

GEOARCHAEOLOGY AND ARCHAEOMETRY SESSION

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The "Geoarchaeology and Archaeometry" session aims to bring together researchers from diverse disciplines, particularly archaeology and Earth sciences, to explore the application of Earth science methods to archaeological research and investigate interactions between past human societies and their natural environments. The session seeks to highlight the role of geological data and modern analytical techniques in addressing archaeological research questions, facilitate the exchange of recent scientific findings across different temporal and spatial scales, and encourage interdisciplinary discussions of research methods and results. In this context, it aims to contribute to the investigation of archaeological sites and cultural heritage from an Earth science perspective, advance our understanding of past human–environment interactions, and foster innovative research approaches and national and international scientific collaborations in geoarchaeology and archaeometry.

Within the framework of the International Union of Geological Sciences (IUGS) definition, geoarchaeology is an interdisciplinary field that integrates geological and geomorphological concepts, methods, and data to understand and interpret archaeological site formation processes, landscape evolution, sedimentary environments, and natural resources that influenced past human activities. Archaeometry, meanwhile, applies modern analytical techniques to investigate the mineralogical, petrographic, chemical, and physical properties of archaeological artefacts and materials, contributing to our understanding of ancient production technologies, raw material use and provenance, trade and exchange networks, and cultural interactions. Archaeometry also encompasses research into archaeological dating, authenticity assessment, and cultural heritage conservation.

The session welcomes contributions addressing a broad range of topics, including the geological and geomorphological investigation of archaeological sites; the identification and interpretation of archaeological stratigraphy and sedimentary units; palaeoenvironmental studies; the reconstruction of past landscapes and environmental conditions; soil and sediment micromorphology; dating methods; raw material identification and provenance studies; the characterization of archaeological materials, including ceramics, rock, mortars, plasters, and other artefacts; investigations of ancient production technologies; geochemical and isotopic analyses; and scientific approaches to cultural heritage conservation.