Computational Models in Archaeology

Call for Papers

Models are pervasive in archaeology. In addition to the high volume of empirical archaeological research, there is a strong and constant interest among archaeologists and historians in questions regarding the nature, mechanisms and particularities of social and socio-natural processes and interactions in the past. However, for the most part these models are constructed using non-formal verbal arguments and conceptual hypothesis building, which makes it difficult to test them against available data or to understand the behaviour of more complex models of past phenomena.

The aim of this session is to discuss the role of formal computational modelling in archaeological theory-building and to showcase applications of the approach. This session will showcase the slowly changing trend in our discipline towards more common use of formal methods.

We invite contributions applying computational and quantitative methods such as GIS, data analysis and management, simulation, network science, ontologies, and others to study past phenomena concerned with societal change, human-environment interactions and various aspects of past systems such as economy, cultural evolution or migration. Methodological and theoretical papers on the benefits and challenges of quantification, the epistemology of formal methods and the use of archaeological material as a proxy for social processes are also welcome.

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