

LIFE AND DEATH IN ROMAN PANNONIA: RECONSTRUCTING DIVERSITY THROUGH MULTIPROXY ANALYSES

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This presentation introduces the conceptual framework and initial results of the speaker's five-year Momentum (Landaulet) Bioarchaeology Research Project funded by the Hungarian Academy of Sciences. Launched in late 2023, the project investigates local and immigrant populations inhabiting the northeastern part of Transdanubia, within the Roman province of Pannonia, between the 1st and 4th centuries CE. By integrating archaeological evidence, burial data, physical anthropology, isotope analyses, and archaeogenetics, the project applies a multiproxy bioarchaeological approach to reconstruct mobility, biological relationships, lifestyle, social organization, and mortuary practices. This framework expands the study of Pannonia beyond the archaeological and epigraphic sources on which research has traditionally relied.

The archaeogenetic component comprises approximately 200 newly generated ancient genomes, complemented by pre-publication genome-wide data from Sarmatian-associated individuals buried east of the Danube in the region of present-day Pest County. Genome-wide analyses reveal densely interconnected communities and a pronounced temporal shift east of the Danube. Earlier individuals show close genetic affinities with Central European populations, whereas individuals dating to the 5th century exhibit substantial ancestry related to East Eurasian and Near Eastern/Caucasus populations. In contrast, Late Roman individuals excavated west of the Danube display high genetic diversity, limited close biological relatedness within and between cemeteries, and evidence of admixture with populations originating beyond the Roman frontier.

Together, these findings highlight the complex and dynamic demographic history of the Pannonian frontier zone.

Keywords: Pannonia; Roman period; Sarmatians; Bioarchaeology; Ancient DNA; Population genetics; Identity-by-descent.