Alina Veiber
Kyiv, Ukraine

Overview of the Osteological Mammal Material From the Surska Culture in the Context
of Its Development and Adaptation of Its Communities to the Natural Environment

The paper considers the osteological mammal material belonging to the Sursk culture, which existed from the beginning of the 5^{th}-4^{th} to the 3^{rd} millennium BC. It occupied territories of the Dnieper Rapids, the modern territories of Dnipro and Zaporizhia regions. The osteological mammal material was selected and described on sites of Vovniga (1929-31), Sursk Islands I and II (1946) and Shulayev Island (1931). Today, chronological limits of the Sursk culture have been clarified and supplemented, so the middle stage of the culture development accounts for 6150 - 5650 BC and the later stage for 5650 - 5200 BC. Archaeological research was carried out in the mid 20^{th} century in connection with construction of the hydroelectric power plant and its post-war recovery. Today, the archaeological sites are completely flooded. The osteological material of the Sursk Island I and II was partially described by the researcher, archaeologist V.M. Danilenko. In more details, osteological materials of the Sursk Island I and II and the Shulayev Island were described by the zoologist I.G. Pidoplichko. The scientist focused on determination of species composition and calculation of the minimal number of individuals in each site.

The present study shall review the descriptive material from the archeological standpoint, clarify the species composition of mammal bones of and analyze traces on it.

All the osteological mammal material being examined is kitchen scraps from the consumed meat, bones of fur animals, animal bones with traces of processing and tools made of bones.

Poor preservation of the bone material, namely the high degree of fragmentation, rounding and cracks on a bone surface, significantly reduced the number of methods applied in the course of examination. They identified species, where possible, age and gender structure of animals, described the ratio of domesticated and wild species in selected sites.

The species composition in all sites differs by the percentage ratio of wild and domestic animals. The degree of domestication of pigs from the Sursk Island is still to be determined. Most of domesticated animal bones in presented in the Vovnigy site, the least number on the Shulayev Island. We may attribute these results to a different arrangement of selected cultural sites in the chronological period, different ways of adaptation to natural and geographical conditions and the possible incompleteness of samples.

Assessment of the bone chopping patterns allows us to conclude on the role of certain animal species in the cooking traditions of a society, the hunting strategy and the role of cattle breeding. The most important animals were wild deer, bison, roe, rabbit, domestic cow, goat or sheep. In sites of the early cultural development – the Shulayev Island and the Sursk Island – they found bones of dogs and wolves with traces of cooking.

A smaller percentage of bone was attributed to waste. In this case, processing signs were fragments, having a large number of chips concentrated in one place, retouching, and traces of bone cutting, polishing and others. Processing traces were found on deer horns, on long bones of hoofed animals, having the suitable size and strength. Bone products are harpoons, piercing tools of bone and a pendant made of a deer tooth.

The material examined allows us to conclude on existing of the developed cattle breeding in the culture communities and define the basic problems of adapting the economy to natural climatic conditions. It should be noted that the role of bone as a material for making tools significantly increased in that period. This may be explained by remoteness of flintstone deposits and availability of bone material. Revised materials and change in the ratio of domesticated and wild species from selected sites clearly shows how the economic strategy of communities of the Sursk culture evolved in the process of development.