

Archaeological impact assessment
Proposed mining areas and properties at Ulco, Northern Cape,
including the vicinities of Gorrokop and Groot Kloof.

Field survey undertaken for Alpha Limited.

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Introduction

The McGregor Museum Archaeology Department was called upon to undertake a scoping survey on the mining areas of Alpha Ltd, Ulco, for purposes of an up-dated EMPR.

The property was visited on 14 August 1999. Observations made are summarised below.

Regional archaeological background

Numerous archaeological sites are known from the edge of the Ghaap Plateau, extending from a point south of Griquatown to the vicinity of Vryburg. These include many small to medium-sized shelters containing stone age material and simple finger paintings. Several have been excavated (Humphreys & Thackeray 1983; Beaumont & Morris 1990). A site of international significance is the type site of *Australopithecus africanus* at Taung, while other sites at that locale include Equus Cave, which is of importance in palaeoenvironmental research, and recent stone-walled settlements on the edge of the plateau. Known sites in the vicinity of Ulco itself include the shelters with finger paintings and artefact scatters at Groot Kloof (Fock 1969; Fock & Fock 1989), and shelters and palaeoenvironmental sampling points at Gorrokop (Beaumont & Vogel 1993).

While an *Environmental Management Programme Report for Ulco Operation* by Schie (1992) refers very briefly to observations on archaeology and palaeontology by V. Matter, the report by Jones (1995) states (section 5.2.12) that "no sites of archaeological or historical interest have been recorded in this area". This statement is quite incorrect. That report also suggests (section 5.2.14) that this is a "non-tourist area".

This report summarises existing information on the distribution of archaeological sites in the area and their significance in relation to research, mining operations and their tourism potential.

Observations at Ulco

Mr W. Koekemoer kindly drove me to various parts of the mining area, beginning at Groot Rietfontein and the vicinity of Gorrokop. We then proceeded to Groot Kloof (on portion of Klein Rietfontein known as Lime 1). Finally we examined areas above the present mine at Ulco itself.

Gorrokop

Later Stone Age and Middle Stone Age material was found on the surface in the general vicinity of two springs at the crest of the escarpment. Beaumont and Vogel (1993) report Ceramic LSA material at the top of a sediment sequence at a spring mound that was sampled in order to date the last major episode of tufa accretion. Three tufa sequences at Gorrokop reflecting that last major tufa growth episode have been dated by way of radiocarbon. Beaumont and Vogel state that tufas such as these could provide "an exceptional palaeoenvironmental record for the late Neogene in South Africa." They propose that older tufa accretions could be dated by means of the U-Th technique.

The shelters that form in such settings were also strong draw-cards for people in the past and it is likely that occupation sites will be found within the secondary lime deposits at Gorrokop. The escarpment offered a range of resources including ample water, differentiated ecological zones, and, as noted by early travellers in the area, honey. Fock (1969) recorded seeing sticks wedged into cracks in Groot Kloof which probably were the foot-holds of San inhabitants for collecting honey from otherwise inaccessible hives.

If sediments occur that are similar in age and to those at Taung, it is conceivable that important fossil remains may be preserved.

Hyrax middens were noted by L. Scott (pers comm) which could yield high resolution palaeoenvironmental data by way of pollen trapped in the stratified layers of such middens.

Underground cavities with spectacular stalactites have been uncovered both at Ulco and at Taung (Hocking nd).

From the more recent past, a water furrow leading from one of the Gorrokop springs is of interest as heritage, while, close to the spring in question there is the grave of one Adam Jonkers, with a date of (?)1894. Attempts are being made via the South African Genealogical Society to establish the identity of this individual.

Groot Kloof

Stone artefacts were found in fair profusion of the slopes of the escarpment in the vicinity of the hut built by Lu Matter, who was manager at Ulco for a quarter of a century from 1950.

On the southern side of the kloof - which is conserved by the mine as a nature reserve - three localities contain finger paintings of exceptional quality. These paintings were,

Fock believed, "the best preserved in the area" (1969:121). They certainly are also amongst the most elaborate of their kind along the Ghaap Escarpment. They were first recorded by J.A. Swan, renowned amateur archaeologist, and were mentioned in a paper by J.H. Power of the McGregor Museum in 1949. A.R. Willcox described them in 1965, and they were analysed in greater detail by Fock (1969; Fock & Fock 1989).

The first shelter is a shallow overhang about 3 m long with several finger paintings. The second is a cave up to 8 m deep and 30 m long with paintings along nearly the whole wall. At the northern end a block protrudes which has "a multitude of paintings". Thirdly, high above the stream, there is a cave measuring 6 m long and 5 m deep, with numerous paintings, well sheltered, and the colours, in consequence, fresh. Paintings in red, maroon, white, black and shades of blue (possibly faded black) are recorded from these sites. They deserve to be examined and analysed in closer detail than is given in existing descriptions.

Willcox describes finding fragments of ostrich eggshell and stone artefacts of "Smithfield type" including end-scrappers on the talus outside the shelters. These observations are consistent with those at other sites with finger paintings along the Ghaap Escarpment (Humphreys & Thackeray 1983).

In this kloof there are multiple tufa accretions to which comments made in relation to Gorrokop are applicable.

As a final remark here, in relation to the baboons that live at Groot Kloof, there is a story (H. Paton, appendix 1) about baboons, which was told originally by an old San woman, Ou Coba, who worked for the Paton family on a nearby farm. Reference is made to baboons on a krantz, probably at or near Ulco. This is in all likelihood a rare fragment of folklore relating to the last San inhabitants of the Ghaap Escarpment.

Present Ulco mining operation

Surface areas adjacent to and up-slope from the existing quarries were inspected for traces of archaeological material. Only extremely rare flaked stone pieces were found. Much of the original tufa and escarpment edge was destroyed in earlier phases of mining. It is not known if any sites existed there.

Likely impacts

Mining operations in the foreseeable future are to be focused on cutting back into the primary limestone behind the existing quarries at Ulco. Virtually no surface indications of archaeological remains were found there, so that mining is not expected to impact negatively on archaeological resources at this stage.

Recommendations

1. Mining

From an archaeological perspective, there is no reason why mining should not proceed in the areas as indicated to the investigator.

Should mining be expanded to approach Groot Kloof or Gorrokop, however, it is recommended that a more detailed archaeological impact study should be carried out.

2. Environmental Management Programme Report

Sections dealing with archaeological and cultural sites in the Environmental Management Programme need to be revised to reflect the findings of this brief survey.

3. Information Centre

Mr Koekemoer further requested suggestions regarding the siting of a possible display or information centre for guests of the mine. It is suggested that the Groot Kloof reserve lends itself to this purpose, the kloof itself being a veritable open air museum. A suitable locality for an information centre would be at or near the entrance to the reserve. Any construction within the reserve should be kept to a minimum (this was clearly Lu Matter's philosophy when the area was set aside many years ago).

Displays should cover inter alia the archaeological and palaeoenvironmental pasts. The history of environments relates directly to the formation of the resource on which the mine subsists - insofar as secondary lime deposits are concerned - so that such displays would be entirely relevant as background to the mining operations.

It might be feasible for the mine to negotiate limited or specialised tourist access via the adjacent farm to utilise this cultural and natural treasure.

It is indeed recommended that in terms of the EMPR the kloof might be considered to be a "sensitive landscape", with "scenic views" and that it has potential in terms of tourism.

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