

ARCHAEOLOGICAL IMPACT ASSESSMENT BRIDGETOWN QUARRY

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Brief

At the request of Settlement Planning Services, PO Box 3405, Cape Town 8000, (Mr S van der Westhuizen), an archaeological survey was carried out of the proposed Bridgetown Mine. The area is indicated on Fig. 1 and was surveyed as part of a Phase 1 Impact Assessment. The brief was to assess the significance of any archaeological occurrences on the property and report accordingly.

Survey

The survey was conducted by Prof. H J Deacon and Ms B E Burger on 11 December, 1996. The area is well served by access roads and foot traverses were conducted around points in each terrain type. The position of the starting points for foot traverses are numbered in Fig. 1. Archaeological visibility is low in the plateau areas covered in wheat stubble or renosterbos. Visibility is also low in the riverine bush growing a surficial cover of flood plain sands. Fallow ploughed lands on slopes provide higher visibility with the highest visibility in sections created in mining. Future mining activities may locate other subsurface archaeological occurrences, a consideration that is taken up in the recommendations.

The following observations were made relating to the surrounds of points marked on Fig. 1:

1. Course of a minor tributary stream, bedrock exposed in the bed and overlain by coarse poorly sorted gravel and colluvium. No archaeological materials visible in the natural sections.
2. Brak ground at seepage area, no archaeological materials noted.
3. Ploughed land at the north end of the property, very low density of artefacts exposed in the disturbed surface wash. The artefacts consist of mainly artefactual debris with some core-like pieces and a few irregular flakes. Piece size and flake scars suggest possibly Later Stone Age material but the artefacts lack formality for assured designation. This material has probably been ripped from the subsurface stone-line by ploughing and represents the background artefact scatter. Archaeological significance is low.
4. Plateau area covered by renosterveld; dolomite outcrops on the slope leading up to the plateau and residual red brown (terra rossa) soil on the plateau with no exposures and no artefacts.
5. Ploughed lands on lower slope adjacent to the river course; two silcrete flakes and a core noted, informal industry, probably associated with erosion down to the stone-line. Archaeological significance assessed as low.
6. Traverse along the river, very recent source-bordering sand cover that appears to mantle the substrate, no artefacts recorded.
7. Fallow lands, exposures of bedrock and the northern limit of the cliffs above the river - only artefacts cobble cores/anvils and few flakes mostly in a dark coarse quartzite/arkose. The expectation was that Acheulian artefacts may be found in scatters associated with cobble gravels bordering the river. Some pieces could fit an Acheulian industry but the search revealed no gravel terraces or artefact patches. Acheulian artefacts may be of considerable antiquity, dating from 250 000 years or more. Archaeological significance is rated as low. Along the fence line

immediately to the west near the site being drilled is a small ruined building (see following entry).

Area due north of the existing quarry on the lower slopes above the river. There is a larger complex of ruins, built of clay coursing and stone walling. There are "murasies" marked on the 1:50 000 map that may include these and that noted above. Situated on a slope most settlement debris may be washed away, an old style Brylcream container was the only item noted, and such structures are difficult to date in a survey like this. Clay coursing was a pioneer-stage building technique but has continued in use until recently. This comment would apply to undressed stone wall construction. These may be structures from the last century and as such would require permission of the National Monuments Council for demolition. They may have cultural significance and may require further research if they will be impacted by mining.

1. The plateau area in this part of the property is covered by wheat stubble and exposures are poor. No artefacts were noted.
2. The total length of the cliff exposures bordering the river was traversed. The only significant opening in the cliff face noted is too low to have been other than an animal lair. As in the Congo Group the pattern of joints may not have been favourable for the formation of horizontal cave-like openings and caves occur at levels associated with the water tables of particular palaeo-surfaces and then only along particular fissure lines. It is possible that, in the course of mining, fissure openings of a vertical doline-form (sink hole) or horizontal cave-form will be intersected. The quarry manager should be aware of this possibility. Sterile infill would have no significance but the preservation of bone in infill would be highly significant.
3. The present quarry area was inspected. The residual soil mantle is some 0,5 m thick and at the base is a stone line which locally is a poorly sorted gravel. This suggests that biological activity in the soil zone has been relatively intense to form a distinct stone-line. A single large flake, of the size range of Acheulian flakes, was noted in the exposure of the stone-line over a distance of more than 100 m. This is a density of archaeological materials that is too low to rate as significant. In addition there are solution pipes marked by terra rossa soils, sometimes called makondos, that evidence the penetration of root systems. None inspected have preserved bone or other materials in the fill.

Conclusion and Recommendations

The riverine situation in a dolomitic area would be expected to preserve archaeological materials. The survey has recorded a low density scatter of stone artefacts at a number of points in the landscape but none of these are rated as having other than low archaeological significance. In this terrain archaeological visibility is low due to vegetation and crop cover and subsurface visibility is only good where exposures are created in mining. There are two sets of ruined buildings in a very poor state on the property. The age of the structures is not established but it could be 100 years or more and the historical significance if any is unknown.

The following recommendations are made:

1. As there are no known archaeological occurrences of significance on the property, mining will not impact on these resources. As archaeological visibility is low, it is recommended that provision be made for:
 - informing staff operating the mine of the kinds of archaeological materials that may be encountered in subsurface exposures and
 - making provision for periodic inspection of exposures, especially when the top soil is removed in preparing a new quarry block
2. If the quarry operation will threaten the ruined structures on the property then it is recommended that their possible historical significance be investigated before demolition. This investigation would entail consulting the diagrams in the Deeds Office and possibly relevant archival records to establish the history of ownership and the position of any buildings on the property. This recommendation applies particularly to the larger ruin near point 8.

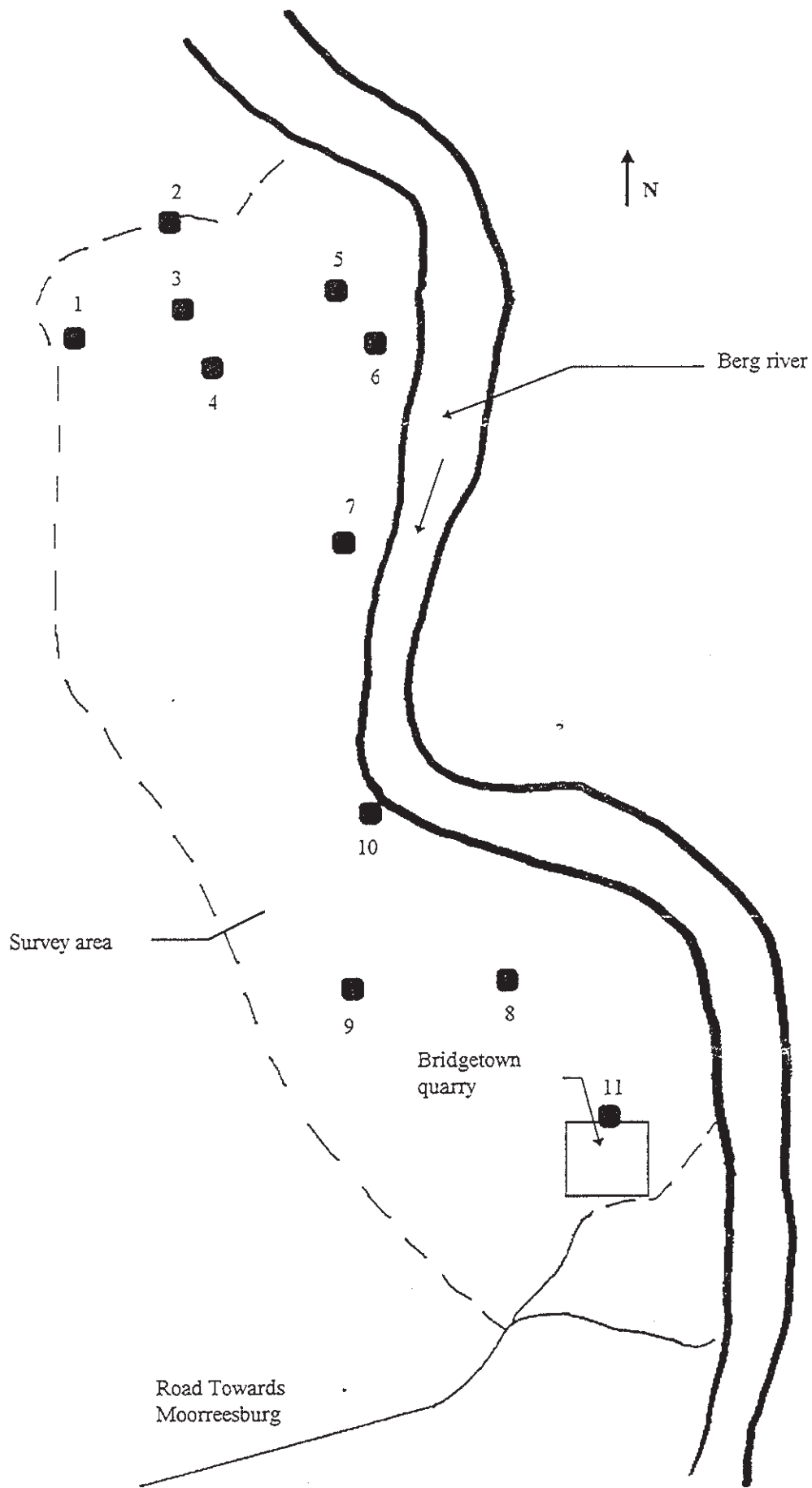


Figure 1: Archaeological survey of Bridgetown mining area, scale approx 1:10 000.