THE STUDY OF CRANIAL MORPHOLOGY IN CASES OF ARTIFICIAL CRANIAL DEFORMATION USING ANGULAR MORPHOMETRY

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Artificial deformation of the head is one of the most widespread ancient practices of changing human appearance. It has been studied by more than two hundred years. Certain problems relating to this custom can be solved with the help of physical anthropology. Angular morphometry is rooted in cranio-trigonometric studies of the early 20th century. The essence of this method consists in analyzing cranial morphology through a description of its shape by the system of triangles the angle values being used in multivariate statistical analysis. Numerous studies of artificial cranial deformation using the cranio-trigonometric approach were published in the first half of the 20th century. They were mainly based on the craniometric systems of H. Klaatsch and J. Imbelloni and on the notion of "cephalic constants", such as the 'Klaatsch central angle (Z)'. We selected some 400 skulls with various types of deformation coming from various regions of northern Eurasia. They were measured according to the angular morphometry program developed by S.V. Vasilyev and R.M. Galeyev. This program is based on a system of 33 triangles generated by craniometric reference points. The trigonometric systems of artificially deformed and undeformed skulls differ in various respects. The heavier the deformation, the larger these differences are. The braincase undergoes heavy transformation whereas general angular characteristics of the face change little if at all. Visual differences of artificially deformed crania are more evident in the curvature of individual skull bones than in the position of craniometric points within the cranial space. The angular characteristics of deformed braincases differ by types of deformation. Based on the results of the angular morphometric analysis we can distinguish two subtypes of circular deformation: straight and inclined types according to J. Imbelloni.

Key words: *angular morphometry, artificial cranial deformation*

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MEDIEVAL POPULATION OF THE MIDDLE DANUBE: ANTHROPOLOGICAL AND ARCHAEOLOGICAL ANALISIS

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The purpose of this study was to get a better insight into the lifestyle of medieval Slavic populations by examining skeletal remains. The populations of two 12th–13th-century settlements on the Middle Danube were studied. One group is an urban population, the other one is rural. The Duplyaya fortified settlement was situated on the left bank of the Danube, 10 km north of the mouth of the river Caras. The Omolitsa rural settlement is also on the left bank of the Danube, near Belgrade. Burials of at least 150 individuals were excavated. Both settlements are well dated by coins. The analysis revealed differences in frequencies of stress markers and pathological bone changes between the urban and the rural groups. The urban population was more affected by a variety of infectious and systemic diseases such as cancer, while the injury rate is virtually the same. Indicators of cranial trauma are almost the same in both groups, but the urban group shows more diverse types of injuries. Differences might result from different lifestyles of the rural and urban populations. Physical features of the two groups differ too, though both belong to the same type of southern Slavs. Urban dwellers had robust skulls and less protruding noses. To visualize differences between the groups, composite "cranial portraits" were generated with Galton's method.

Key words: *Slavic populations, lifestyle, stress markers, anthropological types*

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