ABSTRACT SUBMISSION

Environmental multi-proxies in Southwest Asia: scale constraints and new perspectives

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Abstract

Since the 1990s' environmental studies have been conducted with diverse approaches throughout Southwest Asia, with disciplines such as geoarchaeology (including geology, geomorphology, archaeopedology, micromorphology), palaeoclimatology, archaeobotany (anthracology, carpology, xylology, palynology), zooarchaeology, malacology, geochemistry etc. The variety of approaches makes it sometimes difficult to understand the inputs and limits of each of them and which combination is suitable to understand, either regional climatic fluctuations or their local impact, or to identify man-made landforms, landscaping, and resource management.

A constant change of scales (intra-site, near-site, meso-local macro-regioonal and regional) and a navigation back and forth from the archaeological site to the regional context is necessary to build a holistic study covering the real scope of what could be an ancient "environment". Those challenges have been successfully opened for discussion during sessions 30 of the INQUA 2023 at Roma, 'A multiscale geoarchaeological approach for the interpretation of palaeo-landscapes and human activities', and session 60 ', Geoarchaeology: from landscape to sites and back', which highlighted the difficulty of interpreting proxies within human contexts.

For the 14th ICAANE conference in Lyon, we would like to host a workshop to look at specificities, new perspectives and possible limitations of palaeo-environmental and palaeo-climatic study in Southwest Asia. Furthermore, focus will be put on the interaction between proxies' observation on the field, their regional interpretation, and their reinterpretation afterwards on the site scale. By bringing together different specialists in environmental and climate studies, we hope to drive a discussion on the possibilities for archaeologists to understand ancient Southwest Asia better, especially the study and sampling strategies that are mandatory for research questions such as : water and food management, land-use and environmental degradation, fuel and vegetation cover, climate change and human groups' responses.

Keywords

Man-made landforms, Arid environment, Archaeohydrology, sustainability and resilience, Natural and man-made hazards

Program

Introduction
Mathias Bellat (University of Tübingen), Tara Beuzen-Waller (University of Perpignan Via Domitia) and Luca Forti (Università degli Studi di Milano)

1.Regional scale, macro-regional and meso-scale
Discipline or approaches involved: Geomorphology, Geography, Climatology, Palynology, spatial analysis, remote sensing, etc.

- "35,000 years of vegetation and climate reconstructions from “in and out” of archaeological contexts of the Southwest Asia. " Sebastien Joanin (University of Montpellier)
- "From Fieldwork to Modelling Challenges: Establishing Consistent Sea-Level Records for the Arabian/Persian Gulf" Damien Ahran (Sorbonne University)
- "Large-scale modification of the landscape, natural or man-made (e.g. changes in hydrosystem patterns in link to irrigation)", Maureen Le Doare (Archaios, France)
- "Geomorphology as a tool for survey (e.g. identification of areas that areas that are stable, have been disturbed or been covered)", Tara Beuzen Waller (University of Perpignan Via Domitia)

2.Local scale and surroundings of a site (near-site)
Discipline or approaches involved: Geomorphology, Geography, Geology, Petrography, Geophysics, Archaeobotany, Microfauna (ostracods, foraminifera), etc.

- "Changing in the paleo-land uses surrounding the site (grazing or agriculture)", Katleen Deckers (University of Tübingen)
- "Archeobotany, archezoology and palynology in a common archaeological context", Amy Cromartie (University of Nice Sophia-Antipolis)
- "Reconstructing the life cycles of water management systems in sw Asia. The use of portable OSL profiling and dating in reconstructing human-environment interactions", Ella Egberts (Free University of Brussel
- "Archaeological geophysics: Blue prints from past cities", Fassbinder Jörg (University of Münich)

3.Intra-site
Discipline or approaches involved: Micromorphology, Pedology, Geochemistry, Archaeobotany, Archaeozoology, etc.

- "Post depositional processes : micromorphology, pedology and geochemical/sedimentological analysis" Luca Forti (Università degli Studi di Milano)
- "Earthen construction material typology toward micromorphological approach" Cecilia Cammas (INRAP)

4.Open question
Questions for raw materials study: is there enough reference collection? How to build a geoarchaeological collective database for sharing data and references.

5.Perspectives
Geomorphology for archaeological preservation and heritage: threads regarding urbanization, gravel and sands extraction, climate change. Geoarchaeology and the Anthropocene

Session

Aucun

Type of paper

Workshop