RUSSIAN-ITALIAN COMPUTER ASSISTED INVESTIGATIONS IN SARMATIAN ARCHAEOLOGY

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In 1989 the Institute of Archaeology of the Russian Academy of Sciences (at that time the USSR Academy of Sciences) and the Italian Institute of Studies of the Middle and Far East (IsMEO) concluded a treaty on scientific cooperation. In frames of that treaty a joint study of the archaeological monuments and material with the help of computer technics was foreseen.

By that time the specialists of IsMEO, R. Biscione and L. Bondioli, had conducted an interesting work of computer analysis of 138 burial complexes from the necropolis Sappali-Tepe in Central Asia belonging to the Late Bronze Age. They had received important results in the field of the definition of the social status of those buried in the necropoleis. That was the reason of the organization in frames of the above mentioned treaty of the much more developed project "Computer Study of the Burial Monuments of Asian Sarmatia."

From the Italian side the work in the project is conducted by collaborators of IsMEO, archaeologists and mathematicians, Prof. M. Tosi, Dr. L. Bondioli, Prof. B. Jenito, Drs. R. Biscione, A. Guidi and M. Bernabi. An expert in ancient written sources, professor F. Bosi of the University of Bologna was attracted to the project. From the Russian part the studies are conducted by the collaborators of the Section of Scytho-Sarmatian Archaeology of the Institute of Archaeology, Russian Academy of Sciences, Prof. M.G. Moshkova, Dr. V.A. Bashilov and post-graduate Z.A. Barbarunova. The Volgograd State University, represented by its archaeologists, Dr. B.F. Zhelezchikov, Prof. A.S. Skripkin and research collaborator I.V. Sergatskov, is enjoining full rights in the project. The mathematical calculations are executed in the Laboratory of Historical Information of the Historical Institute of Moscow State University by Drs. L.I. Borodkin, I.M. Garskova and research collaborator V.V. Lazarev.

The nomadic Sarmatian tribes, which in the 6th cent. B.C. - 4th cent. A.D. occupied the territory of the steppes of Ural, Volga, Don basins and the Northern Caucasus are known after the ancient written sources. However, much more detailed information about them is contained in the archaeological sources. At present an enormous amount of material is accumulated, including several thousands of Sarmatian burial complexes and, correspondingly, tens of thousands of
objects discovered in them. The scholars are dividing this material into four chronological periods; each of them corresponds to a certain archaeological culture. All of these are, on the one hand, distinctly different, but on the other, have a considerable number of successive features in the traditions of the material and, as far as may be suggested by the data of archaeology, spiritual culture. The historical picture is complicated by the fact that occupying vast territories of the Eurasian steppes, the Sarmatian tribes had considerable variations in the above mentioned features in different regions of that area, although they composed a single cultural-historical entity.

The objective analysis of these similar, but at the same time, heterogenous material, scattered in various museums and scientific centres of the country, is possible only on the basis of statistic methods and computer technology. Only with their help the scholars are able to extract the maximum of information, contained in the huge masses of material and to receive the most reliable objective basis for the historical reconstructions.

Turning our attention directly to the material of the burial complexes of the Asian Sarmatia, we have aimed two main groups of the scientific tasks:

1. To study the burial rite of every period, giving each of them maximum full characteristics, i.e., to conduct the qualitative analysis of the features and to single out the groups of various levels, varying in the degree of resemblance and difference. That will give ground for the solution of the problems of the ethnic, chronological and historical interpretation of every separate period or the archaeological culture and the entire block of the cultures both in the spatial and the chronological cuts. These problems are studied by scholars of the Institute of Archaeology, Russian Academy of Sciences, and of the Volgograd and Moscow Universities.

2. To distinguish in the burial ritual of the already singled out cultures and local variants such typological groupings, which may serve as the features of social variations and on that basis to reconstruct, as far as possible, the social structure of the Sarmatian society. That part of the project is conducted by Italian scholars.

It is supposed to conclude the joint studies by the publication in Russian and English of the series, each issue of which will be devoted to one of the periods of the Sarmatian history. The final volume will include the general picture of the history of the Asian Sarmatia in the 6th cent. B.C. - 4th cent. A.D., reconstructed on the basis of the performed analysis.

Each culture, to which will be devoted the above mentioned books, has a specific archaeological complex, discussed as an independent source basis. The