GENETIC CHANGE AND POPULATION MOVEMENT C. 1200 BCE: A VIEW FROM THE NORTH AND WEST

<u>lan Armit</u>¹, Madeleine Bleasdale¹, Lindsey Büster¹, Claire-Elise Fischer¹, Tom Booth², Nick Patterson³, Michael Isakov³, Jane Evans⁴, Derek Hamilton⁵, David Reich³

- ¹ University of York
- ² The Francis Crick Institute
- ³ Harvard University
- ⁴ British Geological Survey
- ⁵ SUERC

The last centuries of the second millennium BC were a period of intense connectivity in Central and Western Europe. This is clear from studies of material culture that demonstrate the widespread distribution of specific objects, the exchange of raw materials, and shared patterns of deposition.

A new study of whole genome ancient DNA from Bronze and Iron Age populations, focusing on Britain but including substantial new datasets for areas of continental Europe, has also identified major genetic changes in the Middle-Late Bronze Age (c. 1300–800 BCE). In Britain specifically, a rise in ancestry derived from Early European Farmers (EEF) appears to represent an influx of people from a region most likely located in present-day France. Due to a paucity of aDNA coverage in the potential source region(s), it is presently impossible to determine whether the movement of people was reciprocal or unidirectional. It is striking, however, that many of those who moved appear to have been female. Similar genetic changes are evident in the Netherlands and Czechia, although based on fewer samples, while in Iberia we see a decrease in EEF ancestry.

Taken together, the genetic data suggest a period of complex connectivity between regions in Central and Western Europe, including significant movements of people. The underlying social processes are likely to be complex and not reducible to the simple outward spread of a single population. While there is presently no genetic evidence to link these population movements with upheavals seen in the east Mediterranean c. 1200 BCE, their chronological proximity is striking. This paper will discuss the recent genetic results in the context of broader archaeological understandings of the period in Central and Western Europe and consider their potential relevance to events further afield.

Keywords

ancient DNA, Bronze Age, Europe, Population movement

Note/comment