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The Lockdown Edition

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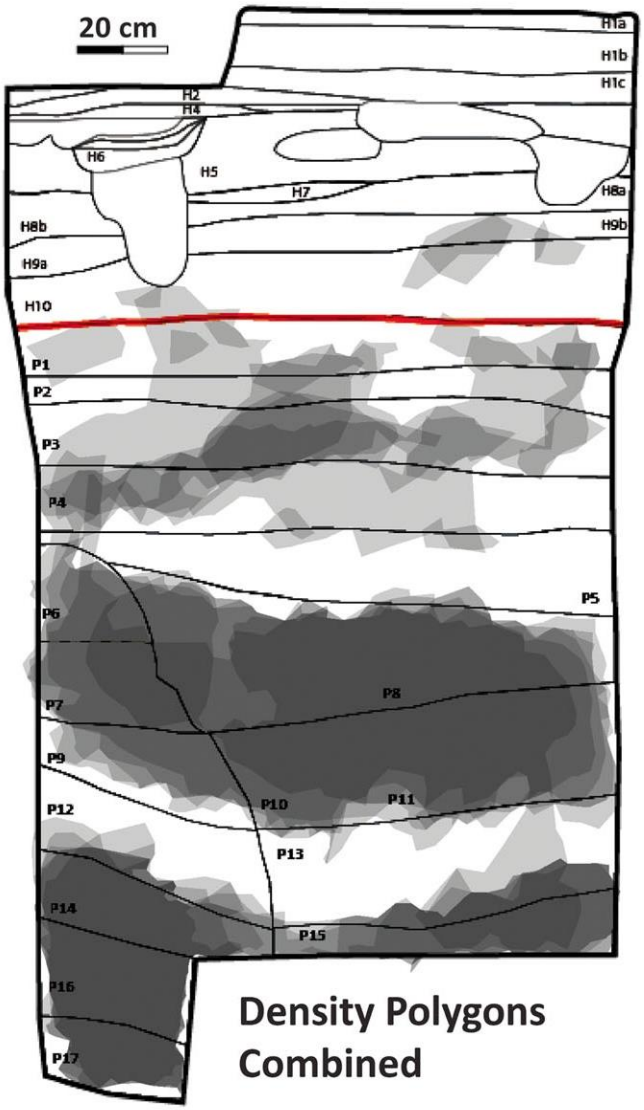
We are conducting geoarchaeological fieldwork and analysis of Umhlatuzana, a rockshelter in KwaZulu-Natal. Due to lockdowns, we missed our 2020 wintery encounters with spitting cobra's and vervet monkeys. It did give us the time to concentrate on publishing our first results (Sifogeorgaki et al. 2020). Our work aims to clarify the stratigraphic integrity of the Pleistocene part of the sedimentary sequence associated with Middle and Later Stone Age archaeological materials. The ~2m thick Pleistocene sequence does not exhibit visible stratigraphic subdivisions and appears very homogeneous. The original rescue excavation therefore had to resort to excavating in arbitrary spits.

We conducted small-scale excavations in 2018 and 2019. By piece-plotting the archaeological materials, we aim to increase stratigraphic control on the distribution of different types of lithic tools and the representation of different stone raw materials through time. We established a stratigraphic subdivision for the Pleistocene sediments based on a combination of inspection of sediment characteristics (colour, texture, etc) and the density of inclusions and archaeological finds. We checked the find density using a computer-generated algorithm, which by and large confirmed the stratigraphic subdivision arrived at during excavation.

The archaeological materials recovered confirm the presence of some of the important Middle and Later Stone Age technocomplexes. Still Bay materials were recovered near the bedrock, while backed segments characteristic of the Howiesons Poort industry were numerous in the lowermost high-density zone. The Late Middle Stone Age revealed one exquisitely worked unifacial point.

Photo of the stratigraphic profile during the 2018 excavation



Cluster analysis of piece-plotted materials revealing distinct zones of high- and low- density (Sifogeorgaki et al. 2020 fig 8)

We also concentrated on the depositional history of the site. Grain size analysis demonstrates similar loamy sand sediments throughout the sequence. The grain sizes overlap with the size of grains of the sandstone bedrock, suggesting sediment input was to a large extent the result of in situ weathering. Loss on Ignition analysis was conducted to estimate the overall content of organic materials. The results suggest a sudden and considerable decrease across a stratigraphic disjunction interpreted as the boundary between Pleistocene and Holocene. In addition, we conducted pH analysis to determine the preservation conditions of the site. Organic content and pH values of the same sediment samples prove strongly negatively correlated.

This work has set the stage for further investigations on the chronology, environmental setting and archaeology of the site. These are unfortunately currently hampered by lockdowns across different countries but ongoing. At some point in 2021, we may even be able to visit a physical conference again to meet colleagues in person and present some more of our work!

Unifacial point during excavation

Publications

Sifogeorgakis, I., Klinkenberg, V., Esteban, I., Murungi, M. L., Carr, A. S., Van den Brink, V. B., & Dusseldorp, G. L. (2020). New excavations at Umhlatuzana rockshelter KwaZulu-Natal, South Africa: A stratigraphical and taphonomical evaluation. African Archaeological Review. Doi: https://doi.org/10.1007/s10437-020-09410-w