

**PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT ON A 50 HA  
PORTION OF THE FARM MIDDELWATER 18 NEAR PRIESKA,  
KAROO DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE.**

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## EXECUTIVE SUMMARY

The purpose of this study was to establish if any archaeological or any other heritage sites were present on a ca. 50 ha Portion of the farm Middelwater 18, which flanks the south bank of the Orange River about 30 km NNW of Prieska in the Karoo District Municipality of the Northern Cape. A foot survey on Thursday 6 August 2009 over its full extent, which had a sparse cover of grass and low bushes, mainly swarthaak (*Acacia detinens*), revealed a sparse surface scatter of lightly glazed undiagnostic flakes and cores that are probably of Acheulean ascription. Nowhere did I see any archaeological sites, palaeontological bones or early structures / graves, which leads me to conclude that the proposed prospecting of this Older Gravel remnant will have little or no impact on the heritage resources of the Northern Cape.

## **BACKGROUND INFORMATION**

The earnings of De Beers Consolidated Mines have dropped drastically during the current economic recession, but the same cannot be said of the alluvial diamond diggers along the Vaal and Orange Rivers. The difference stems from the fact that both the Younger (Rietputs) and Older Gravels contain more large high-grade diamonds that, being rare, are always a good investment. Digger Schalk Steyn is certainly doing well, with two largish operations on the go, at Douglas and further downstream, with plans to also mine at Middelwater. This report is part of a Prospecting Rights application in that connection, that is being undertaken by Itumeleng Lute of Lute Mining on behalf of Steyn Diamante BK.

My terms of reference were to detail observations based on a field survey of the terrain and to assess the significance of heritage impacts, should the proposed prospecting go ahead. Such a report is required by the National Heritage Resources Act (no. 25 of 1999), which states that no development may take place without heritage assessment and approval.

## **LOCAL ARCHAEOLOGY**

About 10 km to the SE is Noute se Berg, on a hillside of which is the Naugan ochre mine, visited by Andrew Smith in the 1830's and by Dunn in 1872, which I relocated in 1980 (Beaumont & Vogel 1989). My 3 m deep test pit there produced stone mining tools, amorphous LSA lithics and thin black – burnished sherds, with a date, at 2.7 m down, of 1650 BP (Beaumont & Morris 1990). Some 30 km to the SSW is a shallow MSA – Fauresmith sequence with associated fauna, located on the edge of a small pan on the farm Bundu that was excavated during the past decade by Philip Kiberd (2002). And 30 km to the SSE, on the south side of a water reservoir – capped koppie at Prieska itself, is a small shelter, where a test pit was sunk by the author in the 1980's. It revealed a shallow unstratified deposit with a fairly sparse undiagnostic LSA, taken to possibly postdate the Wilton, that is now housed at the McGregor Museum.

## PROPERTY DESCRIPTION

The inspected ca. 50 ha area flanks the south bank of the Orange River on the north side of Portion 1 of the farm Middelwater 18, about 30 km NNW of Prieska in the Karoo District Municipality of the Northern Cape (Figs. 1 & 2). It comprises a flat-topped ground surface with patches of Hutton Sands, all sparsely covered by grass and low bushes, mainly swarthaak (*Acacia detinens*), that runs down from ca. 956 m to alluvial flats bordering the Orange River, at ca. 915 m.

On Thursday 6 August 2009 Itumeleng Lute and I undertook a foot survey of its entire extent, with co-ordinates for its edge (Fig. 1) being as follows:

- |    |                        |                                  |
|----|------------------------|----------------------------------|
| 1. | Old diggers pit.       | 29° 26' 44.1" S, 22° 35' 32.2" E |
| 2. | Fence on W side.       | 29° 26' 27.6" S, 22° 35' 21.0" E |
| 3. | Fence flanking fields. | 29° 26' 30.7" S, 22° 35' 41.6" E |
| 4. | Gravel edge in SE.     | 29° 26' 53.5" S, 22° 35' 37.0" E |
| 5. | Fence on S side.       | 29° 26' 53.6" S, 22° 35' 26.1" E |

## SUPERFICIAL SEDIMENTS

Superficial exposures at co-ordinate positions 3 and 4 showed that bedrock was a black fissile Precambrian schist with a near – vertical dip that had been eroded away at ca. 20 m above the Orange River. On this platform at least 20 m of subangular to subrounded Older Gravel clasts, mainly of fist size, but with a few 0.5 m and more across, had then accumulated. Fragments were seen to be predominantly of jaspilite – banded ironstone, with a small quartzite fraction, both from upstream sources, while interstitial sand was invariably negligible, judging from the pit profiles (Fig 9). This fine example of the 20 m accumulation, the youngest of the Older Gravels, is now generally taken to be of Miocene age (e.g. de Wit et al. 1997), subsequent to which it underwent moderate calcification. Bringing the sequence to an end are the patches of Hutton Sand, seen to be very widespread in this region, where there are also some substantial dunes that lack a linear format.

## **HERITAGE FINDINGS**

Our search yielded a total of 2 dozen artefacts that were found to be thinly and randomly spread over the entire gravel surface (Figs. 10 – 13). This sample, except for a single quartzite core, was entirely based on jaspilite – banded ironstone, with all surfaces fresh, albeit slightly glazed. Flakes were all of irregular plan-form, tended to be thickish, with little dorsal cortex, and a few showed rather coarse platform faceting. The cores were mainly irregular, but I did find one or two specimens with some radial preparation. No formal tools were seen. A guess is that most of this material refers to the 'Middle' Acheulean, at about a million years ago (Beaumont & Vogel 2006). Like other occurrences in the region, this scatter is best taken to reflect sporadic use of this raw material source over some protracted interval.

Nowhere within the inspected area were there any archaeological sites, palaeontological bones, early structures, or graves of any age.

## **CONCLUSIONS**

No lithic concentration in a stratified context was seen, or is ever likely to have occurred on this Older Gravel surface that has been under erosion for the past ~17 - 19 million years. My conclusion is that the proposed prospecting will have no impact on the heritage resources of the Northern Cape.

## REFERENCES

Beaumont, P.B. and Vogel, J.C. 1989. Patterns in the age and context of rock art in the Northern Cape. *South African Archaeological Bulletin* **44**: 73 - 81.

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

Beaumont, P.B. & Vogel, J.C. 2006. On a timescale for the past million years of human history in central South Africa. *South African Journal of Science* **102**: 217 - 228.

De Wit, M.C.J., Ward J.D. and Jacob J.R. 1997. Diamond-bearing deposits of the Vaal-Orange river system. *Field Excursion Guidebook, 6<sup>th</sup> International Conference on Fluvial Sedimentology, University of Cape Town*, **2**: 1 - 61.

Kiberd, P. 2002. Bundu Farm Pan, Northern Cape. *The Digging Stick* **19** (3), 5 – 8.

### **Note:**

A copy of the locality map and all appended figures must accompany the report to SAHRA.



FIGURE 1. 29 22 BC. BLOOBOSFONTEIN.

35' +4Y



Figure 1.3.



Figure 1.4.



Figure 1.5.





Figure 5.6.



Figure 5.7.



Figure 5.8.



Figure 9



Figure 10



Figure 11



Figure 12.



Figure 13.