PLANTS IN LIFE OF THE POPULATION OF GONUR-DEPE (ANCIENT MARGIANA)

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This research is devoted to results of the study of plant remains from excavations of a Bronze Age site Gonur-depe (Turkmenistan, Bactrian-Margiana Archaeological Complex or Oxus Civilization). Plants were widely used in both utilitarian and rituial purposes. Agriculture was developed in the settlement. Several kinds of wheat, barley, millet, legumes, fruit trees, grapes were cultivated. Saxaul, arboresced thistle, tamarisk, djuzgun, and camel-thorn were used as fuel. Poplar (*Populus sp*.) and willow (*Salix sp*.) were used in the buildings structures (beams in the palace, roofs of the external walls of the Kremlin). Some types of wood were brought from afar, and used for making of the artifacts: maple, elm, sumac or smoke tree (*Cotinus corrygria*), Vitex sacred (*Vítex agnus-castus*) and others. Plants theme is often found in cult things (pottery, seals, amulets, mosaics). Different images of the "world tree" were found. Among the finds, there is a unique figure of "the goddess of vegetation" with accurately executed ears of wheat. On the seals and amulets floral images which can be interpreted as "tulip", "poppy", "cannabis" are seenb. Furthermore, large vats and baths for pre-soaking plants, stone graters, pestles, mortars and strainers (conical vessels with holes in the center of the bottom) were found. It is assumed that they could be used for making a ritual drink – like Soma – Haoma.

Key words: *archaeobotanical researches, Oxus Civilization, Gonur-depe, Bronze Age*

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PALEOANTHROPOLOGY OF KAZBURUN FUNERAL-SETTLER COMPLEX OF SOUTHERN URALS

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The Late Bronze Age in the Southern Transurals (Beta Analytic: 1890–1750 BC) is characterized by uniformity of obsequies of barrow burials and Srubnaya culture settlements. In the basin of Urshak river, having area of 23.4 km2, Kazburun archeological region was identified, which monuments materials were used as a base for a complex of natural science investigation methods. The Kazburun archeological microdistrict belongs to homogeneous in archeological material interfluve of Urshak river and Dema river. A group of investigated sites included the monuments of Kazburun burial and settlement complex (Kazburun I–III barrow mounds, Muradymovsky settlement, Usmanovsky I, II and III settlements). They carried out paleopedology investigations of the Late Bronze Age settlements, belonging to one cultural tradition – Usmanovsky II settlement (Usmanovo–2, settlement), Usmanovsky III settlement (Usmanovo–3, settlement), located at the Urshak river bank, Muradymovsky settlement – at the bank of a small brook. As may be supposed, people of this culture came to the Urals from the south, from dry steppes, almost semi-deserts and brought traditions of house building of gypsum (Sherbakov, Shuteleva, Obydennova, Balonova, Khohlova, Golyeva, 2010). In the biggest settlement various anthropologic material was found. In the mound of the settlement there was a grave of a child (1.2–1.5 years old). A study of the Kazburunovsky I burial mound provided the following anthropological materials: two adults buried at the age of 50–59 years. After anthropological analyzes carried out by K.A. Gorshkov, the cause of death of one of them was found out: a fracture of the skull base. In addition, the buried human had traces of paleo-disease that led to the complete merging of the large pelvic bones and femurs, as well as to the complete immobilization of the spinal column. Also, the

remains of two boys, aged 7 and 14 years, were found in the studied mounds. The 14-year-old boy was diagnosed with a fractured left femur, most likely during his lifetime, and that could be a possible cause of death. This teenager also had “stress marker” on his teeth, which leads to a conclusion about food irregularity in the diet of human groups in the Late Bronze Age. The traces of paleo-disease with similar symptoms were revealed in one of the buried adults in Muradymovskoe settlement (Obydennova, Sherbakov, Shuteleva, 2006). At present this requires further research.

Key words: *Late Bronze Age, Southern Transurals, Srubnaya and Andronovskaya cultures, paleo-disease*

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PALEOPATHOLOGICAL ANALYSIS OF SKELETAL REMAINS FROM A 10TH-12TH CENTURY AD CEMETERY FROM HUNGARY

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The aim of our study is to present results of the paleopathological investigation of a 10th-12th century AD cemetery from South-East Hungary. The examination of the skeletal remains of 59 individuals was performed using standard macromorphological methods of bioarchaeology. Before the paleopathological analysis of the series, sex and age at death of individuals and state of preservation of the observable skeletal elements were also recorded. In spite of the poor state of preservation, the examined osteoarchaeological series showed a wide range of paleopathological alterations: skeletal traces of degenerative articular changes, traumas and infectious diseases were observed. This presentation focuses on infectious lesions. On the basis of the detected alterations (rib lesions, superficial vertebral changes / hypervascularisation, endocranial alterations and potential stress indicators or infection markers, such as cribra orbitalia and long bone periostitis) the diagnosis of probable early-stage TB was supposed in five cases. Although a positive correlation seems to exist between these alterations and TB, they are not always pathognomonic to tuberculosis. In order to confirm the assumed diagnosis, further biomolecular investigations are planned. A mature female individual showed signs of severe destruction of the right maxilla most probably as a result of periodontal inflammation. The same skeleton revealed skeletal evidence of symbolic trephination on the middle of the sagittal suture. It cannot be excluded that this intervention was made for medicoritual purposes. Our results contribute to improving the knowledge on health status in historic populations of Hungary at the time of political and cultural transition from Eastern traditions to feudalism and Christianity. The support of the Hungarian Scientific Research Fund, OTKA NN 78696 and OTKA N° 78555 is greatly acknowledged.

Key words: *paleopathology, Hungary, 10th-12th century AD, tuberculosis, periodontal inflammation, symbolic trephination*

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COLOR AND CONSTITUTION: EXPERIENCE OF STUDYING AESTHETIC PREFERENCES

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It is impossible to draw clear interdisciplinary boundaries in the study of color concept regarding interactions between human and color-light environment, and anthropology may be used as a complex approach to this study combining both science and humanities. In this case we can define color preference as part of the