

Mollusc shells discovered at archaeological sites in Poland rarely are the subject of detailed analysis. Archaeologists examining shell artefacts focus usually only on identifying their raw material. Sometimes, however, these items attract interest of researchers due to their potential "exotic" origin. Shells discovered far from their sources are considered to be the evidence of long-distant contacts between past societies.

The most widely known shell of the Neolithic period in Europe is definitely *Spondylus*. This marine shell was equated with wealth and prestige, and associated with farming societies that reached Central Europe in the 6<sup>th</sup> millennium BC. For this reason many finds of shell ornaments in Poland have been identified hypothetically as *Spondylus* without detailed analyzes.

Initial studies (conducted by the author) have revealed that most of ornaments were made of locally found shells, freshwater and fossil, from Miocene outcrops. Until now the real significance of these artefacts, as well as the role they played for the past societies, have remained unknown. The primary reason for conducting the research is to investigate "*Spondylus* myth" in archaeological studies and verify wrongly formulated hypotheses concerning far-reaching exchange networks. The research aims to involve various analyses of shell ornaments in order to reveal the significance of these artefacts in past societies. Shell ornaments will be discussed in different contexts, including cultural transformation, spread of farming, symbolism and craft specialization, trade and exchange, as well as burial rituals.

The proposed research project intends to reveal the life-history of shell ornaments that were used by the communities inhabiting Central Europe between 6<sup>th</sup> and 2<sup>nd</sup> millennium BC. Rich and spectacular shell ornaments found in burials at the archaeological sites in Poland allow the detailed studies and interpretation in a wider archaeological context. Shell artefacts will be investigated through the following analyses: malacological, paleontological, chemical, isotopic, microwear; additionally, the multi-layer examination will be supported by radiocarbon dating ( $C^{14}$ ).

Beads and pendants were the most frequent types of shell ornaments used for decoration of human body and dress (appliqué). Analysis of the ornaments involves basically: species identification, recognition of their sources, necessary measurements, and record of various traces preserved on these artefacts. The initial investigation has revealed that the ornaments were made mainly of locally found shells (freshwater and fossil) and in some cases of "exotic" shells acquired from the Mediterranean or the Black Sea. Thorough studies carried out on these artefacts will help to find out which shells were selected and preferred for ornaments production, from where they were acquired, and how these preferences changed over time. Detailed microscopic observations of microwear traces will permit to recognize how beads and pendants were produced, what kind of tools were used during the process and how people used and worn the ornaments (methods of suspension or attachment to garments). Experimental studies will allow for recognizing the way of ornaments production. In the process of testing, an attempt will be made to reconstruct shell ornaments using past production techniques. Replicas of flint, stone and bone tools will be used in order to learn how the ornaments were made and to identify the traces which are left on ornaments in the process. Chemical analyses will be employed to identify residues that cover the surface of shells. In specific burial conditions, ornaments buried with the deceased close to their bodies and garments absorb decomposing organic substances. Examining the residues of this kind may be helpful in determining materials with which ornaments were in contact, such as clothing, cords, yarns or material to which they were sewn (leather or cloth?).

The last step of the research is to interpret significance of shell ornaments in cultural contexts. Shell ornaments as personal items, apart from its decorative value, may have had social, economic or even magical importance for past societies. The ornaments may have played a role in social communication (by displaying higher social status, affiliation to specific group or community), in magic (as symbols and charms) and in other aspects of lives of past societies. Ornaments often reflect specific cultural patterns typical for the time period and geographic region. Sea shells found far from their sources testify to the existence of intercultural contacts, particularly exchange, between different communities in the past. Changes in ornamentation over time suggest cultural transformations. Specific types of ornaments were associated with the Mesolithic societies; different styles of decoration were brought into Central Europe by the first farmers and adopted gradually by local communities. The Early Bronze Age appears to mark an end in the use of shell ornaments as decoration of the deceased in the form known at least from the beginning of the Neolithic in Central Europe. During this long period shell ornaments appeared with various intensity among grave goods of different cultural entities. The study of shell ornaments from both the Neolithic and Early Bronze Age burials would give us an insight into burial practices, changing meaning of personal ornaments, changing technology, burial dress and rituals through time. The project will be an attempt to decipher the meanings of shell ornaments for the lives of people in the past.