“Elephants” and “Turtles” of Geoarchaeology

Abstract
The paradigm shift in archaeological research in the primitive archaeology of Russia at the turn of the 20th and 21st centuries was marked by a transition from the stage of mass accumulation of primary data to their analytical and theoretical interpretation. Another inevitable consequence of the socioeconomic and scientific crisis was the appeal to the methods of geoarchaeology, thanks to which it was possible to reach a qualitatively new level of extracting information from very specific Late Pleistocene and Early Holocene sources. A significant contribution to the development of the principles of geoarchaeology in Russia was made by representatives of the Irkutsk Archaeological School, which was headed by G. I. Medvedev (1936–2015) for a long time. The binary term “geoarchaeology” includes two roots: “geo” or the science of the Earth, more precisely its division – quaternary geology, corresponding to the anthropogenic stage of development, and “archaeology” or the science of antiquities – the results of human activity. These are, in the words of medieval philosophers, two “turtles” on which geoarchaeology floats in the ocean of knowledge. And four “elephants” resting on these “turtles” – these are geomorphology, paleogeography, soil science and taphonomy. Without this sextet, it was and is archaeology + natural science methods. Geoarchaeology is a special discipline that generates the results of natural science research methods, samples for which are obtained through archaeological excavations. The subject of geoarchaeology is a prehistoric man, traces of his activity and position in the system of developing nature, which the researcher comprehends through archaeological excavations and destruction of an objectively existing natural-anthropic object. And all subsequent prospecting work is performed with the data obtained during this irreversible procedure. Essentially, geoarchaeology is a modern, effective tool for understanding the history of the development of paleosocieties and their habitats.

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When Columbus lived, people thought that the earth was flat. The mytheme of a giant turtle or tortoise supporting or containing the world occurs in Hindu mythology, in Chinese mythology and in Native American mythology. The mytheme of a World-Tortoise, besides that of a world-bearing elephant, (see below, Ivar) was discussed comparatively by Edward Burnett Tylor (1878:341). The Turtle Myth in China. In Chinese mythology the creator goddess Nüwa cut the legs off the giant sea turtle Ao (鳌) and used them to prop up the sky after Gong Gong damaged the Buzhou Mountain that had previously supported the heavens.