

The Early Iron Age was a period of major shifts in terms of cultural, economic, socio-political and technological development. The beginning of the first millennium BC witnessed the development of a nomadic way of life across the Eurasian steppes, which constitutes a substantial part of humanity's cultural heritage. At that time, specialized horse-based economies emerged, leading to the occupation of most grassland plains by tribal nomadic groups of long-range mobility. Through migration, interaction, and conquest of other human groups, those tribes played a crucial role in shaping the history of Eurasia. Despite their importance, the state of knowledge to date reveals a significant gap in understanding the lifestyles of those populations. Bioarchaeological data on nomadic people living in the past remains fragmented and understudied. Moreover, there is a lack of comprehensive analyses that would provide a more complete picture of these societies. The aim of this project is to explore the biological and cultural aspects of the nomadic lifestyle of ancient human populations living in Eurasia in the Early Iron Age. Four human groups representing ancient nomads of Europe and Asia will be studied: Cimmerians, Scythians, Sarmatians, and Sakas. The analyses will be conducted at the population level by an interdisciplinary team, using methods and tools typical of both the natural sciences and the humanities. The realization of the project will provide a deeper understanding of how these groups coped with environmental challenges and offer insights into nomadic lifestyles in a temporal and spatial context. The integration of biological data, such as skeletal remains and genetic evidence, with archaeological findings and advanced research techniques (including 3D methods, spatial analysis, ancient DNA studies, and Bayesian inference) will allow for a holistic understanding of these societies and their lifestyles. This research will also answer key questions about health, physical activity, burial rituals, mobility, diet, and the demographic and/or population structure of the groups studied. In this project, we will also develop an open bibliographic database that will make it easier for researchers and enthusiasts of Eurasian history to search for publications and reports on the bioarchaeological studies of nomadic human groups. The results of these analyses will be presented in scientific publications by a team of researchers from Poland, Moldova, Hungary, and Kazakhstan, among others. In addition, the main research results can be in a simplified form used as a source of information that can be presented in museums. Biological and lifestyle aspects are often missed in exhibitions on prehistoric nomadic human groups. Thanks to this research, they could be included in the public circulation of knowledge in accordance with the principles of science serving the public.