

ARCHE Seminar Series 2024

Australian Research Centre for Human Evolution Seminar Series

"Deserts and biomolecules: a two-part talk on the prehistory of the Arabian Peninsula and Zooarchaeology by Mass Spectrometry (ZooMS)"

Presented by Dr Mathew Stewart

This talk will be divided into two sections. In the first part, I'll discuss the Green Arabia project, highlighting how it has fundamentally changed our understanding of the Arabian Peninsula's role in human history and development. I will cover the changing climate of Arabia over the past half-million-years, the role that glacial-interglacial cycles played in driving human and animal evolution and dispersals, and the ultimate separation of this climate-forcing pattern with the introduction of livestock and water harvesting technologies in the Neolithic and Bronze Age.

In the second part, I will introduce Zooarchaeology by Mass Spectrometry (or ZooMS), an innovative approach (Buckley et al., 2009) for identifying taxa using characteristic peptide sequences in protein collagen. ZooMS can be used on range of collagenous materials (e.g., bones, teeth, skin, antler), is relatively quick and inexpensive, and, perhaps mostly remarkably, can be applied to small bone fragments and other morphologically unidentifiable materials. I will cover some of the recent advancements in the field and highlight its diverse archaeological and historical applicability.



Date/Time: Thursday 18th April @ 1.30pm

Room: N29_0.03 (Nathan Campus)