

Diversity and variability of osseous hunting equipment in the Late Pleistocene and early Holocene in Poland. Morphological, technological and functional study

During the Late Pleistocene and early Holocene hunting activities were one of the main subsistence strategies in that time. The Palaeolithic and Mesolithic hunters, develop many kinds of tools and methods of exploitation of the surrounding environment and this activity was very important part of their life. Unfortunately, under typical preservation conditions, nothing remains of complete spears and arrows in the archaeological record. However, the exception are very often the projectile points made from stone, and what important also those made from osseous materials. The Polish lands provided many archaeological premises supporting the assumption that osseous artefacts in a form of projectile weapon elements discovered in Poland represent a unique evidence of cultural, practical and technological development of that time.

The aim of the project is to analyse the methods of production and use of Late Pleistocene and early Holocene osseous hunting equipment manifested by projectile weapon elements discovered in Poland. This category of artefacts represented by different kinds of points, harpoon-heads, fishhooks and foreshafts are known in many forms in prehistoric sites, at least from the beginning of the Upper Palaeolithic. These specimens are very interesting for the researchers due to their clearly important and dynamic role in prehistoric material culture. Their morphology and technological characteristics constitute a useful tool for archaeologists in the reconstruction of evolution, chronology and the definition of Late Pleistocene and early Holocene cultures. The important role of projectile weapon in archaeological research is also due to their association with activities that had place in prehistory, like hunting or warfare, and they are very often the only remains allowing us to better understand this important fields of activity of our ancestors.

The main objective of the proposed project is to study the processing technology, its variability, diversity and rules for using prehistoric osseous projectile weapon elements discovered in Poland. The overall research plan provides the traceological study of osseous projectile weapon elements from Late Pleistocene and early Holocene sites. It includes archival artefacts both from excavated sites with established chronology and stray finds. The way to explain and supplement issues discussed in the project will be an attempt to determine by radiocarbon dating the chronology of the selected Late Palaeolithic and Mesolithic stray finds. In addition, selected artifacts will be subjected to detailed micro computed tomography (micro CT) analyses to try to determine the bone raw material from which they were made.

The presented project is important for many reasons. First of all, studies on technological and functional processes associated with the projectile weapons require continuous verification and expanding of the research apparatus. That is why, in the presented project detailed traceological analyses will play primary role during studies of the artefacts, semi-finished products and production waste. The study will focus on technical operational chain (choice of raw material and technological treatments – debitage, shaping, finishing), ornamentation (techniques used, kinds of patterns, ornamentation phases), consumption chain (traces of use, re-use and reject of the artefacts).

Summarizing, studies carried out in the project will give an ability to better understand the diversity and character of the Late Pleistocene and early Holocene hunting weapons and hunting methods in Poland. They will constitute a significant element of comparative studies involving other European complexes and regions.