

# Contribution of ancient DNA to our understanding of the peopling and demographic history of the Near East

lecture by

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in

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As historical populations interacted with one another, they often left evidence of their activities in the form of material cultural artefacts, written texts and even biological material such as seeds. However, if the populations interacted biologically, the genetic material (genome) of each contributing individual captures evidence of these interactions. Ancient DNA is the term given to describe the genetic material extracted from individuals who lived in the past. Much like the radiocarbon revolution, ancient DNA is on its way to becoming an essential tool in the archaeologist's toolkit for researching population history. The genetic structure of a population harbours patterns of diversity that are shaped by ancestral demographic processes. As such, ancient DNA provides a unique window into the history of a population by revealing signals of demographic processes such as population collapse, admixture, genetic relatedness and adaptation.

This presentation will introduce the principles of ancient DNA, describe its interpretative framework and review critical contributions to the study of ancient Near Eastern demographic history.

Matthew is an archaeogenetics PhD candidate at the Australian Centre for Ancient DNA, University of Adelaide. Matthew obtained his bachelor's degree in Ancient Near Eastern History from Macquarie University, Sydney and his Masters in Archaeological Science from the Australian National University, Canberra. Matthew's doctoral research focuses on reconstructing the demographic history of ancient Near Eastern and Indigenous Australian populations by synthesising historiographical and archaeological research with population genetic models and ancient DNA.