

A BRIEF OVERVIEW ON THE ROLE OF THE INSTITUTE OF ANATOMY AT THE UNIVERSITY OF TARTU (THE FORMER IMPERIAL UNIVERSITY OF DORPAT/YURYEV) IN THE DEVELOPMENT OF ANTHROPOLOGY IN 1876–1918

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ABSTRACT

During its history of nearly 390 years, the development of the University of Tartu has been discontinuous and complicated; sometimes it has even changed its location, but it has always included the Faculty of Medicine.

For the longest time, the university operated as the Imperial University of Dorpat/Yuryev within the Russian Empire from 1802–1918. Even today, additions can be made to the biographies of some professors or graduates about the years they spent in Tartu (Dorpat/Yuryev) in that period. So, the role of the famous professors of anatomy Christian Hermann Ludwig Stieda (1837–1918) and August Antonius Rauber (1841–1917) in the development of anthropology at the Institute of Anatomy headed by them from 1876–1911 and in the following years until the Russian university in Tartu closed down in May 1918 has been studied modestly until now. To fill this gap, we present a brief overview on the role of the Institute of Anatomy at the University of Tartu in the development of anthropology in 1876–1918.

Keywords: *University of Tartu; anatomy; anthropology; August Antonius Rauber; educational museum*

INTRODUCTION

The Faculty of Medicine at the University of Tartu (Dorpat), reopened in April 1802, developed successfully for several decades until it became an

internationally recognised centre of medical science at the beginning of the second half of the 19th century. Although the economic situation of the university left to be desired at this time, the number of academic staff was constantly increasing, reaching 70 by the early 1880s; 20 of them were from the Faculty of Medicine. The number of students, however, surpassed the limit of 1500, and nearly half of them were studying medicine. At the beginning of the mentioned decade, an average of 36 doctoral theses were defended at the university each year, the overwhelming majority of them (over 80%) at the Faculty of Medicine. These were the peak years of teaching and research at the university in the 19th century.

Senator Nikolai A. Manasein who audited the activity of the only German-language university in the Russian Empire got, however, quite a different impression of it. He stressed in his report that while the university had been a mediator between Russian and Western European science in its initial years, now it did not even satisfy the local needs for higher education. He made a proposal to transfer the administration and teaching at the university to the Russian language to meet national interests and aims. Because of several decisions that followed, many renowned German professors had to leave Dorpat. The ethnic and social composition of the student body also changed greatly. In 1885, the actual Russification of the Baltic provinces began. Along with general reforms in Livonia and Estonia, the university was also reformed in 1889–1895, which greatly restricted the autonomy of the university and academic liberties. *Universitas Dorpatensis*, which had operated in German from the beginning of the century, became *Universitas Jurjevensis* with the Russian language of instruction, as the official name of the town was changed into Yuryev in 1893 [16].

At the beginning of all these reforms, Ordinary Professor of Anatomy Christian Hermann Ludwig Stieda (1837–1918), Director of the Institute of Anatomy and Dean of the Faculty of Medicine from 1883, left on 1 November 1885. The only cause for his departure was the requirement to teach in Russian at the university from then onwards. He took up the same positions at the University of Königsberg. By that time, the acknowledged productive researcher had published numerous papers on anatomy, histology, embryology, archaeology, biology, history of medicine, and anthropology [13]. It can be stated that, influenced by studying and systematising the extensive scientific legacy of Karl Ernst von Baer (1792–1876), one of the most famous alumni of the University of Tartu and a distinguished naturalist, Prof. Stieda delved into the problems of anthropology, and active and systematic research in this area began at the university [15]. Under his supervision, doctoral theses on

Estonians', Livonians', Latvians', Jews' and Lithuanians' anthropology were defended, and two students' prize essays were written [13].

The post of Ordinary Professor of Anatomy, which had remained vacant after Prof. C. H. L. Stieda's departure, was taken over by August Antonius Rauber who had been invited from Germany and was employed in February 1886 [11]. He also became Director of the auxiliary academic institution, the Institute of Anatomy, founded by his predecessor ten years earlier, in 1876. The staff of the institute consisted of the director and the prosector and sometimes an extraordinary assistant to the prosector [24].

After Stieda's departure, the duties of Director of the Institute of Anatomy were fulfilled for a short time by Ordinary Professor of Public Health Bernhard Eduard Otto Körber (1837–1915). He handed the property of the institute, including a rich collection of anatomical specimens (882 designations and 1170 items) officially over to its new director [2]. Meanwhile, anatomy had been taught by Adam Bruno Wikszemski (1847–?) who had worked as prosector from 1876 [25].

AUGUST ANTONIUS RAUBER

August Rauber, who arrived in Tartu at the age of 45, was born in the town of Obermoschel in Bavaria in the large family of a court bailiff on 9 March 1841. After excellently completing the gymnasium in 1859, young Rauber entered, as his father had recommended, the Faculty of Law at the University of Munich. Along with courses of law, he also attended lectures at the Faculty of Medicine. At the end of the first academic year, he passed exams at both faculties. Thereafter, he transferred to the Faculty of Medicine but also continued the studies of philosophy and law. A. Rauber graduated from the University of Munich in 1865. In the same year, he defended his doctoral thesis on Vater bodies and their relations to muscle sensitivity, which attracted broad attention.

As in his student years A. Rauber had worked under T. L. W. Bischoff and N. Rüdinger, well-known morphologists of the period, he continued working with them after graduation too. In 1866, Rauber left for Vienna for two years; having returned, he habilitated in Munich in 1869. Thereafter, on 10 August 1870, A. Rauber was conscripted to the army and participated in the entire Prussian-French war as a battalion physician. There he acquired rich experience in field surgery and a deeper understanding of surgical anatomy. He was released from military service in March 1871. He began academic work in Munich again but without a permanent position of an assistant. In 1873,

A. Rauber became Prof. W. His' prosector in Basel. In the same year, they moved to Leipzig together. There, Rauber was awarded the title of Extraordinary Professor. In 1875, he left because of fundamental disagreements with Prof. His, setting his scientific interests higher than personal material interests.

Thereafter, A. Rauber lived in Germany for 11 years as a freelance scholar entirely devoted to research. He made his living by delivering lectures and courses (including on anthropology) to students, although there were vacant positions at departments of anatomy in Germany.

More than half of his research papers (on macro- and microscopic anatomy, anthropology, embryology, teratology, general morphology) were written in this period, including the majority of his most significant works [9, 11].

Even before coming to Dorpat, A. Rauber had become the co-author of the third revised and supplemented edition of the two-volume textbook of anatomy by C. E. E. Hoffmann, former Professor of Anatomy at the University of Basel, which was published in Erlangen in 1886 [7]. This laid the foundation to his world-famous textbook of human anatomy, which was published in many editions and translated into several languages. The Russian edition came out in 1904 under the author's personal supervision [11].

Prof. A. Rauber's versatile educational and research activity continued in Dorpat/Yuryev (Tartu) during the following 25 years. Although the Russified university required that all lecturers should lecture and examine in Russian, the administration of the University of Yuryev made an exception for Rauber. He could continue teaching in German – his mother tongue and the main language of research at that time. After Professor of Surgery W. Koch left in 1906, A. Rauber was the only one at the Faculty of Medicine who continued teaching in German [16].

Prof. A. Rauber's lectures on human anatomy, microscopic anatomy and topographical anatomy were richly illustrated with specimens and models. To improve students' training in their speciality, he had begun organising an educational museum of anatomy immediately after his arrival in Dorpat. Rauber systematised the existing specimens and added a few to the collection. In 1890, he opened an educational museum of anatomy at the Institute of Anatomy. Students could use it for independent work in the hall of studies. By 1 January, the total number of specimens at the Institute of Anatomy was 921 designations and 1209 items [11]. All this became possible as the Institute of Anatomy acquired additional rooms in the Old Anatomical Theatre when the Institute of Pathological Anatomy and Physiology was transferred to the New Anatomical Theatre that had just been completed [21].

Materials on the staff members and research papers of the Institute of Anatomy headed by Prof. Rauber can be found in several issues of the journals *Anatomischer Anzeiger* and *Russky Antropologicheskyy Zhurnal* [6, 8, 9, 19]. A closer look at them reveals that the Institute of Anatomy carried out extensive anthropological research. The doctoral theses defended under Prof. A. Rauber's supervision were C. H. von Samson's study on the sigmoid colon (1890), R. Weinberg's anatomical-anthropological study on Estonians' cerebral gyri (1894), J. E. Jürgensohn's craniological study on the palatal torus (1896), E. Hugo's study on frontal suture ossification (1910), N. Goryainov's comparative study on *Insula Reili* (1912) [9].

ANTHROPOLOGY AT THE INSTITUTE OF ANATOMY

It should be specified that officially there was no separate structural unit as a laboratory of anthropology at the Institute of Anatomy of the University of Yuryev at that time like some researchers have written [19].

Still, it is known that, to improve teaching of anthropology, Prof. A. Rauber applied as early as in 1901 for the establishment of an independent professorship of anthropology at the university. To improve research and practical work in anthropology, he even submitted a project in 1909, according to which the Old Anatomical Theatre (one of the first buildings of the Faculty of Medicine, built in 1805, annexes in 1827 and 1860) should after reconstruction be given to the existing Institute of Anatomy and the future Institute of Anthropology. For other departments and institutes that were located in the Old Anatomical Theatre, he envisaged constructing two new buildings in its immediate vicinity. His application was not approved, and the project did not materialise [4].

Along with that, it is known that a few months after the reopening of the university in Dorpat, in the autumn semester of 1802, D. G. Balk (1764–1826, studied in Königsberg and Berlin), Ordinary Professor of Pathology, Semiotics, Therapy and Clinic, started lectures of anthropology at his own initiative. The lectures were delivered to the students of the Faculty of Medicine until 1808, four times a week, an hour at a time. He lectured according to the book *Medizinisch-Philosophische Anthropologie für Aerzte und Nichtaerzte* by Johann Daniel Metzger (1739–1805) who was physician in ordinary to the Prussian king, privy councillor and professor of Königsberg University. The book, published in Leipzig in 1790, had been recommended for academic lectures. The 208-page book consisted of an introduction and six chapters. It began with an overview of the descent of humans, which was relatively thorough for that time.

This was followed by chapters on medical psychology, physiology, dietetics, pathology and medicines [10].

Prof. Balk's private anatomical-pathological collection, which he used for visualisation of his lectures, possibly also those on anthropology, laid the foundation to collections of specimens on normal and pathological human anatomy at our university [10].

This could be compared to the beginning of teaching of anthropology at the other older universities in Tsarist Russia. In 1805, in his speech at the festive ceremony of the 50th anniversary of Moscow University (the oldest university in Tsarist Russia), I. Vensovich, professor of anatomy, physiology and forensic medicine, proposed for the first time that anthropology should be taught at the University of Moscow and substantiated his stance.

In Tartu, anthropology had been taught for three years by that time. This year could also be considered the peak of teaching of anthropology at the University of Dorpat (Tartu), as four professors of the Faculty of Medicine simultaneously delivered five different courses of lectures concerning anthropology and its elements [10]. The other older universities of Tsarist Russia were restored or founded after the reopening of the University Dorpat (Tartu) in 1802 [16]. Thus, the lectures of anthropology taught by Professor of Pathology, Semiotics, Therapy and Clinic D. G. Balk in 1802 can be said to be the first in the universities of Tsarist Russia.

At Prof. Balk's suggestion, K. E. von Baer, a future natural scientist of world renown, graduate of the Imperial University of Dorpat, wrote his doctoral thesis *On Estonians Endemic Diseases* in 1814 [10]. This marks the beginning of Estonians' anthropological research [17].

Based on the programme of lectures of the university, it can be said that Professor of Anatomy A. Rauber never delivered lectures on anthropology in Dorpat/Yuryev (Tartu), but two of his students did.

RICHARD JACOB WEINBERG AND ABRAM EBER LANDAU

Prof. A. Rauber's student Richard Jacob Weinberg (until 1895 used the first names Jacob Salomon) was born in Talsi, in the governorate of Courland (now in Latvia) on 30 December 1867. He studied in Mitau (Jelgava) and Riga Governorate Gymnasium; thereafter, at the department of natural science at Moscow University for two semesters in 1886–1887. On 10 February 1888, he became a student of the Faculty of Medicine at the University of Dorpat. He completed his studies in 1893 with the qualification of a physician, after which

he became supernumerary assistant to prosector at the Institute of Anatomy. In the following year, he was awarded the degree of Doctor of Medicine. As Weinberg had received a state scholarship for three years when a student, he had to work in civil service for four and a half years. According to the notice of the Department of Medicine at the Ministry of Internal Affairs (of 24 July 1895), he was appointed as doctor of Kolyma district in Yakutsk region. He accepted the money for travelling expenses (1854 roubles and 47 copecks in that time's currency), but for some reason, did not start working in the Far East of Russia. Therefore, had to pay the money back in small monthly instalments during many years [1].

In 1897, R. Weinberg submitted an application to the St Petersburg Academy of Sciences to receive the K. E. von Baer Prize for four papers published in print. One of them was a revised variant of his doctoral thesis, the second was a comparative anatomical study of Latvians' brains, the third included the measurement data of Latvians' skulls at the Institute of Anatomy of the university; the fourth paper dealt with the anatomy of newborns [1]. Thus, the St Petersburg Academy of Sciences awarded R. J. Weinberg the K. E. von Baer Prize (5000 roubles) for his research in 1897, quite at the beginning of his scientific career.

R. J. Weinberg received the rights of *Privatdozent* in normal human anatomy in January 1903 [1] and delivered his opening lecture on an anthropological theme – Slavs and their physical evolution [12]. He began lecturing on anthropology in the autumn of the same year and continued in the following five semesters. The list of his lectures according to semesters was: anthropology, part 1 – 2 hours per week; anthropology, part 2 – 2 hours; homeland anthropology (for students of all faculties) – 1 hour; anthropological methods – 1 hour; anthropology, part 1 (general physical anthropology) – 1 hour.

In the spring semester of 1906, the university was closed in the aftermath of the revolutionary unrest in the previous year [22]. In August of the same year, 1906, supernumerary assistant to the prosector, *Privatdozent* R. J. Weinberg became an extraordinary professor at the Department of Anatomy at St Petersburg Medical Institute for Women [1, 19].

The years-long dream of Professor of Anatomy A. Rauber for a separate Institute of Anthropology with his student R. J. Weinberg as its director and professor of anthropology did not come true. On 22 August 1906, Prof. A. Rauber, Director of the Institute of Anatomy, wrote an application to the university administration where he noted that, because of Dr. R. Weinberg's departure for St Petersburg, the post of the prosector's assistant at the Institute

of Anatomy had remained vacant. He recommended that graduate of the university, doctoral student A. E. Landau could be appointed to this post.

Landau's application to the university administration concerning the same question was written on 1 September 1906. The university administration approved the application on 9 September, and Doctor A. E. Landau became supernumerary assistant to the prosector at the Institute of Anatomy as of 1 September 1906 [3].

Abram Eber Landau was born as a son of a merchant in Rezekne, Vitebsk governorate (now in the territory of Latvia) on 26 October (7 November New Style) 1878. In 1889, he entered the first form of Emperor Nicholas I Gymnasium in Riga and completed this school in May 1897. In the autumn of the same year, he became a student of the Faculty of Medicine at the University of Yuryev (Tartu). As soon as on 12 December next year, he received a silver prize for an essay contest organised by the Faculty of History and Philology for a paper dealing with the moral and political views of the Greek tragedy writer Euripides who lived in the 5th century BC. For the entire year 1899, A. E. Landau studied craniology under Prof. A. Rauber's supervision and haematology under Professor of General Pathology and Pathological Anatomy V. A. Afanasyev. Thereafter, until graduation from the university, he worked under N. Chermak, Professor of Comparative Anatomy, Embryology and Histology.

After graduation from the university in 1902 with the qualification of a physician, he travelled to the Russian zoological station in Villafranco in France where he studied the nervous system of ctenophora (comb jellies, coelenterates living in the sea) and acquainted himself with the methods of artificial fertilisation of echinoderms. Thereafter, he studied histology in Munich under Prof. A. A. Böhm for one semester. In autumn 1903, he travelled to St Petersburg and became assistant in anatomy at Prof. P. F. Lesgaff's biological station. Early in 1905, he quit this job, returned to Yuryev and continued taking exams for the degree of Doctor of Medicine he had started the year before and began working on his dissertation [3]. As of 1 September 1906, doctoral student Abram Eber Landau became prosector's supernumerary assistant at the Institute of Anatomy. He researched two problems then – fixation of tissues with heat and blood supply of adrenal glands, mainly based on corrosion specimens. In 1907, A. E. Landau defended his Doctor of Medicine degree in microscopic anatomy, physiology and pathology of adrenal glands. The supervisor of his experimental study was V. A. Afanasyev (1859–1942), Ordinary Professor of General Pathology and Pathological Anatomy, Director

of the Institute of Anatomy at the University of Yuryev (Tartu). Afanasyev was a graduate of St Petersburg Academy of Military Medicine and had worked as a lecturer there.

On 25 February 1907, A. E. Landau submitted an application to the Faculty of Medicine of the Imperial University of Yuryev where he asked for permission to deliver lectures as *Privatdozent* at the Department of Anatomy and Anthropology. With the application, he enclosed his biography and a list of research papers. He had published 8 papers in print, 1 was forthcoming, 1 was ready for publication, and 5 were being prepared for publication. The ten completed papers of A. E. Landau could be divided according to different areas: histology 5, anthropology 2, embryology 1, comparative anatomy 1 and experimental pathology 1.

The reviewers of his research papers were Professor of Anatomy A. Rauber, Professor of General Pathology and Pathological Anatomy V. A. Afanasyev and Professor of Embryology, Histology and Comparative Anatomy P. A. Polyakov.

Prof. A. Rauber starts his review with an overview of the biography of prosector's supernumerary assistant A. E. Landau and his research activities, paying attention to Landau's contribution to enrichment of the anatomy collection of the Institute of Anatomy with a large number of corrosion specimens. Thereafter, he acknowledges Landau's skills in histological technique, corrosion technique, anatomical preparation technique and anthropological technique. He also expresses the opinion that it would be recommendable that as soon as in the following semester lectures on anthropology could be delivered at the Institute of Anatomy. This would help students acquaint themselves with the broad area of contemporary anthropology. Prof. A. Rauber assesses all the submitted research papers highly. At the end of the review, Prof. A. Rauber notes that Doctor Landau has a great desire to be among the university teaching staff as *Privatdozent* of anatomy and anthropology. The reviewer considered his wish fully substantiated and supported it; he also called on the faculty to show a benevolent attitude to Landau's application.

Prof. V. A. Afanasyev gave an assessment in his review only to the doctoral thesis he had supervised by submitting again the copy of the review he had written for the defence of the doctoral thesis. In conclusion, he finds that Dr. Landau can be allowed to deliver lectures as *Privatdozent*.

Prof. P. Polyakov begins his review by saying that he does not agree with the two previous reviewers. Landau wants to get the post of *Privatdozent* in anatomy and anthropology, but the ten papers submitted belong to five different disciplines. Four out of the five papers on histology concern adrenal

glands and add nothing new to science; one paper deals with fixation of tissues by boiling; this is a very old method known since the 17th century. The paper on embryology has been written in cooperation with the experienced researcher Krasusska, and Landau was merely in the role of a student. The first paper on anthropology is about a device for measuring the internal volume of the skull. Prof. Polyakov does not understand why such a complicated apparatus should be used for a simple procedure. Why should the opinion of Prof. Waldeyer's anonymous assistant about this device influence Russian professors as if they were unable to orientate themselves in simple things? In the reviewer's opinion, the device does not give a correct result when used, as the measuring material does not get everywhere in the cranial cavity, as the device does not shake the skull. About the other anthropological paper, Prof. Polyakov finds that Landau has given an overview of Livonians' history based on the works of other authors. It also turns out that Landau did not measure Livonians in their actual residences, in villages, but in a house in Windau (now Ventspils, Latvia). About the whole work he did, he has presented scanty material on two pages about 14 measured persons. A more modest author would not have published it yet. The paper on comparative anatomy concerns domestic cat's cerebral convolutions; here the author has discovered a new convolution. Finally, the reviewer asks why a chapter on the histology of adrenal glands has artificially been added to a doctoral thesis on experimental pathology. Then, Prof. Polyakov discusses why Landau is applying for the post of *Privatdozent* at the Department of Anatomy and Anthropology, as there is no such department at the University of Yuryev or in the whole Russian Empire. Does it make sense to burden students with additional lectures on anthropology when more than half of the students of the Faculty of Medicine were not transferred to the third year? In conclusion, Prof. Polyakov thinks that Landau could become a *Privatdozent* in anatomy only [3].

A. E. Landau received the rights of *Privatdozent* of Anatomy in January 1909 and delivered his introductory lecture on Votians' anthropology [6]. In the autumn of the same year, he began teaching anthropology to students. According to semesters, the list of his lectures and practical classes was: racial variations of humankind – 1 hour per week; methods of anthropological research – 1 hour; in the following semester methods of anthropological research again – 1 hour – and Lamarck's and Darwin's teaching – 1 hour; practical classes in anthropology – 2 hours; racial variations of humankind – 1 hour; practical classes in anthropology – 2 hours; course of anthropology – 2 hours [21]. For those interested in somatic anthropology, *Privatdozent* A. E. Landau

MD published a small handbook of anthropology in Russian in Yuryev (Tartu) in 1912 [23]. It was based on the teaching materials of this course and consisted of an introduction, seven chapters and a terminological glossary, 78 pages in total.

The practical classes in anthropology planned for the spring semester of 1913, 2 hours per week, were cancelled. On 13 January 1913, the university administration released A. E. Landau from the post of prosector's supernumerary assistant at his own wish. A. E. Landau became extraordinary professor of anatomy and somatic anthropology in Bern [24].

THE MUSEUM OF ANTHROPOLOGY

In the final year when Prof. A. Rauber was Director of the Institute of Anatomy, more precisely on 6 November 1910, Privatdozent A. E. Landau, supernumerary assistant to the prosector, submitted an application to the Faculty of Medicine, where he asked, if possible, to allocate one or two rooms for his anthropological collection in one of the university buildings. In his view, these rooms could be found in the first student dormitory of the university in Hetzel Street (completed in 1904, now J. Liivi Street 4) near the Old Anatomical Theatre. He had set up a private collection to illustrate the anthropology lectures he had delivered since the autumn of the previous year. The number of listeners had been about 40–50; many of them had taken a deeper interest in anthropology. A. E. Landau's collection was housed in two rooms of a private flat for which he had paid from his own pocket. In his opinion, his anthropological collection was still in its infancy. While teaching, he had also used, by kind permission of Prof. A. Rauber, some instruments and materials from the Institute of Anatomy. To develop the rudimentary anthropological collection into a real museum of anthropology, he asked for support to his application from the Faculty of Medicine. At the end of his application, he requested 200–300 roubles per year for supplementing and arranging the anthropological collection at the Imperial University of Yuryev. Right below *Privatdozent* A. E. Landau's signature, Prof. A. Rauber has written in his own hand that he supports the application and expects a favourable solution from the faculty.

The ambiguous request for financing at the end of Landau's application gave reason for asking for an additional written explanation about this question. The explanation written on 15 November 1910 shows that he asked for that sum only for paying for the private flat where his anthropological collection was kept if no room could be found for it on the university premises. On the same day,

he also submitted to the Faculty of Medicine a list of students who had acquired anthropological technique during their studies and were already engaged in research problems of this subject. The students H. Niggol, V. Bortkevič and A. Tumm were dealing with the studies of the chest, G. Michelson with skeletons, V. Sukhoruchkin with jawbones and teeth, K. Kühne with Mongolian spots sometimes appearing in newborns, and A. Noskov and D. Richter with dactyloscopic material.

On 15 November 1910, the Faculty of Medicine Council decided, with seven votes for and one against, to ask the University Council to allocate one or two rooms for A. E. Landau's collection in the university buildings or, if that is not possible, to pay him 200–300 roubles annually. The motivated opinion of the majority of the faculty (three typewritten pages) was presented to the University Council by Nikolai Savelyev, Ordinary Professor of Polyclinic, Medical Diagnostics and Propaedeutics. It had been signed by August Rauber, Ordinary Professor of Anatomy; Werner Maximilian Friedrich Zoege von Manteuffel, Ordinary Professor of Surgery; Alexandr Yarotski, Extraordinary Professor of Special Pathology and Clinic; Yevgeni Shepilevski, Extraordinary Professor of Public Health (hygiene); David Lavrov, Extraordinary Professor of Pharmacology, Dietetics and History of Medicine, and Vladimir Chizh, Ordinary Professor of Psychiatry. They gave an appraising assessment to *Privatdozent* of Anatomy A. E. Landau who, by his lectures and practical classes, had successfully attracted interest in anthropology in a whole group of students and encouraged some of them even to deal with research problems. It was also mentioned that, without using the university finances, he had procured the necessary instruments for successful teaching and plaster copies of excavated human bones. He had purchased a set of up-to-date anthropological instruments from Zürich with the personal help at their selection of the famous Swiss Professor of Anthropology Rudolf Martin. As the collection was also used by the professor of zoology from the department of natural sciences, the greatest disadvantage was found to be that the collection was situated in Landau's private flat near the railway station.

Thereafter, attention was drawn to the fact that the general and special problems of anthropology have been dealt with at the university since distant past. This is proved by the research papers of professors of anatomy and their numerous students – K. E. von Baer, L. Stieda, F. Waldhauer, I. Brennsohn, A. Rauber, R. Weinberg, E. Hugo and others were mentioned. As in the last thirty years interest in anthropological knowledge had considerably grown among criminalists and psychiatrists, the majority of the signatories found that

this subject is of particular importance for future physicians who, working in different regions and conducting studies on local inhabitants, could support the development of this branch of science. It seemed to them that an obstacle to teaching of anthropology was that all the study and research aids were kept in Landau's private flat at a distance from the university, which was inconvenient for both students and lecturers. They also mentioned that not finding rooms for the anthropological collection could have a negative influence in the future, as the university would lose its significance as a research centre of Baltic anthropology. Therefore, they decided to request the University Council to satisfy *Privatdozent* A. E. Landau's application either by allocating one or two rooms in one of the university buildings or, if this proves impossible, by allocating 200–300 roubles annually for paying the rent for the private flat in two rooms of which the collection was kept.

Pyotr Polyakov, Ordinary Professor of Comparative Anatomy, Embryology and Histology submitted his dissenting opinion on 20 November 1910 on one handwritten page. He did not agree to the opinion of the majority of the Faculty of Medicine that Dr. Landau should be given finances for rooms, arranging and supplementing his private anthropological collection. Prof. Polyakov found that there was no need for opening a new auxiliary educational institution, as it was not stipulated by the University Statutes of 1884, and even the existing auxiliary educational institutions did not have enough finances. He also noted that, in the universities of Russia, teaching of anthropology and the anthropology museum had always been part of the department of human anatomy. Next, he posed the question why the university should allocate rooms and money for a private collection. He saw this as a dangerous precedent – in the future each *Privatdozent* who, for some reason, was not content with his department and auxiliary educational institution, could start applying for special rooms and money for their furnishing. In conclusion, Prof. P. Polyakov recommended to accommodate the collection at the Institute of Anatomy, for which the rooms of the Institute of Anatomy should be enlarged and money allocated to the director of the Institute, not to Dr Landau's private collection.

On 30 November 1910, the University Council discussed the application of the Faculty of Medicine Council concerning *Privatdozent* Landau's collection and decided to postpone its solution. The same application was discussed again on 10 December, and it was decided to forward it to the university administration for taking a stance. On 21 December, the University administration sent a letter to the student hostel manager Yermolai Gravit and asked about the availability of rooms there. On 29 December the hostel manager replied that the

hostel had no vacant rooms but considering that all university institutions must contribute to the main task of the university, teaching, it was possible to allocate to the anthropological collection one two-person room in the corner of the second floor. This room never remains vacant, but is not used willingly, as it is colder than others in winter. The room is located near the hall and auditorium of the hostel; therefore, it is noisier than the other rooms of the hostel. The university administration decided on 30 December not to make any obstacles for using this room on the condition that the collection is fully donated to the university. The decision was forwarded to the University Council. On 28 January 1911, the University Council decided to allow to allocate a room in the hostel for the collection on the same condition, ask *Privatdozent* Landau to submit a list of items in the collection and ask the curator of the Riga educational district to confirm this decision at least temporarily, until some new university buildings are completed.

On 1 February 1911, *Privatdozent* A. E. Landau submitted to the Rector of the Imperial University of Yuryev a list on two pages, written by his own hand, of the items that he would fully transfer to the anthropology collection to be created at the university. He had divided the donatable items into five groups. The first included plaster copies of excavated human bones. The second group consisted of two skeletons, the third of instruments and apparatuses, the fourth of charts and photos, the fifth was a small library. A. E. Landau also promised to replenish the collection according to opportunities.

In his letter of 17 February 1911, the curator of the educational district informed the rector of the university that the decision of the University Council to allocate a room for *Privatdozent* Landau's anthropological collection had been confirmed on the condition that the owner of the collection fully donates it to the university [3].

At its 25 February 1911 meeting, after receiving the list of items of the anthropological collection, the University Council thanked *Privatdozent* A. E. Landau for his donation and asked him to take over the management of the anthropological collection donated by him. Thus, in February 1911, the university founded a new, 36th auxiliary educational institution. Before that, the list of such institutions included the university library, three museums, two observatories, the botanical garden, the drawing school, two collections, seven institutes, ten study rooms, six hospitals, the polyclinic and the outpatients' clinic [16].

The report of the collection manager Landau submitted on 31 January next year shows that there were 41 units of plaster copies under 12 titles, 15 units

of anthropological instruments and apparatuses, two skeletons, 12 charts and maps, 19 titles of books in 20 volumes, and two cabinets. He had added a note written by his own hand that all the items had been acquired by himself at his personal expense.

On 20 June 1912, *Privatdozent* A. E. Landau was appointed director of the museum of anthropology. The university administration, in accord with the curator of the Riga educational district doubled the area the museum used at the student hostel by adding another two-person room to the existing one.

The report of the museum of anthropology drawn up by *Privatdozent* A. E. Landau shows that during the previous year one chart, three models, two museum tables, nine models about representatives of different races, and an atlas with the photos of Estonians' brains had been acquired. At the end of the report, there was also a note that he had acquired all the items mentioned at his personal expense. Landau drew up this report when he had already left the service of the university (as of 12 January 1913).

The anthropology museum he had left behind languished and, during World War I, ceased to exist, although Extraordinary Professor of Anatomy H. E. Adolphi had been appointed to take care of it as an acting manager. The assets of the museum of anthropology were not replenished in 1913–1914. The reports on these years do not show who had compiled them and on which date. The reports of 1915 and 1916 show that no research or practical work was conducted at the museum of anthropology. There were no revenues or expenses. No research papers were published; students did not use the museum. There was no extension of rooms. These reports were drawn up by Prof. Adolphi, acting director of the museum on 6 February 1916 and 28 January 1917 respectively.

In the report of the auxiliary institutions of the university for 1917, the sheets meant for the report of the anthropology museum were not filled. For that year, 38 university subdivisions had to submit their reports to the office of the University Council by 30 January 1918, but only 27 auxiliary institutions submitted the required reports on time. On 7 March 1918, quick submission of missing reports was required, and six auxiliary institutions submitted them, but the museum of anthropology was not asked to submit the last report [3]. It can be said about the further destiny of the museum of anthropology collection, that at least part of it reached the University of Tartu History Museum thanks to the attentive staff of the present Institute of Anatomy.

RETIREMENT OF PROFESSOR RAUBER AND HIS SUCCESSORS

On 22 February 1911, Prof. A. Rauber (State Councillor, 5th civil service rank in Tsarist Russia, 1898; Orders of St Stanislav 1st and 2nd class, St Vladimir 3rd and 4th class, St Anna 2nd class and Alexander III Memorial Medal) had retired as a Merited Professor [24]. The University Council invited and elected the famous anatomist V. P. Vorobyov (1876–1937) to be his successor, but the ministry did not confirm his election to this post. Neither had he been confirmed as Professor of Anatomy at the universities of Kharkov and Warsaw, as the young scientist did not conceal his sympathy with the students' revolutionary expectations [21]. Thereafter, Privatdozent Hermann Ernst Adolphi became Director of the Institute of Anatomy.

Hermann Ernst Adolphi MD (1863–1919, born in Wenden in the Livonian governorate, now Cēsis in Latvia), Prof. A. Rauber's student and long-time colleague had worked as his prosector for 20 years. He completed the Riga Governorate Gymnasium in 1882, graduated from the Faculty of Medicine in Dorpat as a doctoral student in 1888 and defended his doctoral thesis there on 29 November of the following year.

From 1894, he had constantly taught various special courses on anatomy; in later years, he also taught anatomy in Yuryev Private University. He published research papers on the variants of spinal nerves and the vertebral column of amphibians and mammals (including humans). In 1912, he became Extraordinary Professor of Anatomy and filled this post until 1917, being simultaneously Director of the Institute of Anatomy [14].

JURGIS ŽILINSKAS AND JĒKABS PRIMANIS

During the quarter of a century when Prof. A. Rauber was Director of the Institute of Anatomy, the arrangement of studies and research there could have given several students a boost to take up anatomy and anthropology in the future.

From 1908–1913, Jurgis Žilinskas (1885–1957), born in Kaunas governorate, was a student of the Faculty of Medicine. During his studies, he could listen to Professor A. Rauber's anatomy lectures and do practical work in this subject under the supervision of prosector H. E. Adolphi and his supernumerary assistant A. E. Landau. From the latter, he could also get his initial knowledge of anthropology. After graduation, he upgraded his education under Prof. R. Martin at the University of Munich. In 1922, J. Žilinskas became one of the organisers of the Faculty of Medicine at the Lithuanian University in Kaunas;

he also laid the foundation to the Institute of Anatomy and the Anatomy Museum there. When he was Head of the Institute and professor from 1922–1940, the Institute also dealt with anthropological research under his supervision: problems of craniology, serology, somatology, merology, etc. Thereafter, J. Žilinskas became a professor at Vilnius University. He left for the West in 1944 and continued his work in the United States from 1948 [18].

In the autumn semester of 1911, Jēkabs Primanis (1892–1971), born in Riga County in the Livonian governorate, began his studies of medicine in Yuryev but stayed there for four semesters only. His teachers of anatomy were H. E. Adolphi MD, Head of the Institute of Anatomy, who originated from Latvia, and prosector's supernumerary assistant A. E. Landau. It is possible that he also studied anthropology under the supervision of the latter. As A. Rauber had retired by that time, student Primanis could not attend the lectures of this famous professor of anatomy, as some researchers have erroneously written. J. Primanis continued his studies at the Imperial Academy of Military Medicine in St Petersburg. After graduation he contributed greatly to the development of anatomy and anthropology, first, until 1944, in Latvia and then in the US [5, 20].

THE NATURALISTS' SOCIETY

In Prof. Rauber's time, in the late 19th and early 20th centuries, many lecturers, scientists and simply amateurs were members of the Naturalists' Society at the Imperial University of Dorpat/Yuryev. This allowed them to make presentations about their research and publish their papers in the proceedings of the Society [26]. The Naturalists' Society was founded in 1853, being one of the first academic societies officially registered in Dorpat [16]. Prof. A. Rauber himself was not a member of the Society and made a presentation at only one meeting (in 1889) about human body build. But staff members of the Institute of Anatomy – H. E. Adolphi (in 1891–1918), R. J. Weinberg (in 1902–1906) and A. E. Landau (in 1900–1918) – were Society members and participated actively in its work. Adolphi made six presentations at its meetings, Weinberg five, and Landau ten. Each of them published five research papers in the publications of the Society. On 21 February 1911, Prof. A. Rauber was elected honorary member of the Naturalists' Society for his services during the 25 years of work at the university [26].

IMPACT OF WORLD WAR I

The successful work, including in anthropology, at the Institute of Anatomy of the University of Tartu (the earlier Imperial University of Dorpat/Yuryev) was interrupted at the beginning of World War I (literally at its eve) because of the coincidence of several unfavourable factors.

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