

### **1) Research project objectives**

Research project objective is to reconstruct all possible aspects of social-cultural past of people as well as environment at *Akrai/Acrae* and its vicinity through the archaeological excavations and multidimensional analysis of material culture. In detail, the life within the one household will be reconstructed, together with house decorations, equipment and daily life objects, what will allow to answer the question of who were the inhabitants, how they lived, what they were doing, what they ate and cultivated, what they believed and what was pleasing their eyes. In extensive view, the results of research will try to answer about human impact on the natural environment and vice versa; how and where they were moving, and where and from where they brought different products. Particular attention will be focused on the Roman period the town's existence, after 212/211 BC-5th century AD, due to the current tendency of marginalizing and depreciating this particular part of town's history in the studies of ancient Sicily. Particular interesting will be observation of interaction between old Greek culture and newcomer Roman culture, together with transformations of both these cultures as an effect of interactions during the period of Roman province since 3rd century BC, resulting in the creation of an unique alliance: so close to Rome and Italy on the one side, and so far from this on the other.

### **2) Research project methodology**

The research in *Akrai/Acrae* involves the modern archaeological and archaeometric methods (eg. used by biology, chemistry, physics) in the study processes, which can help explore the scientific topics not mentioned previously or based only on traditional elaborations. Besides the archaeological excavations, scientific elaboration and conservation works, following works will be implemented:

- verification the geomagnetic (conducted in 2009) and geo-electric (in 2015) measurements and to supplement the information about the residential complex and insula grid;
- reconstruction of material culture based on the analysis of artefacts, including a comparative analysis of archaeological material from other sites using traditional and archaeometric methods (paleobotanical, petrographic and physico-chemical analysis);
- to reconstruct the nutrition and follow the changes in dietary preferences through the osteological, lipid, paleobotanical, and isotope analyses, macrobotany, analysis of cooking and plain pottery, cooking tools etc. In addition to the diet, it can help understand the usage of plants in medicine, as well as circulation of food products, exploitation of agricultural areas in the vicinity of the town, etc.;
- to study and reconstruct the natural environment and landscape (landform, the original flora and fauna) which the town functioned in and the human impact on environmental changes (palynological and geological analysis, archaeozoological studies). It also allows for tracing the influence of vegetation and climate changes on human behaviour and demographic patterns, and the anthropogenic impact as a shaping element of the environment.

### **3) Expected impact of the research project on the development of science, civilization and society**

This archaeological site for many reasons creates an extremely wide opportunities to involve the modern multidisciplinary archaeological and archaeometric methods in the study processes, thanks to the access to the whole town's territory and the lack of modern buildings there. Significant scientific potential of this archaeological site has been confirmed by previous studies, which brought a huge amount of artefacts and architectural remains, providing a high cultural level of ancient people. Also their diversity brought the perspective to use multidisciplinary methods, not often use in Mediterranean classical archaeology. In addition, multi-faceted and modern studies of everyday life and relations human-environment, have not been yet the subject of scientific examination in Sicily, usually were focused on the public buildings and sphere. All these factors allow to reconstruct and unveil the past of *Akrai/Acrae*, whose history is practically unknown due to the lack of available written sources. It opens opportunity for multidisciplinary studies within archaeology and other scientific disciplines. The results of the project have the supralocal and universal ranks, and may become the new standard for other expeditions (including publications of studies). An undoubted benefit would be the fact that the project is leaded by Polish scientists, what would be a good advertisement of our country on the international arena.