

INVITATION**THE TRANSFORMATION OF EUROPE: (STABLE) ISOTOPE ANALYSES
AND ENVIRONMENTAL MODELLING ELUCIDATE LANDSCAPE
DEVELOPMENT AND POPULATION DYNAMICS OF FIRST FARMING
CULTURAL GROUPS IN THE CARPATHIAN BASIN**

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[ONLINE](#)



Spatial analyses have proven to be useful tools to evaluate local to regional socio-environmental feedbacks of human-landscape interactions on broad temporal scales. The integration of multiproxy pedological, geological, hydrological, topographical, and bio-archaeological data allows to model and to predict potential land-use strategies and anthropogenic activity ranges of past societies. Particularly strontium and stable oxygen isotope analyses have recently confirmed the expectations to understand mobility patterns and human behaviour and contributed strongly to the development of new narratives about European socio-ecological transformation.

In this lecture, we will present interdisciplinary methods of archaeological, ecological, geographical, and anthropological research that bridge the humanities and the sciences in a collaborative approach. We will outline landscape development and transformation by first farming cultural groups in the Carpathian Basin during the Neolithic period and introduce new theoretical and methodological approaches to population dynamics across Europe. Our results highlight the potential of deeply interdisciplinary research and the multifaceted perspectives of spatial modelling techniques and bio-archaeological and anthropological data analyses.

