

PALAEOANTHROPOLOGICAL STUDY OF THE POPULATION OF ABASHEVO CULTURE, WHICH LEFT THE SECOND LIPETSK BARROW

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In 2011 employees of the State directorate for protection of cultural heritage of Lipetsk region under the guidance of Golotvin A.N. (PhD) performed rescue excavations of the partially destroyed archaeology site – the “Second Lipetsk barrow” situated in the southern outskirts of Lipetsk, in the watershed plateau of the Voronezh and Belokolodets rivers (the right bank of the Voronezh river). The excavations revealed three grave pits arranged along the North-South line. The grave pit 1 was situated in the southern part of the barrow, had subrectangular shape, and was oriented along the North-South line. On the bottom of the pit, the archaeologists recorded five human skeletons on the organic bedding. All the buried people were lying on their backs, with their heads oriented eastwards and their hands in the pelvis area. All the skeletons were more or less disrupted. The grave pit 2 was situated in the central part of the barrow, had subrectangular shape, and was oriented along the North-South line. On the bottom of the pit, the archaeologists recorded fragments of four human skeletons on the organic bedding. The skeletons were completely disrupted, only leg bones of two individuals were lying in situ – they suggest that the buried people were lying with their heads oriented eastwards (as in the pit 1). The grave pit 3 was situated in the northern part of the barrow, had subrectangular shape, and its long axis was oriented along the East-West line. On the bottom of the pit, there was a human skeleton on the organic bedding. The skeleton was lying in situ, on the back, with hands in the pelvis area and with head oriented eastwards. According to the author of excavations (Golotvin A.N.), the graves of the “Second Lipetsk barrow” belong to the burials of aristocratic warriors of the Don-Volga Abashevo culture. Moreover, Golotvin A.N. and Pryakhin A.D. find there some features characteristic for the Catacomb culture (flinty arrowheads, individual elements of knives). The C14 dates allow preliminary dating of the complex to the 3rd-2nd millennia BC. Thus, the burials of the “Second Lipetsk barrow” contained about 10 individuals. We have performed the craniological reconstruction and measured the skulls. Moreover, we have studied the osteological materials, examined the body proportions, calculated the intravital statures (about 170 cm for males and 162 cm for females), estimated the muscular texture (which is well-marked among the males) and revealed stress markers and palaeopathological changes (enamel hypoplasia, dental calculus).

Key words: *palaeoanthropology, craniology, osteology, Abashevo culture*

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FORENSIC GENETIC DATABASES FOR MIXED POULATIONS

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A genetic and demographic study of the Minsk, Moscow and Kharkov populations was performed using questionnaire and census data. Three megalopolises, differing in population size, are characterized by heterogeneous ethnic composition, high migration coefficients ranging from 0.40 to 0.55, long average migration distances (564–921 km) and a high proportions of interethnic marriages (up to 33%) resulting in intensive gene flow between ethnic groups. These populations can therefore be considered as mixed in the genetic and anthropological senses. In samples from the most numerous ethnic groups of the three

megalopolises – Byelorussians of Minsk (N=370), Russians of Moscow (N=205), and Ukrainians of Kharkov (N=115) – comparative analysis was carried out using the frequency distribution of 18 autosomal forensic STR loci (vWA, TH01, TPOX, CSF1PO, D5S818, D7S820, D13S317, D16S539, F13B, D18S51, D8S1179, D21S11, FGA, PentaE, PentaD, D2S1338, D19S433, D3S1758). Hardy-Weinberg equilibrium was demonstrated in all three samples. No significant differentiation was observed in the total loci set, indicating close genetic relationship between the three Eastern Slavic peoples in forensic autosomal STR loci. The three samples demonstrate a low level of genetic differentiation: estimates of genetic distance (Nei, 1978) between the samples lie in the 0.9968–0.9990 interval, and average F_{st} equals 0.0240 for the 18 loci. The estimates of expected and observed heterozygosity by 18 STR loci are as follows: Byelorussians (Minsk) – $H_e = 0.7942$, $H_o = 0.7730$; Russians (Moscow) – $H_e = 0.7926$, $H_o = 0.7719$ and Ukrainians (Kharkov) – $H_e = 0.7895$, $H_o = 0.7761$. Lower values of observed heterozygosity compared to expected heterozygosity are caused by migration flow within the main ethnic group to the population of the megalopolis from other subdivided populations, demonstrating the Wahlund effect. Peculiarities of genetic and demographic parameters of the three megalopolises are discussed in the context of the problem of forensic genetic databases formation (autosomal STR, mitochondrial and Y chromosome markers) for mixed populations. A more intense male migration suggests more significant dynamics of genetic markers of Y-chromosome, compared to mitochondrial DNA markers. For the forensic genetic database of Minsk it is important that the main migration flow comes from the territory of Belarus and consists of ethnic Byelorussians with low migration from Russia or Ukraine.

Key words: forensic genetic database, STR loci, megalopolis, mixed population, genetic-demographic parameters, migration, gene flow

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EARLY MEDIEVAL COPTS OF THE FAYOUM OASIS, EGYPT: AN ANTHROPOLOGICAL STUDY

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This study deals with skeletal remains of the early medieval Copts from the necropolis of Deir el-Naqlun, the Fayoum Oasis, Egypt. That these skeletons and mummified bodies are indeed Coptic follows from the fact that they were found during excavations at the territory of a Coptic monastery and there were some elements of Coptic monastic garments on many of them. The study was performed together with the Center of Egyptological Studies of the Russian Academy of Sciences in 2002. We studied 30 skulls using the standard craniological program. Twenty of them belonged to males and ten to females. The cranial index is average and most male skulls tend to mesocrany. Height indices of the braincase suggest that male skulls are medium high. The facial skeleton of males is relatively narrow (lepten). The orbital index is average and so are nasal dimensions. The horizontal facial profile in males is very sharp, especially at the middle level. Such profiles are characteristic of Caucasoids. The cephalic index characterizes female skulls as mesocranic with a tendency to dolichocrany. According to height indices, they are relatively high. The facial indices suggest that females had relatively narrow faces, high orbits, and average nasal dimensions. Their faces are more sharply profiled than those of males. Postcrania are represented by skeletons of six males and two females and by more than fifty isolated long bones from collective graves. Preliminary studies showed that the average stature of males, calculated after V.V. Bunak's formula, equaled 164.8 cm and that of females, 156.2 cm.

Key word: physical anthropology, craniology, osteology, Copts, Egypt

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