

THE TALKING DEAD 2

Past and Present of Biological Anthropology
The Heritage of Török Aurél's Oeuvre
New results from ancient tuberculosis
and leprosy research

Proceedings of the Second International Conference
of the Török Aurél Anthropological Association
from Târgu Mureş

13-15 October 2017

Edited by
Szilárd Sándor GÁL

MEGA PUBLISHING HOUSE
Cluj-Napoca
2018

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THE LIFE AND WORK OF TÖRÖK AURÉL

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Aurél Török (Aurél Ponori Thewrewk by his birth name) was born on the 13th of February 1842 in Pozsony (Bratislava, present-day Slovakia) in the year when Anders Retzius published his famous work. His father, József Thewrewk was a lawyer, famous art collector and polyhistor. His collection was damaged twice seriously, therefore he moved to Pozsony, and started a family there. He had three children: Emil, Árpád and Aurél. Aurél Török graduated from the Piarist High School of Budapest, and completed six semesters at the Medical Faculty of the University of Budapest between 1861 and 1863. He spent the next four semesters at the Medical Faculty in Vienna, and was awarded a medical degree on the 22nd of October 1867. From the fall of 1867 to July 1869 he functioned as a junior lecturer for four semesters in the Institute of Physiology of the University of Budapest, meanwhile also teaching chemistry and technology at the Budapest Academy of Commerce. During his university studies he had already helped József Lenhossék as a teaching assistant in his second year, and translated German, French and English articles for the journal *Gyógyászat* (Medicine) in his third year of medical studies. On the 24th of May 1869 he has been elected as professor of embryonal and histological development in the Medical Faculty in Budapest. On the 29th of July 1869 he has been appointed by baron József Eötvös minister as professor of physiology, histology and medical physics, and also as interim professor of pathology and forensic medicine in the Institute of Medical Surgery of the College of Kolozsvár (Cluj-Napoca, present-day Romania), where he taught for four semesters.

Török, however, has been more interested in research than education. Therefore, in the summer break of 1869 he visited several universities in Germany. From September 1871 he studied and did independent research in Bonn, Tübingen, and Würzburg with special permission of the minister. He published several German papers about the results of these visits. From April to September 1872, he studied the education and research scheme of the University of Strasbourg. From the fall of 1872, he was appointed as professor of physiology and histology at the Faculty of Medicine of the college turned university of Kolozsvár. He had kept this appointment until the fall of 1878.

In 1878, the director's position at the Department of Pathology in Kolozsvár became vacant following the death of professor Cziffra. The position has been offered to Nándor Klug, but he desired Török's position. Therefore, the Professors' Committee requested Török to head the Department of Pathology. Minister Ágoston Trefort issued a permission to transfer Török to the Department of Pathology as a professor on the 8th of August 1878, with the appointment starting on the 3rd of December 1878.

At his new department, Török started systematical analysis of the skull collection assembled by the late professor Cziffra. From the fall of 1878, he also started racial studies of the corpses dissected for educational purposes. The 36 year-old Török, the professor of physiology and histology in Kolozsvár, married with children, after 12 years of professional career in his original discipline decided to do anthropological research.

To gain more insight, he participated the Paris International Exposition and the Congress of the Anthropological Society in 1878. These events had a major impact on his later career. At the Congress of the Anthropological Society held at the world expo, he found that skulls of convicts executed for murder and robbery were exhibited there as true Hungarian types provided by Benedikt. The next day he brought this up to Paul Broca, who snapped back at him saying „You noble Hungarians come here to complain, are you only capable of talking? Here you should only argue using facts. Did you bring any skulls with you to disprove dr. Benedikt... Don't you think it is worth studying your own race? Where are your skull collections? When I visited Budapest, Lenhossék also showed me skulls of Hungarian convicts.” Török replied: „I am not an anthropologist, I'm a professor of physiology.” Broca interrupted him: „If you're not an anthropologist yet, you need to become one. Come and join us for a year, and we're going to train you.”

Török really paid heed to these words. Already during the fall of 1878, he launched an anthropology section in the journal *Természettudományi Közlöny* (Bulletin for Natural Sciences). In 1879, he was the first ever to launch anthropology lectures at a Hungarian university. In 1880–81 he travelled to Germany at his own expenses for a one year study trip, he visited the anthropological collections in Basel and Geneva, where Broca was also working. In March 1881, Ernest Hamy requested him to co-author the book titled „Crania Ethnica”. In 1881 he participated excavations along the borders of Algeria and Tunisia, and also in Switzerland. During his study trip, he translated Paul Topinard's book titled „Anthropologie” with Gyula Pethő to Hungarian, where he defined Hungarian anthropological nomenclature for the first time.

After such history, emperor Franz Josef signed a document at the military practice manoeuvres near Mezőkövesd, allowing Ágoston Trefort minister to appoint Török as director of the new Department of Anthropology in Budapest. Sámuel Scheiber had already made an unsuccessful attempt earlier to found an anthropology department. On the 19th of August 1881, Török requested his own relief of the duties at the pathology department in Kolozsvár.

Ágoston Trefort minister called upon Török to outline his plans on the 16th of October 1881. Török proposed the following agenda at the faculty meeting of the 16th of December 1881:

1. overview of the current state of the field of anthropology,
2. plans of anthropology lectures,
3. calling and directions of the scientific work at the new anthropology institute in Budapest,
4. proposal for the equipment of the anthropological museum to be founded,
5. proposal for the equipment of the anthropology department and institute,
6. layout of the anthropology institute.

Török described the main disciplines of anthropology as follows: biological anthropology, ethnological anthropology, demographic anthropology, prehistoric anthropology.

He requested to hire one professor, one junior lecturer, one preparator, one servant, and also asked for 10500 forints for expenses. The department was assigned rooms in the main building of the university that had formerly functioned as an apartment with a 64,85 m² total area (2 small rooms, 1 big room, one kitchen and one pantry). On the 25th of April 1883, Török informed the dean of the faculty, that the assigned workspace is not sufficient for the purposes of the department, they don't even have a chamber to perform dissections. In another request on the 22nd of October 1884 to baron Lóránd Eötvös, minister for religion and public education, Török states that they don't have a lecture room, library, laboratory, their collection is housed in the attic and the basement. Earlier on 27th of May 1884, he had already requested the enlargement of the department area to 444 m². As a result, the minister allowed to move the department to the new building of the university on the Múzeumkörút (boulevard). The department area here grew to 446,89 m², and 26880 forints were provided for equipment.

The collection of the anthropology museum was based on the human skull collection offered by the Hungarian National Museum that mainly came from archaeological excavations. As of May 1884, the collection consisted of 1500 skulls, 25 full skeletons, 70 plaster copies, 40 preserved brains. Between 1886 and 1894 the museum's collection grew with 10000 skulls and 1000 skeletons. Eventually Török had no space to house this material, therefore he requested to move the collection to the Department of Ethnology in the Városliget (City Park), which has been approved by the Hungarian National Museum in 1906. This administrative move was the first step in the creation of the current Department of Anthropology at the Hungarian Natural History Museum finally implemented in 1945.

He made significant contributions to the study and housing of the Árpadian kings' remains, thus, to the appreciation of Hungarian national traditions.

Török had serious plans concerning education. He took meticulous notes of his students. From these we know he only had 2 students in the academic year of 1881–1882, while 174 students attended his lectures in the winter semester of 1903–1904. Between 1881 and 1912 he administered 2732 students total. In the new department, he started his first lecture on the 3rd of October 1881. His first students were Gusztáv Thirring and Károly Pápai (Schip). Some of his students later worked with him, including Gyula Grittner, János Jankó, László Dobsa, Károly Teszák, Jenő Hillebrand. Others like Kálmán Lambrecht, Mariann Kubáss, Béla Balogh, László Nánásy, Katalin Gstettner have also worked in the field of anthropology for a shorter or longer period of time. During his professorial supervision, 23 doctoral theses were written, starting with the thesis of István Molnár, a teacher from Hajdúböszörmény.

Török had a lot of scientific debate with his peers. Two of his major debates were with László Réthy and Julius Kollmann. With the latter, tension was formed around methodological issues, which drove Török to start a thorough reform of craniometry. He constructed several ingenious measuring tools, and put craniological analysis on a mathematical basis. This is why Kollmann mockingly called him “the reformer of craniometry from Pest”. Török was a major critique of the works of Károly Pápai, one of his most talented student. He also had serious debates with Ottó Herman and János Jankó, which eventually lead to anthropology losing its two promising talents at the turning of the century. Török gave interesting, diverse, but unsystematic lectures, his students were left alone with practical issues. His personality was extreme, oversensitive, and quick-tempered.

The fight for anthropology, for supplies, the debates with his sponsors took their toll on Török's mental health. Already on the 17th of October 1898 he had to ask for a two weeks long sick leave. He complained that he had never been sent on any official study trips during his 20 years of efforts. In the academic year of 1907–1908 he served as the rector of the university, which further deteriorated his health. His long-standing atherosclerosis, asthma, and aortic aneurysm caused symptoms again. He went on a one month holiday in 1908, and took medical treatments in Vienna and by the Adriatic. He spent parts of the academic year of 1908–1909 in bed. Even though he restarted his lectures in the fall of 1909, his recovery was only temporary. On the 2nd of September 1912, the night before the opening of the Anthropological Congress in Geneva he was struck dead. He was still full of plans and lust for work. His grave under state protection can be found in the Farkasréti cemetery in Budapest.

For almost four decades, he has been the sole representative of Hungarian anthropology that he is the funding father of. His work reflected in 164 Hungarian and foreign language papers in almost all subfields of anthropology is everlasting. After his death, the department was headed by József Lenhossék. Between 1919 and 1930 the department chairman was zoologist Lajos Méhely, who had extreme racial beliefs. Permanent anthropology professor has only been appointed to lead

the department in February 1959, when Török's former student Lajos Bartucz was assigned the role. Bartucz executed Török's plan long after his death, and trained many new scientists who later achieved significant results. The life and work of Aurél Török has been exemplary in the past, and it may remain so for the present and the future, inspiring the revival of Hungarian anthropology.

Acknowledgement

This paper has been supported by the grant no. K 125561 of the National Research, Development and Innovation Office.

Papers of the life and work of Aurél Török

Allodiatoris 1962	Allodiatoris, I. 1958: A Kárpát-medence antropológiai bibliográfiája. Akadémiai Kiadó. Budapest. pp.183.
Allodiatoris 1962	Allodiatoris, I. 1962: Török Aurél (1842–1812). <i>Élővilág</i> 1. 51–53
Bartucz 1912	Bartucz, L. 1912: Dr.Török Aurél. Nekrológ. <i>Vasárnapi újság</i> .
Bartucz 1923a	Bartucz, L. 1923a: A hazai embertan múltja és a jövő feladatai. <i>Anthropologiai Füzetek</i> 1(1–3): 1–12.
Bartucz 1923b	Bartucz, L. 1923b: Anthropologie in Ungarn und der künftigen Aufgabe der Anthropologie in Ungarn. <i>Anthropologiai Füzetek</i> 1(1–3): 53–58.
Bartucz 1932a	Bartucz, L. 1932a: Török Aurél és a magyar antropológia. <i>Természettudományi Közöny</i> 64: 457–461.
Bartucz 1932b	Bartucz, L. 1932b: A koponyabúvár. <i>Magyarság</i> .
Bartucz 1937	Bartucz, L. 1937: Die Anthropologie in Ungarn. <i>Zeitschrift für Rassenkunde</i> 6: 254.
Bartucz 1942a	Bartucz, L. 1942a: Török Aurél és a magyar fajkutatás. <i>Délvidéki Szemle</i> 1–2: 6.
Bartucz 1942b	Bartucz, L. 1942b: A „kraniológia pesti reformátora” Török Aurél (1842–1912). Születésének 100 éves évfordulójára. <i>Természettudományi Közöny</i> 74: 33–40.
Bartucz 1956	Bartucz, L. 1956: A magyar antropológia múltja és szakosztályunk jövő feladatai (Die Vergangenheit der ungarischen Anthropologie und die Zukunfts aufgaben der Fachsektion). <i>Anthropologiai Közlemények</i> 4: 3.
Bartucz 1961	Bartucz, L. 1961: Die internationale Bedeutung der ungarischen Anthropologie. <i>Anthropologiai Közlemények</i> 5: 5–18.
Bartucz 1962	Bartucz, L. 1962: Dr.Török Aurél élete és működése. Emlékezés halálának 50-ik évfordulójára. <i>Anthropologiai Közlemények</i> 6: 67–75.
Bartucz 1964a	Bartucz, L. 1964a: Világnézeti viták és egyéb tényezők a budapesti embertani tanszék felállításának hátterében 85 évvel ezelőtt. <i>Anthropologiai Közlemények</i> 8 (3–4): 51–68.
Bartucz 1964b	Bartucz, L. 1964b: Zivot a cinnot dr. Török Aurél. <i>Acta Fac.Rer.Nat. Univ.Com.</i> 9 (3–4): 231–238.
Bugyi 1972	Bugyi, B.1972: Az első magyar antropológus Török Aurél (Der erste ungarische Anthropolog: AurélTörök). <i>Orvosi Hetilap</i> 113: 1302–1304.
Bugyi 1977	Bugyi, B. 1977: Adatok a hazai embertan történetéhez a 18. század második és a 19.század első feléből (Contributions to the history of Hungarian anthropology in the second part of the 18th and in the first part of the 19th century). <i>Anthropologiai Közlemények</i> 21: 161–167.
Évinger 2012	Évinger, S. 2012: Török Aurél (1842–1912) <i>Anthropologiai Közlemények</i> 53: 141–144.