

Call for attendance

at a workshop devoted to theory and method in social science

Bridging the Gaps: (Ancient) History from the Perspective of Mathematical and Computational Modelling and Network Analysis

13-14 November 2015

Brno, Czech Republic.

Venue: Open Gardens, 33 Udolní street

Confirmed Keynote speakers:

Ken Kahn (University of Oxford)

István Czachesz (University of Heidelberg)

Johannes Preiser-Kapeller (Austrian Academy of Sciences)

Historical sources only provide us with a fragmentary testimony of historical processes. The survival of specific sources and the information they contain is very often determined by chance. Because of these circumstances, the reconstruction of many historical processes remains problematic or, in some cases, almost impossible. In addition to these problems, some long-term historical processes are, due to their gradual nature, very difficult to recognize from the perspective of “event history”. The [GEHIR project](#) (Generative Historiography of Religion) strives, within the framework of the historically oriented study of religions, to adopt innovative methods used in the study of the dynamics of complex systems, i.e. methods including mathematical and computational modelling, agent-based simulations and network analysis. Data collected or analysed with these methods can help us, on some occasions, to bridge the “gaps” in our historical sources or to improve accuracy in judging the likelihood of competing historical narratives. The GEHIR project is inspired, among others, by theoretical-methodological approaches such as cliodynamics (Peter Turchin et al.), generative social science (Joshua M. Epstein), agent-based simulation of social, historical and/or economic processes, network analysis in archaeology (Irada Malkin, Carl Knappett, et al.) and the theory of the diffusion of innovations (Everett Rogers). Although the GEHIR project builds upon these existing research traditions and initiatives, it might also be seen as an interdisciplinary challenge attempting to bring together various, normally non-communicating, scientific approaches.

This aspiration motivated us to organize a collaborative workshop which intends to present our project to scholars who are sympathetic to interdisciplinary endeavours, currently or prospectively engaged in similar projects and willing to share their

experiences and the ideas obtained in their previous work with us. In addition to our “natural audience”, social scientists, historians and archaeologists, we encourage and appreciate the participation of scholars representing different fields of expertise, e.g. mathematicians, computer scientists, geographers, economists and others, who are involved in setting up formalized models or running agent-based simulations which might be potentially relevant to historically oriented research.

The workshop consists of two thematic parts. The first one is devoted to presentations of theoretical-methodological papers/posters and papers/posters presenting already finished empirical research which might inspire the GEHIR project researchers in their future work. Especially welcome are papers/posters demonstrating the usefulness of the application of some of the above-mentioned theoretical-methodological approaches to historical, archaeological or ethnographic materials. Papers/posters should preferably address some of the following topics:

- Processing and adjustment of historical data to a form suitable for formalized modelling and the operationalization of historical data into a form suitable for quantitative analysis.
- Examples of successful research into the reduction of historical complexity into population models.
- Examples of the use of network theory in the preparation of computational models.
- Practical experience with interdisciplinary projects which synergistically connect humanities/social sciences with natural sciences and focus on the explanation of historical changes.
- Agent-based simulations as a part of the generative explanation of historical processes.

The thematic focus of papers/posters on the Graeco-Roman Mediterranean or historiography of religion (the specific research domains of the GEHIR project) is not mandatory; we also appreciate presentations covering different cultural/geographic areas and historical epochs.

The second part of the workshop will provide an opportunity for GEHIR project researchers to present their case studies and invite participants to a collaborative discussion and to gather critical feedback.

The workshop will be held in English. Each presentation should last 20 minutes (+ 10 minutes for a discussion). Abstracts (cca 300 words long) are to be submitted via [registration](#) platform by **15 October 2015** (papers and posters) . We also ask all prospective participants without papers/posters to register at the same platform by **31 October 2015**. All inquiries concerning the organization of the workshop or academic program shall be sent to the conference email gehir.workshop@gmail.com.

News about the workshop will be sent via email and presented on the project website <http://gehir.phil.muni.cz/>.