

FIRST PHASE CULTURAL HERITAGE IMPACT ASSESSMENT OF COROBRICK, AVOCA SOUTH, ETHEKWENI MUNICIPALITY



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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A cultural heritage survey of Corrobrick, Avoca South, eThekweni Municipality identified a stone tool scatter in a disturbed context in a central area of the footprint. These tools are associated with the remnants of old sand dunes that has been extensively disturbed due to clay mining activities on the property in the past. None of the tools identified are situated in original stratigraphic or spatial context. Other than the stone artefacts there are no archaeological remains and the site has little research value. In addition, various sites of this period and culture stratigraphic tradition occurs along the coastal dune cordon of KwaZulu-Natal. Most of these are better preserved and of greater research value than the site at Avoca. Although the site at Avoca is protected by heritage legislation it has been given a low heritage value rating. It is the opinion of the consultant that mitigation should be allowed but that a surface collection of the stone tools must be made, under the auspices of Amafa, prior to any development. There is no known archaeological reason why development may not proceed on the remainder of the property as planned. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose additional archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for GCS and Investec
Type of development:	Rehabilitation of old clay mining area. The rehabilitation process will include the filling-up of the excavated areas.
Rezoning or subdivision:	Not applicable
Terms of reference	To carry out a Heritage Impact Assessment (phase 1)
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

1.1. Details of the area surveyed:

The study area is located at Avoca South near Durban North. It is situated between the N2 and R 102 and can be accessed via Toncoro Road (Fig 1). The GSP coordinates for the project area is given as: S 29° 44' 56.78" E 31° 1' 15.34". The area consists of

Corrobrick office and factory buildings in the northern section and an old clay mining area to the south. The area surveyed spans approximately 300m x 400m (Fig 2). Particular attention was paid to the area of exposed sandy deposits situated to the immediate south of the buildings. This area consisted of disturbed soils as is evidenced by previous mining activities on the footprint. Environmental consultants identified stone artefacts on this portion previously (Fig 3).

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The greater Durban, including the portion covered by the study area, has been relatively well surveyed for archaeological heritage sites by the KwaZulu-Natal Museum and subsequently by private heritage consultants in the last few years. Prior to 1950, the archaeological site distribution of the area was poorly known.

The available evidence, as captured in the Amafa and KwaZulu-Natal Museum heritage site inventories, indicates that the greater Durban area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These range from Early Stone Age, Middle Stone Age, and Later Stone Age to Early Iron Age, Middle Iron Age, and Later Iron Age sites.

Although Early Stone Age sites occur at various locations in the greater Durban none of them are in context and occur mostly in open air situations. These sites were inhabited by *Homo erectus* and *Homo heidelbergensis* who were for the most part scavengers. The pioneer archaeologist Oliver Davies, the only person to have researched this period in KwaZulu-Natal, has recognised different traditions of Early Stone Age traditions in KwaZulu-Natal. All these traditions contained heavy tools made from cores such as hand axes, cleavers, and pics. Some of these sites are situated on ancient coastal dunes in similar settings than the area surveyed for this study. Early Stone Age sites typically occur close to water.

The Middle Stone Age dates between 40 000 years and 200 000 years ago. Whereas Early Stone Age tools were generally core tools, Middle Stone Age tools were made of flakes and blades detached from the core. Various Middle Stone Age sites occur in the greater Durban area. The vast majority of these are open air sites or sites with little stratigraphic value. However, cave sites with Middle Stone Age deposits do occur in KwaZulu-Natal as well. Two notable Middle Stone Age sites in the greater Durban area is Umlatuzana near Marianhill and Segubudu near Stanger. These sites have been excavated in the last two decades and yielded impressive archaeological stratigraphy's relating to the period associated with the origins of anatomically modern people. Segubudu has produced the earliest evidence in the world for the use of selective bedding material by modern humans. Dating back to almost 77 000 years ago it almost 50 000 years earlier than previously reported examples (Wadley et al 2011). The

creative minds at Sibudu most likely also devised snares to capture small antelopes, whose remains litter the site, and they crafted bows and arrows to bring down more dangerous prey, judging from the sizes, shapes and wear patterns of several stone points from the cave. Moreover, Sibudu's hunters also made adhesives that were used for fastening stone points to wood shafts (Wadley & Whitelaw 2006).

The Later Stone Age is generally associated with San hunter-gatherers or their immediate ancestors in KwaZulu-Natal. It dates from between 30 000 years ago to about 200 years ago. Later Stone Age sites abound in this province including the greater Durban area. A percentage of coastal shell middens, along the coastal dune cordon, contain Later Stone Age material but Later Stone Age Sites also occur in open air contexts as well as in deposits in various shelters in the area. Notable is the Shongweni Later Stone Age shelter which was excavated in the 1970's. This shelter yielded some of the earliest remains of domesticated cereals in South Africa (Mazel 1989). In addition, Later Stone Age rock art also occur at Shongweni as well as at various shelters near Camperdown.

Around 1 700 years ago an initial wave of Early Iron Age People settled along the inland foot of the sand dunes on sandy but humus rich soils which would have ensured good crops for the first year or two after they had been cleared. These early agro-pastoralists produced a characteristic pottery style known as Matola. The Matola people also exploited the wild plant and animal resources of the forest and adjacent sea-shore. The communities seems to been small groups of perhaps a few dozen slash-and burn cultivators, moving into a landscape sparsely inhabited by Later Stone Age San hunter-gatherers.

By 1500 years ago another wave of Iron Age migrants entered the area. Their distinct ceramic pottery is classified to styles known as "Msuluzi" (AD 500-700), Ndongondwane (AD 700-800) and Ntshekane (AD 800-900). Although a handful of archaeological sites in the greater Richards Bay area may belong to these periods the majority of these sites occur further inland along the major river valleys of KwaZulu-Natal below the 1000m contour (Maggs 1989:31; Huffman 2007:325-462).

Some of the shell middens recorded along the coastline of KwaZulu-Natal belongs to the very first Nguni-speaking agro pastoralists who settled in the province. These sites have been dated to approximately 1200 years ago. . Perhaps the most notable Later Iron Age shell midden occurs at the mouth of the Umhlanga lagoon. In addition, sites belonging to the immediate ancestors of the present Zulu-speaking communities in the area have been located in various locations in the greater Durban area.

The colonial history of the area starts around 1820 when early English ivory traders established themselves at Port Natal (Durban). Dutch descendants (i.e. Voortrekkers) moved into the area soon after 1834 and established a short lived Boer republic called Natalia. However, by 1845 Natal became a British colony. Colonial buildings dating from the later 19th century as well as subsequent periods abound in the greater Durban area.

These, like the archaeological resources of the province, are also protected by heritage legislation (Derwent 2006).

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. In addition, the available archaeological literature covering the greater Durban area was also consulted. The SAHRIS website was consulted to identify heritage sites and previous heritage impact assessments in the near vicinity of the project area.

A ground survey, following standard and accepted archaeological procedures, was conducted.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

The archaeological sites identified are heavily disturbed due to past clay mining activities in the area (see below).

3.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal

Town: Durban

Municipality: eThekweni

4.2 Description of the general area surveyed

An area of approximately 300m x 300m was surveyed. Special attention was paid to the old mining area behind the Corrobrick buildings where stone artefacts were noted by environmental consultants. The area is heavily disturbed due to past mining activities. Soil, clay and sand has been removed down to bedrock level. The remains of ancient sand dunes, are still visible and occurs on the edges of the mining area. However, the ancient sand dunes visible have also been disturbed due to these mining activities. Heavy erosion scarring occurs on all of them and the erosion process is still continuing (Figs 5 & 6). Those areas not scarred by erosion are covered by alien vegetation. Stone artefacts erode out of these disturbed sand dunes (see below).

4.3 Archaeological sites identified

Stone artefacts were found lying scattered at the base of the eroded sand dunes. In fact, all the exposed sandy areas on the footprint contained some stone artefacts. Six exposed areas were identified (Fig 4). However, all of these exposed areas form part of one archaeological site. The GPS coordinates for the site is:

29° 45' 01.19" S 31° 01' 12.66" E

One Early Stone Age cleaver was observed (Fig 7) However, the vast majority of stone artefacts belong to the Middle Stone Age and consists of flakes and blades (Figs 8 & 9). One hammer stone was observed but the consultant could not find any cores. Most of the stone artefacts were made from indurated shale and low quality quartzite (Fig 10). The only archaeological material observed were these stone artefacts, there are no bone or plant remains. The stone artefacts are not in any stratigraphic or spatial context. They appear to be eroding from the ancient sand dunes that has been disturbed by mining activities in the past. In fact, the site has very little research value due to this disturbance as well as bad preservation.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

This site is protected by heritage legislation, however, it has been rated as low significance following the guidelines provided by SAHRA (Table 2). The site is rated as low as it has no research value. It is severely disturbed and all the stone artefacts observed were not situated in any spatial or stratigraphic context. The stone tools do have educational value. However, the archaeological data base of the KwaZulu-Natal Museum indicates that various Middle Stone Age sites in similar geomorphological setting occurs along the coastal cordon of KwaZulu-Natal. These are in a better state of preservation and are more representative of this type of site than the highly disturbed occurrence in the study area.

Table 2. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

6 RECOMMENDATIONS

- The proposed development may proceed but only once a surface collection of the stone artefacts has been made under the auspices of Amafa. A surface collection will have educational value and the collected stone artefacts can be used for teaching purposes.
- There is no value in demarcating a buffer zone around the site as the area will be filled-up as part of the planned rehabilitation of the site. In addition, the stone tools are very visible and will be an easy target for collectors and visitors to the area.
- It is also suggested that a walk-through of the area, by a heritage specialist, be conducted immediately prior to the filling-up of the mining depressions.
- Further excavations of the ancient sand dunes should only be allowed once a phase two heritage impact assessment of the area has been conducted.
- There is no known archaeological reason why development may not proceed on the remainder of the property as planned. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose additional archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

7 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Not applicable.

8 MAPS AND FIGURES

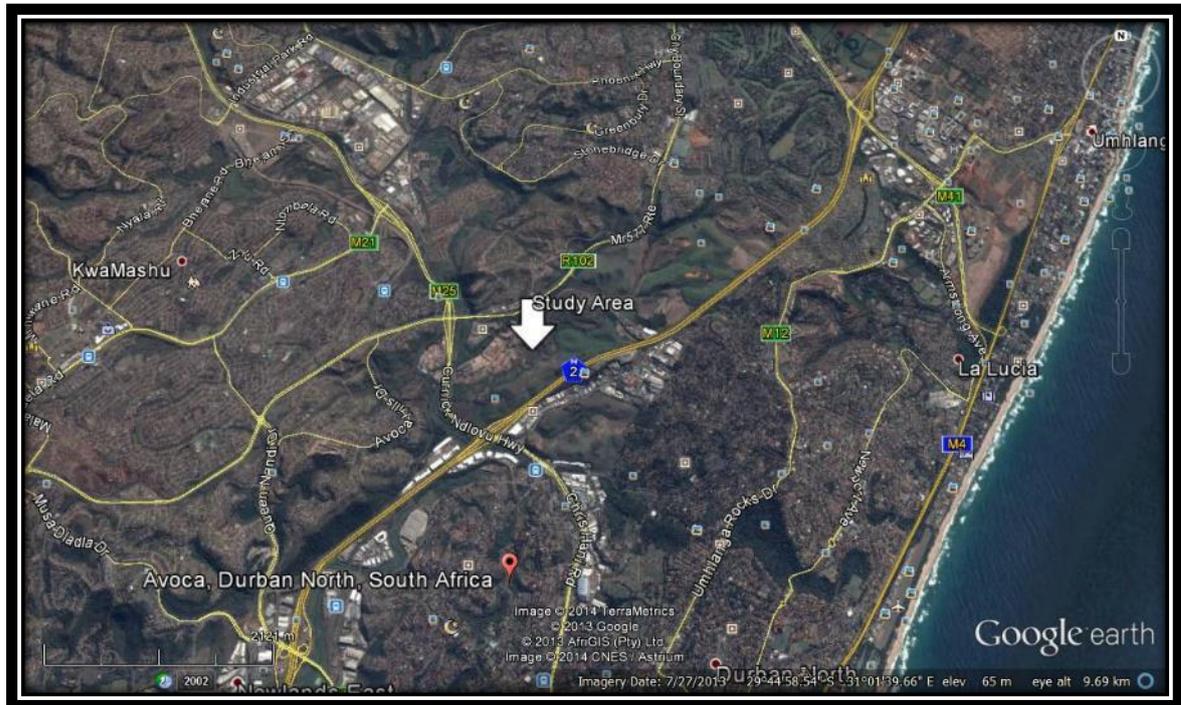


Figure 1. Google aerial photograph showing the location of the Study Area at Avoca, Durban North.



Figure 2. Google aerial photograph showing the area surveyed.

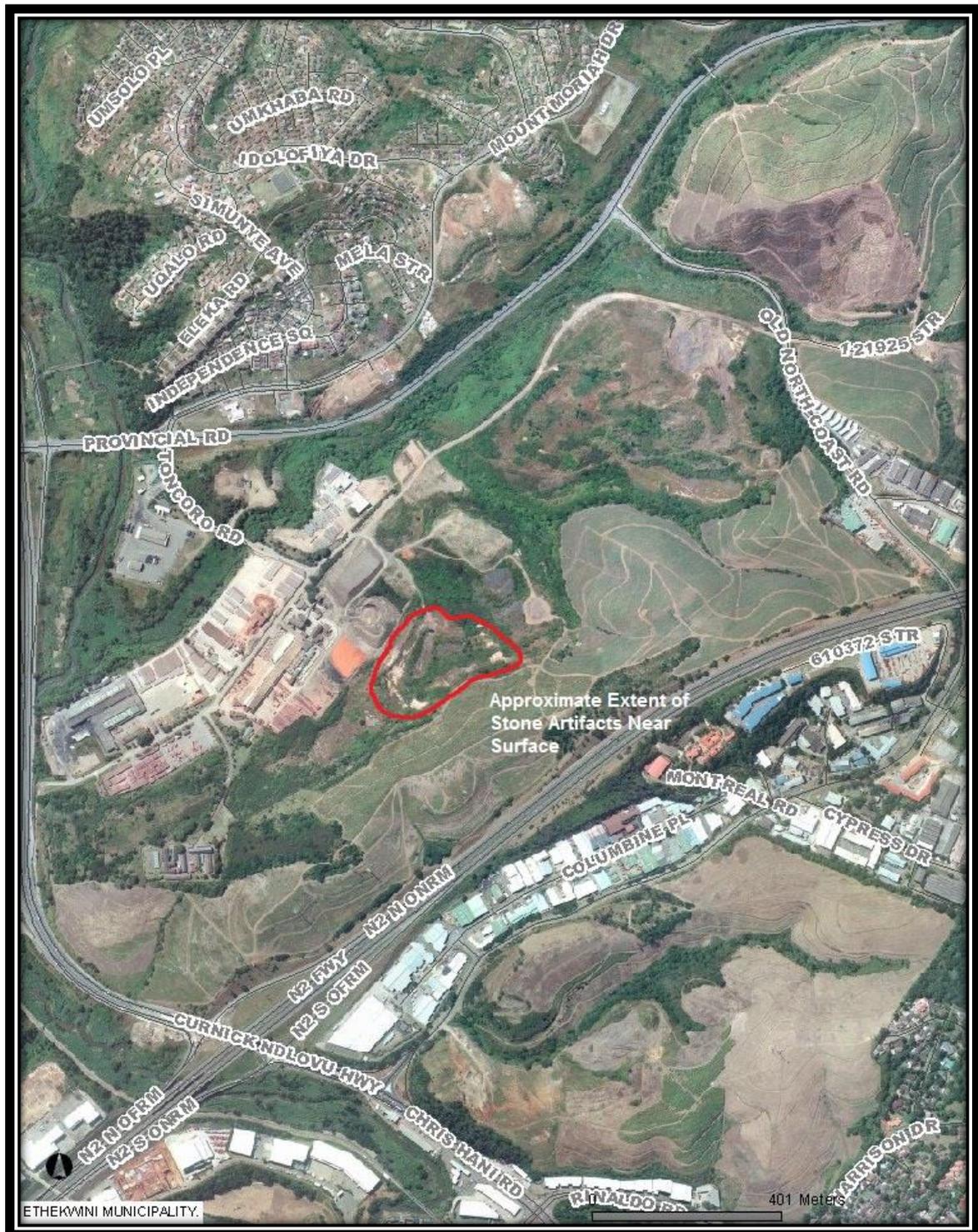


Figure 3. Google aerial photograph showing the approximate extent of the stone artefact scatter behind the Corrobrick buildings.



Figure 4. Google aerial photograph indicating the exposed sandy areas that contains stone artefacts. Each yellow polygon is an exposed sandy area – the remains of ancient sand dunes.



Figure 5. Photograph of ancient sand dune showing extensive erosion and disturbance. The stone tools are associated with these features and they are not situated in any context.



Figure 6. Eroded sand dune with some stone artefacts in the foreground. These tools are not in context.



Figure 7. Early Stone Age cleaver. Only one Early Stone Age period tool has been found on the site.



Figure 8. Middle Stone Age flakes and blades made from indurated shale.



Figure 9. Middle Stone Age flakes.



Figure 10. Photograph showing Middle Stone Age flakes made from indurated shale and quartzite.

9 REFERENCES

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