

# ANNIVERSARY OF ANDREI ALEKSEEVICH VELICHKO

In every branch of human activity, there are leaders or, as they say now, the “stars”. Basic science of Geography is certainly no exception. One of the brightest stars on the “geography horizon” is, of course, Professor Andrei Alekseevich Velichko. At the end of June this year, he turned 80 years old. This is a very significant date of his meaningful life, full of interesting work, travel, discussions, and reflections. The life of a true intellectual and a great scientist who has his own opinion and own position and who is capable of defending them in any audience.

In 1953, A.A. Velichko graduated from the Department of Geomorphology, Faculty of Geography, M.V. Lomonosov Moscow State University. The first studies of the young geomorphologist were devoted to the paleogeography of the Upper Paleolithic period of the East European Plain. He carefully studied the numerous sites of ancient man in the basin of the Desna river (a tributary of the Upper Dnieper). A.A. Velichko’s research marked the beginning of an entirely new character of the work of natural scientists at archaeological sites. A fresh look of the scientist-geomorphologist on the stratigraphy of the deposits, on the position of the monuments in the landscape, and, particularly, on the role of cryogenic processes in the formation and transformation of cultural backgrounds have brought a new light and appreciation to a distinct character of sediments and buried traces of human activity in the very early stages of colonization of the East European Plain people.

The work on the stratigraphy and geomorphology of the Pleistocene became the springboard that defined a particular interest of Andrei Alekseevich in the history of relief and unconsolidated sediments formation in the late Pleistocene, i.e., in the problems of paleogeography of modern times. Immersion in the history of nature in the late Cenozoic period made him, shortly, one of the leading paleogeographers of

our country, and, soon after, of the world. In 1971, the Division of Paleogeography was established at the Institute of Geography of the USSR, which was headed by Andrei Alekseevich Velichko. His monograph “Natural Process in the Pleistocene” (1973) written during this period, for many years, became a major source on Pleistocene paleogeography for all professionals interested in the Quaternary period. The author miraculously managed to evaluate numerous factors influencing ecosystems in the distant past in their complex interactions, to highlight distinct conditions of the late Pleistocene (e.g., the occurrence of such phenomena as hyperzonation), to explain their occurrence, and to create a coherent and convincing picture of evolution of nature in the past hundred and thirty thousand years, approximately. This work was presented with an award: A.A. Velichko received F.P. Litke Gold Medal of the Russian Geographical Society.

In A.A. Velichko’s paleogeographic research, an important place is occupied by the study of the loess-soil-cryogenic formation of the periglacial zone which contains the most complete information about the sequence of natural events over the past 1–1.5 million years in the continental regions. A.A. Velichko proposed a new definition of loess as a component of the pedo-lithosphere of the glaciation epochs formed as a result of synchronously developing processes of accumulation (mostly by air) of silty mineral mass and its transformation by the combined effect of arid soil processes (synlithogenic soil formation) and the influence of plant root systems of tundra-steppe communities and frost weathering.

The work of the entire Division of Paleogeography (since 1991, the Laboratory of Evolutionary Geography), which has been headed by Doctor of Geographical Sciences, Professor A.A. Velichko, throughout its existence, has been marked by a complex research approach to the nature of the



**At the Conference...**

past. The Laboratory has been using a wide arsenal of paleogeography methods. But A.A. Velichko has been never satisfied with the results already achieved and has been always incorporating in the activities of the Laboratory the latest collective achievements of colleagues in other scientific organizations of our country and the world. Gaining early in his scientific career international recognition as one of the best experts in the field of study of the Quaternary period, A.A. Velichko has initiated several international projects aimed at addressing some of the major problems of evolution of nature in the Cenozoic period. Since 1970s and over many years, with the active participation of Professor A.A. Velichko, large-scale joint US-Soviet paleoclimatic studies (perhaps, the first in this area) and the Soviet-French cooperation devoted to research of the interaction of primitive man and the environment have been conducted.

In 1977, A.A. Velichko became Head of the INQUA (i.e., the International Union for Quaternary Research) Commission for



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paleogeographic atlases, which he led for three (!) terms. The most important result of this work was the international edition of the atlas of climates and landscapes of the Northern Hemisphere during the Late Pleistocene and the Holocene (Atlas of Paleoclimates and Paleoenvironments of the Northern Hemisphere, 1992). The work on the creation of paleogeographic atlases-monographs has become an important aspect of A.A. Velichko's further research. Under his leadership, the Laboratory of Evolutionary Geography prepared and published a series of paleogeographic atlases dedicated to the development of nature in the late Pleistocene in large regions of our country, to the dynamics of landscape components and marine basins of Northern Eurasia in general, and to the issues of climate and landscape dynamics under global warming, i.e., to the forecast of natural changes in the future.

Careful analysis of paleogeographic materials and the study of environmental changes and their causes have led A.A. Velichko to a deep understanding of landscape and climatic changes in the past and to potential to predict future changes. Numerous works in these areas published over the past 20 years make A.A. Velichko one of the leading experts in the field of paleoclimatology in our country.

The broad scope of issues of landscape and climate changes on the Earth, a deep analysis of the linkages between the processes of landscape formation and the earliest human settlement on the planet, and understanding of the importance of various levels of natural climatic fluctuations of our planet, all of this suggests that Andrei Alekseevich Velichko is an example of a true scientist whose work deserves a place of honor with the most known geographical works.

*We heartily congratulate Andrei Alekseevich on his birthday. We are happy to see his creative potential that has not exhausted itself over the years and his ability to continue to raise the boldest scientific ideas and to manage successfully a large research team. We wish him health and continuing success!*