

**McGregor Museum
Department of Archaeology**



**Report on a further
Phase 1 Archaeological Impact
Assessment at Bucklands
Settlement near Douglas,
Northern Cape.**

DME NC 30/5/1/1/3/2/1/1697EM
SAHRA 9/2/038/0001

David Morris
February 2009

A Further Phase 1 Archaeological Impact Assessment at Bucklands Settlement near Douglas, Northern Cape.

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McGregor Museum, Kimberley. February 2009

Introduction

The author was contacted by Mr G.D. Creedy of Diamond Dump Recovery CC (P.O. Box 550, Douglas 8730, cell 0826109489) to undertake a further archaeological impact assessment on two portions of the Bucklands Settlement adjacent to the Vaal and Orange Rivers near Douglas in the Northern Cape (see Morris 2009).

The property was visited in February 2009. Observations made and recommendations are given in this report.

Legislation

The National Heritage Resources Act (No 25 of 1999) (NHRA) provides protection for archaeological resources.

It is an offence to destroy, damage, excavate, alter, or remove from its original position, or collect, any archaeological material or object (defined in the Act), without a permit issued by the South African Heritage Resources Agency (SAHRA).

Section 35 of the Act protects all archaeological and palaeontological sites and requires that anyone wishing to disturb a site must have a permit from the relevant heritage resources authority. Section 36 protects human remains older than 60 years. In order for the authority to assess whether approval may be given for any form of disturbance, a specialist report is required. No mining, prospecting or development may take place without heritage assessment and approval.

SAHRA at national level acts on an agency basis for the Provincial Heritage Resources Agency (PHRA) in the Northern Cape, where archaeological sites are concerned. Permit applications should be made to the SAHRA office in Cape Town.

Methods and limitations

A background literature/museum database search provides indications of what might be expected in the region. An impact assessment had been carried out on part of the property in December 2008 (Morris 2009).

During the site investigation, the two areas of proposed mining were inspected. One was on an area of low river-side dunes immediately adjacent to the large dune that was inspected in December 2008 (Morris 2009), beside the Orange River, while the other area consists of a 'Younger Gravel' remnant on a strip of high ground running between the converging Orange and Vaal Rivers.

In this environment sediments of archaeological significance may be well below the present surface. Old diggings or quarries often provide sections that may be

inspected, and dumps of gravel give an opportunity to assess the potential archaeological content of underlying sediment.

In this instance the sites of proposed mining are currently an area of dunes with buried gravels, in one instance, and a gravel body sandwiched between calcified sand/topsoil and an underlying Dwyka shale, in the other.

Background: archaeological resources in the region

The Northern Cape has a wealth of archaeological sites (Beaumont & Morris 1990, Morris & Beaumont 2004), with locales along and adjacent to the major river systems being of particular note. Stone Age material found in this area spans the Earlier, Middle and Later Stone Ages through Pleistocene and Holocene times. Late Holocene material with pottery is known to occur on the river banks.

Observations

Area 1.

This is a strip of land 7.5 ha in extent and defined by the following co-ordinates (supplied by the applicant):

Corner peg	Latitude (S)	Longitude (E)
P5	29°04'27.2"	23°39'39.2"
P6	29°04'24.2"	23°39'41.4"
P7	29°04'36.1"	23°40'02.0"
P8	29°04'39.1"	23°40'00.1"

It consists of an elongated remnant of a Younger Gravel body forming a low hill, where the gravels are apparently draped over an underlying Dwyka shale (exposed in a borrow pit about midway along its length), and in turn mantled by a generally shallow topsoil which, however, thickens downslope. Small prospecting pits and the borrow pit provide opportunities to assess the archaeological significance of the gravel, while a foot survey allowed characterisation of the situation at the surface.

The gravel at the crest of the low hill, about a metre thick, is calcified and lies directly on shale. It has river-rounded clasts predominantly of andesite and no artefacts were observed at this point (29.07531° S 23.66331° E). (Fig 1)

Similarly, no artefacts were to be found at a prospecting pit at (29.07576° S 23.66390° E). However, at a point at the eastern end of the area (29.07734° S 23.66671° E) the gravel contained a higher proportion of quartzite clasts and some of these were flaked. On the whole it is estimated that the gravels on this proposed mining site are of generally limited archaeological significance.



Fig 1. Quarried section at the top of the low rise, showing calcified gravel overlying Dwyka shale.



The surface capping over the gravels, particularly where this is eroded at the crest of the low hill, but also at eroded areas at the northern end of the area, was found to be rich in artefacts (Fig. 2), albeit in poor archaeological context with no stratigraphy (it forms no more than a veneer at the top of the section shown in Fig. 1). This material probably represents a collapsed (eroded) sequence on an old surface subsequently covered by wind-blown sands (as indicated down-slope where this artefact layer dips below the present surface). There is no organic preservation, and limited opportunity for separating out variable typological aggregates amongst the highly weathered artefacts (Figs 3 & 4 below).



Area 2.

This is a wedge of land 2.1 ha in extent abutting the substantial dune investigated previously (Morris 2009), and consisting of low river-side dunes that presently separate the river from centre-pivot irrigation fields upslope from the Orange. The upper (northern) margin is defined by an artificially created perimeter roadway which surrounds the field, while the eastern and western limits are defined by irrigation pipelines leading upwards from the river (see Figs 5 & 6)

Corner peg	Latitude (S)	Longitude (E)
P1	29°06'28.8"	23°42'20.3"
P2	29°06'24.1"	23°42'24.2"
P3	29°06'21.5"	23°42'21.8"
P4	29°06'21.1"	23°42'17.9"



Fig. 5 View from the top of the large dune (i.e. view from east) with approximate indication of Area 2. The two lines ending at the right of the picture define roughly the pipelines which are the outer limits of the proposed extent of mining.

Alongside the buried pipelines, disturbed ground provides an opportunity to glimpse sub-surface sediments, while a prospecting pit had been sunk into the underlying gravel unit at 29.10696° S 23.70598° E, with 'topsoil' separated in one heap from 'gravel' in another (Fig. 6). On close inspection of the latter no artefacts could be seen, while on the side of the former heap there was a single very lightly patinated hornfels flake clearly comparable to the Later Stone Age flakes and cores that occur within the roadway adjacent to the large dune nearby (Morris 2009). No further artefacts were found in the survey area, the dune surfaces being found to be essentially sterile. It is clear, however, that Later Stone Age material occurs in possibly low density distributions within a layer/s beneath the present surface – exposed also in the roadway beyond the north eastern corner (P4) of the proposed mining area (where ostrich eggshell pieces also occur). (It was reported that a local farmer has claimed the ostrich eggshell here relates to ostrich farming. However the co-occurrence of LSA lithics with weathered ostrich eggshell pieces suggests that in

this instance one is dealing with a typical Later Stone Age residue where eggshell may relate to water flask fragments or other cultural uses. One might expect, in a larger sample, to find ostrich eggshell beads or decorated fragments).



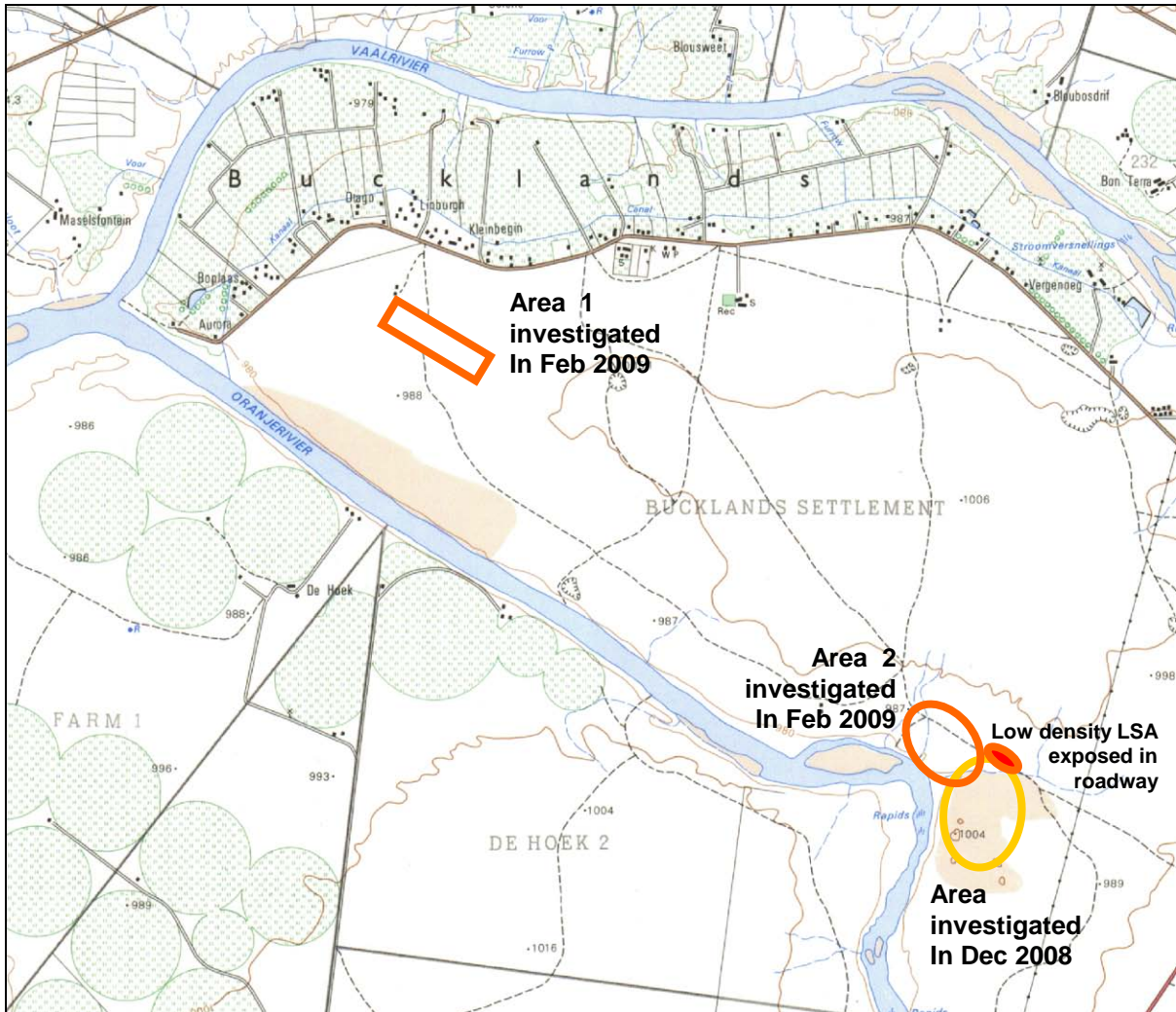
Fig. 6 Prospecting pit. View from south. The low density LSA site eroding in the roadway referred to above is situated behind the trees to the right of the photograph.



Figs 7 & 8 Hornfels flake from sediment overlying the gravel in the prospecting pit (above) and comparable artefacts (below) from the roadway nearby (Morris 2009).



The areas 1 and 2 are indicated in the following map:



Extract from 1: 50 000 map sheet 2923BA

Significance

As intimated above, it is not considered that any of the heritage resources here are of major significance.

In both areas, 1 and 2, the gravel exposures examined appeared to be very largely if not entirely without artefacts.

At Area 1, a veneer which is rich in artefacts of evidently variable age, overlying the gravel unit and dipping under the sands on the lower slopes, probably represents a lag deposit which in consequence is of limited archaeological value.

At Area 2 there was little evidence of more than a very low density occurrence of Later Stone Age material below the present surface and eroding out of the roadway outside of the proposed mining area.

Recommendations

The significance of archaeological traces found in the proposed mining Areas 1 and 2 is not so high, in the opinion of the author, as to require any further mitigation. It is confirmed that some LSA material is eroding from the nearby roadway as reported in a previous report (Morris 2009).

It is to be noted that localised LSA occurrences within the dune area are possible but the evidence for this was minimal. There is a distinct possibility that precolonial human burials may occur here as well, given their occurrence along rivers in the region (e.g. at St Clair, Douglas, and along the nearby Riet River).

In the event of such materials/features being found during mining or secondary impacts in the vicinity, work should be stopped and SAHRA in Cape Town should be contacted immediately (Mrs Mary Leslie, 021-4624502).

Acknowledgements

I thank Mr Gareth Creedy who guided me to these further two proposed mining areas at Bucklands Settlement.

References

Beaumont, P.B. & Morris, D. 1990. *Guide to archaeological sites in the Northern Cape*. Kimberley: McGregor Museum.

Morris, D. & Beaumont, P. 2004. *Archaeology in the Northern Cape: some key sites*. Kimberley: McGregor Museum.

Morris, D. 2009. Report on a Phase 1 Archaeological Impact Assessment at Bucklands Settlement near Douglas, Northern Cape.