

THE ANALYSIS OF REPRODUCTIVE PROCESSES IN THE POPULATION OF ELISTA

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This paper presents the results of the analysis of reproductive processes in the urban population of Elista, Kalmykia, and comparative data on other urban populations of the Volga-Ural region. Within the new context of changes in demographic processes, it is interesting to assess their effects on reproduction. The study was carried out in Elista as a sample survey of 460 women older than 45 by measuring indices of potential selection (IT) and its components following Crow's method (1958). On average, there were 5.8177 pregnancies, 2.1448 births and 3.3224 abortions per one post-reproductive woman. The variance in the average number of children (Vf) is below the average itself, evidencing stability of reproduction. The share of obstetric pathologies (spontaneous abortions, miscarriages, ectopic pregnancies and stillbirths) amounts to 0.27, which is slightly higher than in the Kazan population (0.22). Thus it could be stated that only 37% of all pregnancies ended in delivery; and accordingly 57% of pregnancies were artificially or spontaneously terminated. The study of potential selection indexes in urban populations revealed a sharp increase in the contribution of non-biological factors to the selection coefficient value: the force of social pressure is 2.9412 in Stavropol, 2.7399 in Kazan, 2.5418 in Cheboksary, 2.0595 in Saransk, 0.9930 in Syktyvkar, and 1.3092 in Elista. The employment of different methods for the calculation of the total index allowed, for the first time ever, to quantify the contribution of the social component to the value of selection coefficient in a population (Spitsyna, 2006). It is shown that artificial control of reproduction has different effects on reproductive processes in populations by diminishing individual differences in fertility selection and fitness. These results enhance our understanding of the influence of biological and environmental components on reproductive processes in human populations. The study was partly supported by a grant from the Russian Foundation for the Humanities # 12-01-00063a.

Key words: *population, potential selection, reproduction, fertility, obstetric pathology*

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THE ANTHROPOLOGICAL MAP OF BULGARIA IN THE 20TH CENTURY: CORRECTING A CONSCIOUS ERROR

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In 1938–1943 the famous Bulgarian academician, physiologist and genetic Methody Popov, who opposed Nazi racial theories, collected a large anthropological material. This is the second and the widest ethno-anthropological survey of the Bulgarian population. The material has been elaborated and the results were published only after M. Popov's death (1954) by his student Georgi Markov in 1959. However, because of political reasons Markov had to make a conscious error in the text (not in the numeric data), to ensure the publication of the results. This error has been repeated in some later Bulgarian works about the anthropology of Bulgarians for inner use. In this paper the material of M. Popov's survey is analyzed by region and by county, using methods such as cluster analysis, which have not been applied to those data. The results are compared with those of three other nationwide ethno-anthropological surveys of Bulgaria carried out in the 20th century. This analysis shows that the anthropological map of Bulgaria is very patchy. Northern

Bulgaria is an area of predominance of the Dinaric type (in combination with Alpine and East Baltic types), which is characteristic of Central Europe. Southern Bulgaria is the area of Atlanto-Pontian (Atlanto-Mediterranean) type. There are few areas of intrusion of Dinaric forms in southern Bulgaria – in the eastern part of Sofia region, in the Rhodopes, and in Eastern Thrace. There are also areas of Atlanto-Pontian intrusions in North Bulgaria – along the Black sea coast and along the Danube. However, the Atlanto-Pontian type (which is the most frequent anthropologic type in Bulgarians) is concentrated mostly in southeastern, not northeastern Bulgaria, as in the text published by G. Markov. This confirms the opinion of anthropologists such as J. Czekanowski, C. Coon, A. Poulianos, V. Alekseyev, etc., that modern Bulgarians descend mainly from ancient populations living in the Balkans before the Great Barbarian Migration. This conclusion is confirmed by dermatoglyphic and genetic studies.

Key words: *bulgarians, ethnic anthropology, Dinaric type, Atlanto-Pontic type, political misuse of anthropology*

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ANGULAR MORPHOMETRY OF SKULLS OF THE ABORIGINES OF LOYALTY ISLANDS, MELANESIA

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The purpose of this work was to study a series of 67 crania from Loyalty Islands, Northern Melanesia, housed at the Musée de l'Homme in Paris. The main tasks are to reveal specific features of morphogenetic parameters of male and female crania and to calculate primary statistical characteristics. This series was collected mainly in the first half of the 19th century, after the islands had been colonized by the French. Other specimens come from archaeological excavations in the mid-20th century. The series was measured according to the cranio-trigonometric program elaborated by the authors and tested for homogeneity using standard deviations and coefficients of variation. Crania from Loyalty Islands are generally dolichocranic and often higher than wide. The face is relatively low and wide with alveolar prognathism, very wide nose, low orbits, sharp horizontal profile, and flat nasalia. This combination is observed among both males and females. Based on the principal component analysis of the angular parameters of the braincase, we can conclude that males from Lifou and Maré islands are distinguished by sagittally curved parietal bones. Braincases of females are less variable. When females and males are analyzed simultaneously, their braincase shapes show few differences, though absolute dimensions reveal some sexual dimorphism. In terms of facial angles, males fall into two groups regardless of the islands. Facial skeletons of females are more uniform. Their simultaneous analysis with the principal component method revealed no sexual dimorphism in angular parameters.

Key words: *craniometry, Melanesia, Loyalty Islands*

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