

New excavations at Border Cave, Kwa-Zulu Natal, South Africa

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Border Cave is a large cavern situated in northern KwaZulu-Natal, 400 m from the Swaziland border. It has experienced five excavation episodes. The site features a 4 m deep sedimentary sequence comprising eleven main alternating brown sand (BS) and white ash (WA) deposits. The sequence includes from the bottom to the top: MSA 1, Howiesons Poort, MSA 3 (= post-Howiesons Poort), and ELSA lithic assemblages. The sequence has been dated by ESR, amino acid racemisation, and radiocarbon methods, which have produced ages in broad agreement with one another, spanning from 227 ka to the present. The remains of at least eight individuals have been recovered to date at Border Cave, all of them considered to be anatomically modern humans, among which an infant skeleton associated with a *Conus* shell represents the earliest evidence of an ornament associated with a burial. In our presentation we will provide results of new excavations, undertaken in August/September 2015, February/March 2016 and May 2017. Our aim was to evaluate the site's potential, reassess the stratigraphy of the deposit, refine its chronology, gain a better insight into the site formation processes, conduct paleoenvironmental and palaeobotanical analyses, identify cultural trends, and document the emergence of cultural innovations. Our excavations, conducted in three neighbouring areas, revealed multiple instances of exceptionally well-preserved grass and leaf bedding that is in the vast majority of cases unburned. The first is in layers dated between 40 ka and 35 ka, the second, rich in ochre particles, to 49 ka, and the third occurs in layers attributed to the MSA 3. Samples of bedding and interspersed charcoal have been collected for AMS dating. Sections of bedding were jacketed in plaster of Paris and successfully removed for excavation and analysis in the lab. Thermoluminescence dating of burnt stone is underway, with a range of burnt raw materials collected, and dosimeters inserted in the deposits. A number of micromorphological blocks of sediment were taken from cleaned sections of the sequence and analyses are underway to understand better the site's complex formation processes, both geological and cultural.