ANCIENT AGRICULTURE IN THE SOUTH OF WESTERN SIBERIA: PROBLEMS OF PALEOETHNOBOTANICAL ARGUMENTATION

Key problem

Agriculture remains one of the most poorly studied types of economic activity of the ancient population in Siberia. Most researchers agree that it is difficult to judge about the crop cultivation in ancient times on the basis of agricultural tools or instruments, however it is almost impossible to differentiate patterns’ tools and early agricultural tools (such as grinding stones, sickle-shaped blades or hoe). Only with the help of paleoethnobotanical research we can understand the time of agriculture emergence and its specific features. However, on the basis of indirect evidence (ecosystem, availability of edible “early agricultural tools” in the inventory), archaeologists in Western Siberia have made straightforward conclusions about transition to agriculture already in the Chalcolithic or at the beginning of the Bronze Age.

In this study we try to find answers to the following questions. How are these cultural contexts and geographical areas in the south of Western Siberia? When could it appear and what kinds of crop plants were grown?

Methods

Biometric method allows us to identify phytoliths and cereal grains not only from the arable land, but also from the domesticated areas, and thus to form a complete picture of the crop cultivation. In this work two methods were used: phytolith and starch analysis. Overall, the sample for phytolith analysis was divided into three main periods: a. early Holocene (6000-4000 BP); b. late Holocene (4000-0 BP); c. Recent (Recent). The sample for starch analysis was divided into four main periods: a. early Holocene (6000-4000 BP); b. late Holocene (4000-0 BP); c. Recent (Recent); d. modern (Recent). The study of the process of paddy cultivation is addressed by the problem of which cereal crops have been grown in Western Siberia and which were their phytoliths and starch remains in the soil. The problem of the appearance of paddy cultivation in Western Siberia is addressed by the problem of which cereal crops have been grown in Western Siberia and which were their phytoliths and starch remains in the soil.

Analysis of the data

Conclusions

The archaeological assumptions about agriculture in Western Siberia at the beginning of the Chalcolithic are probably premature, because they haven’t been supported by any paleoethnobotanical findings. In the south of Western Siberia, cereal phytoliths and cereal grains, mostly barley, were found. The first century of the 1st millennium BC is the most probable time for the inclusion of agriculture into the structure of the economy. The study of the emergence of agriculture in the south of Western Siberia is also associated with the emergence of Russian peasantry in the early western Siberia.