

**TAPHONOMY, ENVIRONMENT OR HUMAN PLANT EXPLOITATION STRATEGIES?
DECIPHERING CHANGES IN PLEISTOCENE-HOLOCENE PLANT REPRESENTATION
AT UHMLATUZANA ROCK SHELTER, SOUTH AFRICA**

May Murungi^{1,2}, Irene Esteban^{3,2,4}, Irini Sifogeorgaki⁵, Gerrit Dusseldorp^{5,6}

¹ *Human Evolution Research Institute, University of Cape Town, Cape town, South Africa*

² *Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg, South Africa*

³ *ERAAUB, Dept. Història i Arqueologia, Universitat de Barcelona, Barcelona, Spain*

⁴ *Centre for Coastal Palaeoscience, Nelson Mandela Metropolitan University, Port Elizabeth South Africa*

⁵ *Faculty of Archaeology, Leiden University, Leiden, the Netherlands*

⁶ *Palaeo-Research Institute, University of Johannesburg, South Africa*

The period between ~40 and 20 ka BP encompassing the Middle Stone Age (MSA) and Later Stone Age (LSA) transition has long been of interest because of the associated technological change. Understanding this transition in southern Africa is complicated by the paucity of archaeological sites that span this period. With its occupation sequence spanning the last ~70,000 years, Umhlatuzana Rock Shelter is one of the few sites that record this transition. Umhlatuzana thus offers a great opportunity to study past environmental dynamics from the Late Pleistocene (MIS 4) to the Late Holocene, and past human subsistence strategies, their social organisation, technological and symbolic innovations. Although organic preservation is poor (bones, seeds, and charcoal) at the site, silica phytoliths preserve generally well throughout the sequence. These microscopic silica particles can identify different plant types that are no longer visible at the site because of decomposition or burning to a reliable taxonomical level. Thus, to trace site occupation, plant resource use, and in turn reconstruct past vegetation, we applied phytolith analyses to sediment samples of the newly excavated Umhlatuzana sequence. We present results of the phytolith assemblage variability to determine change in plant use from the Pleistocene to the Holocene and discuss them in relation to taphonomical processes and human plant gathering strategies and activities. This study ultimately seeks to provide a palaeoenvironmental context for modes of occupation and will shed light on past human-environmental interactions in eastern South Africa.

Keywords

Phytoliths, Pleistocene-Holocene transition, Hunter-gatherer plant use, Palaeoenvironments, KwaZulu-Natal, South Africa

Note/comment