



## **THE HISTORY OF ANCIENT TANAIIS AGAINST THE BACKGROUND OF CLIMATIC FLUCTUATIONS (3rd CENTURY BC – 5th CENTURY AD)**

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The key events in the history of the antique city of Tanais were considered against the background of climate fluctuations, starting with the 3rd century BC and ending at the 5th century AD. For the reconstruction of climatic conditions in that period the palynological, phytolith and paleopedological data for the northeastern Azov Sea coast, in particular, and for the steppe zone of the European part of Russia as a whole were used. The antique city was located on the right bank of the river Tanais (Don) near its confluence with Meotida (Azov Sea) and exercised trade and economic relations with the barbarian (nomadic) population inhabited the neighboring steppes. It was shown that the foundation in the 3rd and growth of Tanais in the 2nd centuries BC took place in relatively moist climatic conditions comparable to those of the modern period. The most devastating conquest of the city by the Bosphorus King Polemon was at the end of the 1st century BC during peak of climatic aridization when Tanais could be under influence of an economic crisis. Study of the chrono-sequence of paleosols buried under stone walls of the city constructed since the 3rd century BC till the 1-3rd century AD showed the increasing carbonate and gypsum contents and percentage of exchangeable sodium in the sum of exchangeable bases since the beginning till the end of the examined chronointerval. This confirms the strong climatic aridization on the eras' turn. According to the pollen analysis, throughout the whole period of the city existence, it was surrounded by steppe communities, and the pollen of coniferous (pine) was also found. Especially coniferous content was high in the very first and last periods of functioning of the city. At the turn of the eras, the pollen of grassy plants, and in their composition - chenopodiaceous plants and cereals, sharply dominated. There are the highest percentages of pollen of cultivated and weed plants (4-6%) in the spectra relating to the first period of the city's life (2nd-1st centuries BC). The phytolith analysis agreed with the pollen data and additionally evidenced that conifer wood and reed were widely used in economical activity of population in the first period. Together with the highest quantity of coniferous and reed phytoliths, the straw of cultivated cereals were observed in cultural layers of the city of the above mentioned period. Climatic conditions since the second half of the 2nd till the middle or end of the 4th centuries AD were characterized as humid again. Another wave of aridity was dated to the first half of the 5th century AD. In the era of Great Migration of peoples, at the end of the 5th century AD, the city stopped its existence. This study was supported by the RSF, project no. 16-17-10280.