

Interdisciplinary approaches in studying the human past in Eastern Europe and beyond

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Abstract:

Research that operates at the intersection of multiple disciplines and explores different aspects of the same phenomenon is known as interdisciplinary research. There is a growing number of projects, centres and collaborations where humanities and natural sciences work together, at times including social sciences, to tackle the complex questions in reconstructing the prehistoric human past.

For example, approaches that integrate archaeological, palaeoecological, and zooarchaeological data provide a comprehensive picture of human-environment dynamics and their lasting consequences (Macek et al., 2022; Marom, 2025). Integrating linguistic, archaeological (material culture), archaeochemical (isotopic), and genetic data collectively illuminates patterns of mobility, contact, and language spread, demonstrating how biological and cultural processes jointly shaped regional diversity (Saag et al., 2019; Lamnidis et al., 2018; Zeng et al., 2025).

Aiming for a qualitatively new comprehensive synthesis for human prehistory across disciplines at a global, regional or local level, such research also brings several challenges.

Complexities in integrating knowledge, synchronizing terminologies, clarifying disciplinary vantage points, and addressing data idiosyncrasies and ethical dilemmas, are commonly faced. However, whole new perspectives, methodological approaches, large cross-disciplinary databases, and detailed studies are often borne as a result.

Here we call for successful case studies, methodological solutions, but also discussion on the challenges faced in interdisciplinary approaches in the study of the prehistoric human past, focusing, but not limiting, the geographic scope on Eastern Europe.

References

Macek et al., 2022 (<https://doi.org/10.1111/1365-2745.14060>)

Marom, 2025 (<https://doi.org/10.1016/j.jas.2025.106165>)

Saag et al., 2019 (<https://doi.org/10.1016/j.cub.2019.04.026>)

Lamnidis et al., 2018 (<https://doi.org/10.1038/s41467-018-07483-5>)

Zeng et al., 2025 (<https://doi.org/10.1038/s41586-025-09189-3>)