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Specialist Assessment

An Archaeological Impact Assessment
at Dikpens, Konnes,
Calvinia District

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September 1996

REPORT ON AN ARCHAEOLOGICAL IMPACT ASSESSMENT AT DIKPENS,
KONNES, CALVINIA DISTRICT

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EXECUTIVE SUMMARY

A Phase 1 Archaeological Impact Assessment at the proposed DikPee's Gypsum Project at Konnes town, Calvinia District, is reported.

Background information regarding the project and possible heritage sites in the vicinity is given.

During the Phase 1 Survey no significant archaeological sites were located.

From an archaeological perspective there is no objection to the project proceeding as planned.

Copies of this report have been sent to:

- * Gypsum Industries
- * National Monuments Council, Cape Town and Kimberley
- * On file at McGregor Museum, Kimberley

INTRODUCTION

A Phase 1 Archaeological Impact Assessment at the proposed Dikpens Gypsum Project at Konnes, Calvinia District, is reported. The project is to entail mining of gypsum deposits east of Konnes Pan.

Background and outline of Phase 1 Survey

A preliminary comment on archaeological heritage in the area, in response to Gypsum Industries' Flamink proposal dated 20 June 1996, was supplied to the National Monuments Council (Appendix 1). It was suggested that in view of known archaeological resources in the vicinity, areas of proposed quarrying should be investigated.

A Phase 1 Survey was recommended to include:

Stage 1: On-site inspection with the developer/planner inter alia to determine possible impacts.

Stage 2: Foot survey on all parts of the area in question to ascertain presence and depth of cultural deposits.

Stage 3: Phase 1 survey report with maps, background to known resources, descriptions of cultural resources found during survey, significance assessment, and recommendations for mitigation.

Stage 4: A copy of the report to be sent to the developer and to National Monuments Council for review. If no archaeological sites occur on the property, or if they are of little significance, no mitigation would be necessary and the project may proceed. If mitigation is necessary, the options are Phase 2 excavation and/or collection, or avoidance and non-disturbance of the archaeological site(s).

The Contract archaeologist, the planner/developer and the National Monuments Council to confer on the type of mitigation that would be most suitable.

Archaeological and historical background

The geologist E.J. Dunn described artefacts in the region in the 1870s, having also met with /Xam San who still manufactured flaked stone tools. At Klaverlei 30 km east of Waterkui he mentioned "the enormous quantities of broken egg-shells (ostrich)...[which]...create astonishment, and convey some rough idea of the numbers of Bushmen and the length of time they must have lived in this neighbourhood" (Lewin-Robinson 1978:64).

Several sites were documented and sampled on Klaverlei and the adjoining farm T'Boop in 1985 (P. Beaumont & D. Morris). Details of the sites which included Ceramic and Aceramic Later Stone Age

surface scatters, and a Middle Stone Age assemblage with associated ostrich eggshell in a fossil dune, are given in Appendix 1.

It was expected on the basis of these previous findings that archaeological materials were likely to exist on the margins of other pans in the region. Later Stone Age sites were then indeed found on the nearby Flamink, at Waterkuil.

Further afield archaeological research has focused on mainly Later Stone Age and rock engraving sites in the Upper Karoo to the east (eg. Deacon 1988; Morris 1988; Beaumont & Vogel 1989); along the Orange River to the north (eg. Morris & Beaumont 1991; Smith 1995); and at the important Speegrivier cave site with early evidence of pastoralism near the west coast (Webley 1992).

The protocolonial history of the region, when land and resources were becoming highly contested in a frontier context, is detailed by Penn (eg. see Penn in Smith 1995).

PHASE 1 SURVEY OBSERVATIONS

During our visit to Waterkuil on 26-28 August 1996 (by myself and Mr Colin Fortune of the National Monuments Council), we examined the property known as Dikpens. Mr Steve Salisbury kindly indicated the areas of proposed quarrying.

The terrain in question slopes westwards towards the Konnes pan, with aeolian sand capping the gypsum deposits. Over much of the area the sand is shallow and in parts the gypsum is exposed to the surface. A bank of sand dunes verges on the pan at the western end.

The area was traversed on foot along trajectories which took in features where archaeological sites might have been focused (eg the dunes, small water-courses). Only extremely low artefact counts were made, less than a single surface artefact (mostly isolated pieces of ostrich eggshell) per a thousand square metres. All ground disturbances, and areas where superficial sand has been eroded or blown off bedrock, were carefully examined for any indications of sub-surface material. The area appears to be devoid of any significant archaeological sites. This may be accounted for in terms of the lack of environmental features and foci for human activity (relative to, say, the dunes and hollows - which provide shelter from the wind - at Flamink, also in close proximity to a fresh water spring). The dunes at the lower end of the Dikpens area (and beyond the intended mining area) appeared to be active so that any possible archaeological material there might be buried.

RECOMMENDATIONS

No significant archaeological remains or features were located during our survey of Dikpens.

No mitigation measures needed: with regard to the archaeology of the area delineated, the project may go ahead.

ACKNOWLEDGEMENTS

I would like to thank personnel of Gypsum Industries, especially Mr Ben van Tonder and Mr Steve Salisbury, for assistance given before and during our Phase 1 Survey. A special word of thanks to Vincent and Tracey at the mine for their hospitality during our stay.

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APPENDIX 1

COMMENT TO THE NATIONAL MONUMENTS COUNCIL (NORTHERN CAPE) ON ARCHAEOLOGICAL HERITAGE IN THE WATERKUIL AREA, CALVINIA, NORTHERN CAPE.

The Karoo regions of the Northern Cape are exceptionally rich in archaeological sites of various periods. However, no research has been conducted in the Waterkuil area itself and without inspecting the locale it is difficult to estimate the specific impacts of mining on heritage sites that may exist.

Some indication of what to expect may be gleaned from work in the nearby Klaverlei/T'Boop area, 30 km east of Waterkuil. Of interest is that the geologist E.J. Dunn met 'Bushmen' (probably /Xam) in the vicinity in the 1870s, and described stone artefacts he saw.

Several sites were documented and sampled on Klaverlei and T'Boop in 1985 (P. Beaumont & D. Morris).

Klaverlei:

Site 1A: A Later Stone Age surface scatter on red sand flanking a hill and bordering the western side of the pan: LSA with backed pieces, ostrich eggshell beads, but no pottery. Collection MMKA 06780.

Site 1B: In a similar setting: Middle Stone Age artefacts noted but not sampled.

Site 2: Later Stone Age surface scatter on orange sand in depression between ridges: LSA with blades, backed pieces, ostrich eggshell beads and pot sherds without grass inclusions. Collection MMKA 06781.

Site 3: Site on upper margin of unconsolidated orange dune sand overlooking the east side of the pan. A large quantity of ostrich eggshell fragments and a few stone artefacts ascribable to the LSA. Collection MMKA 06782.

Site 4: Site in hollow near crest of orange dune ridge bordering the south of the pan: Later Stone Age with backed pieces, but no segments or endscrapers, and with refined grit-tempered ceramics. Collection MMKA 06783.

T'Boop:

Site 1: A site on a small calcified dune at the northern end of the pan: a total collection over 12 X 12 m yielded 41 terminal Middle Stone Age artefacts of jasperlite, and 536 ostrich eggshell fragments (2 decorated). This association of ostrich eggshell with MSA represents an exceptionally early occurrence of eggs being used probably as water flasks, and of their decoration, at c 60 000 years BP. Collection MMKA 06785.

RECOMMENDATION

Ideally the proposed gypsum mining area should be inspected for any archaeological traces such as the above.

The preservation of ostrich eggshell in open settings like the T'Boop fossil dune is remarkable. Such occurrences in association with Middle Stone Age could prove highly significant in terms of current research on the origins of modern human behaviour, with new dating techniques opening up important new research possibilities.

Later Stone Age sites noted in the area appear to reflect *inter alia* an interface between a pre-pottery and foraging presence on the one hand, and a ceramic cf. pastoralist occupation on the other.

Episodes of higher archaeological visibility would correspond with past periods of environmental amelioration, eg. the 'Little Ice Age' when much of the Karoo appears to have enjoyed higher rainfall.

Any finds at Waterkuil would be significant, for nothing is known of the precolonial history of most of the region westwards of Commissioners Vley.

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15 July 1996