

SIDELKINO. ONE OF THE ASPECTS OF THE FORMATION OF THE DENTAL MORPHOLOGY DIVERSITY IN THE MESOLITHIC

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The lower jaw from the Mesolithic burial ground, Samara region, village Sidelkino, "Gora Mayak" (2001 year's excavations, led by archaeologist Dmitry Stashenkov) was studied. Mandibular teeth remained constant change, including the third molars. The study of the dental morphology features was conducted according to the Russian odontological program (Zubov, 2006). Permanent dentition was present completely, including third molars. The description was divided into grades diagnostically significant for determining the evolutionary status of the specimen, its place in the anthropological intraspecific differentiation. Among archaic features are the following: continuous edge ridge (med-end) on the left LM1, differentiation of the end, hyd, prd on the left LM3, vestibular position of the hld on the left LM1, tami on the right LM1, tuberculum centrale on the right LM3, retromolar space, index of foramen mentale (62.3% – right side of the mandible). Evolutionary progressive features: shallow intertubercular furrows, left LM2 – smooth occlusal surface without additional elements and +4 pattern, 2end (IV) variant on the left LM3, axial position of hld on the left LM1, poor differentiation of LM1 surface, prd > med, the absence of developed cingulum, index of foramen mentale (54% – left side of the mandible), moderate/weak deep of molars' furrows, parallel furrows on the hypoconid of the right LM3. "Western" odontological complex expresses in the following features: pattern "x"5 on LM1, 2med (II), 1hyd (IV), type 1 of the 1med/1prd contact, variant T (1prd-2prd/II), enamel extension score 3 on the LM2, absence of dw, dtc, tami, protostylid / and its pit on some molars. Feature of the «Eastern» odontological complex: pattern "+" on the LM1. Thus, the odontological type of the Sidelkino specimen can be defined as specific to modern humans with a certain level of archaic/dearhaization along with the significant predominance of the evolutionary progressive traits. It belongs to the European odontological complex with the manifestation of a single East/Mongoloid element. Some metric characteristics of Sidelkino molars bring it together with modern European populations, but according to some archaic metric gradations Sidelkino specimen is associated with the Upper Paleolithic European groups.

Key words: *Sidelkino, Mesolithic, dental anthropology, physical anthropology, human evolution*

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CRANIOFACIAL MORPHOLOGY OF THE CHILD OF STAROSELIE INTO THE POSTNATAL DEVELOPMENTAL CONTEXT OF NEANDERTHALS AND MODERN HUMANS

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This study aims to integrate the child craniofacial morphology of Staroselie into the developmental context of Neanderthals and modern humans. The fossil remains of the child are from the archaeological site of Staroselie, which is not far from town Bakhchisarai (Crimea). The site was excavated by A.A. Formozov in 1952–1956 with the burial exhumed in 1953. The biological age of a child is 1–2 year old. The craniology of the child appeared to show mixed Neanderthal and modern characteristics, and since it was considered to be in situ in a Middle Paleolithic context, the site has attracted considerable international interest since its discovery (Roginskiy, 1954). New excavations were conducted by a joint American-Ukrainian team in 1993–1995. The team was highly critical of Formozov's inexact recording methods. Thus, they stressed that the burial of child

is unquestionably modern dating to the 18th century AD (Alexeeva, 1996). The authors ignored that the radiocarbon dates for cultural levels upper and lower of the burial gave the interval $35,510 \pm 1170$ – $36,160 \pm 1250$ BP, because of absent of direct radiocarbon (AMS) dates from the human remains (Gvozdover et al., 1986)]. Morphologically the skull cap is large, there is an absence of a thick brow, and the projection of the head is modern. There is no doubt that the burial of Staroselie is *Homo sapiens*. The child of Pech de l'Azé is the same biological age as Staroselie one, thus we used both of them to study craniofacial morphology into the context of Neanderthals and modern humans developmental trajectories. The Pech de l'Azé child was first described by Patte and then by Ferembach et al. The geological age of the specimen is 51–41 cal kya BP (Soressi et al., 2006). The individual is similar to other Neanderthals by its craniofacial morphology. Craniofacial morphology analysis is considered as a complex of three anatomically separated modules of neurocranium, face and mandible [Kondo et al., 2005]. We compare growth profiles (changes in size) and allometric relationship of each module for 28 nonadult Neanderthals, 21 nonadult Paleolithic AMH and 470 modern children. Comparative data show the close allometric relationship of Neanderthals and Staroselie child only in neurocranium/face developmental trend. Investigation was done in frame of the grant RFBR 13-06-12035.

Key words: *Paleolithic, Neanderthals, Modern Humans, ontogenesis*

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NEANDERTHALS IN ALTAI HIGHLAND AND THEIR MORPHOLOGICAL PATTERNS

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Neanderthal remains in Altai are identified in locations subdivided by hundreds of kilometers. The purpose of this study is to consider their postcranial morphological patterns. Okladnikov Cave. Several specimens shared a combination of archaic and unique characteristics. While the totality of postcranial morphological traits suggests that those humans were Neanderthals, certain archaic traits link them with *Homo erectus* (Mednikova, 2011a). They were least similar to early anatomically modern humans of the Skhul and Qafzeh group and most similar to Near Eastern Neanderthals such as Tabun C1 and partly Shanidar. Denisova Cave. Recently studied high-quality genome sequence of a woman indicated Neanderthal presence in “home cave” of Denisovans (Prüfer et al., 2014). The proximal pedal phalanx of DNA owner from Denisova Cave is broad relative to its height (Mednikova, 2011b). This opposes the Denisova individual to most modern members of the genus *Homo*. The specimen is even broader and more robust than the phalanges of Neanderthals or early modern humans. The extraordinary inner robusticity of that bone was atypical even for many Neanderthals. A distal phalanx of the left (?) hand of *Homo*, found in level 12 of Denisova Cave in 2011, resembles Neanderthal phalanges in terms of length, width of apical tuft, and relative flattening, differing from them by a somewhat greater transversal hypertrophy of the shaft (Mednikova, 2013a). Recent finds from Chagyrskaya cave were more “Neanderthal-like”. E.g., based on dimensions, proportions, pathological changes, and indicators of habitual activity of ulnaitis owner was apparently a Neanderthal – a robust male similar to certain Near Eastern Neanderthals such as Shanidar (Mednikova, 2013b). Altai caves became homeland for Neanderthals who seemed to be various from morphological point of view. The results can reflect different waves of Neanderthal migration or/and different level of hybridization with another inhabitants of Central Asia, like Denisovans. The study was supported by RFBR of 13-06-1224.

Key words: *Altai Neanderthals, postcranial morphology, Chagyrskaya, Okladnikov, Denisova caves*

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