

# PHASE ONE ARCHAEOLOGICAL INVESTIGATION: GLORIA BAY, THEEWATERSKLOOF DAM

Prepared for

**VKE Consulting Engineers**

November 1994



Prepared by

**Archaeology Contracts Office**

Department of Archaeology

University of Cape Town

Private Bag

Rondebosch

7700

Tel (021)650 2357

Fax (021)650 2352

Email [djh@Beattie.uct.ac.za](mailto:djh@Beattie.uct.ac.za)

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## **EXECUTIVE SUMMARY**

The Archaeology Contracts Office of the University of Cape Town was commissioned by VKE to survey a portion of land alongside Theewaterskloof dam. The entire area of the proposed development covers part of an Early Stone Age site. The materials are however, in secondary context and furthermore distributed more widely than the area under investigation. No mitigatory measures are required in the event of development. The materials nonetheless, should not be collected by members of the public or the developer.

## **1. INTRODUCTION**

The Archaeology Contracts Office of the University of Cape Town was commissioned by VKE Consulting Engineers and Planners to conduct a Phase 1 archaeological assessment of an area bordering the Theewaterskloof dam south of Villiersdorp (Figure 1). The proposed development area comprises a portion of the farm Gloria, No. 87, Caledon and encompasses approximately 37.8 hectares.

The brief was as follows:

- 1.1 survey the area proposed for development and locate any archaeological materials;
- 1.2 assess the significance of such materials and the possible impacts on them arising from development activities;
- 1.3 produce a report detailing the results of the investigation and mitigatory measures needed, if any.

## **2. ARCHAEOLOGICAL BACKGROUND**

As outlined in the memorandum of the archaeologist at the National Monuments Council the region has been occupied by modern people and their ancestors from about 1 million years ago until the present. Materials from the Early, Middle and Later Stone age are generally known to occur in a variety of contexts. Most commonly encountered are scatters of stone artefacts in the open; more rarely, sites with organic preservation in addition to stone implements are found both in the open air and within rockshelters and caves.

The river valleys of the southern Cape Fold Belt mountains and surroundings, within which the Theewaterskloof dam is located, are known to house vast assemblages of Early Stone Age artefacts. The Early Stone Age (ESA), also referred to as the Acheulian, is characterised by implements termed handaxes and cleavers, and is widespread in Africa and elsewhere in the Old World. Dated to between 1 million and 200 000 years these collections trace the history of the dawn of humanity. The humans associated with the ESA have been identified as *Homo erectus* and, in the later times, archaic *Homo sapiens*, the immediate ancestor of our own sub-species.

Details on the lifestyles of these people in the more southerly parts of the sub-continent remain murky. Archaeologists most commonly have to deal with stone tools alone, the important associations of food debris not having survived the passage of time. Nevertheless, the dependence of ESA people on relatively nearby water sources is made clear by the restriction of their sites to river valleys, springs and the like. Their stone artefacts also reveal that they were capable of systematic production of implements used for chopping, cutting and

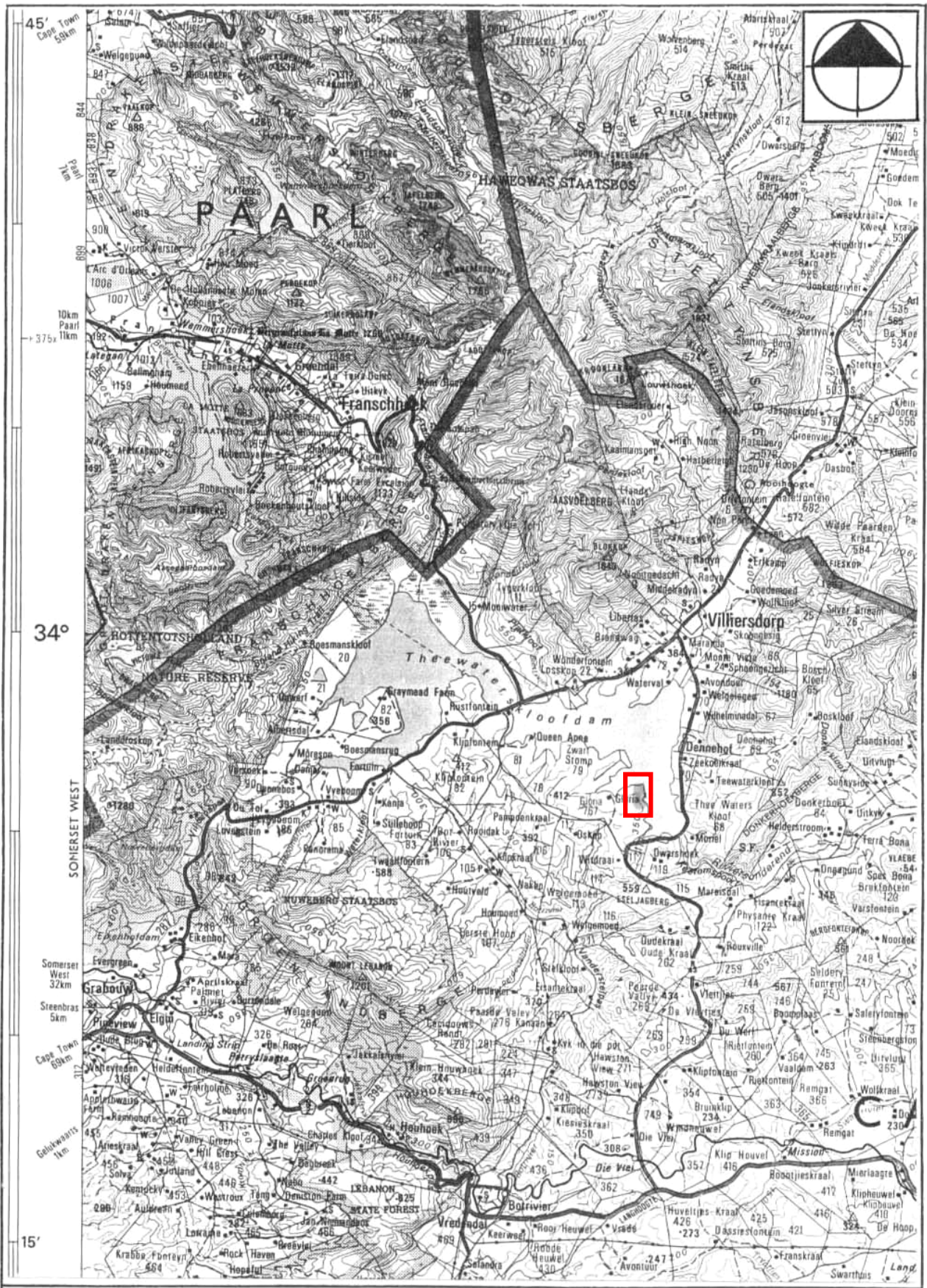


FIGURE 1. 3319 WORCESTER 1:250 000



scraping. Some of the tools are extremely refined and offer insights to the development of technological skills which are increasingly apparent in the Middle and Later Stone Ages which follow.

### **3. METHOD**

The area was searched for archaeological material by walking a series of irregular transects across the width. The nature of the material present was determined and recorded. For purposes of making a proper assessment of the circumstances brief forays were made outside the boundaries of the search area. No site locations were established for reasons that the results will make clear.

### **4. RESULTS**

#### **4.1 Circumstance**

Virtually the entire area of the proposed development comprises a part of a very extensive archaeological site. The preserved materials consist entirely of stone. The context is secondary: intensive ploughing has moved materials within and on top of the soil; the geomorphic circumstances of the locality suggests that the environment since the human occupation has been erosional rather than depositional. Very few artefacts were found stratified in the soil sections of two prominent dongas which traverse the property; the scatter is thus essentially appears to be restricted to the surface zone. Artefacts occur in variable densities from approximately 1-2/m<sup>2</sup> to 0.01/m<sup>2</sup>. One possible natural association with the artefacts are unmodified quartzite river cobbles of mostly less than 20cm maximum dimension. These occur in places in sufficient quantity to make ascription to human transport uncertain. A relict river terrace may be a possible explanation for their presence, although the elevation above the original Riviersonderend River bed is great. An alternative explanation is noted below.

#### **4.2 Description**

All the observed stone artefacts are made of a now heavily patinated quartzite. The most prominent component is flaked river cobbles; these occur in a variety of forms. In addition, significant quantities of flakes and formal cores are present. The types of artefacts, the raw material preference and the geographic context allow identification of the site as Early Stone Age. No materials of any other period from the pre-colonial past were detected. A selection of the artefacts and contexts are presented in the accompanying Plates.

Some of the flaked river cobbles are clearly cores used for the production of flakes. The degree of flaking varies considerably from only a few removals to intensive use. Other flaked cobble pieces are better termed bi-faces as they appear to be implements in their own right or artefacts in the making. These range from crude, chopper like pieces through to more systematically, bifacially retouched hand-axe forms. A few pieces have pick-like or elongated shape. As has been noted many times before on ESA sites elsewhere, the differences between core-like forms and bi-faces are at best gradational. Less typologically problematic were a few pieces lacking cobble cortex and of clear hand-axe form. Even so, highly refined retouch on these pieces is generally lacking. Of interest is the near absence in this assemblage of very many clear examples of cleavers. The sizes of the pieces described above varies from 10/15cm to examples as large as around 30cm.

In terms of the formal cores those of bifacially flaked radial form predominate. An origin as cobbles is indicated by some examples retaining the characteristic cortex.

Flakes of large and small size are present. The large examples almost inevitably have cobble cortex over most of their dorsal surfaces. In general terms, the smaller flakes displayed both cortical dorsal surfaces as well as those formed by negative flake scars. Flakes with fine secondary retouch are present but they are rare.

River cobbles are a ubiquitous association of the artefactual lithic material. Some of the cobbles have evidence for their use as hammerstones. Others, the majority, have unblemished surfaces. The presence of river cobbles can be accounted for in two ways. As noted above, they may be relict traces of a river terrace; alternatively, they were transported to the locality by the makers and users of the tools. It is not presently possible to demonstrate which of the two alternatives is correct. Either way, the cobbles represent the raw material from which much of the Gloria Bay area ESA assemblage is made. The site may well represent a location for stone tool production.

### **4.3 Importance**

As only stone artefacts are present, the site cannot be considered as of prime importance. Furthermore, the cultural materials located and identified in this report are distributed more widely than the development area alone. This in itself mitigates the impact that the development will have on the importance of the site.

### **4.4 Impact**

Artefacts in areas where houses and access roads are constructed will be moved, possibly removed from the site and certainly covered over. Materials in between the housing nodes should remain unaffected by the plans to vegetate as opposed to landscape the area.

### **4.5 Suggested Mitigation**

None. The identification of ESA in this location has contributed to the regional database.

## **5. CONCLUSION**

An extensive, though dispersed Early Stone Age site exists over virtually the entire area of the brief. Materials date to within the period 1 million to 200 000 years before present.

## **6. RECOMMENDATION**

6.1 It is recommended that the developers need not undertake further mitigatory work on archaeological materials on the location of the proposed Gloria Bay development.

6.2 It is recommended that no commercial exploitation of the artefacts be undertaken and that the attention of the general public is not drawn to their presence. Removal of stone artefacts is an offence under the National Monuments Act of 1969(as amended). The developer must discuss any plans which may affect the materials in the manner referred to in this section of the report (7.2) with the National Monuments Council well prior to their implementation.

6.3 The recommendations of this report are subject to the approval of the National Monuments Council.

## **7. PROFESSIONAL TEAM**

Fieldwork and report

Royden Yates



Plate 1. View across the Gloria Bay ESA site to the north.



Plate 2. Area of moderate density stone tool scatter. The clipboard is to the left of a handaxe.





Plate 3. Left to right, middle ground of picture: large irregular core with cobble cortex; biface (top) and cleaver (below); irregular core; and unmodified cobble. Cobbles are an ubiquitous association of the ESA artefacts and represent a source of raw materials.



Plate 4. Top left: handaxe; bottom left: biface/handaxe, the retouch not extending all over the surface; top right: radial core; bottom right: small irregular core. The cruder biface/handaxe category of implements are substantially more common than definitive handaxes.





Plate 5. Top left: radial core displaying characteristic wavy lateral margins and flaking to both surfaces; top right: small radial core in early stage of use; bottom: one of the few cleavers noted on the Gloria Bay site.

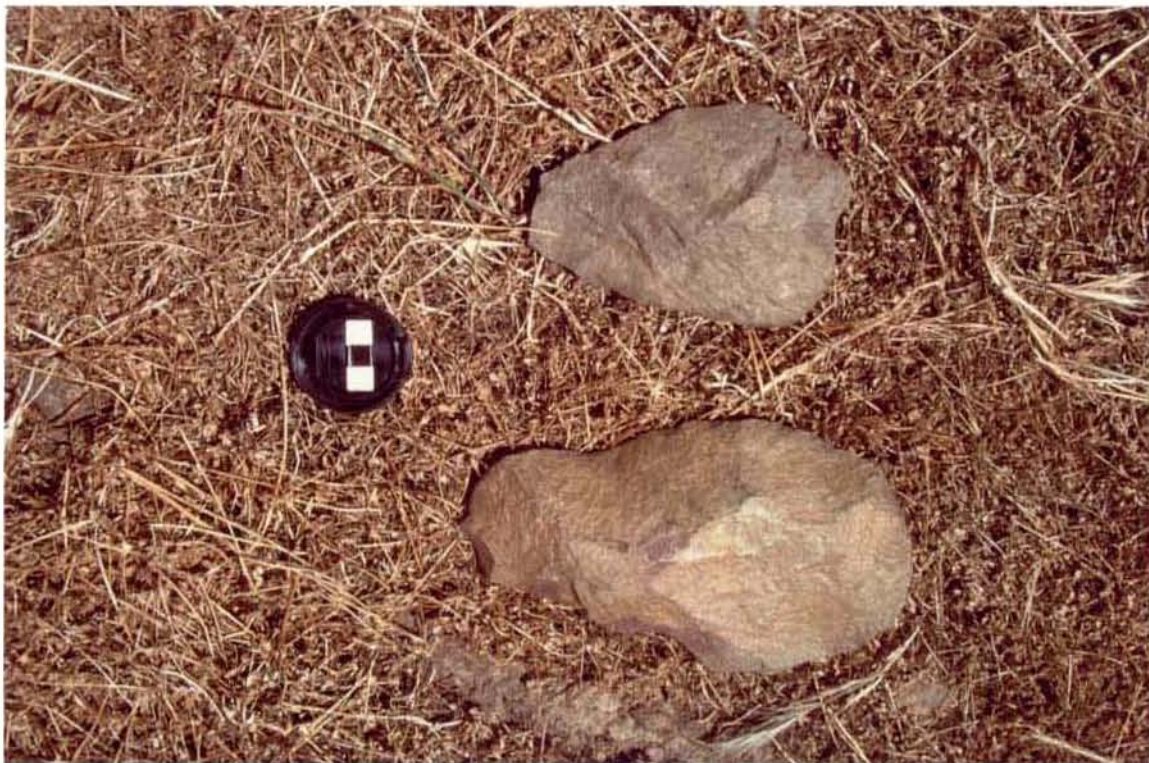


Plate 6. Contrast between a more finely retouched biface (top) and one with heavier retouch leaving a more uneven edge to the piece (bottom).





Plate 7. Heavily retouched biface with delicate retouch defining the lower margin of the implement.



Plate 8. A very small and finely worked handaxe. Artefacts of this delicacy of working are rare on the Gloria Bay ESA site.