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Report on the
Archaeological Excavations at
Holkrans Rock Shelter, Vredefort Dome, North West Province

Wits University Archaeology Field School

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Principal Investigator and Field Director
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INTRODUCTION

For two weeks in 2011 and another week in 2012, twenty Archaeology undergraduates and four Honours students from the School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand carried out a total of 15 days of archaeological excavations at the rock shelter Holkrans (BFK 1) on the property Thabela Thabeng, part of the original farm Buffelskloof 511 IQ, Potchefstroom District, on the North West Province side of the Vredefort Dome (Fig. 1). The work was carried out with the kind permission of the landowner, Mrs Peggy van der Merwe, and with the much appreciated cooperation of the manager and staff at Thabela Thabeng. Governmental permission to excavate at the rock shelter was granted by SAHRA through permit number 80/11/07/014/51.

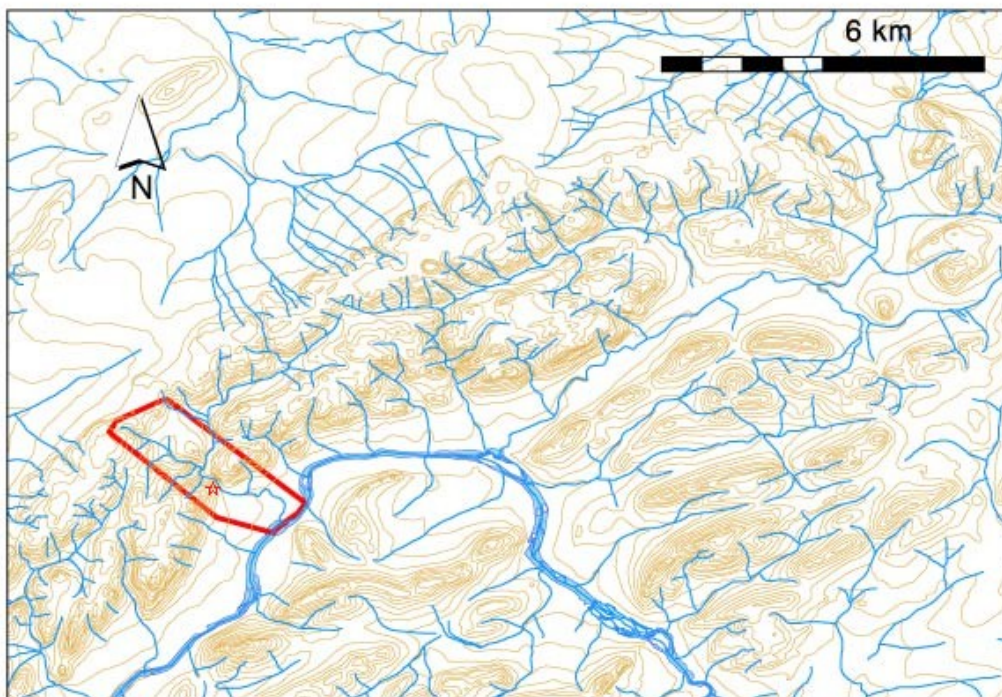


Fig.1. Thabela Thabeng outlined in red. Holkrans indicated by small red star.

SETTING

The Vredefort Dome was formed by the largest and second oldest known meteorite impact (Reimold & Gibson 2005). Much later, the Vaal River cut its bed through the Dome. Buffelskloof is one of its tributaries and drains part of

the outer rim of the Dome bergland into the Vaal River. The property Thabela Thabeng forms a rectangle extending from the River to the last hilltops of the bergland before these give way to the plains of Potchefstroom (Fig. 1).

The centre of the dome impact structure is flat farmland, contrasting markedly with the arc of steeply folded hills of the Witwatersrand Supergroup. The vegetation in the hilly zone is classified as 'Bankenveld' and is well wooded with *Acacia karoo*, *A. caffra*, *Celtis krussian*, *Rhus lanceolata*, *Zizyphus mucronat*, *Protea caffra*. The dominant grasses are *Eragrostris chalantha*, *Digitaria triholaenoides*, *Setaria flabellate*, *Heteropogon contortus* (Balkwill 2005). Rainfall is 570–650 mm pa, with most of it falling from October to March. Drainage at Thabela Thabeng is largely from Northwest to Southeast, from the watershed to the Vaal River.

PREVIOUS ARCHAEOLOGICAL RESEARCH

In 1979, Michael Taylor presented a Masters Thesis on stone walled ruins in the Vredefort Dome. He filled a gap between two major reconnaissance projects on these pre-colonial settlements: the one by Mason (1968) to the North of the Vaal and the one by Maggs (1976) to the South. Specifically, Taylor aimed to establish the archaeological sequence of the last 500 years in the area. More recently, Anton Pelsler (2003) presented a Masters Thesis on the excavation of a major stone walled settlement area at Askoppies. His aims were to describe aspects of the local economy from a domestic and settlement perspective. The SAHRA cultural heritage survey and management plan for the Vredefort Dome (Bakker *et al.* 2004) lists all the known archaeological sites in this area and grades them according to their apparent significance. On Buffleskloof 511 IQ, Holkrans rock shelter is graded III and considered of medium significance. Most recently, Nkhasi-Lesaoana (2008) has completed a survey of the stone walled enclosures in the Vredefort Dome using aerial photographs. Stephen Banhegyi (2011) completed a BSc Honours research report on some of the lithics from Holkrans, while Makhosazana Mngomezulu (2011) wrote a BSc Honour sresearch report on the pottery from Holkrans. Joe Byrne (2012) has completed a Masters Thesis on the stone-walled structures in the Buffeslkloof. A paper has been published on the stone arrowhead from Holkrans (Bradfield & Sadr 2011).

THE EXCAVATION AT HOLKRANS (BFK1)

Situated about 20 m above the vehicle track leading to the Thabela Thabeng chalets, there is a small rock shelter with a scatter of Later Stone Age artefacts and animal bones in front and down slope to the track (see Fig. 1 and 2, as well as the cover image of this report). The soil is dark and organic. There are many loose rocks fallen from the cliff face. The small shelter's floor is now covered with a thick layer of Hyrax dung. Across the opening of the shelter and more or less following the drip line, an alignment of stones creates a short barrier (Fig. 2). The ground immediately outside the shelter is flat for a few meters before it drops rapidly down slope. A terracing wall is responsible for the formation of the flat area in front of the cave. The retaining wall of the terrace is partly man-made. The age and origins of these two architectural features, the wall and the terrace, is a principal subject of investigation in our excavations. They may have been built by the LSA occupants of the shelter, and excavations are attempting to clarify this. The wall is probably meant for keeping livestock in the shelter.

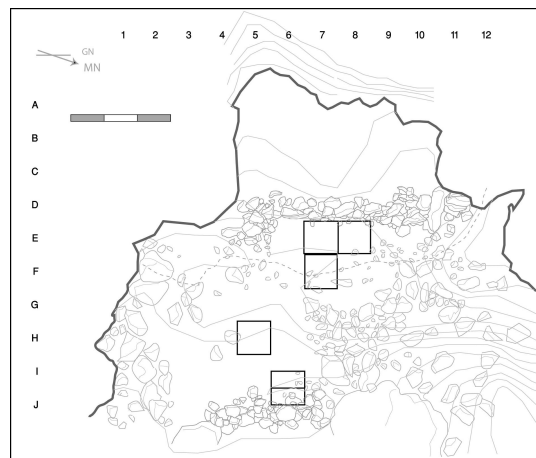


Fig. 2. Plan of shelter BFK1 showing test pits excavated to date.

H5 and E7, two separate one square metre test pits, were excavated in 2011 and 2012, following the excavation technique described by Sampson *et al.* (1989). This has provided a sufficiency of LSA artefacts to show two distinct cultural layers, one from the ceramic period and a lower, pre-ceramic one. Five radiocarbon dates have been obtained from H5, as indicated in Table 1. They suggest three pulses of occupation, with the topmost during the last few

hundred years, a middle pulse around the eleventh and twelfth centuries AD, and a lower one in the mid-first millennium AD.

Table 1. AMS Radiocarbon dates from BFK 1 H5 and E7.

lab no.	context	service	material	radiocarbon date	2 SIGMA CALIBRATION
304272	H5.C4.2	ams	charcoal	50 +/- 40 BP	Cal AD 1690 to 1960
304269	H5.B2.3	ams	charcoal	990 +/- 40 BP	Cal AD 980 to 1160
304270	H5.B3.5	ams	charcoal	900 +/- 40 BP	Cal AD 1030 to 1220
304271	H5.C3.7	ams	charcoal	770 +/- 40 BP	Cal AD 1210 to 1290
304273	H5.D4.9	ams	charcoal	1440 +/- 40 BP	Cal AD 550 to 660

In H5, no potsherds are found beneath spit 5, suggesting that the boundary between the ceramic and pre-ceramic period at Holkrans is around the turn of the first and second millennia AD. The numbers of bone and botanical remains are much higher in the ceramic period layers and may indicate either a difference in site function during pre-ceramic times, or poorer preservation in the older layers. Lithics are numerous throughout.

In square E7 a ceramic and pre-ceramic layer can also be identified and current indications are that the base of the wall at the mouth of the shelter, i.e., its probable time of initial construction, lies squarely in the ceramic LSA occupation at this site (Fig. 3). The excavation in the neighbouring square E8 had previously suggested that the construction may have post-dated the ceramic LSA layer. Future planned excavations in E6 should help resolve the contradiction. Bone and charcoal are present throughout the stratigraphy of square E7 and the analysis of the former should shed good light on differences in subsistence economy and hunting practices between the pre-ceramic and ceramic LSA layers. A number of charcoal samples will be sent for radiocarbon dating in due time.



Fig. 3. Base of wall in profile of square E7.

CONCLUSION

Although principally a field school designed to provide students with some of the basic field skills of archaeological research, the potential of Thabela Thabeng for serious and intensive archaeological research is recognized. The area provides an interesting set of remains that may provide new insights in to the archaeology of contact between local LSA hunter-gatherers and the Iron Age builders of the stone walled enclosures. In 2013, we would like to return for more excavations at Holkrans to illuminate further the relationship between the occupation levels and the architectural features at this site.

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