

ANTHROPOLOGY AND POLITICS

Craniology and Racism in the Austro-Hungarian Monarchy

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It was probably Franz Joseph Gall (1758–1828) who, for the first time in modern Europe, tried to juxtapose intellectual abilities and certain sections of the brain, in other words he gave an “ideological” interpretation of brain-formations. According to Gall “there are as many different kinds of intellect as there are distinct qualities . . . One individual may have considerable intellect relative to one fundamental power, but a very narrow one in reference to every other. . .”¹

Gall’s teachings rapidly spread in Hungary where his first apostle and populariser, Viktor Szokoly emphasized that “the teaching of Gall differs mainly from the older kind of psychology in that it combines the bodily and psychic phenomena of people’s lives. . . It is on this connection that phrenology puts its main stress and it strives to explain what kind of contact exists between soul and its main organ, the brain – and again, what is the link between certain basic capacities of the soul and the cranial organs corresponding to these faculties.”²

Modern anthropology may boast of forerunners from the French Enlightenment such as the naturalist Buffon (Georges-Louis Leclerc, 1707–1788) who, in his celebrated *Histoire des Quadrupèdes*, started to examine races as early as 1765.³ Nevertheless, anthropology can be considered a science in its own right only since 1859, when the *Société d’anthropologie* was founded in Paris. At that time, research was concentrated primarily on the skull as the most outstanding, most characteristic part of the human body which could moreover be easily collected and studied. Studies of the skull, however, were, up to the mid-19th century, conducted unsystematically, and with a measure both of naivety and one-sidedness. Researchers considered it their duty to set up their own “craniological” schemes to solve “the secret of the soul, the measure of intelligence, the medium type of mankind and its division into races.” One might argue today that the phrenology of F. J. Gall, the “kephalometry” of Moritz Benedict, the convict-typology of Cesare Lombroso, or the studies in facial angles by Peter Camper are nothing more than mere scientific humbug. National animosity or antagonism already played a role at this point of the history of skull-research: a different “horizontal” was used for craniometry by the Germans than by the French. Special systems were established by the Swedish scientist Anders Johann Retzius between 1840 and 1860 who differentiated among certain national skulltypes according to his craniometric indices. Different again were the methods of the French Paul

ARCISME

és

PHRENOLOGIA,

minden rendü olvasó számára

közli és jegyzetekkel kíséri

Szokoly Viktor,

a magyar k. természettudományi társulat rendes tagja.

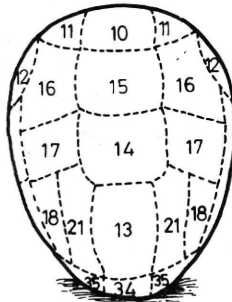


A szövegbe nyomott, részben eredeti, 162 fametszettel.

Pest, 1864.

Kiadja Hartleben Adolf.

Fig. 1. Frontispiece of V. Szokoly's book



- 9. Composition
- 20. Wit
- 21. Imitation
- 29. Orderlines
- 32. Music
- 33. Language

Fig. 2. Creative capacities of the brain, an illustration in Szokoly's book

Broca and Paul Topinard, or, for that matter, those of the German Hermann Welcker and Rudolf Virchow. The Hungarian anthropologist Professor Lajos Bartucz was right when he declared that "in fact . . . the greater the number of systems and quantity of skull measurements and examinations, the smaller the number of actual results. What is more, earlier statements previously considered valid became in time more and more illusionary and, in the 70s and 80s of the last century, people in and out of the circles of anthropologists started to speak of the failure of craniology."⁴

Craniology concentrated mainly on *craniometry* which was founded on the scientific belief in the measurement of the skull. "The leaders of craniometry were not conscious political ideologues. They regarded themselves as servants of their numbers, apostles of objectivity. And they confirmed all the common prejudices of comfortable white males — that blacks, women, and poor people occupy their subordinate roles by the harsh dictates of nature."⁵

It was in the enthrallment of quantification that the first major master of craniometry, Paul Broca (1824–1880) lived and worked. He was the founder of the *Société d'anthropologie* of Paris and a professor of surgery at the Sorbonne. It was Paul Broca who first stressed with an international impact that the *measures* of the brain are interrelated with human intelligence. "Among the questions heretofore discussed within the Anthropological Society," Broca explained, "none is equal in interest and importance to the question before us now. . . The great importance of craniology has struck anthropologists with such force that many among us have neglected the other parts of our science in order to devote ourselves almost exclusively to the study of skulls. . . In such data, we hoped to find some information relevant to the intellectual value of the various human races."⁶

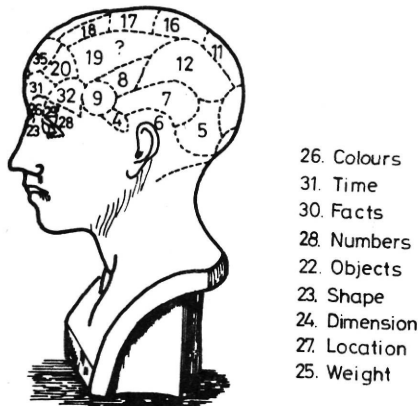


Fig. 3. Evaluative capacities of the brain, an illustration in Szokoly's book

Die Gewichtsverhältnisse der Gehirne österreichischer Völker.
I. Die Magyaren

Nr. Körperbau	Krankheit	Gesamtm- hirn	Groß- hirn	Klein- hirn	Brücke
1 Mittelgroß	Tuberculose	1324,49	1161,54	142,18	20,77
2 Groß	Tuberculose	1295,99	1140,77	138,85	16,37
3 Mittelgroß	Tuberculose	1229,24	1094,81	120,26	14,17
4 Mittelgroß	Tuberculose	1293,79	1138,59	138,85	16,35
5 Mittelgroß	Tuberculose	1190,97	1061,99	114,81	14,17
6 Klein	Tuberculose	1520,26	1367,18	134,49	18,50
7 ?	Tuberculose	1247,95	1080,61	148,75	18,59
8 Klein	Tuberculosis peritonei	1366,06	1198,75	149,81	17,50
9 Mittelgroß	Tuberculosis peritonei	1157,09	1010,61	132,31	14,17
10 Klein	Tuberculosis peritonei	1318,92	1165,90	137,76	15,26
11 Mittelgroß	Morb. Brightii	1344,17	1182,31	142,37	19,68
12 Mittelgroß	Caries	1298,27	1128,75	148,75	20,77
13 Mittelgroß	Dysenterie	1240,26	1109,04	118,11	13,11
14 Mittelgroß	Dysenterie	1331,03	1191,09	123,59	16,35
15 Klein	Typhus	1605,58	1425,13	162,95	17,50
16 Klein	Typhus	1177,86	1012,76	148,75	16,35
17 Mittelgroß	Typhus	1350,68	1221,67	113,75	15,26
18 Mittelgroß	Typhus	1277,44	1121,09	138,85	17,50
19 Mittelgroß	Typhus	1269,81	1105,77	145,45	18,59
20 Groß	Pyämie	1473,27	1295,00	158,59	19,68
21 Klein	Pyämie	1305,91	1141,87	145,45	18,59
22 Groß	Erysipel	1188,85	1040,13	133,46	15,26
23 Mittelgroß	Erysipel	1440,45	1260,00	160,77	19,68
24 Mittelgroß	Meningitis	1293,91	1137,50	140,06	16,35
25 Klein	Meningitis	1339,78	1185,61	136,67	17,50
26 Mittelgroß	Pneumonie	1357,31	1174,68	157,50	25,13
27 Mittelgroß	Pneumonie	1291,62	1138,59	136,67	16,36
28 Groß	Pneumonie	1327,72	1157,18	154,17	16,37
29 Klein	Pneumonie	1415,27	1246,87	150,90	17,50
30 Klein	Pneumonie	1300,33	1164,81	120,26	15,26
31 Klein	Pneumonie	1319,05	1155,00	144,37	19,68
32 Klein	Pneumonie	1396,64	1251,25	130,13	15,26
33 Klein	Pneumonie	1278,05	1245,77	118,11	14,17
34 Mittelgroß	Pneumonie	1293,79	1136,35	188,85	18,50
35 Mittelgroß	Pneumonie	1350,74	1181,25	149,81	19,68
36 Mittelgroß	Pneumonie	1285,07	1125,45	143,27	16,35
37 Mittelgroß	Pneumonie	1254,43	1087,18	150,90	16,35
38 Mittelgroß	Pneumonie	1373,69	1206,35	148,75	18,59
39 Mittelgroß	Pneumonie	1334,33	1179,04	135,61	19,68

Nr. Körperbau	Krankheit	Gesammt- hirn	Groß- hirn	Klein- hirn	Brücke
40 Groß	Pneumonie	1253,37	1082,76	153,11	17,50
41 Groß	Lungenödem	1509,33	1359,49	131,25	18,59
42 Mittelgroß	Pleuritis	1364,94	1206,35	140,00	18,59
43 Klein	Nephritis	1162,51	1029,17	119,17	14,17
44 Klein	?	1270,78	1117,76	137,76	15,26
45 Klein	?	1338,66	1172,50	150,90	15,26
46 Mittelgroß	?	1392,25	1234,81	141,00	16,35
Mittel		1322,86	1165,89	139,74	17,62

Fig. 4. Data concerning Hungarian skulls, by A. Weisbach, 1866 (see note 11.)

Broca was determined when he declared that there is a close relation between the volume of the brain and intelligence: "In general, the brain is larger in mature adults than in the elderly, in men, than in women, in eminent men than that in men of mediocre talent, in superior races than in inferior races. . . Other things equal, there is a remarkable relationship between the development of intelligence and the volume of the brain."⁷

Broca fought a serious battle with those anthropologists who, like the German Friedrich Tiedemann, had questioned the validity of the views he advocated, already in the first half of the century. In his 1837 book *Das Hirn des Negers mit dem des Europäers und Orang-Outangs verglichen* Tiedemann had been led to the unambiguous conclusion that there are no significant differences between the size and the structure of the European and the Negro brain, and that the latter is in no way in a closer connection with that of the ape than the former. Broca should also have seen from the work of Professor Emil Huschke of Jena University (*Schaedel, Hirn und Seele des Menschen und der Thiere nach Alter, Geschlecht und Race*, 1854), that contemporary science regarded "anthropological anatomy", based on the comparison of the brain volume of different peoples, as "terra incognita" and a "tabula rasa", with incidental recording of individual differences without any real scientific observations.⁸

Two major Hungarian poets may serve as telling examples of the measure of the penetration into Hungarian intellectual life by the studies of headshapes coming from abroad. János Arany wrote in his comic epic poem entitled *Bolond Istók* ("Istók the Fool") in 1850:

"Nothing more foolish than by outward show
to draw conclusions on the inner merit.
Dr Gall must allow he is madly
trying to find reason by splitting hairs.
(A hollow sound reveals a good melon.)
Not all heroes may appear heroic. . ."⁹

Die Gewichtsverhältnisse der Gehirne österreichischer Völker.
II. Die Rumänen und Walachen

Nr. Körperbau	Krankheit	Gesamthirn	Großhirn	Kleinhirn	Brücke
1 Klein	Tuberculosis peritonei	1344,36	1190,00	131,25	13,11
2 Klein	Tuberculosis peritonei	1378,08	1182,31	175,00	20,77
3 Mittelgroß	Tuberculosis peritonei	1499,49	1322,31	157,50	19,68
4 Mittelgroß	Tuberculosis peritonei	1351,87	1176,87	157,50	17,50
5 Mittelgroß	Tuberculosis	1244,59	1092,63	135,61	16,35
6 Mittelgroß	Tuberculosis	1402,13	1229,37	154,17	18,59
7 Groß	Tuberculosis	1296,03	1129,81	147,63	18,50
8 Klein	Tuberculosis	1392,25	1235,90	137,76	18,59
9 Klein	Dysenterie	1394,52	1245,77	131,25	17,50
10 Mittelgroß	Caries	1172,41	1041,25	116,99	14,17
11 Mittelgroß	Pyothorax	1296,00	1128,75	150,90	16,35
12 Mittelgroß	Pyelitis	1367,18	1207,50	141,09	18,59
13 Klein	Pneumonie	1106,74	972,31	120,26	14,17
Mittel		1326,58	1165,75	142,83	17,22

Fig. 5. Data concerning Rumanian skulls, by A. Weisbach, 1866

Imre Madách, author of the celebrated Hungarian philosophical drama *Az ember tragédiája* ("The Tragedy of Man" 1862) presented in the horrifying "Phalanstery-scene" a visionary world in which a "Scientist" is instructed thus by one of the leading characters of the scene, "The Aged Man":

"Now, scientist, examine well the heads
Of these two children.
(The Scientist obeys.)"
And answers:
"This child should have the training of a doctor.
That one will be a shepherd."¹⁰

Scientific methods were, indeed, quickly taken over from French and German schools and spread throughout the Austrian Monarchy. They were also applied to the measurement of the peoples of the Austro-Hungarian Monarchy. See for example Albin Weisbach's "Die Gewichtsverhältnisse der Gehirne österreichischer Völker mit Rücksicht auf Körpergröße, Alter, Geschlecht und Krankheiten" which was published in Volume I of the then recently founded German anthropological journal *Archiv für Anthropologie*, in 1866.¹¹ The author, a military doctor and self-trained anthropologist, had already published some data concerning the *skulls* of the Austrian peoples. In

Die Gewichtsverhältnisse der Gehirne österreichischer Völker.
VII. Die Böhmen und Tschechen

Nr. Körperbau	Krankheit	Gesammt- hirn	Groß- hirn	Klein- hirn	Brücke
1 Groß	Typhus	1397,76	1253,90	144,36	17,50
2 Groß	Typhus	1285,04	1134,17	135,61	15,26
3 Mittelgroß	Typhus	1210,80	1050,00	143,30	17,50
4 Groß	Pyämie	1363,85	1206,35	142,24	15,26
5 Groß	Pyämie	1409,75	1250,13	143,27	16,35
6 Mittelgroß	Pneumonie	1334,36	1179,04	138,97	16,35
7 ?	Pneumonie	1458,98	1282,95	156,35	19,68
8 Groß	Pleuritis	1223,79	1066,35	141,09	16,35
9 Groß	Pleuritis	1449,20	1277,50	149,83	21,87
10 Mittelgroß	Pleuritis	1247,89	1100,26	129,04	18,59
11 Mittelgroß	Pleuritis	1392,25	1240,26	134,49	17,50
12 Mittelgroß	Selbstmord	1401,03	1236,99	146,54	17,50
13 Groß	Tuberculose	1402,12	1241,35	143,27	17,50
14 Mittelgroß	Tuberculose	1391,12	1222,76	151,99	16,37
15 Mittelgroß	Tuberculose	1292,82	1138,59	138,97	15,26
16 Mittelgroß	Tuberculose	1399,94	1243,59	138,85	17,50
17 Mittelgroß	Tuberculose	1391,19	1233,75	137,76	19,68
18 Groß	Tuberculosis peritonei	1354,07	1168,11	168,46	17,50
19 Groß	Tuberculosis peritonei	1320,13	1157,18	145,45	17,50
20 Groß	Tuberculosis peritonei	1306,93	1135,26	154,17	17,50
21 Mittelgroß	Tuberculosis peritonei	1302,63	1149,49	138,85	14,17
22 Mittelgroß	Dysenterie	1434,97	1266,54	148,75	19,68
23 Groß	Dysenterie	1415,20	1241,35	156,35	17,50
24 Groß	Morb. Brightii	1551,99	1358,40	175,00	18,59
25 Mittelgroß	Morb. Brightii	1469,94	1297,18	154,17	18,59
Mittel		1368,31	1205,25	146,28	17,48

Fig. 6. Data concerning Czech skulls, by A. Weisbach, 1866

this particular study, however, he elaborated with exemplary exactitude and competence the material of the Vienna military hospitals and civilian poor-houses, altogether 429 cases, in which he compared *brain-weight* measurements. He compared 243 German, 87 Slavonic, 53 Rumanian and 46 Hungarian brains and published comparative tables revealing the body-structure, the illness of the deceased, the total weight of the brain and its constituting elements. Weisbach's tables suggest that it was the brain of the Slavonic peoples of the Habsburg Monarchy which weighed heaviest. According to his figures, the average Hungarian brain-weight was 1322,86 g, somewhat less than that of the Rumanians (1326,58 g), more than that of the Italians (1301,37 g) or the

Poles (1320,59 g) and the Ruthenians (1320,63 g). High above the others stands the figure for Czech brain-weight averages (1368,31 g), a much larger volume than that of the Slovaks (1310,74 g) or the Southern Slavs (1305,14 g). Weisbach pointed out that the German males of the Empire could boast of a relatively smaller brain-weight only (1314,50 g) which, nevertheless, was much larger than that of German women (1180,15 g). The Austrian doctor's conclusions concerning the gradual loss of the brainweight in relation to age coincides with the results of modern anatomical data: the brain of elderly people, both male and female, loses something like 100–150 gs in the course of 30–60 years.

His results concerning the various peoples of the Habsburg Monarchy, however, reveal no significant differences in terms of mathematical statistics. Still, Dr Weisbach repeatedly emphasizes that Czech people have got the heaviest brain within the Empire. "Werden die einzelnen Völker nach den vier hier vertretenen Familien zusammengenommen", the author concluded, "so ergibt sich, daß die slawische Familie das größte Gesamthirn, die romanische das kleinste, und die zwischen beiden stehenden magyarische noch ein größeres Gesamtgewicht besitzt, als die dem romanischen Stamme fast gleiche deutsche; ferner daß das Großhirn beim magyarischen Stamme relativ am größten, kleiner beim slawischen, noch mehr beim romanischen und am kleinsten beim deutschen..."¹² (Let me remark at this point that, as a political side-effect, these conclusions of Dr Weisbach were immediately taken over and quoted by the contemporary British press where they served as means of a pro-Czech propaganda.)¹³

European anthropology found followers and, what was more, prominent and internationally recognized followers in Hungary at a fairly early date, in the third quarter of the 19th century. Fresh impetus was given to anthropological research in Hungary by the VIIIth International Congress in Anthropology and Ancient History held in Budapest, in 1876. It was for this reason that the Budapest Statistical Office started to collect anthropological data on school-children: based on the pattern and example of the German Anthropological Association, the Office started to examine systematically the colour of Hungarian children's eyes, hair and skin, as early as the spring of 1875. This was the first-ever major anthropological survey in Hungary, covering altogether 14 616 Budapest children. With this investigation Hungary took the lead in Europe where there was no collection of data of that sort on such a large scale before. The research considered three different Budapest groups of people: Hungarians, Germans, and Jews.¹⁴

It was in the very years, i.e. also with a view to the then forthcoming international congress, that a Budapest psychiatrist and neurologist, Dr Sámuel Scheiber published his 1873 *Pro Memoria* in which he suggested to the Ministry of Religion and Education the establishment of a separate anthropological department within the Hungarian National Museum and offered for that purpose his own collection of 20 "racial" skulls. In his open letter to the Minister, Ágoston Trefort, the doctor pointed out that "we Hungarians who strive to acquire modern achievements in other fields as well, should not fall behind in the demands of the times in this particular science; we should start

to concern ourselves with anthropology and endeavour to make it feel at home in this country. Only a few people in our country have been doing research in anthropology. Therefore, in my opinion, one of the first things we should do is to establish an anthropological museum, and thereby disseminate knowledge by means of popular and scientific lectures in this field, thus laying the foundations of an anthropological society."¹⁵

From the viewpoint of real anthropology the greatest achievement of 1875 was not the Budapest survey or the *Pro Memoria* of Dr Scheiber but the publication by the Hungarian Academy of Sciences of József Lenhossék's *Az emberi koponyaisme. Cranioscopia* ("The Science of Human Skulls. Cranioscopy"). It was József Lenhossék's book which, for the first time in Hungary gave fresh information on the then highly or, rather, over-valued branch of anthropology. Lenhossék based his results on the investigation of 267 living human beings, 61 recently deceased and 15 exhumed.¹⁶

The most significant achievement of the 1876 international congress in Budapest was its direct impact on Hungarian intellectual life which turned in the coming years with growing interest towards the problems of anthropology. The Natural Science Association (*Természettudományi Társulat*) promoted the cause of anthropology in Hungary by conducting original research and by publishing popular works.¹⁷ It was the Association which arranged for the translation into Hungarian of Paul Topinard's *L'anthropologie (Az anthropológia kézi könyve)* which may be considered the first modern handbook of anthropology. The 1876 original was quickly followed by the 1881 Hungarian version, with an introduction by Paul Broca, and in the translation of the would-be first-ever Hungarian professor of anthropology Aurél von Török.¹⁸ The National Society of Archaeology and Anthropology was established in the spring of 1878 and the year in which Topinard's book came out in Hungarian saw the birth of the Department of Anthropology at Budapest University. Contemporary science in Hungary could indeed boast of the fact that Budapest University housed the fourth Department of Anthropology in the world.¹⁹ The state budget for 1881 argued the case of the Department, pointing out that "anthropology . . . is not at all represented at our universities, though it is a branch of the natural sciences which is all the more important as it deals with man himself, one of the main targets of science and, by endeavouring to determine the scientific character of races, peoples, and nations, to study the traces of man's ancestry, development and education, and the cultural level of pre-historic times. It also investigates the basic causes of our physical, intellectual, moral, social and even historical existence and thus it may serve not only as an auxiliary science for philosophy, physiology, sociology and history but rather as their real foundation." Trefort added in his parliamentary argumentation: ". . . anthropology is a fertile field in Hungary which was and is inhabited by different races in times ancient and modern." "A well-organized and complete university cannot lack this branch of science."²⁰

The establishment of the Budapest Department was yet another achievement of the Minister of Education of the day, Ágoston Trefort whose admirable educational policies were in the mainstream of European intellectual life and who able to find

a suitably gifted professor for the Department in the person of Aurél von Török de Ponor (1842–1912).²¹ Von Török, a Transylvanian nobleman by birth, was well-equipped with an eminent body of knowledge in anatomy, physiology and histology, and brought to bear Broca's Paris teachings in a direct way. He started to build his own anthropological school according to the then most esteemed French pattern. His students and followers, Professors Mihály Lenhossék (1863–1937) and Lajos Bartucz (1885–1966) both emphasized that "in the course of his 31 years at Budapest University he achieved a lasting fame in the annals of international science. . . . There was probably no other scientist who studied craniology and particularly certain questions of the methodology of craniometrics so deeply, with such a cult of thorough penetration. . . . He created with painstaking effort the great bone- and skull collection of the Department of Anthropology which, as far as the numbers are concerned, has few equivalents even abroad."²²

It is perhaps curious to see that the father of the "craniometer" filled the 630 pages of his basic *Grundzüge einer systematischen Kraniometrie* with mostly abstract, theoretical and purely methodological problems.²³ He wrote what he called a "Methodische Anleitung" to the "kraniometrischen Analyse der Schädelform für die Zwecke der physischen Anthropologie, der vergleichenden Anatomie – sowie für die Zwecke der medizinischen Disziplinen – (Psychiatrie, Okulistik, Zahnheilkunde, Geburtshilfe, gerichtliche Medizin) und der bildenden Künste (plastische Anatomie)." Published in Stuttgart in 1890, von Török's book met with a dubious reception from the world of international science. Georg Buschan considered it "exemplary", a book "which will continue to figure as the masterwork of anthropological literature". The Austrian A. Weisbach did not agree: he thought it highly problematic whether or not von Török would find followers at all. Basel University Professor Julius Kollmann called von Török's measurement simply a *cul de sac* and was very sceptical about the probable use of his Budapest colleague. "If he succeeds in presenting the use and necessity of his 5000 measurements we shall meet him again" – a sarcastic Kollman wrote.²⁴

What was altogether totally missing from von Török's work was the national viewpoint and Mihály Lenhossék characteristically criticized him three years after von Török's untimely death when he stated: "our gratitude would be greater, had he put his talent, energy and unflagging zeal, or at least part of it, into a much neglected field which is much closer to our soul, a step-child of Hungarian science: i.e. the anthropology of the Hungarian people. It is my strong belief that in this way he could have acquired much greater regard abroad than with the particular, often sterile trend of his activities."²⁵

Not as if von Török had not given it due consideration, that "from amongst the scientific work referring to the description of Hungary it is anthropology which, though of great importance, is most neglected."²⁶ And he also advocated the programme of Hungarian anthropology shortly after the establishment of his Department: "Another task of Hungarian anthropology, which is equally important from a scientific viewpoint and is of undoubtedly far greater significance from the viewpoint of public life should be the planned and systematic investigation of the inhabitants of our

GRUNDZÜGE

EINER

SYSTEMATISCHEN KRANIOMETRIE.

Methodische Anleitung

zur

KRANIOMETRISCHEN ANALYSE DER SCHÄDELFORM FÜR DIE ZWECKE DER
PHYSISCHEN ANTHROPOLOGIE, DER VERGLEICHENDEN ANATOMIE

sowie

für die Zwecke der medizinischen Disziplinen
(Psychiatrie, Okulistik, Zahnheilkunde, Geburtshilfe, gerichtliche Medizin)
und der bildenden Künste (plastische Anatomie).

EIN HANDBUCH FÜRS LABORATORIUM

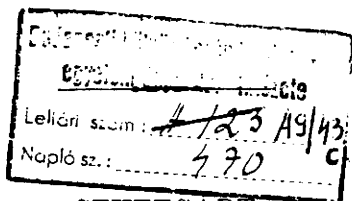
VON

Dr. AUREL v. TÖRÖK,

o. ö. Professor der Anthropologie und Direktor des Anthropologischen Museums an der Budapester Universität

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MIT ZAHLREICHEN ABBILDUNGEN.



STUTT GART.

VERLAG VON FERDINAND ENKE.

1890.

Fig. 7. Outlines of the "Systematic Craniometrics", by A. von Török

country according to geographic and political regions from anthropometric, ethnographic and demographic viewpoints, something which was hitherto not dealt with at all. This investigation shall reveal the ratio of independent and mixed anthropological types in our country; the types that are diminishing and that tend to spread; the external and internal, that is, racial factors that play a part in the local social life of certain regions of the country, particularly from a cultural and an economic viewpoint. This investigation should reveal among other things the medium type of the Hungarian race and how it underwent changes due to the mixing of the blood among groups of peoples and nationalities living with or nearby the Hungarians. We must also add that this investigation alone could reveal whether or not the Hungarian type progressed in a physical sense due to this continuous mixing of the blood, as a mental progress undoubtedly manifests itself in the most happy way possible. This question is particularly important, not only from a scientific viewpoint but also from that of the state itself. Hitherto, however, we had no knowledge whatsoever of all this."²⁷

"Does the Hungarian have his own skull, his own face, his own stature by which he may be recognized from amongst thirty other white nations?" – this question by Béla Tóth was put in the daily called *Magyar Hírlap* (22 April 1893) to Aurél von Török at the height of nationalist propaganda and there was a reproach attached: "... science has hitherto done nothing to determine the essence of the Hungarian type." Professor von Török answered the question a few days later, putting forward the then views of Hungarian anthropology as a science. He emphasized first of all that the question is "so difficult and so intricate" that it cannot really be answered in a newspaper article. "The Hungarians today" – the scientist argued – "must show a much greater variety of types due to the phenomenon of continuous mixing than for example the Hungarians thousand years before. As we have varieties of types even in arch-Hungarian regions which cannot be properly judged as to whether they are more real or more ancient (i.e. if one doesn't know the older types), one may safely conclude that the real, characteristic type of the Hungarians can only be recognized from amongst the many combinations or varieties only after a very exact examination of the older types."²⁸

Hungarian anthropological research later seemed to underline the argument of von Török and his conclusions were generally accepted: "The decision in the question of the Hungarian type will succeed only to the extent to which we may trace contemporary Hungarian types back to the earliest types – on the basis of the types found in the old sites."²⁹

I would like to remark here that von Török and his Budapest school started to work some time before Franz Boas who actually founded American anthropology "of which he made a science" (Margaret Mead). The cranial index as a methodological tool also appeared in Boas' work and Boas strived to point out that the impact of the American environment can be recognized even in the head-measurements of the foreignborn. "A direct influence of environment upon the bodily form of man has been found in the case of American-born descendants of immigrants from Europe," he wrote. "The effect of American environment makes itself felt immediately, and increases slowly with the

increase of time elapsed between the immigration of the parents and the birth of the child."³⁰ We have to bear in mind at the same time that while von Török was charmed by his own craniometric method scientists in Spain produced evidence of the intricate interrelation between the grey substance of the brain and the cellular system of the spinal cord: Santiago Ramón y Cajal was awarded the Nobel Prize in psychology and medicine "in recognition of his work on the structure of the nervous system," as early as 1906.³¹

This relatively early and high quality start to Hungarian anthropology was unfavourably counteracted by the gradually growing lag which was registered by a more and more astonished scientific opinion abroad. This was also a consequence of the unexpected death of von Török just before the outbreak of World War I which put an end to the existence of his Department at the University of Budapest for several decades.³² Nevertheless, well before von Török's death the outstanding American anthropologist William Z. Ripley published his *The Races of Europe. A sociological study* (1899). In it Ripley quoted Topinard on the Hungarians as a people representing "one of the most beautiful types in Europe", but he was doomed to failure when he tried to add a scientific explanation. "The physical characteristics of the Magyars have been but little investigated scientifically," he wrote. "We know less of them than of almost any other great European people."³³ At the very time Jean (Johann) Deniker, the famous, Russian-born French ethnographer published a map in his 1899 *Les Races de l'Europe* on which the vast-central parts of what we may term "historical" (i.e. pre-1920) Hungary were left blank from an anthropological point of view. This meant that science knew next to nothing from an anthropological viewpoint of the

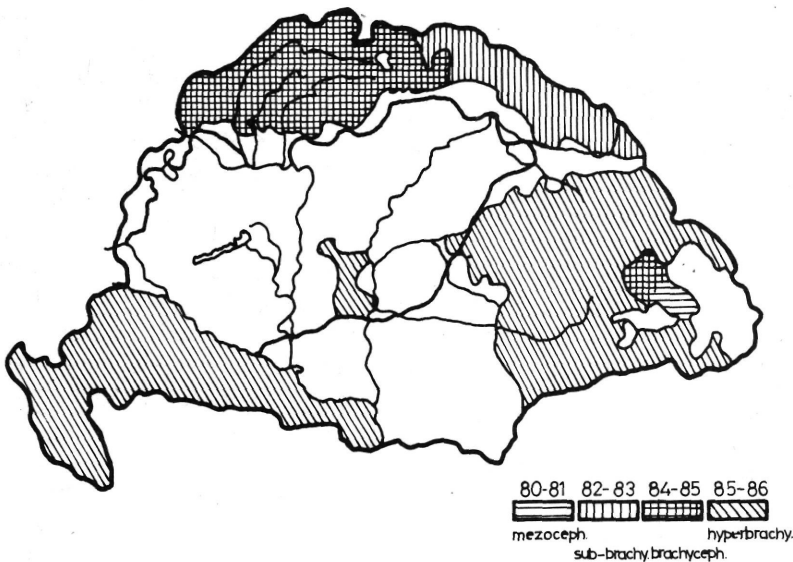


Fig. 8. Craniological Index Map of Hungary by J. Deniker

people living there. Deniker's map spread rapidly throughout the whole of European science and scholarship as if to underly the validity of Ripley's judgement: we meet the same drawing in the third edition of Johann Ranke's popular *Der Mensch* of 1912 and in Volume II of Franz Birkner's *Die Rassen und Völker der Menschheit. Der Mensch aller Zeiten*, a great summary intended for a large reading public. These maps presented anthropological symbols only in the North and North-Western, Slavonic parts of "historical" Hungary and the Roumanian parts of what we call Transylvania in the South-East of the country in the pre-World War I period. Professor Mihály Lenhossék was right to point out that "this white patch in the midst of Hungary ought in fact to be labelled the black patch of Hungarian science, could we consider it wholly justified. We should, however, not call this *tabula rasa* presentation of Hungary on the racial map of anthropology as being fully valid. We already have data at our disposal," he continued in 1915 at a festive meeting of the Hungarian Academy of Sciences, "but they are not sufficient, they do not cover the whole of the country in a systematic way and differentiate according to regions and they lack the most important condition of such statistical surveys: a large corpus of material upon which to found conclusions. It is dangerous to draw general conclusions from insufficient material, such data should be stored until they are numerous enough to use. That our existing data were not taken over by foreign scientists is our fault: we did not pave their way to foreign literature."³⁴

Particularly difficult was the question of the research into a "pure race" in an ethnically mixed region like the Carpathian basin especially in the period of the Austro-Hungarian Monarchy, a difficulty which in many respects has continued up to the present time. This may also serve as an explanation as to why the Hungarian Aurél von Török tried to achieve "objective" methods of measurement by way of abstract theoretical constructions. And though this was partly fostered by his own intellectual pattern, his cautiousness may be accounted for by a general demand of scientific reliability. All this led to the unfinished character of his work, while similar research carried out by others, even in its unfinished state, was hastily and mistakenly used by politicians and ideologues of other nations for their own purposes with considerable success.

The lack of scientific investigations was reflected even by the parliamentary debates of the Dual Monarchy. Lajos Kossuth's one-time secretary of state, the learned Ferenc Pulszky MP and director of the Hungarian National Museum, set out to explain in one of his parliamentary orations that there is no Hungarian type as "the last Hungarian man proper had vanished from the earth a long time ago, centuries before. Thus did that small nation from the East, the core of today's Hungarians, mix, couple, change, level out."³⁵

Notwithstanding all the results in organization, collection and elaboration, Hungarian anthropology was unprepared to meet World War I and the peace treaties that were so fatal for Hungary. In a 1938 book anthropologist Lajos Bartucz quoted Professor Felix von Luschan's *Völker, Rassen, Sprachen* (1922): "It is such a sad state in which the study of Hungarian skulls is found. . . Professor Török had piled up

several thousands of skulls in Budapest, from different regions of the country and we have become accustomed to the idea of them serving as the real future source of prospective Hungarian anthropology. Upon his death, however, it became evident that the skulls were heaped up without any notes whatsoever and there is not a single note as to their origins. I myself was so deeply stricken by this discovery that I started with all the tools at my disposal to collect Hungarian skulls and to group them according to age and place of origin."³⁶

Bartucz argued that Professor Luschan was partly wrong, as the skull-collection of von Török was accompanied by a considerable quantity of notes which could have adequately told the story of their origins. Bartucz saw the source of the problem at a deeper level: "The collection of the Department of Anthropology of the University of Budapest is of lesser value from the point of view of the anthropology of Hungary because originally it was not genuine as it did not come from systematic excavations, and it lacked the necessary connection to the archaeological material of the graves which is imperative for the elaboration of the material from the point of view of racial anthropology."³⁷

This is why and how the Hungarian delegation at the peace negotiations at Versailles in 1919–1920, otherwise so well-prepared and erudite from an ethnic, historical, linguistic and general scholarly point of view, lacked suitable scientifically valid data concerning the anthropology of Hungary and its political connotations. Hungarian anthropology thus proved to be unprepared for its particularly national tasks at a dramatic moment in history when other peoples or groups of peoples made good use of the results of anthropological research.

Certain trends of anthropology were gravely abused in a tragic way after World War I. The racist tendencies of anthropology received a large part of its data and arguments for its particular "logic" to misuse scientific or pseudoscientific results. In his notorious *Essai sur l'inégalité des races humaines*, Count Joseph Arthur Gobineau made use of the craniometric data of the American Samuel G. Morton thereby advocating the racial superiority of the "white man".³⁸ György Lukács was right to point out that "Mit der Betonung der prinzipiellen Ungleichheit der Menschen wird notwendigerweise die Konzeption der Menschheit verworfen, und mit ihr verschwindet eine der höchsten Errungenschaften der Wissenschaft der Neuzeit: der Gedanke der einheitlichen und gesetzmäßigen Entwicklung der Menschen..." "...in dieser Leugnung der Weltgeschichte [konzentrieren] alle wesentlichen Momente der Attacke auf die Vernunft."³⁹

Die Grundlagen des 19. Jahrhunderts by Houston Stewart Chamberlain was heavily dependant on the use of craniometric research as "scientific" evidence. Just before the outbreak of World War I Chamberlain declared: "Am Schlusse des 19. Jahrhunderts durfte ein Gelehrter noch nicht wissen, daß die Form des Kopfes und die Struktur des Gehirns auf die Form und Struktur der Gedanken von ganz entscheidendem Einfluß sind, so daß der Einfluß der Umgebung, wenn er noch so groß angeschlagen wird, doch durch diese Initialtatsache der physischen Anlagen an bestimmte Fähigkeiten und Möglichkeiten gebunden, mit anderen Worten, bestimmte Wege gewiesen wird; er durfte nicht wissen, daß gerade die Gestalt des Schädels zu jenen Charakteren gehört,

welche mit unausrottbarer Hartnäckigkeit vererbt werden, so daß durch kranilogische Messungen Rassenunterschiede und aus gemischten noch nach Jahrhunderten die atavistisch auftretenden ursprünglichen Bestandteile dem Forscher offenbar werden; er durfte glauben, daß die sogenannte Seele außerhalb des Körpers ihren Sitz habe, und ihn wie eine Puppe an der Nase herumführe! O Mittelalter! Wann wird deine Nacht von uns weichen?"⁴⁰

We have no space, and there is perhaps no need, to discuss the whole direction of craniometry and other, originally sober anthropological methods in serving the anti-human racist ideologies and political practices of Hitler's Germany. It is sufficient, perhaps, to point out that Hitler's chief anthropologist, the notorious Hans F. R. Günther had already published his first books immediately after World War I in which (*Rassenkunde des deutschen Volkes*, 1922¹; *Rassenkunde Europas*, 1924¹) he "founded" Hitler's politics of genocide, books which were published in dozens of subsequent editions.⁴¹ Günther made a directly racist use of the methodology of anthropology originally elaborated by reliable and solid scientists like Rudolf Martin (*Lehrbuch der Anthropologie*, 1914):⁴² "Gerade aus dem Anblick. . . verhältnismäßig einheitlichen Menschengruppen in bestimmten Gebieten lassen sich schließlich, wenn die Rassenkunde zunächst nur die wichtigsten leiblichen Merkmale der einzelnen Rassen festgestellt hat, auch weitere, der Messung bisher nicht unterworfenen Züge erschließen, und das seelische Verhalten solch einer verhältnismäßig einheitlichen Menschengruppe gibt jeweils Hinweise auf das seelische Bild der ins Auge gefaßten Rasse."⁴³

(Hitlerist racism certainly found Hungarian followers as well. Some Hungarian anthropologists were rather "insecure" in the Fascist times. Some of them, like Lajos Méhely and Mihály Malán served Hitlerist ideas. Others, like Miklós Fehér or Lajos Bartucz chose illegality or actual physical danger in the crucial period of 1944–1945. It is to these latter two that Hungarian anthropology should be grateful for a relatively tranquil survival and easy reawakening in the post-war era.)

The fact that anthropology entered the service of fatal political powers has discredited some of its methods, including craniometrics and brain-weight measurement which learned to liquidate people rather than to support the study of them. Even the really scientific and much-praised typology of Ernst Kretschmer, originally value-free, was considered dangerous after it became misused in a racist-oriented way, thus contributing to the value-hierarchy of "racial science". Scientific opinion in the post-World War II era turned against all kinds of typologies with mistrust and, sometimes, open rejection. In a book also published in German W. McDougall wrote in 1947: "There is no rationalist basis for searching for such types. On the contrary, it contradicts obvious probabilities. Such a hopeless and mistaken question can only be made famous and respected by the literary talents and scientific prestige of a Jung, Kretschmer or Spranger."⁴⁴ In a new edition of his *Allgemeine Psychopathologie* (1946) even Karl Jaspers took a highly critical stand against the typology of Ernst Kretschmer.⁴⁵ Decades were needed in international scientific life to appreciate the value of typologies in a more realistic way again, with all its results and possible sources of error.

Brain research, for a long time at least, turned away from the dubious methods of

craniometry and brain-weight measurement and gave its attention primarily to the structure of brain, its elementary components and their intricate interrelations. The future will decide whether or not craniology was a mere curiosity, an episode or a *cul de sac* in the history of science.⁴⁶ We might also argue that craniometrics served as a working hypothesis or a search for the correct way for "real" anthropology at a time when up-to-date methods were not yet invented or introduced. Historians of science must decide whether or not these scientific investigations resulted in realistic statements. As yet, many questionmarks still remain. For its part, craniology offered – gave, or might have given – scientific or at least seemingly scientific data and arguments for those who endeavoured to advocate or prove the superiority of their own race over others.

Anthropology in East-Central Europe has been gradually changing with a view to scientific needs. Craniology gave way to the scientific notion of "type", a complex notion indeed which may vary in space and time but never distinguishes among the "intellectual" capacities of various peoples. It serves the basic truth that "all men are created equal", though they might differ in a physiological sense from one another as a response to their organic and inorganic environment. This difference cannot be registered, however, as "better" or "worse", only as being – different.⁴⁷

Notes

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3. Buffon, *Histoire des Quadrupèdes*, 1765. Quoted by István Benedek, ed., *Természettudomány a francia felvilágosodásban* (Science in the French Enlightenment) [Budapest: Gondolat, 1965], pp. 96–101.
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5. Stephen Jay Gould, *The Mismeasure of Man* [New York–London: Norton, 1981], p. 74.
6. Gould, op. cit. p. 83.; Bartucz Lajos, *Fajkérdés, fajkutató* (The Racial Question and Race Research) [Budapest: Kir. Magyar Egyetemi Nyomda, n.d.], p. 178.
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8. Tibor Frank, "Gustavus George Zerffi, «Scientific Historian», *Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae, Sectio Historica*, Vol. XX [1980], pp. 147–148.
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10. Imre Madách, *The Tragedy of Man* [Budapest: Corvina, 1957³], pp. 261–262.
11. *Archiv für Anthropologie* [Braunschweig: Vieweg, 1866], pp. 191–218; 285–319. Cf. Lenhossék, op. cit. p. 92.
12. A. Weisbach, op. cit. p. 319.
13. Tibor Frank, *The British Image of Hungary 1865/1870* [Budapest: L. Eötvös University, 1976], pp. 234, 323.
14. Lenhossék, op. cit. p. 74.; Bartucz, op. cit. pp. 81–82.
15. Bartucz, op. cit. pp. 83–84.

16. *ibid.*, p. 84.
17. Lenhossék, *op. cit.* p. 74.; Bartucz, *op. cit.* pp. 85–86.
18. Dr. Topinard Pál, *Az anthropológia kézi könyve* (The Hand-Book of Anthropology) /Budapest: Kir. Magyar Természettudományi Társulat, 1881/, p. XVII.
19. Lenhossék, *op. cit.* 74–76.; Bartucz, *op. cit.* pp. 88–89.; Szentpétery Imre, *A Bölcsészettudományi Kar története 1635–1935* (The History of the Faculty of Humanities 1635–1935) /Budapest: Kir. Magyar Egyetemi Nyomda, 1935/, p. 530.
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22. Lenhossék, *op. cit.* pp. 79–80.
23. Stuttgart: Enke, 1890.
24. Bartucz, *op. cit.* pp. 106–107.
25. Lenhossék, *op. cit.* p. 80.
26. *ibid.*, *op. cit.* p. 83.
27. Lenhossék, *op. cit.* p. 82.; Bartucz, *op. cit.* pp. 94–95.
28. Bartucz, *op. cit.* pp. 127, 131.; cf. Lenhossék, *op. cit.* p. 74.
29. Bartucz, *op. cit.* p. 131.
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34. Lenhossék, *op. cit.* pp. 85–86.; Bartucz, *op. cit.* pp. 35–36.
35. Bartucz, *op. cit.* p. 128.
36. Felix von Luschan, *Völker, Rassen, Sprachen* /Berlin: Welt, 1922/, p. 164.
37. Bartucz, *op. cit.* p. 15.
38. *Versuch über die Ungleichheit der Menschenrassen* vom Grafen Gobineau; Stuttgart: Fromman, 1902² /, Vol. I, p. 148.
39. Georg Lukács, *Die Zerstörung der Vernunft* /Neuwied a.R.: Luchterhand, 1962/, p. 589. Cf. Bartucz, *Fajkérdés, fajkutatás*, *op. cit.* pp. 186–190.
40. Houston Stewart Chamberlain, *Die Grundlagen des Neunzehnten Jahrhunderts* /München: Bruckmann, 1915¹¹ /, Vol. I, p. 255.
41. Hans F. R. Günther, *Rassenkunde des deutschen Volkes* /München: Lehmann, 1937/; Hans F. R. Günther, *Rassenkunde Europas* /München: Lehmann, 1929³ /.
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47. I am indebted to Professors István Kiszely, István Környey and János Szentágothai for their kind support and advice. The paper was first presented at a conference of Hungarian and US historians at Princeton University in April 1985 and delivered as a lecture at the University of California, Santa Barbara, April 22, 1985.