Bronze Age agropastoralists and seal hunters in the coastal areas of the south-eastern Baltic Sea: A multidisciplinary study in zooarchaeology

Only some aspects of Bronze Age cultures in Europe have been well studied, with the main focus being on material culture and manufacturing economies which developed after the introduction of bronze, the new raw material for toolmaking. Not many studies have been carried out on animal husbandry and hunting practices among societies at the borders of European Bronze Age culture. Too few analyses have been made of animal remains at sites in the relatively harsh environments of the south-eastern Baltic Sea coast, especially those sites from the islands. The main goal of this proposed project is to discover how Bronze Age societies in this region managed the use of domestic and wild animals in their economies. The proposed research will primarily apply methods of zooarchaeological analysis to osteological materials from archaeological sites on Saaremaa island (Estonia). This analysis will be supplemented by two other kinds of studies from the same and other sites in coastal areas of Estonia, Latvia, Lithuania, and Poland, namely isotopic analyses of animal remains (using the isotopes of Strontium Sr and Oxygen O) and analyses of the season of death of domestic and wild animals.

The project's central objective is first to complete thorough zooarchaeological and taphonomic studies of Estonian osteological materials. The proposed studies will contribute to an understanding of the processes which created the accumulations of animal remains at archaeological sites. The studies will provide data to reveal human actions behind the formation of bone accumulations, and also will allow explanations of past human activities. An important aim of the proposed zooarchaeological research is to understand the interaction of people and animals and the consequences of this relationship for people and their environment from different places in Estonia. Zooarcheology is a field of scientific study that tries to understand how particular mammals were used, not only domestic animals but also wild species. Examples of questions of interest include (1) were animals used for the production of meat or hides? (2) How were wild mammals hunted? (3) What was the age structure of domestic mammalian populations? Zooarcheological studies also can provide answers to many other more detailed questions, such as the practical choices made by people when butchering animals. Zooarcheologists address these and similar questions by supporting and supplementing the data-recovery work of archaeologists, contributing to much more detailed interpretations of past human behaviour.

In addition to the proposed zooarcheological studies, project members will carry out Strontium and Oxygen isotope analyses of remains from domesticated animals and wild animals, especially seals. The results should provide information on possible directions of trade in animals and patterns in animal migrations. The results also will help determine the areas where seals were hunted. Altogether, the studies will supplement our knowledge about paleo-environmental conditions in the south-eastern part of the Baltic Sea coast.

A third part of the project will be studies of the season of death of different mammalian taxa. As with the isotopic analyses, this part of the proposed research will concern mammalian species that are domesticated and wild (mainly seals). The analyses will be the first to include Bronze Age materials from the south-eastern part of the Baltic Sea coast. The studies will create a new body of data about the time of slaughter of domestic mammals, contributing to the extension of knowledge about the principles of breeding in prehistory. In addition, information about the season of death of hunted seals will help to reconstruct hunting strategies of these marine mammals.