The main objective of this project is to check whether use of statistical analysis may facilitate discovering the connection between the objects from cemeteries of Tarnobrzeg Lusatian culture and age and gender of the dead. Such objects could be an indicator of cultural gender, which physical anthropologists are not able to indicate being limited to research on biological sex. For archaeologist who is primarily interested in issues of cultural character such an indication of cultural gender would be an extremely important element in exploring culture of people who lived in prehistory in our territories.

What is important to highlight, is that we will deal with Tarnobrzeg Lusatian culture. This is a culture developing from the middle Bronze Age to the beginning of early Iron Age (from thirteenth to third century B.C.) i.e. for nearly 1000 years. The people of this culture lived on the territory of current Podkarpackie voivodship in the fork of Vistula and San Rivers, where western border of the area was marked by Wisłoka River and the southern border was marked by the upper course of San River. It is one of the best identified archaeological cultures on the Polish lands. We have here a number of well-checked cemeteries, and some of them were developing over several hundred years. And we are in possession of a large set of anthropological data for them. The data are not without significance in the analyses below. Although to a certain extent our research is to give archaeologists a chance to verify data obtained by anthropologists, as for now their data is the only gender determinant. An important issue which should be addressed here is the relative poverty of the graves of this culture. Usually except of urn there were no other elements of the grave what makes us draw particular attention to the urn as the most popular element. It is difficult to accept that at least on these items no attempts to mark sex, age or social position of the individual were made. This poverty is telling us to look specifically at the individual elements of the grave, as it seems quite certain that they were not laid in the particular grave by accident.

The main part of this project shall be primarily statistical analyses with the use of STATISTICA12. It allows us to perform all the necessary research, such as correspondence analysis, cluster analysis, correlation analysis and regression analysis (statistic modelling). With their help we are going to group objects (urns, bowls, metals and decorative motifs of vessels). Then we are going to try to connect these objects to age and geneder of the deceased. In the study we are going to use the correlation theory (Spearman factor, chi^2 test for quality characteristics and contingency factor) and tests adapted to data and showing the differentiation of quantitative characteristics (e.g. vessel dimensions) by gender and age (analysis of variance or its non-parametric equivalents, Mann-Whitney test, Median test, Kruskal-Wallis test).

We are going to use very similar methods at the attempts to associate particular objects with richness of burials which could allow us to identify items of prestigious nature.

For spatial analysis the author will use Quantum GIS 2.18. This software is generally used for all kinds of spatial analysis, including the analyses of settlements and cemeteries. Also statistical methods are going to be incorporated in spatial analyses, among others data analysis based on selected concentration coefficients (e.g. Lorenz coefficient).

As for the reasons for such research topics there are a few issues. The first and most important is long-term interest in prehistory of Polish lands, including the Tarnobrzeg Lusatian culture. What is important here we are also interested in the issue of funeral archaeology as the only one which gives us direct connection with purely cultural and religious issues of people living in the time period of our interest. And finally, the author is aware, that at this stage of knowledge there is no point for any further acquisition of exhibits and describing them. Currently the archeologist's objective should an attempt to use these materials for the purposes of broader socio-cultural analysis. And finally, the author has been motivated to take this subject by inequalities in relations between the archaeologist and anthropologist, where the stronger position of the later is clearly noticeable.