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ABSTRACT

The Forgotten Kingdom

New investigations in the prehistory of Eswatini

Gregor D. Bader – Bob Forrester – Lisa Ehlers – Elizabeth Velliky – Brandi L. MacDonald
– Jörg Linstädter

The kingdom of Eswatini provides a rich archaeological sequence covering all time periods from the Early Stone Age to the Iron Age. For over 27 years though, no or very little archaeological research was conducted in the country. In the scope of a new project funded by the German Research Foundation (DFG) we aim to re-excavate and re-date Lion Cavern, the potentially oldest ochre mine in the world. In addition, we conduct a largescale geological survey for outcrops of ochre and test their geochemical signatures for comparative studies with archaeological ochre pieces from MSA and LSA assemblages in Eswatini. Here we present a review of the research history of the kingdom and some preliminary results from our ongoing project.

KEYWORDS

Eswatini, Lion Cavern, Ochre, Provenance tracing

The Forgotten Kingdom

New investigations in the prehistory of Eswatini

Introduction

¹ The Kingdom of Eswatini is sandwiched between South Africa and Mozambique (Fig. 1). Physiographically, the landlocked country is subdivided into the Highveld in the west, the Middleveld in the centre, the Low Veld in the east and the narrow, elevated Lubombo Mountain range at the eastern border with Mozambique. The drop in elevation from the western Highveld to just above sea level in the east generates a wide range of ecozones in a surprisingly small geographic area.

² Although archaeological research in neighbouring South Africa had been conducted since the beginning of the 20th century (Goodwin – van Riet Lowe 1929), Eswatini received little attention until the 1960s when Peter Beaumont conducted intensive field work there. Among the most celebrated of his sites are Castle Cavern, Banda Cavern and Lion Cavern, all situated within or around the modern Ngwenya iron ore mine (Fig. 2), originally known as Bomvu Ridge before modern mining operations started. A Middle Stone Age (MSA) radiocarbon date of 43,000 years BP came from the bottom of the archaeological sequence for Lion Cavern. Evidence for intentional ochre mining on the walls and bedrock (Fig. 3) indicated Lion Cavern to potentially be the oldest ochre mine in the world (Dart – Beaumont 1971; Boshier – Beaumont 1972).

³ The Ngwenya sites are the tip of the iceberg in archaeological terms. Between 1965 and 1967, Beaumont investigated more than 100 archaeological sites in Eswatini and excavated several of them. These demonstrated the deep history of hominin occupations spanning the Early Stone Age to the Iron Age (Beaumont's field notes). However, very little of his work ever reached the public. After the early 1970s, Beaumont left Eswatini and started excavations at Border Cave (Beaumont 1978). As a consequence no archaeological excavations were conducted at Eswatini anymore and the country faded away from archaeological prominence.

⁴ David Price Williams rediscovered the archaeological potential of Eswatini by chance. Coming from Britain – and married to a Swazi – he met her family for the first time on a Christmas holiday visit to Eswatini during the mid-seventies (Price Williams 2016). After a visit to the Nsangwini rock art site, Price Williams fell in love with the

country. He established the Swaziland Archaeological Research Association (SARA) and spent three to four months in Eswatini every southern hemisphere winter, along with his family. For more than a decade, Price Williams conducted exemplary research in Eswatini, using modern excavation techniques on an innovative and interdisciplinary scale.

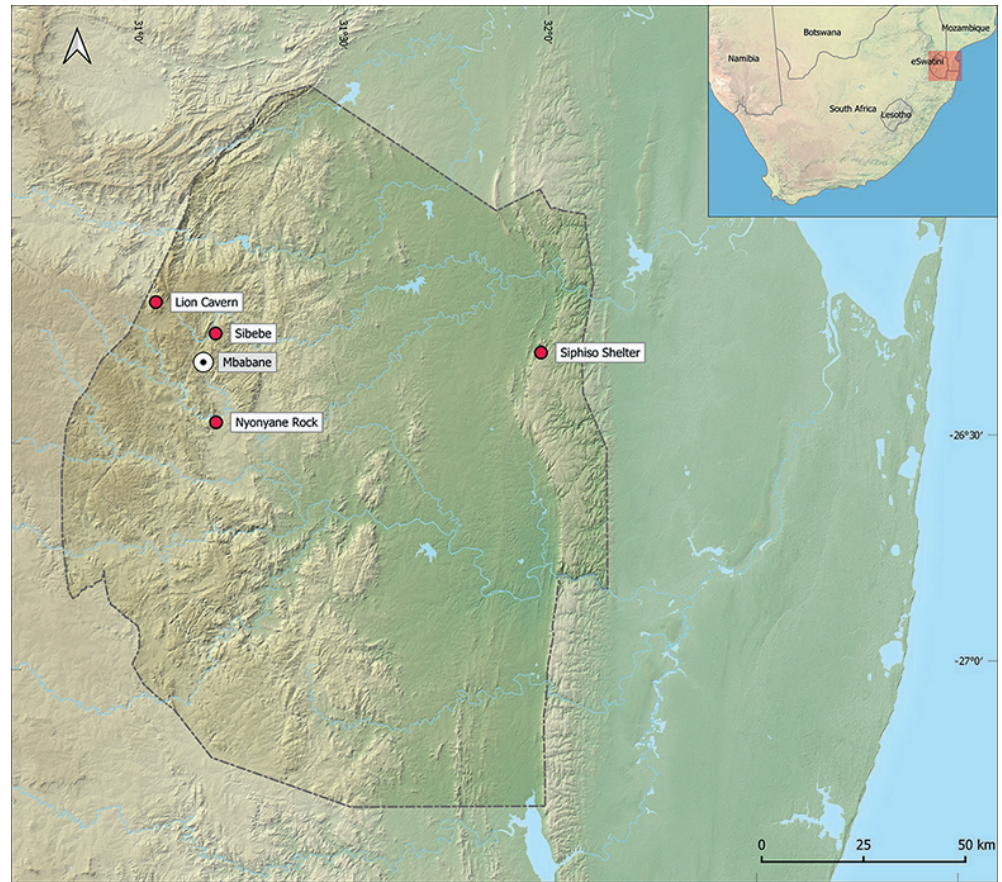


Fig. 1: Study area and relevant sites mentioned in the text

Fig. 2: Panorama view on Lion Cavern II & III



Fig. 3: Inside Lion Cavern I showing characteristic pick marks at the walls as a result of intentional ochre mining. E. Velliky sampling ochre for provenance tracing

5 Among the most famous excavated sites are Sibebe (Price Williams 1981), Siphiso and Nyonyane (Barham 1989a; Barham 1989b) (Fig. 1). As we found out recently though, by going through his collections in the National Museum, he documented and excavated more than 80 archaeological sites. Some of these were recorded in Beaumont's time, while others were completely new. However, when Price Williams left Eswatini in 1989, the majority of them remained unstudied or unpublished. The large

SARA collection remained stored in the [Eswatini National Museum](#) at [Lobamba](#), unseen by the archaeological community. Once again, Eswatini was forgotten, this time for 27 years. This is particularly astonishing as Stone Age research in neighbouring South Africa was flourishing at that time.

Objectives

6 In 2016, our team started a new project in Eswatini. The primary objective was to screen the SARA collections, evaluate the quality of their documentation, and survey the country for new research opportunities. After the first campaign, we were overwhelmed by the possibilities. We began with a comprehensive, digital inventory of the Price Williams collection and conducted field surveys. Soon, our interest in the ancient mining activities at Ngwenya grew. First of all, because the real age of the first exploitation of ochre at Lion Cavern remains unclear. The oldest date of ~ 43,200 (GrN-5313) was received from C¹⁴ dating on charcoal in 1971. We calibrated this sample using OxCal 4.4 to between 46,707 and 45,886 cal BP. The beginning of mining at Lion Cavern however could be even older, reaching beyond the C¹⁴ limit. Furthermore, the publications containing the old dates lacked any illustrations or descriptions of the mining associated archaeological assemblages, apart from Beaumont's note of "mining tools" (Dart – Beaumont 1971).

7 On a broader scale, the presence of Ngwenya as a high-quality ochre source made us curious to find out more about the red earth pigment. Ochre plays a major role in Stone Age research in southern Africa due to its duality in meaning covering both functional and symbolic aspects. The earliest intentional use is documented from [Twin Rivers](#) in Zambia dating back between 350,000 and 195,000 BP (Barham 1998; Barham 2002). Since then ochre use is evident throughout the MSA, Later Stone Age (LSA) up to the Iron Age (IA) and into modern times. The well-known geometric engravings on an ochre piece from [Blombos cave](#) dating to the [Still Bay](#) (Henshilwood et al. 2001) were interpreted as one of the earliest expressions of symbolism. Among others, the use of ochre and symbolism was associated with the origins of language (Watts 2009). However, ochre might have had functional value as well. Some researchers indicated that ochre powder could have been used as sunscreen (Rifkin et al. 2015) or for tanning animal hides (Rifkin 2011). Furthermore, ochre was also tested to be highly effective as a loading agent in mastics (Wadley 2005; Wadley – Williamson – Lombard 2004; Wadley – Hodgskiss – Grant 2009). However, apart from few published results from South Africa (e.g. Dayet et al. 2016) we know little about the procurement strategies and transport distances of the red earth pigment. Lion Cavern and Eswatini in general thus would play a crucial role for the investigation of these aspects.

8 In 2019, a project funded by the Deutsche Forschungsgemeinschaft (DFG - BA 6479/2-1) was awarded to us to test Lion Cavern for remaining archaeological deposits. We decided to excavate the site and collect new dating samples. Simultaneously, we decided to conduct a broad scale geochemical ochre tracing project in the country using neutron activation analysis and inductively coupled plasma-mass spectrometry on both archaeological and geological samples from Ngwenya and other sources of ochre in the region.

Preliminary results

9 We were able to detect a 4 m intact archaeological sequence at Lion Cavern which had been exposed by modern mining activities in the 1970s (Fig. 4). Although chances are high that this profile is connected to Beaumont's excavation area, we cannot be sure at the moment due to massive loads of rubble in between. Therefore, we call this provisionally Lion Cavern II (LCII). At the bottom of the sequence from LCII typical MSA tools are eroding out of the profile (Fig. 5).

10 We took four sediment samples for optically stimulated luminescence dating in equal distances from top to bottom which are currently under examination at the Cologne Luminescence Laboratory. Higher above LCII we found another cavity filled with sediments which we call Lion Cavern III (LCIII) (Fig. 2). In the profile of LCIII we found two overlying bands of charcoal which were dated to 12,556 – 12,400 (BETA - 541999) and 12,160 – 11,940 cal BP (BETA - 541998) indicating that this part of the mine was used during the Late Pleistocene LSA. For the ochre tracing project, we selected

Fig. 4: Newly discovered Lion Cavern II & III

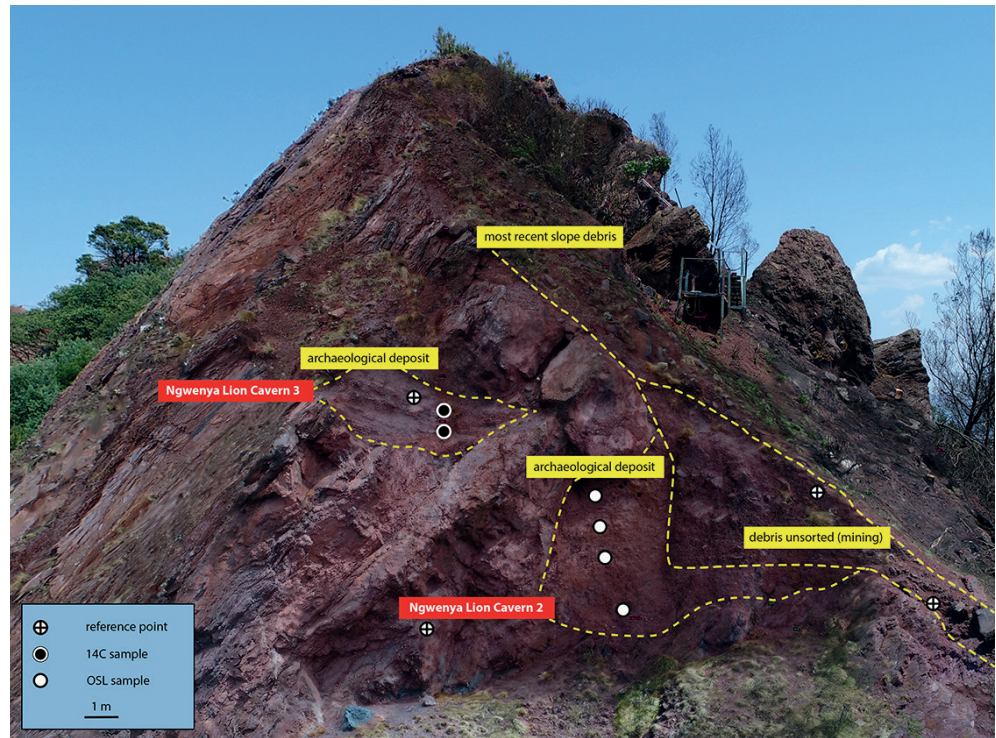
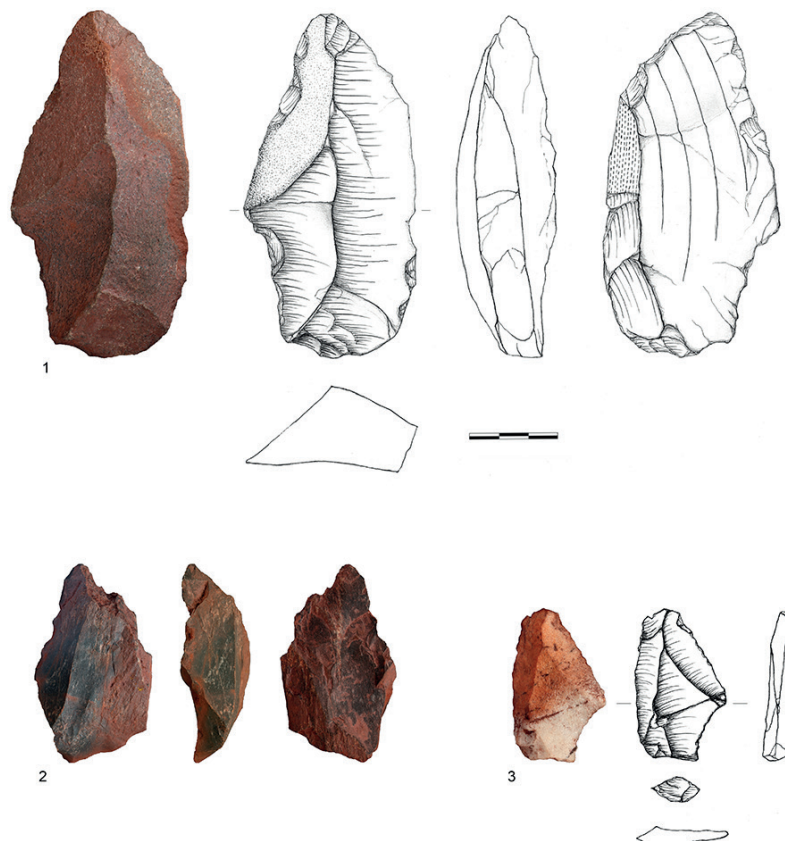


Fig. 5: 1 & 2 = Mining tools from the bottom of the LCII sequence. 3 = MSA point from the bottom of LCII sequence.II & III



346 ochre pieces out of the collections from Sibebe, Siphiso, Nyonyane, [Mlawula I & II](#) and Nsangwini (Fig. 6). For the geological comparative collection, we systematically collected several dozen samples from Lion Cavern and across the extensive Ngwenya iron deposit, and another two dozen from two newly discovered ochre outcrops at [Bulembu](#) and [Pigg's Peak](#). The provenance analysis is currently underway at the [Archaeometry Laboratory at the University of Missouri](#). Preliminary results suggest though that the geological sources of ochre that we sampled are highly distinct and can be linked with large confidence to archaeological pieces.



Fig. 6: Ochre samples selected for provenance tracing

Future perspectives

11 Our research at Lion Cavern and on ochre provenance is only the beginning of a long-term project in Eswatini focusing on questions of cultural evolution and modern human behaviour on a timeline from the MSA to the Iron Age. With the help of Bob Forrester, who spent a significant amount of time with John Masson surveying the country, we know of about 100 archaeological sites, many of them with rock art and archaeological deposits. Together with our colleagues from the [Eswatini National Trust Commission](#) (ENTC) we will intensify our research on the old Price Williams collection and conduct new excavations at Lion Cavern and at other selected sites in different parts of the country. We hope to fill gaps of knowledge about the history of ancient human behaviour in this part of Africa.

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12 We thank our colleagues from the Eswatini National Trust Commission for the productive collaboration and for providing work space and permit to do research at Lion Cavern and other sites in the country.

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Fig. 6: E. Velliky, B. MacDonald

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