

Condition and directions in the advance of the anthropological investigations in Bulgaria (Preface)

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The beginning, the development, the modern conditions, and the perspectives of the anthropological investigations in Bulgaria are discussed. From Acad. Jonas Bassanavichus, through the Department of Anthropology directed by Prof. Dr. Dimiter Kadanov to the nowadays anthropological investigation which are holding up not only in Department of Anthropology at the Institute of Cell Biology and Morphology, but also at other groups of different Universities and Institutes. The basic achievement of the anthropology up-to-now and the perspectives for the future studies in the different fields of the anthropology are treated.

Key words: anthropology, physical anthropology, anthropogenetics, ethnical anthropology, paleoanthropology, tendencies.

The first anthropological investigations in Bulgaria are connected with the name of the Lithuanian physician, scientist Academician Dr. Jonas Bassanavichus, and have already century-old history. At the first middle of the century, numerous anthropological studies are carried out, some of them with national range (Acad. St. Vatev, Acad. M. Popov and others). The organized and systematic anthropological investigations in our country originate from the establishment of the Department of Anthropology at the Institute of Morphology at the Bulgarian Academy of Sciences in 1953, with its first chief – Prof. Dr. D. Kadanov.

At present the most numerous and independent anthropological department in Bulgaria is that one at Institute of Cell Biology and Morphology at the Bulgarian Academy of Sciences. Anthropological investigations are carried out also in: the Department of Zoology and Anthropology of the Biology Faculty at the University of Sofia; the Department of Anatomy and Physiology of Men of the Biology Faculty at the University of Plovdiv; the Department of Sports Medicine at the High Sports School; the Institute of Gerontology of the Medical Academy in Sofia; the Departments of Anatomy in Plovdiv, Varna and Stara Zagora; the Department of General Biology at the Medical Institutes in Sofia,

Varna, Plovdiv; the Departments of Forensic Medicine in Sofia, Pleven and Stara Zagora; the Departments of Medical Genetics in Sofia and Varna; some clinical departments at the Medical Institutes in the country. As for the subject respect, almost all the fields of the physical anthropology without the problems of anthropogenesis are represented in the Bulgarian departments of anthropology. The results are published in Bulgaria and abroad, including some monographic works, and are reported to many national and international congresses, conferences, and symposiums. The results in the scientific works of the Bulgarian anthropologists are of an interest and receive a high valuation both in our country and abroad, which is confirmed by the frequent references from Bulgarian and foreign specialists.

On the basis of the realized scientific achievement of the Bulgarian anthropology, the following directions of its development can be outlined:

I. National programme "Anthropological characteristics of the Bulgarian population." At the present moment, the basic scientific task for the Bulgarian anthropology is to realize the National Programme "Anthropological characteristics of the Bulgarian population", which was approved by the Presidium of the Bulgarian Academy of Sciences, and was financed by the Ministry of Science and High Education. The research group includes scientific workers of the Department of Anthropology at the Institute of Cell Biology and Morphology at the Bulgarian Academy of Sciences, and is supplement with some additional workers by civil contracts. The programme consists of 2 basic parts: 1. Anthropological characteristics of the modern population in Bulgaria; 2. Anthropological characteristics of the ancient population which had lived in the Bulgarian lands (data made from archaeological excavations bone relics). The aims of the National Anthropological Programme are as follows: 1. To be made a complete anthropological characteristic of the modern Bulgarian population (at first of adults – 30-40 years of age), i.e. to be made "an anthropological photograph" at the end of the XX-th century, and this new data to be compared with the data from the beginning and the middle of the century; 2. By the bone relics to be characterized anthropologically the population which had lived in our lands in different epochs – from the Neolith to the Late Middle Ages – taking into account the appearance, the development, and the distribution of the anthropological types and evaluating the global processes in the human evolution.

Realizing the National Anthropological Programme we are to organize an Anthropological Museum and a National Bone-depository in it.

The result from the National Anthropological Programme will help very much the knowledge about different anthropological aspects of the human development in our lands. This big material of representative anthropological data for the modern Bulgarian population will ensure the settlement of a series of problems in the fields of the practical anthropology.

II. Anthropological investigations of morpho-functional anthropological characterization of the modern population in our country. In this field the problems worked out are:

1. Physical development of children and growing up persons. For the realization of this problem some transversal studies (in the future longitudinal ones too) are taken out which are necessary for the investigation of the complex processes of the physical development and the growth from birth to sexual maturation and the connection of them with the different conditions of life and the

social environments. Of a special significance are also the studies on the relationship between social factors and the coming of puberty in different districts of the country, as well as the interrelationship between the very early and very late coming of puberty and the constitution.

2. Physical development of adults assessed in connection with different factors as: age-sexual, socio-economic and cultural belonging; psycho-physical specificity of the professional engagement; natural-geographic and other economical factors; degree of urbanization and industrialization of the living and birth places; factors which determine the specificity of the old age in our country etc. The results from the anthropological investigations in this field give an optimum volume of data for the characterization of the morpho-functional anthropological status of the modern Bulgarian population; give possibilities for evaluation of the regularities in the physical development of the population in connection with the specific conditions of life and labour; give anthropological data for comparative investigations in time and areas including the evaluation of the processes of acceleration and retardation for the present moment and as a prognosis; ensure a possibility for a documentation and a foretelling of the negative effects in the physical development of man in different unhealthy ecological, professional, etc. factors with a view to eliminating them in time.

3. Practical-anthropological investigations. The picked up anthropological data, representative for different groups of the modern population are of a big practical importance. The data are initial base for the elaboration of the anthropological norms for different periods of the human ontogenesis. It guarantee also the evaluation of anthropological standards wanted in the ergonomic-anthropological considered design of different products addressed to the man's labour. In this manner the anthropology like a fundamental science becomes a data source with big socio-health and economical importance for the national economy.

III. Anthropogenetic investigations. The researches in this field divide in two basic groups:

1. Investigations of the inheritance of normal features in man.

2. Medical-genetic studies.

The exposition of genetic fund of the Bulgarian population with respect to normal genetic markers includes both the discovery of new rare blood groups, serum factors, enzyme system and the study of population-genetic processes of the Bulgarian population as a whole, and for separated territories in the country. Another part of the investigations are the connections between some genetic markers, and certain pathology and the population frequency of the markers. In the researches of multiple births, as one of the most actual problems, lay the study of the biology of the multiple births in connection with the social conditions, the intense migration of young people inside the country and abroad, the increase of the children born out of wedlock, the steroid hormones therapy, etc. The twin investigations in Bulgaria must include also the multiple births researches and the use of the second twin method – MZ sets brought up in different conditions. In the field of medical-genetic investigations, the insurance of some conditions for modern citogenetic diagnosis wants a solution.

IV. Medical-anthropological investigations. As an almost new part of the anthropological science, medical anthropology is like an unitive link between anthropology and medicine. The study of forms and sizes variations of human body in norm and in transition between norm and pathology, and the knowledge

of data for the changes in different diseases guarantee both the early diagnosis of the illnesses and the etio-pathogenesis of them. For the needs of the medical anthropology are studied the features of human body in healthy individuals, the specific of their physical development, their constitution and the dermatoglyphic characterization. The manifestation of changes in human body (men with different psycho-physical disorders, chromosome diseases etc.) are examined also. Anthropological markers provoking the corresponding diseases and the transition among norm and pathology in the external features— body form and size and its parts are looking for. A particular part of the medical anthropological investigations are the dermatoglyphic investigations. Both healthy individuals (representative contingent for the Bulgarian population), and persons with different diseases are studied. Here can be joined the examinations for identification — examination for paternity.

The tasks laying before the medical anthropology are:

- 1. To make norms for the differentiation between norm and pathology, and to do an interval position for the medial forms from norm to pathology for children, growing up and adults;
- 2. To fix the markers for the early phases of the respective pathology with a view of the prophylaxes in the modern science.

V. Investigations in the field of the ethnic anthropology. The investigations in the field of the ethnic anthropology help the clearing of the mechanism and the way of forming the local populations and the different human races. On the basis of the examination of the population in different regions in Bulgaria are made anthropological characterizations of separate ethnic and ethnographic groups in the view of clearing their ethnogenesis (Turks, Tatars, Bulgarian Mohammedans, Turkish-speaking Bulgarians of the Varna region, Lipovans, Karakachans, Kapans, Hurtoj men etc.).

The insufficient anthropological investigations of the modern Bulgarian population connected with the genesis of the folk determine the future tasks of the ethnic anthropology in our country:

- 1. Systematic anthropological researches of separate territorial, geographic, ethnographic and ethnic groups of people;
- 2. To establish the common ethnical, the regional, and the local features of the modern Bulgarian population.

This investigations will have a considerable meaning in the settlement of a big circle of problems as: — formation and origin of the folks from the Indo-European linguistic community, and the repercution of the historic processes on the anthropological typification of the modern Bulgarian population.

VI. Paleoanthropological investigations. In Bulgaria are carried out systematic paleoanthropological investigations which exceed already the study of a separate necropolies only. The numerous matherials from the archaeological excavations present the anthropological characterization of the population who have lived in our lands during different epochs. The data give a good possibility for copious comparative analysis. From the Neolith to the Late Middle Ages can be traced the dynamics in the development of the basic anthropological types, as well as to be cleared the running of the two epochal processes — brachycephalization and gracilization. The established morphological variations of the archaeological types at the end of the Antiquity and mainly during the Middle Ages enable the searching of their connections with the intense migration processes and the metissation of different tribes and folks.

The race-typological investigations are to be added with new data. The generalization of the different anthropological data about the applying of some ethnic customs, as the unnatural head deformation and the detailed analysis of the symbolic trepanations connected until now only with the Old-Bulgarian ethnos must be examined too.

The accumulated in the last years paleodemographic data give a possibility to be traced the demographic history of the Bulgarian population from the Neolith to the end of the Middle Ages, and to be looked for connections of it with the socioeconomic development, migrations, and some other factors which have had effect upon the history.

Generalized investigations in the field of the paleopathology are also imminent. The signs from different sickly modifications of the bone structure must be summarized by nosological units, and must be examined in differential-diagnostic plan. Both the sickly changes, and the traumatic injuries traced during the times will give interesting additional knowledge about the separate populations and their manner of life and labour.

A special place in the paleoanthropology and in the ethnic anthropology have the odontological investigations. The picked up odontometric and odontoscopic materials add the anthropological characteristics of the investigated population with the specific data about the development of the teeth-jaw apparatus, the different diseases in the times and areas of the country, the subsequent racial-typological features etc.

VII. Investigations in the field of the anthropological plastic reconstruction of the face on the skull. In the laboratory of plastic anthropological reconstruction of face, which exists as an independent group in the Institute of Cell Biology and Morphology – Bulgarian Academy of Sciences, are worked out the basic morphological principles of the method, and are gotten concrete results (scientific publications, plastic and graphic reconstructions, museum exhibits and museum exhibitions). The investigations of the morphology of the human face, respectively of the face skull parts for the needs of the plastic reconstruction will be deepened and extended on the base of the achievement, evaluating the foreign experience and taking into account the technical possibilities of the modern science. The studies will continue turned to slightly studied morphological structures with importance for the external relief of some face interrelations and correlations, to the age changes of the external features etc. The volume of the work of plastic reconstructions will be widened with a view to exhibiting the physical types of the people who have inhabited our lands from the Neolith to the Middle Ages.