

Elemental and technological analysis of IX-XI centuries artifacts from Pliska

The origin of the proposed artifacts is from archaeological structure investigated during the regular archaeological excavations in the first Bulgarian capital Pliska.. The samples are dated on the base of stratigraphical and typological characteristics in the chronological frame of the beginning of IX century to the middle of XI.

More than 20 artifacts are chosen for PIXE analysis with different style and produced with different technologies and from different craftsman. There are samples from local production but some are produced outside of Bulgaria. The origin, the used methods of work and technologies, and if possible the origin of the used metals, are very important for full description of the social life and foreign exchange of Bulgarian state at that epoch.

The significant part from them are assigned to the period of the most active inhabitation of the Inner city of Pliska town, from the second part of the IX centuries to the first 3 decades of the XI one. The personal belongings, decorations for man and women, religious, including some connected with trade operations are counted in. There are several from the most earlier part of the above mentioned interval, first part of IX century, or even from the end of VIII one.

The main part of the artifacts are connected with Byzantium culture, but probably are productions of the local craftsmanship. On the same time it is possible import from Byzantium provincial or capital workshop.

Some of the artifacts are with well established (or proposed) import, most likely from East Europe (Volga Bulgaria or Nord Black Sea) and are associated directly or indirectly with Arabian culture.

The PIXE analysis for such archaeological artifacts is one of the most convenient and informative , essential in the cases when different metals are used for one sample, for example a compound composition, or when all or part of the surface of samples is covered with other metals, such as gilding, silvering and etc. The results from PIXE analysis will be very useful to clear up the elemental analysis of the samples including the technology of production (gold carats, etc.) in some of the cases. The received data will be used to make some comparison to the similar data from the investigated epoch and by this way to understand better the life and intercultural and commercial contacts of the first Bulgarian capital Pliska.

The results will be published in suitable journals, like some results on the topics already published in 1 – 3.

Literature :

1. G.Ilieva, Lunovidna plastina s mitologichni sceni ot Pliska, Archaeology, 2011, 1
2. V. Yotov. A New Byzantine Type of Swords (7th-11th Centuries).- In: *Archaeologia Bulgarica*, 2011, 113-124.
3. D. Rabovyanov. Early Medieval Sword Gwaeds from Bulgaria.- *Archaeologia Bulgarica*, 2 (2011), 73-86