

БЪЛГАРСКА АКАДЕМИЯ НА НАУКИТЕ
И-Т ПО ЕКСПЕРИМЕНТАЛНА МОРФОЛОГИЯ,
ПАТОЛОГИЯ И АНТРОПОЛОГИЯ С МУЗЕЙ
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СОФИЯ

REVIEW

by Doctor of Sciences (Doctor of Veterinary Medicine Sciences) Angel Petrov Vodenicharov - Professor at the Department of Veterinary Anatomy, Histology and Embryology at the Faculty of Veterinary Medicine at the Thracian University - Stara Zagora

of dissertation for awarding the educational and scientific degree "Doctor"

in the **field of higher education** 4. Natural sciences, mathematics and informatics

professional field 4.3. Biological sciences

doctoral program "Anthropology"

Author: Nadezhda Venetsieva Paraskova

Topic: "Dermatoglyphic characteristics of the Bulgarian population from Central Western Bulgaria"

Scientific consultants: Assoc. Prof. Dr. Zorka Mitova - IEMPAM, BAS and Ph.D. Ivan Shirobokov - IEA RAS, Kunstkammer, St. Petersburg, Russia.

The author of the dissertation Nadezhda Venetsieva is a doctoral student of independent training - a regular form of study at the section "Anthropology and Anatomy" of the Institute of Experimental Morphology, Pathology and Anthropology with a museum (IEMPAM) at the Bulgarian Academy of Sciences (BAS).

After graduating from secondary school in her hometown - Blagoevgrad, Nadezhda Paraskova continued her education at the Faculty of Biology of Sofia University "St. Kliment Ohridski", which graduated in 2000 with the educational qualification degree "Master - Biologist". She also acquired a second specialty "Biology Teacher" on the basis of a specialization in "Vertebrate Zoology and Anthropology".

From 2004 to 2007 he was a teacher of biology at 153 PG "Neofit Rilski", Sofia, and then - from 2007 he was an assistant professor of anatomy and anthropology at the Faculty of Biology at Sofia University "St. Kliment Ohridski", where he still works. At the same time, from 2015 to 2019 he was a teacher of biochemistry at the French Language School "Alphonse de Lamartine".

By decision of the Scientific Council of IEMPAM at BAS from 04. 12. 2015 Nadezhda Paraskova was enrolled in doctoral studies in independent specialty "Anthropology" in the section "Anthropology and Anatomy" at the same institute.

In connection with the development of his dissertation, in 2018 the doctoral student conducted a specialization in Ethnic Dermatoglyphics at the IEA RAS, Kunstkamera, St. Petersburg, Russia, under the expert guidance of Ph.D. Dr. Ivan Shirobokov.

The scientific development aims to make an anthropological characteristic of the modern Bulgarian population of Central Western Bulgaria by dermatoglyphic features.

The developed problem is relevant and with a high degree of historical, cultural and scientific significance. The dissertation is written on 184 pages, and contains the usual sections for such scientific work, namely: Introduction - 3.5 pages, Literary review - 31 pages, Problem statement - 1 page, Purpose and tasks - 1 page, Material and Methods - 14 pages, Analysis and Discussion (Discussion) - 112 pages, Conclusions - 3 pages, Conclusion - 1 page, Contributions - 1 page, Literature - 22 pages, and Appendices - 8 pages. This volume includes 123 color and black and white tables, as well as 39 figures. All contained sections are generally in harmonious proportions.

A handwritten declaration of originality and authenticity of the results and contributions is attached on one page.

For the literature review 262 sources were used, of which 130 are in Cyrillic - the remaining 132 - in Latin - a considerable number of them are by Bulgarian authors, published in foreign and Bulgarian scientific journals, published mainly in English.

There are three main sections in the literature review, of which the latter have four subsections. It makes a good impression that in the first one an analysis of the data referring to our country is made, and in the second one the ones referring to Central Western Bulgaria are considered. This undoubtedly allows us to highlight the specific features of the region, the subject of the dissertation. In the third section, which is the most important, the same principle is observed, and quite rightly attention is paid first to factors related to the formation of finger images during prenatal development and their inheritance in the offspring. As a technical note, I would point out that the term "volar surface" is better replaced by the more modern "palmar surface", which will be in accordance with anatomical terminology (*Terminologia Anatomica*, 2nd ed., 2019, palmaris, from palma manus - palm of the hand). The same retrospection and sequence from the previous two sections is followed. In this form, the literature data in the review are in accordance with the scientific problem and in general it can be assumed that completeness and sufficiency have been achieved in terms of the purpose and tasks of scientific development.

It is pleasant to note that an analysis of the literature has been made, which clearly points out the lack of data from studies involving an important region (Central Western Bulgaria) of the territory of our country, defined by racial typology as Sofia racial type, as well as the "Shopska ethnographic region" ("Big Shopluk"). For it, according to literature data, it is characteristic that in the ethnogenesis of the population take part different ethnic groups. This is of particular importance for justifying the purpose of the study and the tasks related to its implementation.

Despite this note, it can be summarized that the literature review shows a thorough knowledge of the problem and very good information of the author, and the exhibition is in a high professional language and

style. The approach to existing information by the author is for the most part critical, which gives it the character of analysis.

The goal is correctly formulated, and the related tasks are sufficient for its implementation.

Own research has been performed on a sufficient number of individuals, and the experimental production has been sustained.

For the section it can be summarized that the selected methodological approaches have created the necessary prerequisites for obtaining objective scientific data. All this allows the achievement of the set goal and obtaining an adequate answer to the related tasks solved in the dissertation.

Thanks to the research, results have been obtained, most of which are real scientific contributions.

The section "Analysis and Discussion" presents convincing data from precisely conducted research on the tasks. They are the result of a skilful combination of well-established in anthropology methodologies, indices, indicators, etc., and are presented quite circumstantially, accompanied by a large number of figures and tables. Comparative and statistical analyzes have been made in an appropriate way, for which appropriate statistical methods have been used, leaving a pleasant impression on the reader.

Along with the detailed statistical analysis of the data obtained from the study, (including primary and secondary statistical processing), the integration analysis of the dermatoglyphic and odontological features with the geographical location, applied for the first time, undoubtedly deserves high praise. In my opinion, descriptive and taxonomic analysis by regions are important, as well as the studied reliability of bilateral and gender differences in the eight main dermatological features.

It can be noted with satisfaction that a thorough analysis of the obtained results has been made - it is characterized by in-depth scientific analysis, which is based not only on its own results, but also on a large number of studies published in the literature. In addition, an appropriate comparative analysis was performed, which allowed the author to highlight not only general features, but also specific features of the studied area. All this, without a doubt, enriches the existing knowledge about the dermatological characteristics of both the Bulgarian population and the inhabitants of the studied area - Central Western Bulgaria.

Despite the fact that the nature of this type of development is specific in the design of this section, in my opinion its division into "Results" (Analysis of the results) and Discussion (Discussion) would more clearly present the research data and would highlight more their scientific analysis and discussion.

With the overall scientific development the author shows the qualities of a researcher with the potential to plan, analyze and interpret the obtained data. This is confirmed in the conclusions that follow logically from the previous statement.

Thanks to the conducted researches, results of original, confirmatory and scientifically applied character have been obtained.

I accept the reference for the indicated contributions.

The above remarks are not of a nature to change the positive assessment of the dissertation project.

In connection with the dissertation, three publications are presented, in one of which Paraskova is a leading author, and one is together with the scientific consultant. A list of four participations in scientific forums is attached - three of them are abroad (Serbia and Denmark) and one in Bulgaria, which has international participation. The other publications and participations are with colleagues from Sofia University. From the presented information for fulfillment of the minimum requirements of IEMPAM for acquiring the educational and scientific degree "Doctor" it is evident that the doctoral student has indicators above the requirements - 3 publications and 180 points, instead of at least 2 publications and 120 points.

My impressions from the presented materials on the defense of the dissertation, as well as from the participation in the XXIV Congress of the Bulgarian Anatomical Society with international participation (May 31 - June 2, 2019, Stara Zagora), give me reason to believe that the dissertation is a personal work of the doctoral student, and the results and contributions obtained are her personal merit.

The abstract corresponds in content to the dissertation.

CONCLUSION

The problem treated in the dissertation "Dermatoglyphic characteristics of the Bulgarian population from Central Western Bulgaria" is relevant and significant. The aim of the research is formulated on the basis of good knowledge of the literature on the problem. The methods used are properly selected. As a result of the conducted data, data were obtained, enriching the knowledge about the dermatoglyphic characteristics of our population in the studied area. The conclusions are well substantiated.

The dissertation contains scientific, scientific-applied and applied results, which represent a contribution to science and meet the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for application of ZRASRB and the respective Rules of IEMPAM at BAS.

Given the above, I confidently give my positive assessment of the research presented by the reviewed dissertation, abstract, results and contributions. In this regard, I propose to the esteemed Scientific Jury to award the educational and scientific degree "DOCTOR" to Nadezhda Venetsieva Paraskova in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.3. Biological sciences, specialty "Anthropology".

28. 09. 2021

Stara Zagora

Reviewer: 

(Prof. Angel Vodenicharov)