

INVESTIGATING DIETARY PATTERNS IN MEDITERRANEAN LATE ANTIQUITY THROUGH A BAYESIAN META-ANALYSIS OF HUMAN ISOTOPIC DATA

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The main subject of our research was the interplay between subsistence practices, cultural traditions and population movements within the Mediterranean region of the Roman Empire during Late Antiquity. We employed a meta-analysis of a large collection of bioarchaeological data to determine the extent to which migrating populations impacted local food traditions and subsistence practices.

Our main data sources were the IsoArch and CIMA stable isotope databases that assembled human isotopic data from the Roman and Medieval periods, respectively. Both IsoArch and CIMA are part of the IsoMemo initiative that brings together a network of isotopic databases. This initiative, based at the Max Planck Institute - Science of Human History includes also access to modelling tools to model spatio-temporal archaeological and historical phenomena. We employed the modelling of human isotopic data to visualise spatio-temporal shifts in the diet of late Roman populations and to determine the relationship between dietary shifts, population movements and political crisis. We adopted a transdisciplinary approach in which the modelling of isotopic data was combined with archaeological data to better characterize dietary shifts and their causes.

Results revealed significant changes in dietary habits of populations residing within locations associated with the Western Roman Empire (e.g. Portugal, Spain, Italy, Tunisia), whereas these were mostly absent in the Eastern Roman Empire (e.g. southern Balkans, Greece, Palestina). However, there was an overall decrease in marine protein consumption in Mediterranean areas. Results also reveal that Longobards migrating from Pannonia into northern Italy maintained dietary traditions that were based on the consumption of large amounts of millet and/or sorghum.

Our results show clear links between dietary traditions in Mediterranean populations and major changes in political systems and broad migratory movements.

Keywords

Late Antiquity, Stable Carbon and Nitrogen Isotope Analysis, Bayesian Modelling, Human Diet, Bioarchaeology, Mediterranean Archaeology

Note/comment