

Title: From waste to workshop. Activity areas in settlements of the Pleszów-Modlnica Group of the Lengyel-Polgar Circle from the western Lesser Poland in the light of functional and spatial analyses of lithic artefacts.

In the second half of 5<sup>th</sup> millennium BC in the western Lesser Poland a local variant of so called Lengyel-Polgar Circle (L-PC) exist, known as Pleszów-Modlnica Group (PMG), with a division on older (Pleszów) and younger (Modlnica) phases. Most of basic characteristics, such as sedentarism, agriculture, general localisation, forms of settlements and houses, form and localisation of burials or rudimentary tool inventory of L-PC are shared with model established by Linear Pottery Culture (ger. *Linerabandkeramik*, LBK) about a millennium earlier. At this time another set of changes in circulating styles of pottery, settlement and symbolic systems is observable in the area south of Carpathians, known as Eneolithisation. Although some Eneolithic elements are visible in Lesser Poland only after 4000 BC, some of inferred economical changes, as a spread of flint mining techniques can be seen also in PMG. This process was also observed in changes the flint industry, and is thought to cause a shift in local settlement system.

A goal of the proposed project is to find patterns in work organisation within the settlements of Pleszów-Modlnica Group in Western Lesser Poland based on lithic implements, that would reflect economic choices of these societies. More detailed question concerns changes in these patterns between Pleszów and Modlnica phases of PMG. The hypothesis is, that the general model of activity around the household established at the beginning of Neolithic in area north of Carpathians by LBK people was kept, with some adaptations. The exact scope of these differences can be inferred by study of tasks achieved in settlements and subsequently checking how it fits in general model of Neolithic societies'. It is assumed, that the patterns of activity should be observed based on the sets of used lithic artefacts, when interpreted as serving specific tasks in the settlements.

The work plan includes 4 stages of study. Firstly, an evaluation of materials and documentation from PMG sites will be made, resulting in ranking of 10 clusters of features most appropriate to planned analyses. During this task 15 samples for radiocarbon dating will be selected, examined by specialists and send. Secondly, a use-wear analysis will be performed, enhanced by morphometric analyses and experimentation, to establish a way the lithic artefacts were used. Lithic artefacts selected for residue extraction and analysis will be chosen and send to the laboratories. The third task is a spatial and stratigraphic analysis of selected clusters of features. Aided with obtained radiocarbon data, models of deposition will be created based on catchment areas of features, with extraction of potential zones, where the artefacts have been used. Combination of these areas will be then constructed representing places, where specific tasks have been performed. Tasks – sets of simple activities leading - will be contextualised in network model of processing of raw materials, and compared between sites to obtain generalised model of PMG economic behaviour. Detailed analysis will be conducted by comparison of spaces used for tasks in settlements. An interpretations will be made based on known facts from other Neolithic sites, mainly of L-PC, experimental and ethnographic data.

Lithic artefacts of PMG will be analysed with use of up-to-date protocols and equipment, that create an opportunity to reassess results obtained during pioneering studies. Obtained data on use of lithic artefacts will be supplemented with the zoological and botanical data, phytoliths and residues, resulting in multiproxy study of economic choices of the Neolithic societies. Analysis of chains of use and deposition, as well as conceptualisation of work division, will aid interpretation of PMG and Neolithic economic systems. This study is also set to shift the focus from lithic production to lithic usage and deposition. In doing so, it proposes dynamic work frame of use-wear analysis of Neolithic assemblages. The results of the study will be also recontextualization of “classic” Neolithic sites from the Lesser Poland area, and with new radiocarbon determinations aiding understanding of reception of Eneolithization process in the periphery of the Central-European Neolithic ecumene.