11TH INTERNATIONAL SCIENTIFIC CONFERENCE

METHODOLOGY & ARCHAEOMETRY

Zagreb, 7th – 8th December 2023

12TH INTERNATIONAL SCIENTIFIC CONFERENCE

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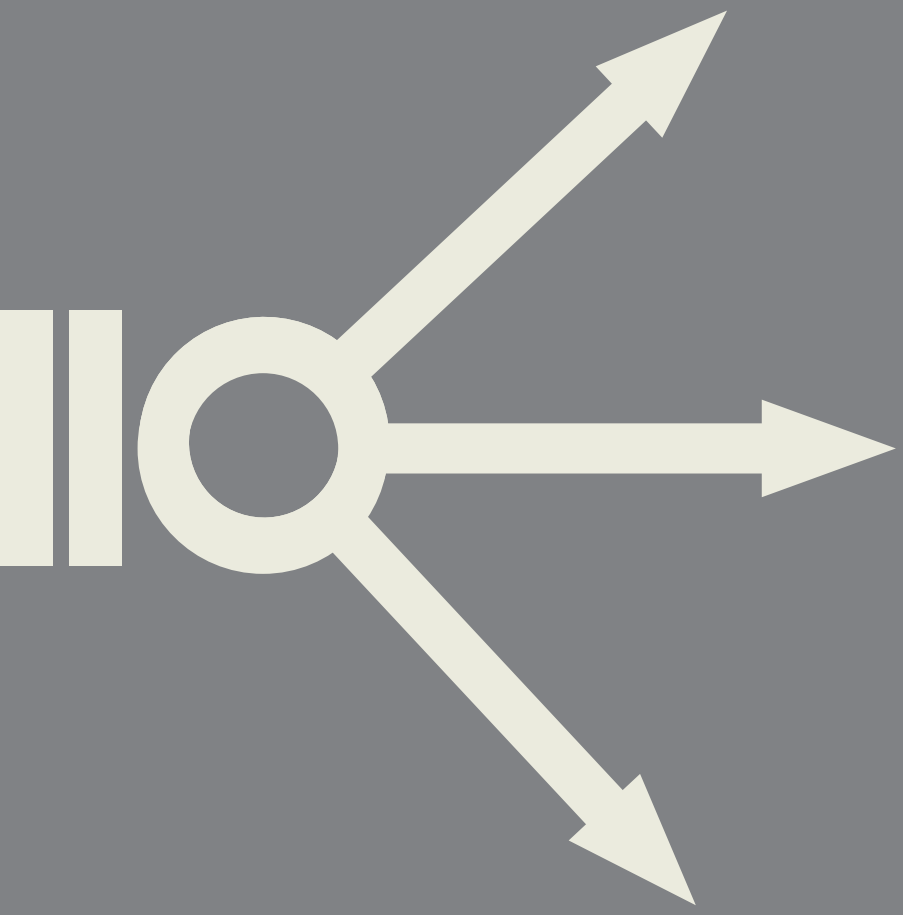
Zagreb, 28th November 2024



PROCEEDINGS

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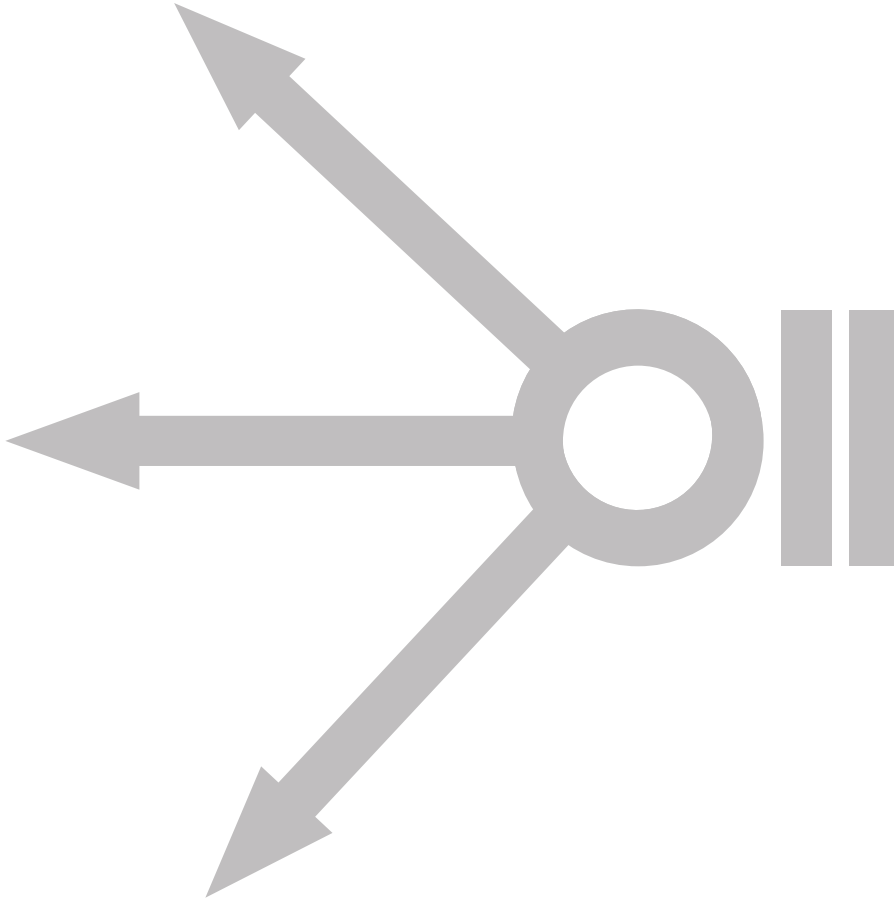

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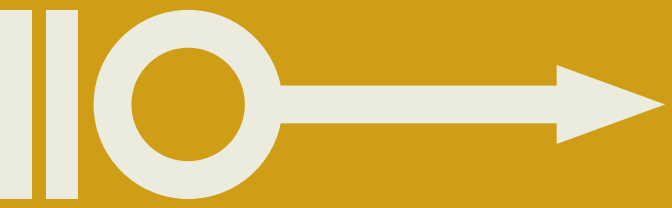

Content

Preface

Ina Miloglav

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Methodology and Archaeometry (MetArh) is an annual scientific conference organized since 2013 by the Department of Archaeology of the Faculty of Humanities and Social Sciences of the University of Zagreb, and the Croatian Archaeological Society. The goal of the conference is to entice interdisciplinarity, critical thinking, new insights and approaches as well as new theoretical frameworks in contemporary archaeological science. https://metarh.ffzg.unizg.hr/

This volume of *Proceedings from the 11th and 12th scientific conferences Methodology and Archaeometry* brings together a selection of papers that explore diverse methodological approaches in contemporary archaeological research, and the application of archaeometric techniques in the documentation, analysis, and interpretation of archaeological data.

The 11th MetArh conference was held on the 7th and 8th of December 2023, and the 12th MetArh conference took place on the 28th of November 2024 at the Faculty of Humanities and Social Sciences, University of Zagreb. Both events brought together researchers from several countries who presented recent results and discussed current challenges in fieldwork, analytical procedures, and interpretative frameworks.

The paper by **Martin Bažoka, Mario Bodružić, Filomena Sirovica, and Lujana Paraman**, *Uncovering Lithic Artefacts in the Dinaric Karst: Challenges of Field Survey in Bristivica near Trogir*, addresses the methodological challenges of conducting field surveys in the Dinaric karst landscape**,** where environmental and anthropogenic factors have heavily transformed the surface archaeological record. Focusing on the area of Bristivica near Trogir, the authors present an artefact-based survey approach adapted to fragmented and vegetation-covered terrain, enabling the detection of lithic artefacts and chert scatters under difficult field conditions. The results emphasise the importance of adapting survey strategies to complex environmental conditions.

In *The use of 3D photogrammetry in analysing the Roman epigraphic monuments: a case study from Kremna village, southwestern Serbia*, **Predrag Đerković** demonstrates the potential of 3D photogrammetry for documenting and analysing Roman epigraphic monuments. His case study highlights how this technology enhances both the preservation and interpretation of stone inscriptions.

Denitsa Sandeva-Minkova, in her paper *Non-destructive methods for registration of archaeological sites and destructive investigation on the territory of the Ludogorsko Plateau, Northeastern Bulgaria*, combines satellite imagery analysis and geophysical surveys to identify and verify archaeological sites from the Bronze and Iron Ages. Her discussion underscores the importance of an integrated methodological approach to recording and assessing archaeological sites, offering new insights into the settlement dynamics of this region.

In his paper *Building materials and the constructional sequence of the burial mound Gomila in Jalžabet*, **Saša Kovačević** presents the results of the rescue excavation of Gomila, one of the largest funerary monuments of the Eastern Hallstatt culture. The study focuses on the construction sequence and building materials of the complex burial chamber, while the analysis provides new insights into the architectural organization and ritual practices that characterize this archaeological site.

In *Interpretive analysis of pottery distribution in the northern part of the late antique hilltop settlement in Lobor, NW Croatia*, **Petra Nikšić and Jana Škrgulja** provide an interpretive spatial analysis of ceramic distribution patterns, offering insights into the internal organization and developmental dynamics of a Late Antique hilltop settlement. The results reveal pottery clusters corresponding to destroyed architectural remains, offering insights into building techniques and the integration of the Lobor site within broader regional settlement patterns.

The study by **Mirja Jarak, Andreja Sironić, and Alexander Cherkinsky**, *Building phases of the triconch church complex at Bilice with regard to mortar dating*, presents the results of mortar radiocarbon dating, contributing to a refined understanding of the construction sequence of the triconch church complex at Bilice and to the methodological validation of archaeometric dating techniques in architectural research.

Finally, **Andrej Janeš and Tomislav Zojčeski**, in *Long time, no siege: non-invasive archaeological methods in the research of Cesargrad castle*, present the results of non-invasive investigations of the medieval Cesargrad Castle, combining the analysis of standing structures with LiDAR survey data to reconstruct the castle's layout and surrounding fortifications. Their study refines the understanding of the site's construction phases and reveals previously unknown features that may represent military installations or siege positions associated with the 1573 Peasant Uprising.

Together, these contributions demonstrate the growing importance of methodological and technological innovation in archaeology. Through interdisciplinary collaboration, the authors advance new standards of research practice and open avenues for further cooperation between archaeologists and natural scientists.

On behalf of the editorial board, we wish to thank all authors and conference participants for their valuable contributions to the exchange of knowledge and the development of contemporary archaeological and archaeometric practice.