

One-note culture? Tracing sociocultural diversity and dynamics of the first farming communities in Kuyavia through pottery production and use

Shortly after the middle of the 6th millennium BC migrations of the first farmers reached the vast territories of Central Europe. These communities are denominated by archaeologists as the Linear Pottery culture (further LBK), which is characterised by a highly distinctive material culture: apart from ceramics, the importance of which is suggested by the name itself, this also includes iconic longhouses as well as stone adzes and other artefacts distributed over a huge area stretching from the Black Sea to the Atlantic. The concept of an archaeological culture such as the LBK implicitly assumes homogeneity and social boundedness within the culture and overlooks variations and the individuality of different people and social groups who produced and used these uniform artefacts. In the case of the LBK the dichotomy between uniformity and diversity has challenged research for decades with recent new inputs from specialised bioarchaeological studies but we still do not fully understand social structures underlying this culture. In our project we will strive to unravel this issue through analysis of the most abundant archaeological find – the pottery – whose full potential has seldom been used. We will apply a holistic approach to trace the whole operational scheme of production (*chaîne opératoire*) and use of vessels. Especially pottery forming techniques and methods are very conservative because they are acquired in a close social relation through long-term apprenticeship and thus, they can indicate various social groups and different manufacturers within them, which allows researchers to study variability at various levels: not only group origins, diffusions and migrations but also individual influences and mobility.

This *chaîne opératoire* approach has so far not been used in the Polish research on prehistory. We will apply it to the LBK pottery from Kuyavia, which is a distant LBK region of outstanding importance in current debates on European Neolithisation. Its size and LBK settlement duration allow us to assume internal variability on various levels, which is an issue that has not yet received particular attention. Kuyavia offers sufficient well studied pottery assemblages with established chronology and interpretation of contexts to serve as an excellent case study to unravel the diversity in uniformity of the LBK and its social and historical reasons.

In our project we will compare pottery from different parts of Kuyavia representing various levels of settlement organisation: from one village consisting of multiple contemporary households, through a microregion of some partially coexisting settlements to a whole region. We will cover the complete timeframe of the LBK in Kuyavia to compare it not only regionally but also temporally.

In order to unravel the complexity of pottery production and use it is necessary to employ a wide array of analytical methods and this will be applied in the proposed project. Macroscopic analysis of traces of forming gestures will be verified by computer microtomography, 3D scans as well as thin and polished sections. In this way we will reconstruct ways of making vessels and combine them with fabric groups estimated through microscopic observation, as well as petrographic and chemical analysis. We will compare these results with vessel shapes evaluated through geometric morphometrics, with vessel size and vessel use indicated by organic residue analysis, which we will directly date to establish a precise timeframe for comparisons. All this will help us trace regional and temporal variability in pottery production and use as well behavioural consumption modes, which will serve as a proxy to recognise different social groups within the LBK in Kuyavia and study their origin and interactions. It will help reconstruct the settlement history of the first farming communities in Kuyavia beyond the limitations of the archaeological culture concept to trace real people and their histories, which will be a valuable contribution to the current debates on the Neolithisation of Europe.