

Bestwood 1: Application for Excavation Permit

Applicants: Michael Chazan (University of Toronto); David Morris (McGregor Museum)

Context: The area around the town of Kathu in the Northern Cape Province of South Africa is the location of a number of significant Earlier Stone Age (ESA) localities. A raw material survey in 2010 resulted in the discovery of two new localities on the Bestwood Farm approximately 3km east of Kathu Townlands. Bestwood 1 (27.68267 S, 23.09169 E) and Bestwood 2 (27.68509 S, 23.09022 E), are found in sand quarries in the valley between two hills at the northernmost edge of the western flank of the Kuruman Hills. The preliminary investigation identified a lithic industry characterised by well-made handaxes, well retouched scrapers (Figure 3c), occasional blades and a great diversity of core types, including choppers, polyhedrons, discoidal cores and unidirectional Levallois cores.

In 2011, the Bestwood sites were revisited for an excavation planned to clarify the geological context of the archaeological deposit. Unfortunately, the rapid expansion of iron and manganese mining in the area has led to a development boom and a high demand for building materials. Bestwood 2 was found completely filled by construction debris. Mining of gravel deposits underlying the sands was underway at Bestwood 1, with approximately 40 truckloads being removed daily. At this site we were able to recover a large collection of artefacts from disturbed contexts, excavate 5m² of archaeological deposit *in situ*, and collect geological samples from exposed sections. Following a report to the South African Heritage Resources Agency, the mining at the site was largely stopped.

The excavation showed that artefacts were found lying flat at the interface between the sands and the underlying sediment rich in illuviated clay and small subangular local gravel. This situation was also observed in numerous exposed sections. All artefacts are in excellent condition with no indication of weathering or rolling and the assemblage includes very small flakes. Since it is very unlikely that the artefacts lay exposed on the surface for a long period, it appears that Bestwood 1 is an ESA living surface that was rapidly buried.

Bestwood 1 preserves an ESA living surface across a large area and holds the potential to provide broad horizontal exposures. The lithic industry is at present difficult to situate. The presence of Levallois cores differentiates the assemblage from the Acheulean of Stratum 4b at Kathu Pan 1 and the Acheulean of Excavation 1 at Wonderwerk Cave. Although some of the cores show negative scars of blades, only a small number of blades have been recovered. The well-made handaxes and rarity of blades clearly distinguish this assemblage from the Fauresmith of Stratum 4a at Kathu Pan 1. The diversity of cores is reminiscent of the Fauresmith of Excavation 6 at Wonderwerk Cave. Fortunately, the overlying sands are well suited to OSL dating and it should be possible, at the very least, to establish a secure minimum age for the site. The challenge now is to find ways to protect this site or to integrate archaeological excavation into the mining process. The increased scale of mining

at Kathu and neighbouring ore deposits are likely to continue to put significant pressure on the unique archaeological resources of this region.

Goals: The goal of this project is to uncover a broad exposure of the Fauresmith occupation of Bestwood and record detailed provenience information. At the same time OSL samples will be collected for the overlying sands and OSL and cosmogenic burial age samples will be collected for the underlying deposits.

Scope: This is a mitigation project in an area that is at high risk for damage from mining. Activity from mining has been halted but without constant oversight it is impossible to insure that this activity will not start up again at some point in the future. The goal is to take advantage of areas exposed by the stripping of overlying sands. These are also the areas at greatest risk of damage from further mining of underlying gravels. If needed we would arrange with the landowner for controlled removal of sands to expose the Fauresmith horizon. Ultimately we would like to work with the landowner and SAHRA to develop a strategy that allows for the controlled exploitation of the gravels in coordination with continued archaeological documentation of exposed sediments.

Methods: The sands can be removed mechanically with no damage to the site. The operators working at the site are skilled at stopping their work above the archaeological horizon which is at the contact with the gravels. In areas where sands have been removed a 1 meter square grid will be laid out. All artifacts above 2 cm. in maximum dimension will be mapped in three coordinates using a total station along with information on dip and strike. All sediments will be sieved through a 2 mm. mesh screen. All materials will be curated in the McGregor Museum. OSL samples will be collected along with dosimetry measurements in the field by Porat. Cosmogenic samples will be collected by Matmon.

Conservation: We would like to work with the landowner and SAHRA to minimize maximize the preservation of this site. We are interested in working to develop a strategy that allows for the controlled exploitation of the gravels in coordination with continued archaeological documentation of exposed sediments.

Research Team:

This project is an offshoot of the Wonderwerk Cave research project and shares much of the same personnel.

Michael Chazan (University of Toronto): Project Director, Lithic Analysis

Jayne Wilkins (University of Toronto): Lithic Analysis

David Morris (McGregor Museum): Site Management

Steven James Walker (University of Cape Town): Field Supervisor, Mapping

Naomi Porat (Israel Geological Survey): OSL Dating

Ari Matmon (Hebrew University): Cosmogenic Burial Age Dating

Publications:

2012. **Chazan, M.**, J. Wilkins, D. Morris, and F. Berna. Bestwood 1: a newly discovered Earlier Stone Age living surface near Kathu, Northern Cape Province, South Africa. *Antiquity* 86(331): Antiquity Gallery.