

WORKSHOP

“Past populations in silico: Modelling archaeological and historical populations”

Invitation to participate to the Workshop

Proposed as part of the activities within the network IN-HOPPE

International Network -Historical and osteoarchaeological Past Populations Exploration

Axe “Concepts and methods”

And organized by

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Maison des Sciences de l’Homme et de la Société Sud-Est (MSHS Sud-Est)

2019 Decembre 5th and 6th

Although simulation works (ABM, MSM, cohort components) are nowadays well developed in some disciplines like demography, geography, economy, they are also used in historical sciences where they serve, or to model situations inaccessible by written sources, or to confront situations whose parameters are well controlled, with reality as it can be perceived by historical or archaeological data.

In these cases, modelling is not intended to help decision-making or to propose predictive models, but has an essentially explanatory role. It is used to conceptualize and to simulate an organized set of agents - who can be individuals of a population or archaeological artefacts - who interact with each other and with their environment.

In long-term field studies, these techniques allow to analyze interactions between Man and his natural environment (for example, for the Prehistoric periods when *Homo Sapiens*

Neandertalensis and Modern Man - *Sapiens Sapiens* - rub together, in competition for food resources in a climatic environment marked by abrupt and significant changes). They also allow to model interactions between humans and their biocenosis. The coevolution of viruses and bacteria within their environment and in connection with human population's susceptibility to certain diseases at a given moment, forms a dynamic system - the pathogenesis of Mirko Grmek - which has long shaped the future of populations of the past, more deeply than the public health policies they tried to implement. Micro-simulation is also efficace for schematising complex situations, involving different spatio-temporal scales and various socio-organizational forms, and for testing different scenarios.

Following the pioneering work of Epstein and Axtell (1996) and Axtell et al (2002), new researches have been initiated: History, archeology and historical demography have invested this field of research and are using modeling techniques to explain some of the traits of past societies. In the age of GIS technology, models of archaeological landscapes become more and more manageable and can be populated virtually. As human behavior and demography are not only governed by environmental factors, but also socioeconomic and cultural aspects, human interaction and behavior can be taken into account, such as religious ideas influencing demographics and demographic developments driving the spread of religions. Gantley and Lane (2017/2018) have, for instance, begun to tackle the problem of modelling religion in modern and past societies using agent-based simulations.

At the crossroads of these disciplines, we wish to propose a space for exchanges of experiences and for discussions. The theme of modeling of the demographic behaviors of past populations, from written or material sources, could stimulates original interdisciplinary research, covering long periods and various geographical and cultural spaces.

We would like to promote case studies, but also some works with epistemological, as well as prospective perspectives. As part of the IN-HOPPE network's activities, which envisages the study of past populations under the prism of interdisciplinarity and diachrony, we hope these days could also generate further proposals around the theme "*Past populations in silico*" (publications, organization of specific sessions, training workshops, etc.).

This workshop will take place in the Maison des Sciences de l'Homme et de la Société Sud-Est, **Nice, France**, on **December 5th and 6th**.

The presentations shall be delivered in English and French.

No inscription fees are required. However, travel expenses, accommodation and meals should be provided by the participants (except in exceptional cases).

We will appreciate receiving your answer to our invitation before **September 15th**, and in the case you want to participate, please send us the title and the abstract of your communication (300-500 words) at the same time.

For further information, please contact [Andreas Duering](#), [Sophie Pennec](#), or [Isabelle Séguy](#).