

**Prof. Michael Barton, conférences et workshop
Wednesday 7 et Thursday 8 June, 2023**

The MSH Mondes and the Time Machine Project Consortium, ArScAn and the cluster of excellence Past in the present, are glad to invite you the conferences and workshop proposed by Professor Michael Barton, Arizona State University, USA.



Michael Barton is a Professor in the School of Complex Adaptive Systems and in the School of Human Evolution & Social Change, and Director of the Center for Social Dynamics & Complexity at Arizona State University (USA). He is Executive Director of the Open Modeling Foundation, a global consortium of organizations to promote standards and best practices for computational modeling across the social and natural sciences. He also directs the Network for Computational Modeling in Social and Ecological Sciences (CoMSES.Net), an international scientific network to enable accessibility, open science, and best practices for computation in the socio-ecological sciences. Barton received his BA from the University of Kansas in Anthropology/Archaeology, and MA and PhD from the University of Arizona in Anthropology/Archaeology and Geosciences. His research centers around long-term human ecology and landscape dynamics, integrating computational modeling, geospatial technologies, and data science with geoarchaeological field studies. Barton has directed transdisciplinary research on hunter-gatherers and small-holder farmers in the Mediterranean and North America for over three decades, and directs research on human-environmental interactions in the modern world. He is a member of the open-source GRASS GIS Development Team and Project Steering Committee, dedicated to making advanced geospatial technologies openly accessible to the world.

Web page and CV at: <http://www.public.asu.edu/~cmbarton>

**Mercredi 7 juin 2023 — salle Benjamin, Galerie Colbert, (rez-de-chaussée)
INHA, 2 Rue Vivienne, 75002 Paris**

14h-16h Conference (in English)

The Open Modeling Foundation: a Global Community for Standards-Based Modeling of Human and Natural Systems

Computation is ubiquitous across all areas of science, policy, and daily life in a diverse array of applications. Modeling is one such application that has become critical to a wide range of research and policy issues, spanning multiple scientific disciplines. These computational tools allow researchers to study and forecast complex, dynamic interactions of multiple social and natural processes in ways not possible with more traditional means. While scientists share the results of model-based research with policymakers and others in respected, peer-reviewed journals and conferences, following widely understood and accepted scientific norms, equivalent practices for documenting, evaluating, and sharing the code of the models that produced such research findings have lagged behind. This is especially critical when this technology is urgently needed to help humanity to confront the challenge of successfully and sustainably managing a planetary socioecological system, in which a highly complex, telecoupled, global society is tightly coupled with diverse biophysical systems. A grass-roots initiative of the international modeling community, over the past eight years, led to the formation of the Open Modeling Foundation (OMF). The OMF is a global alliance of modeling organizations that coordinates and administers a common, community developed body of standards and best practices among diverse communities of modeling scientists. As an international open science community, the OMF works to enable the next generation modeling of human and natural systems.

**Thursday 8 June, 2023 — Paris Nanterre University
Ginouvès building, salle du conseil, 4th floor**

10pm-12pm, Conference (in English)

Risk, Resilience, and Archaeology: Where the Invisible Past Meets the Invisible Future

Risk and resilience are important and interrelated concepts that require the past to inform the future. Risk concerns predicting harmful events while resilience involves strategies to mitigate the impacts of risks. Many current applications of risk and resilience concepts involve subjective and linear projections of the recent past into the future. Yet important aspects of risk and the effectiveness of resilient strategies play out over long time frame, and involve complex interactions between human and natural systems. This gives the historical sciences, including archaeology and prehistory, the potential to provide significant insights into long-term drivers of risk and resilience. Yet this potential has been limited by the static and fragmentary nature of the archaeological record, and common archaeological practice of attempting to "reconstruct" the past from this record. I offer examples of how a vision of archaeology as a science of long-term social dynamics employing new data science approaches can give archaeology an important role in building resilience to the complex risks that we face today.

**Thursday 8 June, 2023 — Paris Nanterre University
Weber building, room 123, first floor**

2pm to 5pm

Workshop "Agent-based modeling (ABM)"/ Modélisation à base d'agents

Registration required : colombe.farthouat@cns.fr

Participants are kindly asked to download and install the free ABM software, NetLogo, before the workshop. It can be found for all platforms

at: <http://ccl.northwestern.edu/netlogo/>

Prof. Michael Barton also recommends, prior to the workshop, that participants complete the short tutorials, on the same page, and brief explanations of "what is NetLogo", "What is a primitive", and "The first 11 primitives to learn" that are found on this page:

<http://ccl.northwestern.edu/netlogo/bind/>

We will share a drink at the end of the workshop.