ENVIRONMENTAL IMPACT ASSESSMENT OF BAKENSKOP

THE ARCHAEOLOGICAL SURVEY

Undertaken by Z.L. Henderson

INTRODUCTION AND OBJECTIVE

The objective of the survey was to determine whether the area of the proposed MTN tower on Bakenskop farm in the Hay District would impact on sensitive archaeological material. A survey was undertaken to determine whether there was any material of archaeological significance and whether further archaeological investigation was needed.

Three areas were surveyed for archaeological material on 15 June 2001. These were the site of the tower itself, the proposed access roads to the tower and the area where the electrical cables will be spanned to the tower.

The setting

The tower is to be situated on the top of a hill on the farm Bakenskop. This hill forms part of the Asbestos Mountain Range. Banded ironstone is abundant and forms the outcropping rock of the hill. Vertical cliffs form one side of the hill facing the valley in which the farmhouse is located.

The access roads wind around the hill slope on the opposite side of the hill to the vertical cliffs. The proposed electrical connection however is from the valley bottom up the vertical face of the hill.

ARCHAEOLOGICAL OBSERVATIONS

The site of the tower

A 15m x 15m area was surveyed around the central peg of the proposed location of the tower. Non-artefactual stones and pieces of banded ironstone, many of which have natural edge damage, cover the area. The area yielded 1 core, 1 scraper and 2 flakes. All of these were in banded ironstone. On the western side, but outside the 15m x 15m area, a flake and a scraper were found together. The density of artefacts over the area does not justify the designation of "site" to the locality in question, and the surveyed area is not of great significance archaeologically.

The artefacts found were probably Middle Stone Age (MSA) but there was nothing diagnostic about them. The flakes were both irregular flakes with plain striking platforms. The single platform core had irregular flake removal scars.

Excavation will take place for the foundations of the tower which always carries with it the possibility of further archaeological remains being uncovered.

The access roads

Two routes for the access roads have been proposed. Both routes were surveyed for this impact assessment. The shorter route runs through a kloof on the eastern side of the hill, while the other route approaches the tower site from the south. In both cases no artefacts were found on the hill slopes, but artefacts were present in low numbers on the top of the hill in the region of the tower.

Three small overhangs were investigated in the kloof of the shorter route. The larger of the three (the northern most overhang) contains a floor of dung at least 5 cm thick. Two fragments of ostrich egg shell were noted in the mouth of the overhang, but no artefacts

were observed. Bedrock was visible on the surface of the other two overhangs. These shelters will not be affected by the road through the kloof.

The second route from south of the proposed tower travels through an area of red sand. The sand will be excavated away somewhat to make the road. Should such excavation take place then care must be taken that no archaeological material is destroyed. An ostrich eggshell with a hole in it was discovered on the farm and caches of such shells have been excavated (Morris 1994, Henderson 2000) in the northern Cape. The cache at Vaalbos National Park (Morris 1994) was excavated from Kalahari sand in an open area.

The area of the proposed electrical pylons

The electrical lines would be spanned across the valley from existing power lines, possibly up the cliff face, run up the sloping hillside to where the tower is located on the top of the hill. A portion of the area of the sloping hillside was surveyed at random, as it was not known exactly where the pylons would be located.

Artefacts were found distributed in a light scatter over the hillside. Again pieces of naturally occurring banded ironstone littered the area making it difficult to survey. However, artefacts of the banded ironstone were discovered. Several flakes, at least two cores, a blade and a scraper were located. The blade had a facetted striking platform suggesting MSA affinities. The edges exhibited edge damage with a partially denticulated right lateral. One of the cores had had blades struck from it. One possible Later Stone Age artefact was noted, but this was an isolated example.

The hillside area could have served as an excellent location for observation of animals passing through the valley below. As such it would be expected that artefacts would be found in the area. However, the density of artefacts again does not warrant the designation of "site" to any particular location on the hillside.

ARCHAEOLOGICAL SIGNIFICANCE OF THE MATERIAL

The presence of Early, Middle and Later Stone Age material from the Northern Cape has been well documented (Burkitt 1928, Beaumont & Morris 1990). Many sites are associated with rivers, springs or pans, and there are not many open stratified sites in the Northern Cape. Examples of these are Kathu Pan (Beaumont 1990a), Canteen Koppie (Beaumont 1990b), Pniel 1 (Power's site) (Power 1955, Beaumont 1990c), Pniel 6 (Beaumont 1990d) and Rooidam 1 (Fock 1968). Open air sites occur in large numbers, but these sites are often mixed. One such site, Kathu Townlands, is a palimpsest of Acheulian artefacts (Beaumont 1998).

The question of how to determine a site has been discussed in the literature, particularly in relation to archaeological sites in East Africa (eg. Foley1981). When is a site a site, and when do the artefacts represent background scatter only? In the case of the proposed tower site 4 artefacts per 15 m² is too diffuse a scatter to be considered a site.

RECOMMENDATIONS

- The tower site: if archaeological material is uncovered during the excavation of the foundations for the tower an archaeologist must be contacted for further survey. However, at the scale at which the work will be undertaken, there should be no complications.

- The first access road: this would be the route recommended from an archaeological point of view as there do not seem to be any sensitive areas along this route.

- The second access road: should excavation take place of the sandy area along this route, then care must be taken that if any archaeological material is uncovered during construction that an archaeologist is informed. An archaeologist should inspect the road cutting.

- Electrical pylons: these should pose no problem from an archaeological point of view, although the exact location of each pylon has not been surveyed. The hillside does, however, not appear to have any sites on it.

REFERENCES

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

Beaumont, P.B. 1990a. Kathu Pan. pp 75-100. In: Beaumont, P.B. & Morris, D. 1990. *Guide to Archaeological sites in the Northern Cape*. Kimberley: McGregor Museum.

Beaumont, P.B. 1990b. Canteen Koppie. pp 14-16. In: Beaumont, P.B. & Morris, D. 1990. *Guide to Archaeological sites in the Northern Cape*. Kimberley: McGregor Museum.

Beaumont, P.B. 1990c. Pniel 1. pp 7-9. In: Beaumont, P.B. & Morris, D. 1990. *Guide to Archaeological sites in the Northern Cape*. Kimberley: McGregor Museum.

Beaumont, P.B. 1990d. Pniel 6. pp 10-13. In: Beaumont, P.B. & Morris, D. 1990. *Guide to Archaeological sites in the Northern Cape*. Kimberley: McGregor Museum.

Beaumont, P.B. 1998. Kathu. pp 11-13. In: Henderson, Z & Morris, D. (eds) *Excursion guide to sites in the Northern Cape, Free State and Lesotho*. Pretoria: Desktop Creations.

Burkitt, M.C. 1928. *South Africa's past in stone and paint.* Cambridge: Cambridge University Press.

Fock, G.J. 1968. Rooidam, a sealed site of the First Intermediate. *South African Journal of Science* 64:153-159.

Foley, R. 1981. Off-site archaeology: an alternative approach for the short-sited. pp 157-183. In: Hodder, I., Isaac, G. & Hammond, N. (eds) *Pattern of the Past: studies in honour of David Clarke*. Cambridge: Cambridge University Press.

Henderson, Z.L. 2000. Transgariep Branch outing to excavate an ostrich eggshell cache on Thomas's Farm, Belmont, Northern Cape. *The Digging Stick* 17(2):1-3.

Morris, D. 1994. An ostrich eggshell cache from the Vaalbos National Park, northern Cape. *Southern African Field Archaeology* 3:55-58.

Power, J.H. 1955. Power's site, Vaal River. *South African Archaeological Bulletin* 10:96-101.

SHORT CV OF Z.L. HENDERSON

Born: Stellenbosch

Education:

BA (Hons), MA in Archaeology at University of Stellenbosch (1985, 1986, 1990)

M.Phil in Archaeology at University of Cambridge (1990)

PhD thesis in Archaeology submitted to University of Cambridge (2001)

Employment:

Research Assistant, National Museum, Bloemfontein (1989-1990)

Museum Scientist, National Museum, Bloemfontein (1990-2000)

Acting supervisor of Depts Archaeology and Anthropology, National Museum, Bloemfontein (Nov. 2000 - present)