decoration:**

4.1. Bands of shell impressions
4.2. Horizontal row of shell impressions
4.3. Horizontal row of fingernail impressions
4.4. Hanging ladder motifs

**5. Colour:**

5.1. Burnished red, brown or black
5.2. Orange-red

**Metal Working**

Many pieces of slag, varying in size and weight, and only a few pieces of bloom, were recorded. The silica associated with the slag was mostly dark green in colour and was not abundant. A few tuyére and furnace fragments were also recorded.

**Shell**

Three undisturbed shell middens were excavated and sampled. The most dominant shell species present was brown mussel, followed by oyster, limpet, and whelk (in decreasing order of abundance). The shells varied in their state of preservation, and several whole specimens were recorded.

Two shell beads were sampled.

**Bone**

The faunal remains are fairly well preserved. The most dominant species present appears to domestic cattle, although some of these may be from wild antelope of a similar size. Other bone included smaller bovines that are probably sheep or goats, however smaller wild antelope may also be represented at the site. A few fish and possible human bones were also recorded.

**Other**

Four copper beads and three copper rings were sampled. The beads were circular and ±1.5 cm in diameter

A near complete hoe was sampled.

## DISCUSSION

**Shell Middens**

The site had several shell middens located along the outer perimeters. Three of these middens were excavated to obtain a representative sample of the site, and to see if there was any spatial and/or chronological differences between these middens.

The first midden was in Square 21. The midden was in the hard red sand, but had been disturbed. Several large chunks of the midden were removed in one piece and will be le for analyses in the laboratory. Brown mussels (*Perna perna*) is the most dominant shell species at this midden. Much of the shell is fragmented and possibly mixed with ashy sand. Faunal remains (such as bovid and fish) and ceramics were recorded in the midden.

The second midden was excavated in the corner of Squares 50 and 8. The midden was in a secondary context, however large chunks with artefacts were still visible. Several complete shell, grindstone fragments, ceramics were recovered. The midden consisted of hard brown sand at the top, with an ashy brown sand below. The lower sand appears to be burnt and may be the remains of a fire.

The third shell midden is located in the northwestern corner of Square 39. It is ±1.5 m in diameter 2 cm deep. The shell was very fragmented and did not yield many artefacts.

The fourth midden is located at the western part of the site in Square 12. This midden was mainly *in situ*, that is it has not been damaged. The midden is probably in a fire pit that is 50 cm x 30 cm wide and 35 cm deep. The upper shell is less burned than the lower shell. Shell, bone and ceramics were removed from the midden.

**Spatial Features**

Several distinct features were observed at ZIM1: a cattle pen, metal working and shell middens. A grey-ashy coloured soil demarcates a potential cattle pen, which is situated approximately in the center of the site around squares 3, 4, 14, 15, 25, and 26. Two test-pits were placed in this area, however, few artefacts were recovered from these squares.

Metal working activity areas and shell middens appear to occur on the outside of the cattle pen (fig. 1). tuyére and furnace fragments occur in the vicinity of Squares,20 and 34.

In summary, the domestic areas are on the outer parts of the site, while metal working and other activities are between the houses and cattle pen. This pattern of domestic areas surrounding a central cattle pen fits the pattern of other Iron Age settlements in KwaZulu-Natal.

**Chronology of the site**

The site appears to have two occupations. The ceramic decorations are indicative of the age of the pot and occupation. The first occupation dates the beginning of the Early Iron Age, referred to as the Mzonjani Phase. A recent radiocarbon date of AD 562 confirms this. The hanging motifs and single horizontal grooves are indicative of this phase.

The second occupation dates the Late Iron Age, possibly between AD 1300 and AD 1600 (see Anderson 1996, 1997; Davies 19781; Hall 1980). This phase is characterised by shell impressed and finger nail decorations. The shards have black or red burnish and many are thin.

The Late Iron Age differs from the Early Iron Age in the context of ceramic decorations, and the settlement patterns. Further analyses between various middens, their ceramics and other decorated ceramics from the site should yield an interesting comparison of intrasite variability through time.

## CONCLUSION

ZIM1 was partially excavated and sampled before it is effected by further development. The site was gridded into 58 9 m x 9 m squares and each square was sampled for diagnostic artefacts. In addition to this, three shell middens were excavated as a sample of the middens on the site. The middens were mostly small in comparison to other middens seen along the coast, however, these smaller middens give a more precise account of individual dumping episodes.

The mitigation for the site is complete and no further work is required.

## ARCHAEOLOGICAL SURVEY AT ZIMBALI GOLF COURSE

The Institute for Cultural Resource Management was contracted by Moreland Estates (Pty) Ltd in February 1999 to undertake an archaeological survey adjacent to the present Zimbali golf course. A total of fourteen archaeological sites were recorded. Of these sites six require further mitigation either in the form of test-pit excavations and/or archival research.

The affected area occurs on the hills running adjacent to the Indian Ocean. Previous surveys in nearby areas suggest that the affected area is of high archaeological sensitivity (Anderson 1997; Davies 1971; Horwitz *et al* 1991). Much of the affected area is under sugar cane, while the rest is either below thick grass or dense bush. The grass and bush made survey impossible.

The terms of reference for this contract are:

- Identify and assess archaeological sites in the affected area;
- Propose management plans for each site

### 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. Intrasite 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?
    - 3.3. Does the site have a very good example of a specific time period, feature, or 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, i.e. 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.

## Methodology

Areas of sugar cane posed no problem to the survey. The contour paths were walked and artefacts were observed on the exposed ground. Small ephemeral scatters of shards were not considered as significant. Large concentrations with various artefacts were considered to be significant.

Those areas with dense bush and/or grass could not be surveyed. If paths went through these areas then we walked them. However, the lower southeastern parts of the existing golf course were not surveyed.

A major problem facing any surveys in sugar cane fields is the dense cane. It is not feasible to have all of the cane cut in the affected area just for the survey. Thus, I had to rely on relative densities of artefacts along the contour paths to assess the potential significance of a site, without being able to enter the main part of the site itself. However, after the survey, all sites were reassessed in relation to each other.

My policy for this survey is that if there are several different kinds of artefacts, and if there appears to be a high concentration of these artefacts then they deserve further investigation once the sugar cane has been cut. Mitigation would be in the form of test-pit excavations and/or sampling.

## The Sites

### ZIM2

The site is on a hill near the Tongati River. The site is a large scatter of artefacts along the hill. The artefacts includes grindstones, Iron Age and European ceramics, slag, bone, ?old bricks and glass. The site appears to have both Iron Age and European occupations.

Archaeological significance:

The site appears to be of medium archaeological significance. There is a possibility of a colonial building at the site, or alternatively it is rubble from dumping. A reanalysis after the sugar cane is cut should clarify this.

Mitigation required:

The site should first be investigated to see if any buildings were built on this hill. If buildings do occur, then they need to be dated. All buildings older than 60 years are protected by the KwaZulu-Natal Heritage Act of 1998. The mitigation may include a Deeds Office search if Moreland (Pty) Ltd does not have this information available. If the site is more than 60 years old, then test-pit excavations and site mapping should occur.

The second mitigation is for the Iron Age component of the site. Mitigation should be in the form of sampling and test-pit excavations to fully determine the potential of the site.

**ZIM3**

The site is on the next hill west of ZIM2. The site is a large scatter of artefacts along the hill. The artefacts includes diagnostic and decorated shards, bone and slag. The shards appear to be similar to the Late Iron Age shards from ZIM1. More of the site occurs in the sugar cane.

Archaeological significance:

The site is of medium archaeological significance. It appears to have several concentrations of artefacts over a ±50 m radius and may contain and archaeological deposit. This suggests that there may be a spatial component to the site.

Mitigation required:

Mitigation should be in the form of sampling and test-pit excavations to fully determine the potential of the site.

**ZIM4**

This site is on the hill adjacent to ZIM3. There does not appear to be many artefacts on the surface, however the variety of shards and a few grindstones suggest that parts of the site may be a domestic area. The shards were mostly brown in colour, however, a few had a black burnish.

Archaeological significance:

The site is of low archaeological significance.

Mitigation required:

No further mitigation is required

**ZIM5**

This site covers the entire hill, however, it is just outside of the present affected area. There is a high concentration of artefacts throughout the site. These included ceramics, daga, slag, tuyeres, shell middens, bone, and lower and upper grind stones. The material from the site is well preserved and underneath the sugar cane. Intrasite patterns are visible, suggesting a village settlement.

Archaeological significance:

The site is of high archaeological significance

Mitigation required:

No further mitigation is currently required. However, if the hill is to be affected in any manner full excavations would be necessary.

**ZIM6**

This site can be divided into three areas (ZIM6a-c) – each area is on a separate location of the hill. ZIM6a has pottery, slag, oyster fragments and upper and lower grindstones. There is a potential deposit at this site. ZMI6b is probably the upper section of ZIM4 and has very little material. ZIM6c may be part of ZIM3 in general. ZIM6c includes slag, tuyeres, ceramics, and brown mussel fragments. There is a potential deposit at this part of the site.

Archaeological significance:

ZIM6a and ZIM6c are of medium archaeological significance, while ZIM6b is of low archaeological significance.

Mitigation required:

Zim6a and ZIM6c should be sampled and have test-pit excavations. No further mitigation is required at ZIM6b

**ZIM7**

ZIM7 is at the end of a spur on a long hill covered in thick grass. The site is an ephemeral scatter of ceramics shards, a tuyere fragment and some slag. The site

Archaeological significance:

ZIM7 is of low archaeological significance.

Mitigation required:

No further mitigation is required.

**ZIM8**

ZIM8 is located on the tallest hill in the affected area. Half of the site is currently under sugar cane, while the other half is under dense bush. The artefacts are located at the top of the hill and down the slopes. Many diagnostic shards were found. These shards had flat and round lips, and some had a black burnish. More artefacts are likely to be found at this site.

Archaeological significance:

The site is of medium archaeological significance, since the site has yielded several diagnostic sherds

Mitigation required:

The site should be sampled and have test-pit excavations.

**ZIM9**

This site is similar to ZIM5 in size and content, and may even be part of the site. It appears as if the site is just outside of the affected area. It is situated on a large hill, slightly east of ZIM5. The site consists of marine shell, metal working debris, ceramic shards, and grindstones. In addition to this shell middens and a possible cattle pen were visible. The site has an archaeological deposit.

Archaeological significance:

The site is of high archaeological significance.

Mitigation required:

No mitigation is presently required for the site. However, if any development does occur, then the site will need to be excavated.

**ZIM10**

This site is located on a small hill between Zim6 and ZIM3. The soil was very shallow and rocky. The site is an ephemeral scatter of shards, glass.

Archaeological significance:

The site is of low archaeological significance.

Mitigation required:

No further mitigation is required.

**ZIM11**

This site is located on the top of one of the hill along the western part of the affected area. The site continues on both sides of the electrified fence, and at least half of it is in the affected area. The artefacts from the site include shell, ceramic shards, slag, bone, and possibly ivory bangles. In addition to these artefacts, several shell middens. The site extends for some distance towards the east and south. Several concentrations of artefacts were seen along the fence and erosion paths, suggesting that spatial features will exist.

Archaeological significance:

The site is of medium-high archaeological significance.

Mitigation required:

Further mitigation should occur at this site. The mitigation should be in the form of archaeological excavations.

**ZIM12**

This site is located on a small hill between two larger hills. Most of the site is covered with dense bush. The site is an ephemeral scatter of a few shards and green glass.

Archaeological significance:

The site is of low archaeological significance.

Mitigation required:

No further mitigation is required.

**ZIM13**

Site is near the base of a hill where ZIM11 is located. The site consists of several Mzonjani shards seen in an erosion gully. The site occurs on both sides of the fence. Much of the site is covered by grass, and more of the site may be underneath it.

Archaeological significance:

The site is of medium archaeological significance.

Mitigation required:

Mitigation should be in the form of test-pit excavations.

**ZIM14**

This site is located on the flood plain and at the base of the hills near the Tongati River. The site consists of a very fragmented shell midden (which may be recent in age), some ceramic shards and a few pieces of slag.

Archaeological significance:

The site is of low archaeological significance.

Mitigation required:

No further mitigation is required.

## Conclusions and Recommendations

Fourteen archaeological sites were recorded during the course of the survey. Of these fourteen sites, six require further mitigation. Two sites were recorded and have high significance, however, they are outside of the affected area and do not require mitigation for the moment. Of these six sites, only one requires excavation, while the other five require test-pit excavations. Test-pit excavations determine the full significance of a site and may require further excavation.

A permit would be required for the destruction of these sites, under the KwaZulu-Natal Heritage Act of 1998. This permit is available from Amafa aKwaZulu-Natali.

## References

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**Table 1: Archaeological sites in the Zimbali golf course area and their mitigation**

| Site name | Age | Significance | Requires mitigation | Type of mitigation |
|---|---|---|---|---|
| ZIM2 | HP | Medium | Yes | Test-pits & archival search |
| ZIM3 | HP/LIA | Medium | Yes | Test-pits |
| ZIM4 | HP/LIA | Low | No | N/A |
| ZIM5 | LIA | High | Yes | Not currently affected |
| ZIM6a | LIA/HP | Medium | Yes | Test-pits |
| ZIM6b | LIA/HP | Low | No | N/A |
| ZIM6c | LIA/HP | Medium | Yes | Test-pits |
| ZIM7 | LIA? | Low | No | N/A |
| ZIM8 | LIA/HP | Medium | Yes | Test-pits |
| ZIM9 | ?LIA | High | Yes | Not currently affected |
| ZIM10 | HP | Low | No | N/A |
| ZIM11 | LIA/HP | Medium-high | Yes | Excavation |
| ZIM12 | IA | Low | No | N/A |
| ZIM13 | EIA | Medium | Yes | Test-pit |
| ZIM14 | LIA/HP | Low | No | N/A |

**Key:**
HP = Historical Period
IA = Indeterminate Iron Age
LIA = Late Iron Age
EIA = Early Iron Age

**Co-ordinates from the archaeological sites in the Zimbali area.**

| SITE | Longitude | Latitude |
|---|---|---|
| **ZIM2** | S 29 34’ 00” | E 31 10’ 54” |
| **ZIM3** | S 29 33’ 50” | E 31 10’ 39” |
| **ZIM4** | S 29 33’ 56” | E 31 10’ 35” |
| **ZIM5** | S 29 33’ 37” | E 31 10’ 46” |
| **ZIM6a** | S 29 43’ 33” | E 31 10’ 50” |
| **ZIM6b** | S 29 33’ 46” | E 31 10’ 48” |
| **ZIM6c** | S 29 33’ 45 – 57” | E 31 10’ 57 – 55” |
| **ZIM7** | S 29 33’ 57 | E 31 11’ 13” |
| **ZIM8** | S 29 33’ 39” | E 31 11” 12” |
| **ZIM9** | S 29 33’ 30” | E 31 10’ 58” |
| **ZIM10** | S 29 33’ 39” | E 31 10’ 58” |
| **ZIM11** | S 29 33’ 01” | E 31 11’ 29” |
| **ZIM12** | S 29 33’ 20” | E 31 11’ 23” |
| **ZIM13** | S 29 33’ 08” | E 31 11’ 26” |
| **ZIM14** | S 29 34’ 02” | E 31 11’ 09” |