

## Part 3.

# Human population history and structure

In Part 3 we turn our attention to **human population structure and history**.

We discuss how concepts from population genetics, combined with modern genomic technologies, have rewritten our understanding of human history and prehistory. Genetics provides insights that are completely distinct from the classical approaches in paleontology, archaeology, and history.

In this section of the book we will emphasize **inference**: how can we apply population genetics to modern genetic data to learn about structure and history?

We'll use these principles to discuss key **examples**: archaic hominids and their relations to modern humans; deep population structure in Africa and the recent origin of non-Africans; migrations of Pacific Islanders in the last millennium.

Specifically, we will cover the following:

Chapter 3.1: **Population structure**: clustering techniques for studying population structure and ancestry inference, and considerations of ancestry, race and ethnicity.

Chapter 3.2: **Admixture**: genomic traces of historic and ancient population mixing, and how we can study ancient mixture events.

Chapter 3.3: **Inference of population histories**: a tour of how we can use genetic variation in modern humans to reveal the history of our species.

Chapter 3.4: **Ancient DNA**: how new technologies for retrieving DNA from bones have reshaped our understanding of human prehistory.