

## **Geoarchaeological approaches to Palaeolithic surface artefact distributions and hominin landscape use in SW Saudi Arabia**

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The vast majority of Palaeolithic archaeological material in arid and semi-arid regions exists in the form of scatters of stone tools across the surface of present-day landscapes. This is particularly the case in the Saharo-Arabian desert belt, a region vital to understanding the global dispersal of hominins from Africa. These surface artefacts possess little stratigraphic context, but comprise the only record we possess to examine spatial behavioural patterning and landscape use by hominin populations.

Interpretation of the observed spatial distribution of artefacts is far from straightforward. Surface artefact distributions result from a complex interplay of varying human behaviours over time. Also, geomorphological processes affect the preservation, exposure and visibility of the artefacts, as well as alter the presence and location of attractive resources.

The SURFACE project employs an interdisciplinary approach to understanding the distribution of Palaeolithic artefacts in SW Saudi Arabia. By combining remote sensing, geomorphological fieldwork, archaeological survey and GIS analyses, the project is developing a geomorphological context for the artefacts that guides survey to areas of high archaeological potential, as well as allowing the robust interpretation of the observed artefact distribution in a dynamic landscape in terms of past landscape use.

This paper will present the ongoing multi-scalar approaches employed by the project to Palaeolithic landscapes, particularly focussing on the site of Wadi Dabsa, Asir Province, where Lower and Middle Palaeolithic artefacts have been found in association with extensive tufa deposits. Investigation in early 2017 at the site will apply SURFACE's methods to understand the present-day artefact distributions at the exposure, and their relationship to the tufa deposition, as well as their potential to inform on Palaeolithic activity and landscape use at the site.