

The aim of the project is to determine the role of women in the early Bronze Age communities (2300-1600 BC) based on interdisciplinary analyses of Mierzanowice culture materials from south-eastern Poland. The implementation of this task will be completed through the comprehensive study of a chosen cemetery of the Mierzanowice culture community (60 individuals), and then analogical analyses provided for selected representatives of this culture from funeral sites located in south-eastern Poland (40 individuals). Interdisciplinary analyses will include archaeogenetic and isotopic investigations, allowing to establish the absolute chronology, reconstruct the diet of the buried individuals and their place of living and possible mobility. The selected territory, creating the entrance to Central Europe, has always been an area penetrated by numerous groups of people, with various goals - from plunder to settlement. Currently, modern research methods make it possible to trace these migration routes and capture changes taking place in local communities previously recorded by the emergence of new cultural elements, ranging from single artefacts to settlement and spiritual changes reflected in funeral rites. The aim of the project is to verify a number of hypotheses regarding the role of women in early Bronze Age societies compared to male representatives:

- females show greater genetic diversity in both mtDNA and nuclear - verification - aDNA analyses
- females are more mobile - verification - strontium isotope analyses
- females show greater morphological diversity - verification - anthropological analyses
- females and males diet differ from each other and diet within female groups is variable depending on social status - verification - analysis of stable carbon and nitrogen isotopes
- the position of a woman in the local community is reflected in the grave goods - verification - archaeological studies including the microscopic analysis of vessels, traceology of flint artefacts, signatures of neodymium isotopes in faience beads pointing at their provenance).

The performed registration of the differences between a role of a man and a woman using interdisciplinary investigations will be challenged with the results of archaeological studies. Comprehensive results will allow to acquire new data from materials collected during many years of research conducted in the 20th century. The results of the examinations will be published in a monograph about the necropolis of the Mierzanowice culture individuals in Krzyżanowice Dolne and in a cycle of high rank articles as well as will be presented at local and international conferences.

The anthropological analysis will be performed according to the classical research methodology supplemented with odontological, palaeopathological and morphological skeleton analyses allowing to determine the degree of muscle attachments development. Interdisciplinary analyses will include radiocarbon dating, aDNA and isotope analyses that will allow for determination of the genetic structure, reconstruction of paleodiet (stable carbon and nitrogen isotopes) and individual mobility (strontium isotopes), as well as faience beads provenance (analyses of neodymium isotopes).

Interdisciplinary analyses will be carried out in centres with which PI cooperated during the implementation of previous projects. The results of interdisciplinary analyses will be challenged with studies of archaeological finds present in graves equipment of analysed individuals. Simultaneously, a microscopic analysis of ceramics and a traceology of flint tools will be carried out. The use-wear of flint artefacts will allow to capture the possible relations: tool-activity-morphology of the skeleton-paleodiet. The aim of the ceramics analysis will be to determine the degree of use of local raw materials for the manufacture of vessels. This will allow to capture the relationship: vessel-individual-mobility-genetics-sex. The project covers a territory which after the period of significant cultural transformations in the Final Neolithic, related to population displacement and significant cultural changes, is located outside the area of the early Bronze Age civilisation centres. However, it is an area of perception of new cultural patterns processed in local communities. The individuals of the Mierzanowice culture has not been subjected to systematic, multi-faceted interdisciplinary analyses, including genetic ones, so far, which constitutes a clear gap between the already partially recognised communities from the Final Neolithic (Corded Ware culture) and the older Bronze Age (Trzciniec Culture) from south-eastern Poland. This difference also applies to the synchronous, Unietice culture, the settlement of which also includes the lands of western Poland. The conducted pilot studies, mainly isotopic ones, yielded interesting results, so expanding the scope of the research and the analysed sample will certainly be a valuable contribution to the development of science. The materials selected for investigations are the most representative for Polish lands, obtained during many years of excavations conducted by the Institute of Archaeology and Ethnology of the Polish Academy of Sciences and museums in south-eastern Poland. The multifaceted study of the above-mentioned materials will be of fundamental importance for research on the beginnings of the Bronze Age in Central Europe.