

Workings of Kaunas anatomists in the field of Lithuanian ethnic anthropology

**Rimvydas Stropus,
Rûta Jurgaitienë**

*Institute for Anatomy of Kaunas
University of Medicine, Kaunas, Lithuania*

*Address for correspondence:
R. Stropus, Mickevièiaus 9,
LT-3000 Kaunas, Lithuania.
Tel.: 370-37 32 72 40.
Fax 370-37 22 07 33.
E-mail: anatom@kmu.lt*

The aim of the present survey was to present information about scientific workings in the field of ethnic anthropology at the Institute of Medicine (headed by Prof. J. Ðilinskas) of Vytautas Magnus University (VDU) in 1920–1940. Most of works were dedicated to craniology. J. Ðilinskas together with A. Jurgutis and R. Masalskis were interested in Lithuanian ethnogenesis and investigated more than 800 skulls from different ages. On that basis they presented a craniometrical description of the old Iron Age Lithuanian cranial vault and facial part. Also, they described four skull types according to the shape of excavated (from 15th–19th c.) and 20th-century skulls, and as well as 38 craniometrical features common to 20th-century skulls. Serological studies were performed with the purpose to elucidate the distribution and heredity of blood groups. J. Ðilinskas with J. Dobrovolkskaite-Tikniene cultivated the auxology and examined the beginning of menses and its variations in 225 female medical students. Works initiated under supervision of Prof. J. Ðilinskas were continued by his followers in Kaunas and Vilnius.

Key words: ethnic anthropology, historical review, workings of Kaunas anatomists, Vytautas Magnus University

INTRODUCTION

In 1919, when the Poles occupied Vilnius, Lithuania lost its University, and therefore in 1920 Higher Courses in Kaunas were established to qualify medical staff. In 1922, on that basis was founded the University of Lithuania, which later was renamed into Vytautas Magnus University (VDU). Jurgis Ðilinskas, a surgeon who taught anatomy at the Higher Courses, established Institute of Anatomy at the University and worked as its head until 1940. In 1922 he got a readership and in 1923 became a professor. At the Institute of Anatomy, under the guidance of Prof. J. Ðilinskas, the preparations for studies were made locally, and Museum of Anatomy was founded (1, 2). In the scientific field he developed the works on Lithuanian ethnic anthropology (2).

We have overviewed the scientific investigations (3–14) made at the Institute of Anatomy during 1922–1940. After analysis of its publications we have constructed a summarizing table of the works of different authors during that period according to the trends of their investigations.

RESULTS

The presented survey shows that scientific research in the field of ethnic anthropology was developed in several directions. However, the majority of works were dedicated to craniology. This choice was probably conditioned by several reasons. According to J. Ðilinskas and A. Jurgutis (3), craniological studies at that time were much more precise than most other studies used in anthropology, since they had better established methods of study that were very convenient for wider-scale studies. The initiation of craniological studies was also stimulated by the fact that at that time intensive archaeological excavations of mounds and necropolises of Lithuania were carried out.

In the first wider-scale work in this area, the doctoral dissertation “Skulls of Lithuanians” (4), J. Ðilinskas studied 204 skulls. Of these, 117 were from the 20th century, taken from cadavers received by the Institute of Anatomy for educational purposes, and 87 skulls were from earlier ages. The latter were excavated in various tumuli, mounds and necropolises of Lithuania and in the streets of the Kaunas city.

Table 1. A survey of scientific works on Lithuanian ethnic anthropology performed by anatomists of Kaunas during 1922–1940

Direction of studies	Aim of studies	Volume of studies	Researchers
1. CRANIOLOGY	1.1. To determine the past, present and future types of skulls of Lithuanians	204 skulls: – 117 – from the present time (20th c.) 87 – from old times (15th, 16th, –17th, 18th, and 19th c.)	J. Ėilinskas
	1.2. To present the craniometric characterization of the cranial vault and the facial part of the skulls of Lithuanians of the old Iron Age (III–IV c. AD)	18 skulls (♂ – 9; ♀ – 9)	J. Ėilinskas, R. Masalskis
	1.3. To determine the types of morphological forms of the 20th century and excavated skulls	572 skulls: 226 – 20th c. (♂ – 211; ♀ – 71) 297 – excavated (18th 19th c.) (♂ – 206; ♀ – 91)	J. Ėilinskas, A. Jurgutis
2. SEROLOGY	2.1. To determine the serological affinity of the inhabitants of Lithuania Minor according to the distribution of blood types	2198 inhabitants of Klaipėda region and East Prussia	J. Ėilinskas
	2.2. To investigate the heredity of blood characteristics and the difference of blood type relations	909 children, 1543 adults	J. Ėilinskas R. Masalskis
3. ANTHROPO-METRY	To investigate the anthropometric and somatometric features of the inhabitants of Lithuania	5011 – men from Lithuania Proper (soldiers) 1006 – inhabitants from Lithuania Minor (♂ – 714; ♀ – 229)	J. Ėilinskas J. Jarþemskas K. Nekvedaviėius J. Statkeviėius
4. AUXOLOGY	To investigate the time of the appearance of menstruations in Lithuanian girls and the variations of the duration and cycle length of the menstruations	275 – Lithuanian females 50 – female medical students of other nationalities	J. Ėilinskas J. Dobrovolskaitė

This group contained skulls found together with stone and bronze tools and items that belonged to people who lived in the 4th–9th centuries. Other skulls were from the periods of the 15th–17th and 18th–19th centuries. After comparing the length width and the sizes of the frontal and occipital regions of the old and the 20th-century skulls, the author concluded that in the olden times the skulls of Lithuanians were dolichocranial, which is the shape of the human past, that the nation of the 20th century was characterized by the meso- or brachycranial shapes, and that in the course of evolution the skull compo-

nents are moving towards the front, i.e. there is an increase in the size of the frontal segment.

J. Ėilinskas together with R. Masalskis (5) tried to determine the evolution of the cranial vault and racial attribution in the study of skulls of Lithuanians of a old Iron Age. In this study they summarized investigation of the osteologic material from 14 tumuli in Eiguliai (close to Kaunas), Raginėnai, Pajuostė, Lepėiai, and Daubai. On the basis of craniometrical studies, the authors concluded that the first dolichocephalic inhabitants of the Baltic region were the posterity of the Cro-Magnon race.

Both by its volume and good methodical level, the monograph by J. Pilinskas and A. Jurgutis, "Crania Lithuanica" (3), was the peak of craniological studies of the time. It generalized the craniological studies of four series of skulls kept at the museum of the Institute of Anatomy – the skulls of men (211) and women (71) of the 20th century as well as excavated male (206) and female (91) skulls. Using the technique of R. Martin, 83 features of 579 skulls were measured and well evaluated statistically. On comparing the features of the excavated and the 20th century skulls, the researchers determined that the excavated ones in all aspects were very similar to the skulls of the 20th century. However, the excavated skulls were narrower than those of the 20th century in all aspects of the measurement of the cranial vault. By their shape those skulls belonged to middle-width mesocranial skulls and were more similar to the wide, brachycranial group. In addition to that, certain features of the facial skeleton, more typical of the excavated skulls, were determined: a lower and wider face, lower and smaller orbits, a wider maxilla, etc. After deriving the sequential curves of the variation of the more important features and the correlation data for these features, the authors distributed the skulls studied into four types according to the shape: 1) wide-faced – wide-headed; 2) wide-headed – long-headed; 3) narrow-faced – wide-headed; 4) narrow-faced – long-headed.

The authors tried to associate the variety of skull shapes with Lithuanian ethnogenesis. They thought that the wide-faced – wide-headed shape of skulls, which was most abundant (over 80%) in the series of the excavated and 20th-century skulls, is typical of Lithuanians and other European nations that had elements of the Baltic race. The wide-faced – long-headed shape (7–11% of all skulls) was associated with skulls of the Cro-Magnon race. According to the authors, the other skull shapes might have appeared under the influence of the neighboring nations.

On the basis of the results of the craniological studies, J. Pilinskas tried to elucidate the controversially evaluated genesis of Lithuanians (6–8). In his book "Ancestors of Lithuanians" (8) he discusses the origin of the ancestors of Lithuanians on the anthropological basis rather than on the conventional linguistic geographical one. On the basis of other authors' opinion and his own studies, he developed a theory of the origin of Lithuanians independent of the northern race. When discussing this issue, J. Pilinskas supported the opinion of the authors who maintained that the homeland of Indo-Europeans was located not in Asia, but rather in the southern regions of Europe where the ancestors of the Cro-Magnon type are spread. The latter during the post-glacial period moved northwards and spread in Middle Europe, Scandi-

navia, and reached the Baltic coast – the homeland of the Balts. According to J. Pilinskas, ancient Balts could be divided into three main groups – the Prussians, the Lithuanians, and the Latvians. J. Pilinskas supported his theory of Lithuanian ethnogenesis by Lithuanian serological studies (9, 10) which showed the distribution of blood types in Klaipėda region and East Prussia to be closer to that in Lithuania Proper rather than Germany.

Under Prof. J. Pilinskas' supervision and his active participation, a number of other significant studies were performed (9–11). Several works elucidated Lithuanian serology (9, 10). In 1935 he investigated the distribution of blood types among 2198 inhabitants of Klaipėda region and East Prussia. Together with R. Masalskis (10) he studied the heredity of blood types among 140 families with 925 children and the blood types of 584 schoolchildren. When taking blood samples he also performed anthropometric measurements of all subjects. In order to present a wide somatological description of Lithuanians based on modern techniques and statistical processing of the findings, J. Pilinskas together with colleagues (J. Jarþemskas, K. Nekvedavičius, J. Statkevičius) undertook a great task – to study the inhabitants of Lithuania according to an extensive plan of the studies of anthropometric characteristics. For this purpose, they studied over 5000 soldiers (aged 21–22 years) and 1006 inhabitants of Lithuania Minor. The subjects were distributed into the groups of Pėmaiėiai (Samogitians), Aukštaiėiai (Upper Lithuanians), Suvalkieėiai, and inhabitants of Lithuania Minor. Unfortunately, this huge-scale work was not finished. Some data of this study were used in the publication "Crania Lithuanica" by J. Pilinskas and A. Jurgutis (3).

Auxological studies were initiated also in Kaunas. J. Pilinskas, together with J. Dobrovolskaitė-Tiknienė (11), studied menstrual variations in 225 female medical students and determined the time of menarche of Lithuanian females aged 14–17 years.

DISCUSSION

J. Pilinskas' book "Ancestors of Lithuanians" received significant attention and controversial evaluation due to the fact that the author tried to substantiate his conclusions not only by anthropological, but also by historical, archeological, ethnographic and linguistic data and, not being a specialist in these fields, often presented superficial evaluations. Therefore his first writings, such as "Skulls of Lithuanians", in their generalizations are superficial and unsubstantiated. At the beginning of his scientific activity, being influenced by German authors, J. Pilinskas developed an essentially racist theory by promoting a social-Darwinist idea that cultural development is related to human biological evolution (improvement of the brain

size, skull size and shape) rather than to social development, and that there is a selection between races and nations, and thus the skulls and brains of more civilized nations are bigger than those of less civilized nations. In his first work he developed the idea that the characteristics of the skulls of men of the 20th century allow for a conclusion that a nation that has such skulls occupies the leading place among other nations of the white race.

In his later writings (especially in those written in cooperation with co-authors (3, 5), the racist theory disappeared. The decision to abandon the declaration of the racist inequality of individuals, nations and races was most probably due to the criticism of the colleagues at the Faculty of Medicine and the fact that the predatory character of the German racists became increasingly more obvious.

The anti-racist approach of the anatomists of Kaunas was publicly declared by J. Pīlinskas' follower A. Jurgutis. In his article "The Crisis of Anthropology" (1938), criticizing the worshiping of racism by some representatives of Lithuanian society, he wrote: "On this occasion, we will remind them all that besides the amateur racist tales produced and spread by various laymen – not specialists, just anybody – there also exists anthropology – a science about the human race and differences between people; and I stress that it is science, and science, as we all know, is the search for the truth. The creators of racist tales are not looking for the truth. They have other goals. We should learn to see the difference between tales and science".

CONCLUSIONS

At the Institute of Anatomy at Kaunas University of Lithuania, under the guidance of Prof. J. Pīlinskas, during 1922–1940 scientific investigations on craniology, serology, anthropometrics and auxology were performed. On the way of the 200 years of Lithuanian anthropology, these works offer a purposeful ground for future investigations. The works undertaken by Kaunas anatomists expanded to a large scale the works performed in Vilnius under the guidance of J. Pīlinskas' follower S. Pavilionis and in Kaunas by Prof. J. V. Nainys, who was the founder of the trend of forensic anthropology.

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R. Stropus, R. Jurgaitienė

KAUNO ANATOMŲ DARBAI LIETUVOS ETNINĖS ANTROPOLOGIJOS TYRINĖJIMŲ KONTEKSTE

Santrauka

Lietuvos antropologijos 200 m. raidos 1920–1940 metų atkarpą Kauno anatomai pažymėjo reikšmingais darbais. 1919 m. lenkams okupavus Vilnių, Lietuva neteko aukštosios mokyklos, todėl 1920 m. Kaune buvo įkurti Aukštieji kursai, kurie 1922 m. išaugo į Vytauto Didžiojo universitetą. Kursuose anatomija dėstė, anatomijos institutą universitete organizavo ir jam iki 1940 m. vadovavo profesorius Jurgis Pīlinskas.

Kartu su savo mokiniais R. Masalskiu, A. Jurgučiu, J. Dobrovolskaite-Tikniene ir kt. jis plėtojo lietuvių etninės antropologijos tyrimus, tarp kurių daugumą suda-

rė kraniologijai skirti darbai. Daktaro disertacijoje „Lietuvių kaukolės dėpė“ [4] iš negausios (87 kaukolės XV, XVI, XVII a. ir 117 kaukolių XX a.), bet tiksliai ištirtos tyrimo medžiagos J. Ąilinskas bandė nustatyti kaukolių tipus bei jų formas skirtumus tarp dabarties ir senųjų amžių kaukolių. Kartu su R. Masalskiu atliko „Senojo geležies periodo Lietuvos gyventojų kaukolių studiją“, kurioje apibendrina sodybų senkapių ir pilkapių osteologinę medžiagą. Remdamasis gausesne (211 vnt. XX a. ir 297 vnt. XVIII–XIX a.) kaukolių tyrimo medžiaga parašė (kartu su A. Jurgėiu) monografiją „Cra-

nia Lithuanica“ [3]. Pagal išvestas svarbesniųjų požymių variacijos eilės kreives ir šių požymių koreliacijos duomenis išskyrė 4 kaukolių morfologines formas, 38 XX a. lietuvių kaukolėms būdingus požymius. J. Ąilinskas ištyrė 2198 Klaipėdos krašto ir Rytprūsių gyventojų kraujo grupių pasiskirstymą [9], kartu su R. Masalskiu tyrinėjo kraujo grupių paveldimumą [10], su J. Dobrovolskaite-Tikniene ištyrė 225 studentėms medikių menstruacijų variacijas [11]. Pokariu pradėtus etninės antropologijos tyrimus Vilniaus universitete toliau tęsė prof. S. Pavilionis, Kaune – prof. J. V. Nainys.