



# Revisiting Umhlatuzana rockshelter, KwaZulu-Natal: First results and perspectives of a geoarchaeological study

Sifogeorgaki, Irini<sup>1</sup>; Dusseldorp, Gerrit<sup>1,2</sup>

[e.sifogeorgakis@arch.leidenuniv.nl](mailto:e.sifogeorgakis@arch.leidenuniv.nl)

1: Leiden University, Faculty of Archaeology 2: Palaeo-Research Institute, University of Johannesburg

## INTRODUCTION

In 2018 we initiated a geo-archaeological investigation of Umhlatuzana rockshelter. Our aim is to clarify the depositional environment of the Middle and Later Stone Age assemblages (~70 – 20 ka). The deposits containing these materials have been interpreted to show post-depositional sedimentary movement by the original excavator (Kaplan 1990). Analysis of the piece-plotted finds allows us to evaluate the occupation history of the site during the Pleistocene and the magnitude of post depositional movement.

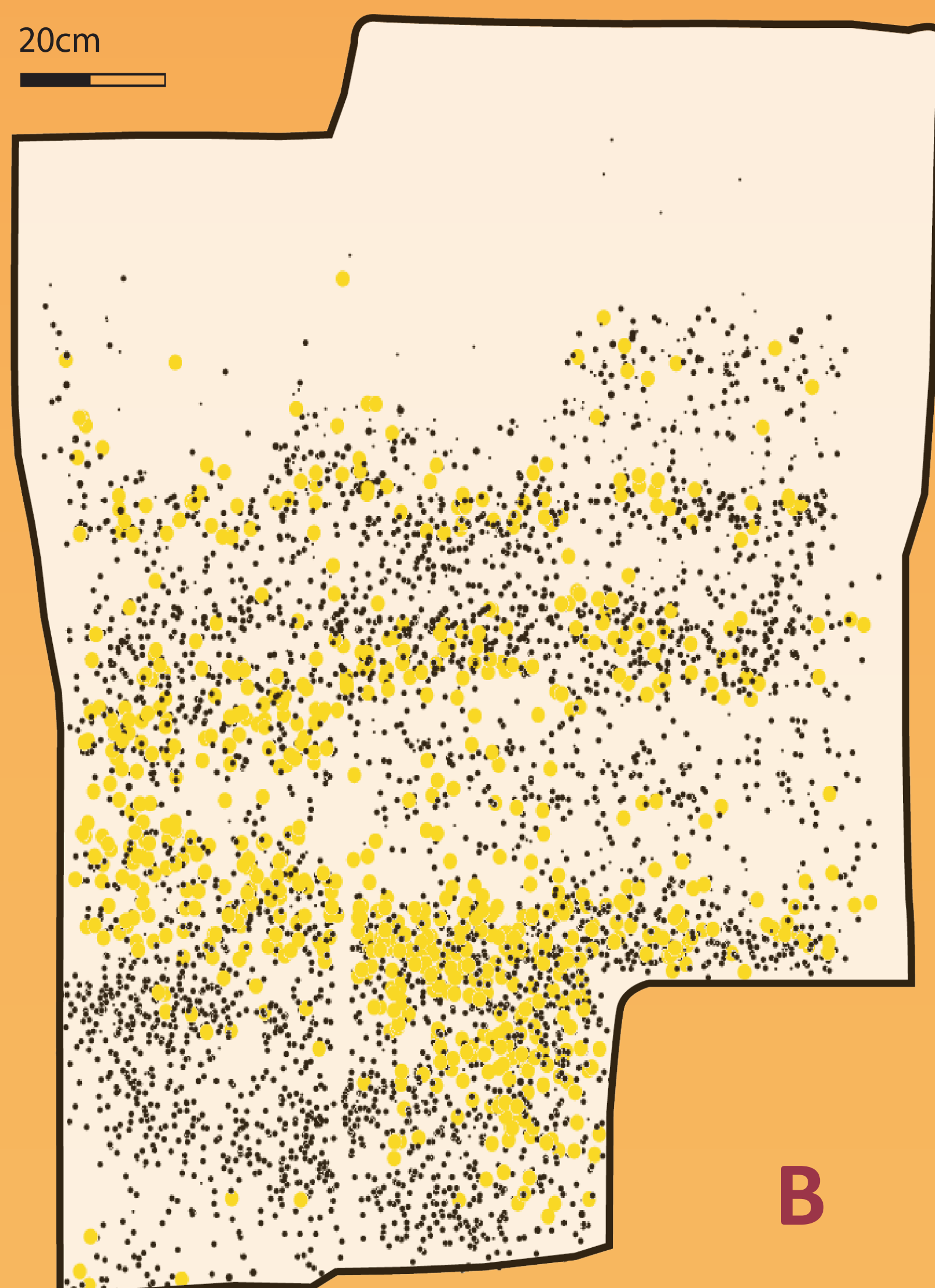
## METHODS

We piece-plotted all finds over 20mm and recorded the orientation of elongated finds. Our stratigraphic assessment is based on a combination of field observations with geospatial, sedimentological, and geochemical analyses. Specifically, we have conducted grain-size, pH, and Loss on Ignition analyses. Additional geoarchaeological work including micromorphological analysis is underway to address outstanding questions on the stratigraphy of the site.

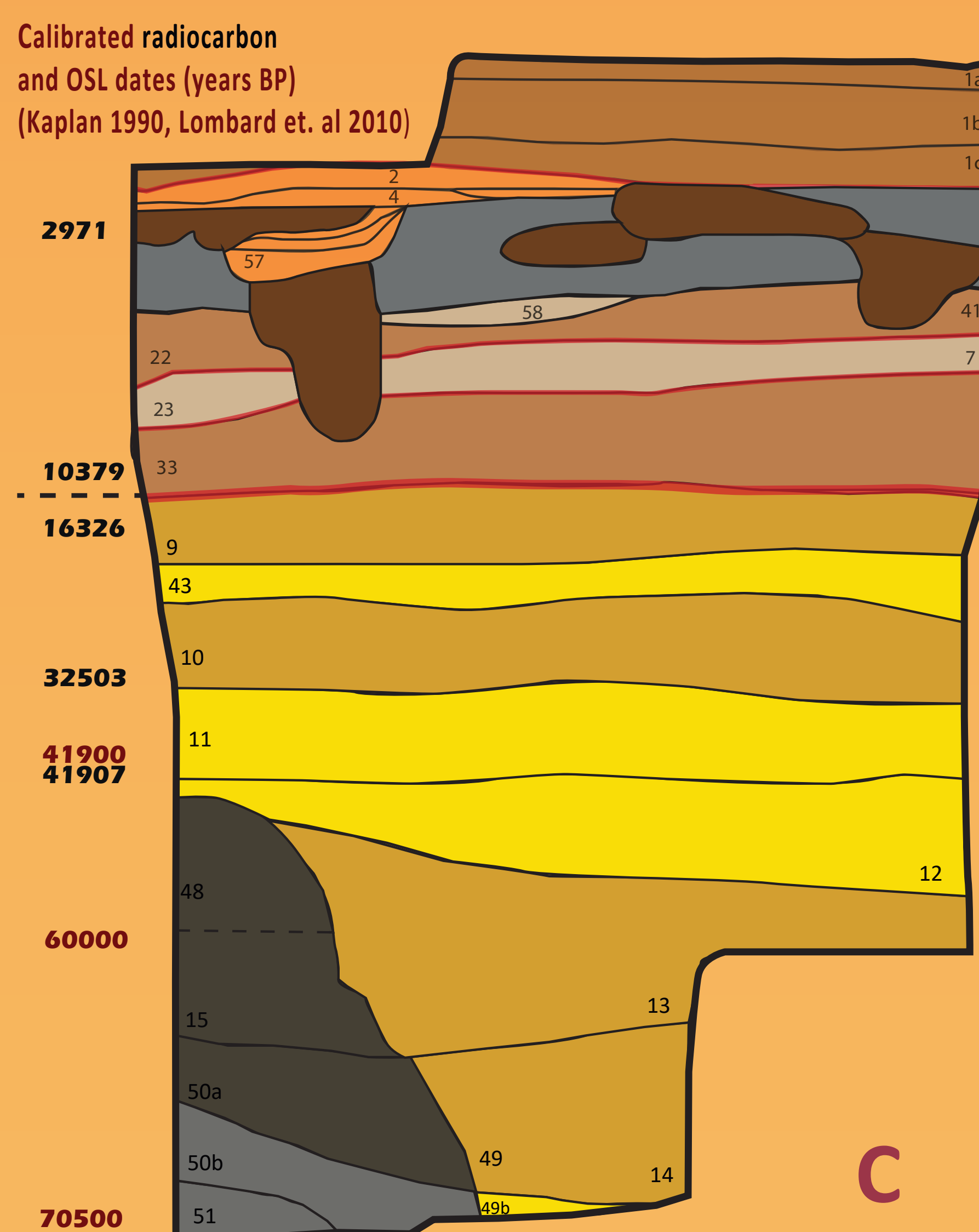


## Umhlatuzana West Profile

### Find density/ Quartz



### Stratigraphic drawing



## RESULTS & CONCLUSIONS

- Discrete high and low find density layers
- Horizontal orientation of find density pattern suggests limited post-depositional movement
- Sedimentary colour difference in Pleistocene due to high-moisture units
- Grain size analysis suggests continuous mechanism of sedimentation throughout the sequence
- Low- and high- density layers probably relate to low- and high-occupational events

## ACKNOWLEDGEMENTS

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 VU Amsterdam for the grain size and LOI analyses  
 Valentijn van den Brink for the RTS measurements



### Figures

**A:** Photo of the excavated western profile.  
**B:** Piece plotted finds longer than 20mm. Yellow highlight: quartz raw material.  
**C:** Stratigraphic drawing of Umhlatuzana rock shelter based on field observations and find density cluster analysis.

