

SCYTHIAN AND KYRGYZ BURIALS IN TUVA AND UPPER YENISEY REGION – FROM REMOTE SENSING TO ARCHAEOLOGICAL EXCAVATIONS

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Abstract

Archaeological excavations in Tuva Republic and Krasnoyarsk Region, Russia Federation, take a place along the planned railway line Kyzyl-Kuragino. Wide archaeological works are done due to the high number of burial sites situated on the planned route of railway and therefore will be destroyed during the construction works in, so called, Tuvian Valley of the Kings and Upper Yenisey region. The burials of Scyths, who wandered around the Eurasian steppe, from the northern borders of China and Mongolia to the west, the Black Sea region, are remaining from the 7th to 3rd centuries B.C.; some of the burials belong to Yenisey Kyrgyz culture and they are thought to be of younger age. The structure of burial site, named 'kurgan', firstly is shaped by using satellite and remote sensing pictures as visual distinctions of burials in the area can be observed more clearly from above. Further, potential expedition routes in taiga and steppe environments are planned and archaeologists do the preliminary inspection of the burial mounds to be excavated and researched in details. Under the supervision of scientists, brigades of volunteers are formed and clean-up of each individual burial mound starts by removing vegetation and land body mass which covers the structures. Stones are cleaned from dust and greenery; picket-marks are installed and detailed photographic sessions from several meters above kurgans provide the set of pictures for subsequent processing and research. Every stone is measured using geodetic instrumentation. Next comes removal of kurgan stones, except the main concentric circle structures of larger stones, digging is performed until the natural soil layer is reached. The two thin land-strips oriented athwart and crossing all the concentric structure are maintained from the original mound structure. Fresh cuts on both sides of these land-strips are made until the surface of the natural soil layer. Geodetic and photogrammetric measurements after data processing and application of special software allow to create the 3D model of the kurgan structure. Afterwards, based on the experience from previous archaeological studies in similar sites and specifics of each structure, digging in depth can begin close to the central part of the kurgan. Unfortunately, most of the burial sites have been robbed already in ancient times; these irruptions can be pinpointed if the central part of the structure itself is slightly depressed, but texture of soil layers is folded and disturbed. Wooden coffins can be situated in various depth, from 2 m to 6 m, and are remaining in different conditions. Therefore, careful investigation must be performed before removal of bones and artifacts prior further analytical part of studies is proceeded. Research of Scythian and Kyrgyzian kurgans in the Kyzyl-Kuragino railway project area have been performed intensively during the last decades, more intense works are done from 2011 till present with the great help of federal and local governmental authorities, scientific community, international company "EVRAZ" and Russian Geographic Society.

Keywords: Scyths, Yenisei Kyrgyzs, Tuva, photogrammetry, kurgans