

Unaccounted For

Scientist Martyrs of Hungary in the Horthy Era and the Holocaust¹

The anti-Semitism of the Horthy regime and the Hungarian Holocaust caused tragic losses in Hungarian scientific life. The author – a chemistry professor and Holocaust survivor – calls for a reliable assessment of the losses preceded by thorough research. He laments the absence of proper remembrance of the martyrs who have already been identified.

Introduction

A few years ago, my wife and I collected the images of the memorials of science in Budapest – statues, busts, and memorial plaques. Augmented with related stories, we published a guidebook.² Our collection was inclusive as in addition to fundamental science we considered applications, technology and innovation, medicine, and education. On the backdrop of the large number of memorials, it was conspicuous that hardly any scientist victim of the Hungarian Holocaust has been remembered in such a way. During the preparation of the book, I published an account of this observation in *Magyar Tudomány*, the periodical of the Hungarian Academy of Sciences.³ It appeared in 2013, amid the preparations for the 70th anniversary of the deportation of Hungarian Jewry in 1944. I hoped that my paper would turn attention to the losses of Hungarian science in the Holocaust and research would be initiated to take account of those losses. It did not happen.

Ours was a limited consideration as our attention was directed to existing memorials and it was limited to Budapest. The present writing is an expanded version of my 2013 paper. I have added emphasis to the need of a comprehensive project, but my considerations still did not expand beyond Budapest.

The Hungarian scientific establishment owes such a comprehensive project to the martyrs and it owes such a project to itself as well. The Hungarian Holocaust usually refers to the events of the 1944–1945 period and I stress that a meticulous discussion should also extend the time period it covers. What happened in Hungary in 1944–1945 was the culmination of the history of the entire Horthy era lasting 25 years between 1920 and 1944.

Sadly, the situation in the summer of 2017 is worse than it was in 2013. In 2016, an account, “History of the Hungarian Academy of Sciences,” appeared on the official web site of the Hungarian Academy of Sciences. Rather than remedying the situation, this document aggravates it. There is no mention in it of the anti-Semitic discrimination in scientific life during the Horthy era and no mention of any losses in the Holocaust, not even that there was a Holocaust (or a Second World War, for that matter).

Following the war and revolutions, the Academy's work restarted with a lot of difficulty as war inflation had consumed many of its assets. After the Treaty of Trianon came into effect the institution was supported with regular state subsidies administered by Count Kunó Klebelsberg, Minister for Education, who planned to provide pivotal roles for culture and science in the reconstruction of the country. The Academy did not regain its financial stability until the late 1920s when Count Ferenc Vigyázó left his entire estate to it. From this point on the yearly income of 500–600 thousand pengő from the Vigyázó legacy was spent on scientific purposes.

Between the two world wars, the Academy was characterised by a peculiar duality. Its spirituality and its leaders stubbornly stuck to the conservatism of the late 19th century. At the same time internationally renowned natural scientists became members of the Academy, including biochemist Albert Szent-Györgyi (the first Hungarian Nobel Prize Winner), mechanical engineer Kálmán Kandó and chemist Géza Zemplén.⁴

I called the attention of the Department of Communication of the Hungarian Academy of Sciences to this misrepresentation. The response was that the inclusion of the items whose absence I lamented (that is, that there was anti-Jewish discrimination, that there were losses in the Holocaust, and that there was a Holocaust in the first place) would not be possible in the limited framework of the treatise.⁵ The question arises how much this section should be expanded to make it possible to mention the impact of anti-Semitism of the Horthy era, the destruction of Hungarian Jewry, and World War II – and not only on the Jewish component of Hungarian scientific life? Albert Szent-Györgyi was highly critical of the Hungarian Academy of Sciences during the Horthy era and pointed to its considerable responsibility for the national catastrophe. This he stated and elaborated in his letter of November 30, 1945, addressed to the Secretary General of the Academy.⁶

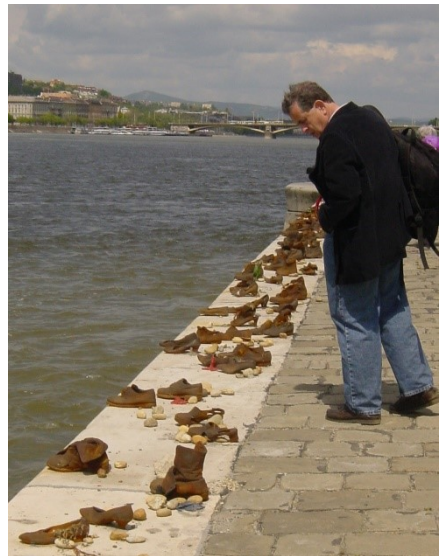
In Budapest, there are moving memorials of the victims of the Hungarian Holocaust, but there is no memorial in public space to the over four hundred thousand Hungarian Jews who perished in Auschwitz. The "Emanuel Tree of the Holocaust" (by Imre Varga, 1990) in the Raoul Wallenberg Memorial Park in the garden of the Great Synagogue of Dohány Street is not in public space and it has limited opening hours. The Emanuel Foundation of New York sponsored the establishment of the Emanuel Tree, which remembers all the Jews killed during the Holocaust. I attended its inauguration and one of its speakers was the then Prime Minister elected recently in the first democratic elections after the fall of communism. Mr. József Antall was mourning the victims, but he was mourning them not as Hungarians that they also were. He appeared to divide the people present at the dedication into two groups, "You" and "We," and made it clear that this memorial was "Yours," and not "Ours."



*The Nobel laureate American scientist James D. Watson
at (the closed gate to) the Emanuel Tree of the Holocaust memorial in 2002.*

The “Shoes on the Danube Bank” memorial (by János Can Togay and Gyula Pauer, 2005) honors the Jewish victims shot into the river by Arrow Cross men. The Arrow Cross was the Hungarian Nazi movement that took over the country on October 15, 1944. The memorial tablets in Hungarian, English, and Hebrew read: “To the memory of the victims shot into the Danube by Arrow Cross militiamen in 1944–45.” It is not mentioned that the victims were Jews; it is just assumed as obvious – I think it should be mentioned.

There is a memorial to the victims of fascism on the bank of the Danube in Viza Street (by Agamemnon Makris, 1986). It is a half-size copy of the original, which stands at the Mauthausen Nazi concentration camp in Austria. According to the English translation of the inscription of



*The Nobel laureate Israeli scientist
Aaron Ciechanover at the “Shoes on the
Danube Bank” memorial in 2005.*

the Budapest version, it commemorates “the resistance fighters, deserters, and the persecuted whom the Fascists murdered on the Pest bank of the Danube in the winter of 1944–45.” This dedication was typical of the ambivalence of the communist regime toward the Hungarian Holocaust. The principal victims were Jews and the murderers were Hungarian Nazis – the Arrow Cross – but János Kádár’s regime did not consider spelling this out. The memorial was once again unveiled in 2010, with unchanged inscription. In 2012, unknown perpetrators painted anti-Jewish slogans of hate on the memorial. The euphemism of the text of the monument did not mislead them.



Memorial to the victims of fascism at Viza Street, District XIII.

The expression “victims of fascism” is ambiguous at best, but it is, really, misleading. There was Mussolini’s Italian fascism and Hitler’s German National Socialism. In Hungary, there was Horthy’s autocratic and anti-Semitic regime, which started in 1920 with the introduction of post-WWI Europe’s first anti-Semitic legislation. It continued with increasingly harsh anti-Semitic legislation in the late 1930s and early 1940s, and culminated in the deportation of countryside Jewry still under Horthy’s reign. Speaking about the “victims of fascism” is a camouflage masking Hungarian responsibility.

The Arrow Cross movement took over Hungary from Nicholas Horthy on October 15, 1944. By then, under Horthy, well over four hundred thousand Jews, mostly from the

countryside, outside of Budapest, had been deported, primarily to Auschwitz. The discrimination against Jews, their persecution, and annihilation had been going on in Hungary even before the German invasion of the country on March 19, 1944, even if by means of less efficient technologies than those employed by Germany. Thus, when, from 1941, the slave laborer Jews were sent to the Eastern Front, their guards knew that none of their charges were expected to survive the ordeal and they did their best to comply with this expectation.

In Budapest, the Arrow Cross murdered an estimated one hundred thousand Jews. They hunted out their victims and shot them into the Danube often after they had tortured them. There were scientists among the murdered.

I describe a few individual fates below so that we see them beyond the statistics. In the existing memorials in public space, the fact that the victims were Jews is usually masked. Camouflaging this information is misleading and for future generations it will mean a falsification of history. This falsification is though consistent with the efforts to ascribe the crimes against the Jews exclusively to the Germans and to the Arrow Cross.

Victims

The pharmacist entrepreneur Gedeon Richter (1872–1944)⁷ was born into an assimilated Jewish landowner family, in an East Hungarian village, Ecséd, near the town of Gyöngyös. Before completion of his high school studies, he started working in a pharmacy in Gyöngyös. It was at the time that new legislation required university training



Memorial plaque of Gedeon Richter (by István Buda) on the façade of 21 Katona József Street, District XIII. On December 30, 1944, Richter was taken from here and murdered.

for pharmacists, and he successfully completed the prescribed higher education. After this, he spent two years working in various pharmacies to acquire the qualifications to open his own pharmacy. He soon found his real vocation in the creation of an independent Hungarian pharmaceutical industry. He spent four years in Italy, Germany, France, and England, preparing himself for the task. He was 29 years old when he bought a pharmacy in Budapest and started his own manufacturing laboratory using the money from the sale of his family's estate. The pharmacy he ran is still there, at the corner of Üllői Avenue and Márton Street in District IX.

Richter focused on deficiency diseases. The necessary ingredients for the therapy, called organotherapia, were extracted from animal endocrine glands. Richter built up a strong research section in his laboratory and kept close contact with the medical profession. By 1902, he had already started publishing an information bulletin and was distributing it among medical doctors, free of charge. The laboratory soon proved inadequate for his goals and he founded a plant for manufacturing his preparations, which extended to plant extracts and synthetic drugs. One of his associates, Emil Wolf, soon left him to found another future giant pharmaceutical company, Chinoin.

The Richter chemical factory acquired fame for some long-lasting products, such as kalmopyrin (comparable with aspirin), insulin, and the Glandtrin injection, which contained oxytocin and proved efficient in gynecological applications. Insulin was discovered in 1921 with its first testing on humans in 1922, and Richter was already manufacturing it by 1926. In the early 1930s, Richter became one of the leading worldwide manufacturers of estrogens. Richter created subsidiaries and expanded internationally. In 1923, the Richter chemical factory became a shareholders' company with Gedeon Richter retaining the majority of shares. By the mid-1930s, Richter products were marketed in 100 countries. By the late 1930s, the Richter Company was second only to the United Incandescent Lamp Company (Tungsram) among Hungarian exporters.

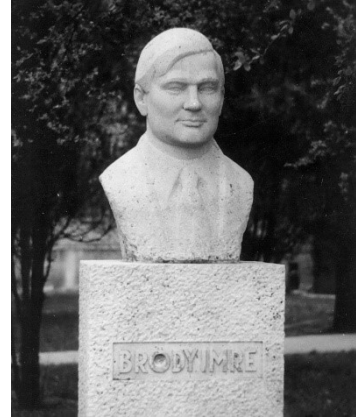
From the late 1930s, increasingly harsh anti-Jewish legislation was hindering the normal operations of the company. It was placed under military control; Richter was under attack and had to resign as Chairman of the Board. In 1942, he was stripped of the rest of his functions in the company, and soon he was banned from entering the plant. He offered his services without remuneration, but his offer was rejected. For some time, he was still participating covertly in directing his company through his faithful associates. While it was still possible, he rejected suggestions that he should escape. His only concern was how to save the company.

On December 30, 1944, the Arrow Cross took him to the embankment of the Danube and murdered him. His corpse was never found. The company has survived; today, it carries Gedeon Richter's name.

Emil Wolf (1886–1947) studied in Munich and graduated in 1910 as a chemical engineer. He and György Kereszty (1885–1937) co-founded the chemical factory from which the Chinoin Chemical and Pharmaceutical Company was created in 1913. They produced mainly synthetic drugs in close cooperation with Géza Zemplén, professor of organic chemistry, at the Technical University. In 1944, the Jewish Wolf was deported to



Bust of Emil Wolf (by Dávid Tóth, 2010) at the corner of István and Nyár Street, District IV.



Bust of Imre Bródy in the garden of Bródy Gimnázium, Ajka.

a concentration camp in Germany. He survived and returned, continuing to direct Chinoín, but died in 1947.

Imre Bródy (1891–1944) was born in Gyula, in southeastern Hungary. Between 1909 and 1914, he studied mathematics and physics at Budapest University. He began teaching in a high school, and conducted research in theoretical physics at the University. In 1918 he earned his doctorate and the university invited him to be an assistant professor. Following the period of WWI and the revolutions, the virulent anti-Semitism engulfing the country prevented a university career for Bródy. In 1920, he left for Germany, and joined the great physicist Max Born in Göttingen. Many of the world's best young physicists, among them Werner Heisenberg, congregated around Born. Therefore, Born's words with respect to Bródy's talent carry exceptional weight: "There was the little Hungarian Jew, E. Bródy, perhaps *the most gifted of them all*, who could solve intricate problems"⁸ (my emphasis). Here E. stands for Emerich, the German equivalent of Imre. Bródy seemed destined for a great career, but after two years he returned to Hungary. He joined the research laboratory of the United Incandescent Lamp Company, known by its trademark, Tungstam. The sagacious director general, Lipót Aschner, developed a research laboratory under the leadership of Ignác Pfeifer.

Ignác Pfeifer (1868–1941) was a chemical engineer who at one time was in charge of the chemistry institute of the Technical University (today, Budapest University of Technology and Economics).



Bust of Ignác Pfeifer (by Sándor Mikus, 1975) on the campus of the University of Technology and Economics.

His area of research was water softening. He was accused of involvement in the 1919 communist regime, and had to leave the Technical University. He was invited to head the research laboratory of Tungsram, where Pfeifer created a modern research organization, the first such entity in Hungary. At the end of the 1930s, the anti-Jewish laws jeopardized his employment at Tungsram. While Pfeifer was with Tungsram, he attracted excellent scientists to work there, such as Bródy, Pál Selényi (see below), and others. Even expatriate scientists, such as Michael Polanyi (physical chemist in the UK, later, philosopher) and Dennis Gabor (physicist in the UK, future Nobel laureate inventor of holography), took up part-time appointments as external advisors.

Bródy demonstrated great versatility when he transformed himself from a successful theoretician into an innovative technologist. His best-known invention was the krypton lamp, which had great advantages over the previously used argon lamp. The application necessitated new ways of producing the expensive krypton gas, in which Bródy cooperated with others, such as Ferenc Kőrösy (physical chemist, later in Israel) and Polanyi. The krypton lamp became an international success, and in 1937, the company built a new manufacturing plant for the lamp near the town of Ajka.

The intensifying anti-Semitism in Hungary and the increasingly harsh anti-Jewish legislation reached Tungsram as well. The company had to replace both Pfeifer and Aschner. The new man in charge, Zoltán Bay, was both an excellent scientist and a caring human being. He achieved special status for the company as being important for defense. A number of leading researchers and engineers, including Bródy, received exemption from the slave labor service that Jewish men were subject to. This saved them for some time. However, when Bródy's wife and daughter were deported, he gave up his exempt status. The Nazis arrested him on July 3, 1944. Inmates sighted him at various camps, including Auschwitz–Birkenau. His wife and daughter probably perished upon their arrival in Auschwitz; by the end of 1944, Bródy too was dead.



Lajos Steiner medal of the Hungarian Meteorological Society (by Miklós Borsos, from unknown source).

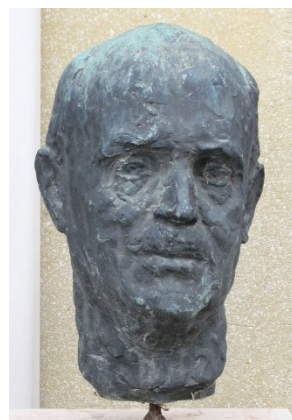
Lajos Steiner (1871–1944) was a meteorologist and geophysicist. He studied at the University of Budapest and for some time he was Loránd Eötvös's associate. Loránd Eötvös was the doyen of Hungarian physicists, a famous researcher of gravitation. Between 1892 and 1932, Steiner served at the Royal Hungarian Central Institute of Meteorology and Earth Magnetism; from 1927, as its director. His principal research concerned the theory of geomagnetism. His main achievement was the introduction of the weather forecasting service in Hungary. In 1917, he was elected a corresponding member of the Hungarian Academy of Sciences. On April 2, 1944, he committed suicide, thus escaping further anti-Jewish persecution.

Nándor Mauthner (1879–1944) was a chemical engineer who studied at the ETH Zurich and graduated in 1902. In 1903, he received his doctorate at the University of Geneva. For a few years, he did research in Emil Fischer's organic chemistry institute in Berlin. From 1911, he worked at the University of Budapest with an interruption between 1917 and 1918 when he served as a military chemist in Vienna. He received a promotion in May 1919, during the communist dictatorship, and this caused hurdles in his subsequent career. His main field of interest was sugar chemistry. In 1934, he was elected a corresponding member of the Academy. After the mid-1930s there is no information about Mauthner, except for the rumors that on May 21, 1944, he committed suicide as an escape from anti-Jewish persecution.

Adolf Káldor (1882–1944) was born in Modor (now, in Slovakia). He was the first municipal physician of the town Budafok – today, part of District XXII of Budapest. He was popular among his patients. Together with his family he was deported early summer 1944 and perished in Auschwitz.

The physicist and inventor Pál Selényi (1884–1954) survived the slave labor camp, but his two sons were murdered, György Selényi (1915–1944) and Tamás Selényi (1923–1944). Pál Selényi graduated as a high school teacher of physics and mathematics and embarked on a career at the University. Following Loránd Eötvös's death he was appointed lecturer in experimental physics. In 1919, he was a member of the leadership of scientific societies and museums. After the collapse of the communist dictatorship, he could not hold a state supported position. He became an associate of Tungsram and excelled with numerous inventions. One of these is considered to be the forerunner of photocopying. The anti-Jewish legislation forced him into retirement in 1939. He returned from the slave labor camp severely ill, but continued his work. After Liberation, he was elected to the Hungarian Academy of Sciences and taught at the Technical University.

Frigyes Fellner (1871–1945) was an internationally renowned economist and statistician. He trained at the law school of the University of Budapest, and in 1897, he earned the qualification of lawyer. He achieved high positions in banking, but when he embarked on a career in academia, he withdrew from direct involvement in finance. He



*Memorial of Adolf Káldor
(by Erzsébet Schaár) at 2,
Duna Street, District XXII.*



*Grave stone of Pál Selényi
and his wife in the Kozma
Street Jewish cemetery
(courtesy of József Varga).
The inscription commemorates
their two martyr
sons.*



*Frigyes Fellner (source:
<http://www.magyarzsido.hu>, May 12, 2017).*

pioneered the determination of gross national income in Hungary. He was a professor both at the University of Budapest and the Technical University. In 1917, he was elevated to nobility. He was a member of the Hungarian Academy of Sciences. In 1927, soon after the Upper House of Parliament formed, Fellner became an alternate member, and in 1938, he became a full member, when Pál Teleki resigned his membership (due to Teleki's election to the lower chamber). Fellner was never directly involved in politics.

Fellner's spectacular career ended abruptly. The timing coincided with the introduction of the anti-Jewish legislation in 1939. It may be that he had kept his Jewish origins secret or might not have been aware of them. His membership in the Upper House of Parliament was terminated although such membership was for a lifetime. His publishing activities came to a halt in 1939, at which time he had 130 publications. There is no information about his last five

years. He was arrested soon after the German invasion of Hungary on March 19, 1944. He was taken to the Mauthausen concentration camp where in early 1945, he starved to death.

Discrimination in the Academy elections

Three members of the Hungarian Academy of Sciences mentioned above (Steiner, Mauthner, and Fellner) perished between 1944–1945 because of their Jewish roots. We cannot know whether there were more. It appears that relatively few Jewish members of the Academy of Sciences had fallen victim of persecution. However, this is a misleading impression. The fact is that due to its discriminative elections, hardly any Jewish scientists became members of the Academy during the Horthy era. Mauthner's election to corresponding member was a rare exception. Fellner's election is irrelevant in this respect because his possible Jewish background was not known.

The following list contains the names of academicians elected during the Horthy era whose background and religion might have any relevance to Jewish origin. It is based on a data bank,⁹ which, of course, may be incomplete. It does not contain information about Nándor Mauthner, elected corresponding member in 1934 (for whom the document of nomination stressed his religion as Roman Catholic).¹⁰ If only Christian religion is indicated, it means that already the parents had converted. The elections during the Horthy era are underlined. According to this data bank, for the 25-year period between 1920 and 1944, only two scientists of Jewish religion were elected; both were world-renowned mathematicians.

András Alföldi (1895–1981, Lutheran) archeologist, corresponding member, 1933, full member, 1945; he was excluded in 1949, and reinstated in 1989. *Dávid Angyal* (1857–1943, converted, 1895) historian, corresponding member, 1902, full member, 1917, honorary member, 1936.¹¹ *Lipót Fejér* (1880–1959, Jewish) mathematician, corresponding member, 1908, full member, 1930, honorary member, 1946. *Frigyes Fellner* (1871–1945, converted, 1903) economist, corresponding member, 1915, full member, 1936. *Béla Földes* (1848–1945, converted, 1879) economist, corresponding member, 1893, full member, 1901, honorary member, 1933. *Alfréd Haar* (1885–1933, Jewish) mathematician, corresponding member, 1931. *Sándor Korányi* (1866–1944, Roman Catholic) physician, honorary member, 1935. *István Möller* (1860–1934, converted, 1882) architect, corresponding member, 1927. *Gusztáv Rados* (1862–1942, converted some time between 1875 and 1884), corresponding member, 1894, full member, 1907, honorary member, 1937. *Frigyes Riesz* (1880–1956, converted) mathematician, corresponding member, 1916, full member, 1936. *Lajos Winkler* (1863–1939, Calvinist) chemist, pharmacist, corresponding member, 1896, full member, 1922.

Anti-Jewish bias in the elections to the Hungarian Academy of Sciences is difficult to investigate. Data on the ethnicity and religion of the members of the Academy are scarce, and elections depend on so many factors that demonstration of bias can hardly be unambiguous. The conspicuously small number of Jewish scientists elected to the Academy suggests a strong anti-Jewish bias. I offer only one example of a failed election in spite of the candidate's strong credentials.

In 1934, eight members of the Academy nominated John von Neumann for membership. The nominators were outstanding scientists whose scholarship enabled them to appreciate von Neumann's achievements in mathematics and theoretical physics. In addition to a descriptive recommendation, they listed von Neumann's 49 publications in support of their nomination. The signatories were Ottó Titusz Bláthy, Gusztáv Rados, Radó Kövesligethy, Károly Tangl, Lipót Fejér, Béla Pogány, István Rybár, and Rudolf Ortway. Alas, von Neumann was not elected. He was 31 years old at the time and looking back from today's perspective when new members of the Academy are often over 60 years of age, one might think that he may have been too young for this honor. However, this was not the case. Just consider von Neumann's nominators, who, apart from Bláthy, were all elected



Bust of John von Neumann with Edward Teller visiting it on the campus of the University of Technology and Economics in the early 1990s (courtesy of János Philip).

at a young age; Fejér at 28 (in 1908), Pogány at 31 (1918), Rados (1894) and Rybár (1918) both at 32, and Kövesligethy at 33 (1895). In 1937, von Neumann naturalized as a U.S. citizen and in the same year, he was elected a member of the National Academy of Sciences of the U.S.A.

A worthy candidate did not need to be Jewish to be declined. Thus, for example, Albert Szent-Györgyi was elected to full membership in 1938, only after he had received the Nobel Prize in 1937.

I am aware of two academicians of Jewish background who had been excluded from the Academy on the pretext of their participation in the revolutions of 1918–1919. They were Bernát Alexander (1850–1927) and Manó Beke (1862–1946). Alexander was a philosopher who was elected corresponding member in 1892 and full member in 1915. He was excluded on November 24, 1919. His membership was reinstated posthumously in 1989. Beke was a mathematician, elected corresponding member in 1914; he was excluded in 1920, and his membership was reinstated in 1945.

Numerus Clausus

On June 4, 1920, the so-called Trianon Peace Treaty was concluded – named after the Versailles palace where it was signed – with tragic consequences for Hungary. It dismembered historic Hungary by giving independence to Croatia and Slovakia and carved out large chunks of the country to add them to Romania, with some territory even given to Austria. In the “happy peacetime” between 1867 and 1914, the presence of an assimilated Jewish population strengthened the Hungarian population, which was appreciated, because the Hungarian population was in a minority in this multiethnic country. After Trianon, there were hardly any sizeable minorities within the new borders.

Many young Hungarians who suddenly found themselves living outside of Hungary as a consequence of the Trianon Treaty moved to Budapest seeking higher education. The relatively large Jewish student body became a target and the infamous Law XXV in 1920 – usually referred to as *numerus clausus*, that is, closed number – was enacted. This was the first anti-Jewish legislation in post-WWI Europe and it severely limited the number of Jewish students at the universities. This happened under Prime Minister Pál Teleki, a noted scientist in geography. His reign was short lived, but he would be back as prime minister toward the late 1930s, with more severe anti-Jewish legislation.

The exodus of young ambitious Jews who were eager to acquire a higher education was a direct consequence of the *numerus clausus* law. Even some Jewish and non-Jewish youths who might not have been directly impacted by this law, such as John von Neumann and (the future Nobel laureate theoretical physicist) Eugene P. Wigner left Hungary in the 1920s because they envisioned their future hopeless had they stayed.

This law remained in effect throughout the Horthy era in spirit, even if its stipulations loosened toward the late 1920s. Kuno Klebelsberg (1875–1932), the minister of reli-

gion and public education between 1922 and 1931, proposed replacing references to racial and national origin in the law by national loyalty and moral reliability. Teleki, Klebelsberg, and their colleagues understood that the *numerus clausus* legislation reflected negatively on Hungary in the civilized world, and Klebelsberg practiced a sophisticated double talk. In the West he said what he supposed was acceptable there and at home he continued the rhetoric that served domestic politics. In 1924, he made this cynical statement in the Hungarian Parliament, as though shifting the responsibility to the West: "Give us back the old Greater Hungary and then we will be able to revoke *numerus clausus*."¹²

Klebelsberg had a broad vision for the dominance of Hungary in the region through Hungarian "cultural superiority." He aimed at bringing back some of the talent that had left the country. It is doubtful though that he would have welcomed the return of Jewish expatriate scientists. None of the attempts to gain professorial appointments for expatriate Jewish physicists or mathematicians turned out to be successful, although they had in the meantime become top players, internationally, in their fields.

Max Born, the doyen of the famous Göttingen School of physics tells an amusing story. It happened in about 1930 that Klebelsberg visited this famous university and its chief administrator, J. T. Valentiner, gave a luncheon party for the distinguished visitor to allow him to meet with the luminaries of the school. This is how Born remembered it when the high guest asked him what he [Born] "thought about the Hungarian mathematicians and physicists. I replied with a hymn of praise for my Hungarian colleagues,



Bust of Eugene P. Wigner with the Hungarian-born Israeli Nobel laureate Avram Hershko on the campus of the University of Technology and Economics in January 2005.



*Leo Szilard (courtesy of the
US Department of Energy
photography).*

mentioning first my old friends [Alfred] Haar and [Theodore von] Kármán, then [George] Polya in Zürich and others I cannot now remember, and finally the young generation who were at present in Göttingen: John von Neumann, Eugene Wigner and Edward Teller. At this point, I got a fearful kick on the shin from [James] Franck, whereupon I stopped and let him continue the discussion. I did not understand what he meant by this violent interruption until he explained it to me after lunch. All I had mentioned were Jews, and therefore, in the eyes of a representative of that anti-Semitic government, not Hungarians at all.¹³

I show another example of how well understood it was that the Horthy regime did not consider Jewish scientists and scientists of Jewish origin to be genuinely Hungarian. In 1935, there was an opening for a physics professorship at the University of Szeged. The former Szeged physics professor, now, Professor of Physics of the University of Budapest, mentioned this possibility to Eugene P. Wigner. By then, Wigner was a recognized physics professor in the United States. In his letter of January 13, 1936, Wigner wrote to Ortway, that exactly those non-scientific considerations, that is, anti-Semitism, that would prevent his [Wigner's] appointment to this position made this position undesirable for him [for Wigner].¹⁴

The law of *numerus clausus* was enacted in accord with the anti-Semitism of a considerable portion of the society. There was no *numerus clausus* yet when nationalistic students prevented Leo Szilard from continuing his studies at the Technical University in fall 1919. Szilard started his studies as an engineering student in the academic year 1916/17. Then he had his military service in the Austro-Hungarian Army in 1917/18 after which he wanted to resume his studies. However, nationalistic students kicked him down the stairs in front of the main entrance of the School. Szilard had converted and wanted to show his certificate about it but the nationalist students were not interested in it. Szilard was Jewish and no conversion changed this fact for them. It was at that moment that Szilard decided to leave the country. Even the limited amount of time Szilard spent as a student of the Technical University is noteworthy and a reason for pride on the part of the University. For years, in the early 2000s, I kept suggesting to the leadership of the University to erect a bust for Szilard in the sculpture garden of the campus, but it did not happen.

The beating of Jewish students by their nationalistic peers was a daily event for years in the 1920s. Eugene P. Wigner, who also spent a short period of time at the Technical University, maintained that he did not remember any of it, but he added, had he remembered, he would have denied that it happened. He was a proud Hungarian, who

felt embarrassed for the actions of those nationalist students. When pressed for remembering, he admitted an episode when three students attacked and beat him, but he hastened to add that it did not hurt too much.

In the mid-1930s the anti-Semitic incidents at the universities intensified. This was going on even before the increasingly harsh and comprehensive anti-Jewish laws were introduced starting in the late 1930s. It happened, for example, that all non-Jewish students, including the converted ones, a total of about 250, refused to sit together with the handful of Jewish students during a lecture of Tivadar Huzella at the medical school. The only exception was Count Miklós Wenckheim who kept sitting with the Jewish students and ignored the verbal abuse directed at him. Professor Huzella was a humanitarian and kept lecturing, paying no attention to the protest. Other professors though joined in the frequent demonstrations of overt anti-Semitism.

The *numerus clausus* law prevented the higher education of many. Those who could afford it attended universities in foreign countries. Some stayed away for good, but many returned to Hungary after graduation. There are no data of either category and it has not been considered polite to find out whether or not someone might have acquired a higher education abroad because of the *numerus clausus*. Considering memorials, three examples of renowned engineers follow who had to attend universities of technology abroad and became successful professionals. Their biographers duly record the fact that they studied abroad though not the reason why they had to acquire their qualifications outside of Hungary.

László Kozma (1902–1983) was rejected because of the *numerus clausus* when in 1921 he wanted to enroll at the Technical University. For years, he worked as an electrician. Between 1925 and 1930, he studied at the Brno Technical University (Czechoslovakia at the time; today, Czech Republic), and graduated as an electrical engineer. He worked in Belgium, but in 1942, upon the German invasion, he lost his job. He returned to Hungary and in 1944, he was deported to the Mauthausen concentration camp. He survived, but was severely ill when he returned to Hungary. He worked in industry and taught at the Technical University until 1949, when the communist dictatorship arrested him on false charges, tried, and sentenced him. He spent five years in prison and was freed in 1954. In 1955, he was rehabilitated and continued teaching at the Technical University. In 1958, he built the first digital and programmable computer in Hungary. He worked out plans for modernization of the Hungarian telephone system. He reformed the training of electrical engineers, and initiated the specialization of electronic technology.

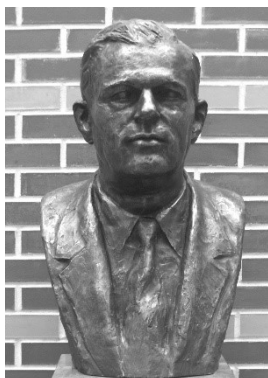


Bust of László Kozma on the campus of the University of Technology and Economics.

László Heller (1907–1980) studied mechanical engineering at the Swiss Federal Institute of Technology (ETH) in Zurich and graduated in 1931. He stayed in Zurich for two more years before returning to Hungary where he worked in private engineering business. We have no information about him during the last years of the Horthy era and the Holocaust. In 1948, he defended his doctoral dissertation at the ETH. Heller and his associate, László Forgó, invented a cooling technique utilizing air condensation. Power stations still use this method. He founded the department of energy studies at the Technical University. He is buried in the Kozma Street Jewish Cemetery.



Bust of László Heller on the campus of the University of Technology and Economics.



Bust of István Barta on the campus of the University of Technology and Economics.

István Barta (1910–1978) studied in the technical universities of Vienna, Brno, and Karlsruhe following his high school graduation in Budapest. He received his Diploma in 1933 and his doctorate (1934) as an electrical engineer from the Technical University of Karlsruhe. He returned to Hungary and worked first for the Ericsson Company, then for Tungstam. After the war he worked in industry and was a professor and chair of the department of communications engineering at the Technical University. His research was on radio and television techniques, as well as acoustics. He was instrumental in the development of the Hungarian electronics industry. We have no information about how he survived the last years of the Horthy era and the Holocaust.

In the late 1930s and early 1940s, the *numerus clausus* gradually became *numerus nullus*, and there was increasing discrimination against the remaining Jewish students. As war was approaching, paramilitary instructions became more rigorous. From 1942, Jewish students had to wear yellow armbands and the converted Jewish students white armbands. Thus, such visible anti-Jewish discrimination predated the German occupation of Hungary (on March 19, 1944) after which the Jews in Hungary had to wear the yellow six-pointed star. In the early summer of 1944, many Jewish university instructors and students were deported to concentration camps, where most of them perished.

Bálint Hóman, the leading politician of education and cultural affairs of the second half of the Horthy era advocated the extension of *numerus clausus* to include the high schools. His ministry of religion and public education issued a classified circular in summer 1939, which extended the *numerus clausus* to high schools.¹⁵

Slave Labor and Deportation

From 1939, the Horthy regime conscripted Jewish men and from 1941, after Hungary entered the war, used them as auxiliary troops – in reality as a punitive slave labor force – on the Eastern Front and elsewhere. In addition to the hardship and dangers that accompany wartime conditions, they suffered from humiliation and sadistic treatment by their supervising Hungarian army personnel, the so-called skeleton staff. To be sure, there were exceptions. Many of the inmates of slave labor camps never returned, and there were among them representatives of Hungarian scientific life.



Memorial to the Jewish slave laborers, 1939–1945, at 2 Bethlen Gábor Square, District VII.

There is a memorial to the Jewish slave laborers at 2 Bethlen Gábor Square. Its inscription says that they stood unarmed on the minefields. This is in reference to Miklós Radnóti's poem, "A la recherche," "standing unarmed on distant and freezing minefields..."⁶ The inscription applies, among many others, to the father of the author, Dr. Jenő Wilhelm, who was made to sweep a minefield with bare hands and a mine blew him apart in the fall of 1942; his remains rest in a mass grave in Western Russia.

We have no specific information about the scientists who perished in slave labor camps, but we offer the list below as a symbolic reminder. It enumerates the names of former slave laborers who later became members of the Hungarian Academy of Sciences.

György Ádám (1922–2013), physiologist; Pál Benedek (1921–2009), chemical engineer; Frigyes Csáki (1921–1977), mechanical engineer; Ervin G. Erdős (1922–), external member, pharmacologist; Jenő Ernst (1895–1981), biophysicist; Dávid Rafael Fokos Fuchs (1884–1977), philologist; László Fuchs (1924–), external member, mathematician; Tibor Gallai (1912–1992), mathematician; János Gergely (1925–2008), physician, immunologist; István Hahn (1913–1984), historian; Péter Hanák (1921–1997), historian; Róbert Hoch (1926–1993), economist; Miklós Julesz (1904–1972), physician; László Kalmár (1905–1976), mathematician; László Kardos (1898–1987), historian of literature; Béla

Kellner (1904–1975), physician, oncologist; György (Georg) Klein (1925–2016), honorary member, physician, immunologist; Károly Lempert (1924–), chemist; József Lukács (1922–1987), philosopher; Károly Marót (1885–1963), classical philologist; Gyula Mérei (1911–2002), historian; Zsigmond Pál Pach (1919–2001), historian; Alfréd Rényi (1921–1970), mathematician; László (Ladislav) Robert (1924–), external member, biologist; Pál Selényi (1884–1954), physicist; István Simonovits (1907–1985), physician; Bence Szabolcsi (1899–1973), musicologist; Sándor Szalai (1912–1983), sociologist; Pál Turán (1910–1976), mathematician; György Vajda (1927–), mechanical engineer; Imre Vajda (1900–1969), economist; Tibor Vámos (1926–), electrical engineer; Andor Weltner (1910–1978), jurist; Ervin Wolfram (1923–1985), chemist; László Zsigmond (1907–1992), historian

The next list contains the names of former deportees who later became members of the Hungarian Academy of Sciences. Let this list be again a symbolic reminder of those deportees who perished.

Iván Berend T. (1930–), economist historian, Dachau; Samu Borbély (1907–1984), mathematician, mechanical engineer, ?; Ervin G. Erdős (1922–), external member, pharmacologist, Sachsenhausen; János Frühling (1937–2015), external member, physician, oncologist, Strasshof; István Hargittai (1941–), chemist, Strasshof; Avram Herszko (1937–), honorary member, physician, biochemist, Strasshof; Miklós Julesz (1904–1972), physician, Buchenwald; Béla Kellner (1904–1975), physician, oncologist; József Knoll (1925–), physician, pharmacologist, Auschwitz; László Kozma (1902–1983), electrical engineer, Mauthausen-Gunskirchen; Károly Lempert (1924–), chemist, Mauthausen; Géza Mansfeld (1882–1950), physician, pharmacologist, Auschwitz; Pál Pándi (Kardos) (1926–1987), historian of literature, Laxenburg (Austria); Rezső (Ruben) Pauncz (1920–), external member, chemist, Strasshof; György Ránki (1930–1988), historian, Auschwitz; Gábor Szabó (1927–1996), biologist, Auschwitz; Andor Weltner (1910–1978), jurist, Buchenwald, Dachau

A few names appear in both lists. Some survivors of the slave labor camps were then deported to concentration camps.

Mathematicians

There is a plaque with two sets of names in the entrance hall of the Rényi Institute of Mathematics of the Hungarian Academy of Sciences. One of the sets is “Our Greats” and the other is “They Embarked on the Road of Creating.” There is then a third list that is conspicuously missing, because it would be for those “many young talents that prepared for their start.”

Our Greats

Mihály Bauer 1874–1945, Pál Csillag 1893–1944, Géza Grünwald 1913–1943, Dénes Kőnig 1884–1944, Simon Sidon 1892–1941, Adolf Szűcs 1884–1945,

They Embarked on the Road of Creating

Ervin Aczél –1942, István Ádám 1925–1944, Ervin Feldheim 1912–1944, József Krausz –1944, Dezső Lázár 1913–1943, Gyula Sándor 1921–1945, Miklós Schweitzer 1923–1945, István Valkó 1904–1945, László Waldapfel 1911–1942.



Memorial tablet for mathematician victims, 13–15 Reáltanoda Street, District V.

The memorial plaque was unveiled in 1976, that is, much earlier than most of the Holocaust memorials. A memorial to the Jewish victims outside of Jewish institutions was such a novelty that the euphemism of “victims of fascism” could be easily overlooked. The former slave laborer Pál Turán spoke at the ceremony. There is a Miklós Radnóti quote on the plaque, “my words, they will yet ring out by those new walls...”¹⁷

Here, we say a few more words about some of the people on the lists. Mihály Bauer studied at the Budapest Technical University where Gusztáv Rados and Gyula Kőnig were among his teachers. Bauer started writing mathematics papers at the age of eighteen. In 1918, he received his professorial appointment at the Technical University. In 1922, Bauer was the first recipient of the newly established Kőnig Gyula Prize of the Eötvös Loránd Mathematical and Physical Society. In contrast, he was kept at a low-level position at the Technical University, where anti-Semitic students often disturbed his lectures. In around 1936, the university forced him into retirement. In 1944, he was taken to a concentration camp from where he returned, but he died in February 1945.

Dénes Kőnig was the son of Gyula Kőnig (1849–1913), a former rector of the Technical University. Dénes studied in Budapest and Göttingen. In 1907, he received his doctoral degree and joined the Budapest Technical University. He was a pioneer of graph theory, and in 1935 he reached the rank of full professor. In 1936, he published a monograph, *Theorie der endlichen und unendlichen Graphen*. It has remained a fundamental treatise in the field and in 1990 it was published in English translation, *Theory of finite and infinite graphs* (Birkhauser). Following the Nazi occupation of Hungary on March 19, 1944, Dénes Kőnig helped persecuted mathematicians. A few days after the Arrow Cross takeover, on October 15, 1944, Dénes Kőnig committed suicide.



From left to right: Dénes Kőnig (courtesy of Vera T. Sós), Géza Grünwald (courtesy of Éva Gergő), and Dezső Lázár (source: <http://www.komal.hu>).

Adolf Szűcs studied in Budapest and Paris, taught in high school, and in the late 1920s he received an appointment at Gusztáv Rados's department at the Technical University. His research concerned variation calculations and differential equations. On February 3, 1945, a group of the Arrow Cross took him from his home. He was last seen on February 4, 1945.

Pál Csillag studied with Lipót Fejér and earned his doctorate when he was 21 years old. The Budapest Goldberger Textile Works employed him as a mathematician, but they had to retire him in 1938 because he was Jewish. He perished in 1944, but there is no exact information about his death.

Géza Grünwald (1910–1942)¹⁸ studied in Szeged and earned his doctorate in 1935. Approximation theory was his principal research interest. He was member of a circle of young mathematicians that held weekly meetings in the City Park at the statue of Anonymous. He was murdered in one of the slave labor camps that were often indeed death camps. Today, the Bolyai János Mathematical Society has a Géza Grünwald memorial medal. This annual award is given to mathematicians under 30 years of age who have demonstrated considerable achievements in fundamental mathematical research.

Dezső Lázár began his studies in Budapest, but had to continue in Szeged because of the numerous *clausus* law. He could not find employment following graduation and worked as an apprentice to a cabinet maker. Then, he was offered a job in Kolozsvár (today, Cluj-Napoca in Romania) which had again become part of Hungary. In 1942, he was ordered for slave labor. He had one printed publication while he lived; it was in set theory, in the early 1930s. Pál Erdős found this paper important and showed it to John von Neumann who arranged for its publication in the periodical *Compositio Mathematica*. In 1947 Lázár had another publication, posthumously, arranged for him by his surviving friends.

We learned more about Dezső Lázár from the renowned late mathematician László Fejes Tóth:¹⁹ "My dear friend, Dezső Lázár, turned my attention to the area of re-

search that I worked in during my entire life; this was the project of arranging and covering the surface. [...] About Dezső Lázár I would like to say that when I moved to Kolozsvár, he was there, working as a teacher in the Jewish Gimnázium. Later, he was called upon for forced labor service. He was made to detect mines, was wounded in the thigh, and left to bleed to death. While he was in the forced labor service, we kept in close contact with his family. We often visited his wife and two small children. We learned about what happened with him from his wife. I don't remember when this exactly happened, because the years have become blurred in my memory. His wife was a refined, beautiful lady and the thought horrifies me to this day that she was dragged away in a box-car and after a lot of suffering they murdered her with her two small children in the gas chambers of Auschwitz."²⁰



Dániel Arany (courtesy of the Révai Miklós Gimnázium, Győr) and the gravestone of Arany and his wife over one of the mass graves of Holocaust victims of the Heroes' Cemetery in the garden of the Dohány Street Synagogue.

We conclude with a few words about the mathematician Dániel Arany (1863–1945). While working as a high school math teacher, in 1893, he founded a mathematical magazine, *Középiskolai Matematikai Lapok*, for high-school pupils. He edited this for a few years; then, he passed the editorship over to László Rátz. The magazine has fostered ever since young talent in mathematics. Between 1905 and 1919, Arany taught in a technical college, but after 1919, he was forced into retirement for alleged involvement in the communist dictatorship. He never found employment again. He continued his research in probability theory and game theory, and co-authored a monograph in actuarial mathematics. His most important contribution remained in the area of high school mathematical education. In 1944, the Jewish Arany and his wife were incarcerated in the ghetto where they both died. Before moving into the ghetto, Arany donated his valuable collection of mathematical books to the Eötvös Loránd Mathematical and Physical Society. Today, the mathematical competition of 1st and 2nd grade high school pupils carries Dániel Arany's name.

Invisible Memorial in Trefort Garden

In fall 2014, an unusual and moving memorial was unveiled in the Trefort Garden campus of Eötvös Loránd University. Its title is “Sign in the Garden.” The memorial, created by a group of architects and others, is a long metallic strip inserted in between the bricks of two buildings. The introduction in the strip says in Hungarian, English, and Braille that it honors the memory of those university members who were victim of the anti-Jewish laws, the Holocaust, and World War II. The overwhelming majority of the victims were Jewish, but the strip gives only the following information: names, dates of birth and death, and status. The latter appears in one of the following designations: deported, slave laborer, deported slave laborer, civilian victim, taken by force, died by suicide, forced laborer, officer-candidate corporal in reserve-titular lance sergeant, officer-candidate sergeant in reserve, vanished, murdered, shot, or simply, nothing. The designations demonstrate considerable insensitivity: How could a deported or a slave laborer be different from a civilian victim? Were not those deported to Auschwitz or murdered on the bank of the Danube, civilian victims? When I asked about this one of the spiritual leaders of the memorial, the response was that the designations followed the usage of designations of the time. This is, however, unacceptable, because succumbing to the usage of designations of the time will only facilitate conserving the judgments of the time.



This is one of the 198 names of martyrs on a metallic strip in between the bricks of the wall at the Trefort Garden of Eötvös Loránd University.

Sadly, the memorial strip stays practically invisible to anybody who is unaware of its existence. Apart from the strip itself, there is no indication of the memorial; it is as if it should be kept in strict confidence. When I visited the memorial soon after its inauguration, I thought an information tablet or something directing the attention to the strip would be added later. In May 2017, there was still nothing.

Professor Géza Komoróczy raised the issue of the missing text in Hebrew on the strip at the inauguration. This omission symbolizes the ambiguity of the memorial. Subsequently, Komoróczy²¹ interpreted the ambiguity of the memorial as a limited apology from the University. According to him, the University restores the university membership of the victims, all the victims. However, this restoration concerns them all, as Hungarians, but not as Jews, for which they had been murdered in the first place. According to Komoróczy, and I fully agree with his assessment, this is an example how remembrance is subordinated to the “politics of remembrance.”

So Many More to Remember

A unique memorial tablet was unveiled in 2014 in the waiting room of what is called officially, the Department of Dermatology, Venereology, and Dermato-Oncology. It is for 41 Hungarian Jewish dermatologist victims of the Holocaust 1944–1945. The uniqueness of this memorial is that it commemorates not only dermatologists of this University, but the dermatologist victims from all over Hungary. This circumstance is as uplifting as is painful to think that this is the only such commemoration among all the clinics of Semmelweis University. Browsing the tablet in the crowded waiting room, the viewer involuntarily has the unreal sensation that the waiting time in this crowded venue might be reduced had these dermatologists been still around.

This thought association brought me to thinking of the many other Jewish physicians who perished in concentration camps and in punitive slave labor units. The anti-Semitic hatred caused the guards of these units and responsible army officers to prevent the incarcerated doctors from helping wounded soldiers in nearby units of the Hungarian Army, who were often left untreated.

István Zoltán (1899–1945) attended the famous Lutheran Gimnázium in Budapest and then



Memorial tablet for 41 dermatologists in the waiting room of the Dermatological Clinic of Semmelweis University, 41 Mária Street, District VIII.



Mária Flóra Zoltán's portrait of Dr. István Zoltán (courtesy of Mária Flóra Zoltán).

graduated as an MD from the Royal Pázmány Péter University in 1923. He became an ear, nose and throat specialist and specialized also in surgery and in pathology. At the invitation of Professor Zoltán Lénárt, he joined the Clinic of what the Department of Otorhinolaryngology, Head and Neck Surgery is today. Dr. Zoltán was a clinician, a researcher, and in charge of the histology laboratory. His publications and activities in congresses drew international attention to his achievements. He was expected to succeed Professor Lénárt upon his retirement scheduled for 1941. Alas, this was not to happen because Dr. Zoltán was Jewish. International invitations offered an escape for him from the ever-worsening situation, but he declined to leave his aging parents and his patients. The Arrow Cross took him in 1944 and he perished in the Mauthausen concentration camp only days before its liberation. His artist daughter painted his portrait and donated it to her father's former clinic. When after years it was still not displayed, the daughter took back the painting. There is thus no remembrance there of the martyr physician István Zoltán.

There is a memorial brick honoring István Zoltán in front of the apartment house in Andrásy Avenue where the Zoltán family used to live. The family would like to erect a memorial plaque on the façade of the building and they have the consent of the district authority. However, the principal proprietor of the building has so far prevented this commemoration.

An internationally renowned Hungarian-American scientist told me about his horrible experiences in Budapest in 1944–1945. However, he asked me for discretion to avoid his Hungarian friends learning about his Jewish origins. He said he would not like to lose his friends in Hungary. I wondered how good friends those people can be. It is also possible that he supposes their anti-Semitism without foundation.

The misuse of the label “Martians” comes to mind. The label originated at the Manhattan Project in a conversation between Enrico Fermi and Leo Szilard. They joked that the conspicuously large number of Hungarian participants were in reality Martians and they spoke Hungarian for camouflage. The emigration of Theodore von Kármán, Leo Szilard, Eugene P. Wigner, John von Neumann, and Edward Teller – the five truly Martians – is often ascribed to their curiosity and thirst for adventure. Thus the label becomes a euphemism to mask the real reason for their emigration. This misleading approach was compounded by Edward Teller when he turned to his audience at a meeting with the following words: “Véreim, Magyarok!” meaning “My blood brother Hungarians!” This could have been the playing out of a childhood fantasy. In high school he suffered from anti-Semitism and he could have not used this expression at the time. In the early 1990s, so soon after the political changes, this expression, however dated it sounded, was consistent with the gradual return to the Hungary of the 1920s and 1930s.

To this day, mentioning someone's being Jewish or being of Jewish origin is considered impolite in Hungary. Teller noted that “In Hungary, even if you were born there, being a Jew you do not feel at home.”²² In this, Teller referred to his high school years. The question is, has the situation changed? There was an interesting case in connection

with Teller's election to the Hungarian Academy of Sciences in 1990, right after the political changes. Here I quote the story on the basis of published reference and archival material in the Teller Folder at the Archives of the Hungarian Academy of Sciences.²³

A memorandum was prepared in February 1990 for Teller's election to honorary membership of the Hungarian Academy of Sciences. It was at the time of the great political changes in Hungary when the one-party system was giving way to a multi-party democratic system. In this memorandum, there are four references to Teller's being Jewish. One mentions that one of Teller's high school teachers used to address the class as "Gentlemen and the Jews!" Another is that Teller's father did not see the conditions in Hungary encouraging for his Jewish son's scientific career. The third mentions that Teller's family had to wear the yellow star under Nicholas Horthy, was incarcerated in a ghetto under the Hungarian Nazi leader Ferenc Szálasi, and was exiled from Budapest to the countryside in the early 1950s under the communist leader Mátyás Rákosi. The fourth reference is that Teller always stressed his Hungarian and Jewish origins.

The final, "official" nomination does not contain any of these four references to Teller's being Jewish. Teller was elected honorary member in 1990.

Saviors and the Saved

In paying tribute to the saviors – symbolically, to all saviors – we single out two individuals among the heroes of the Hungarian Holocaust. They were the Lutheran minister Gábor Sztéhlo (1909–1974) and the Swedish trade representative Raoul Wallenberg (1912–1947?).

Left: One of Raoul Wallenberg's memorials in Budapest, Szent István Park, District XIII. It is a copy by Sándor Győrfi (1999) of Pál Pátzay's original work (1949). Right: Raoul Wallenberg, November 26, 1944 (photograph by Tamás Veres, courtesy of the late László Ernster).



Among the saved, there were many young people who then became renowned scientists. For example, Gábor Sztéhlo saved the Hungarian-born American Nobel laureate chemist George A. Olah (1927–2017) and Wallenberg saved the internationally famous Hungarian-born Swedish biochemist Lars Ernster (1920–1998).



Left: Gábor Sztéhlo's memorial plaque on the façade of the Lutheran Church, Bécsi Kapu Square, District I. Right: Sztéhlo's memorial (by Tamás Vigh and Barnabás Vinkler, 2009), Dedk Square, District V.



George A. Olah as a high school student (courtesy of the late George A. Olah) and Olah among other Nobel laureates in Stockholm in 2001 (photography © Hans Mehlin, courtesy of the Nobel Foundation). The conspicuously tall Olah is in the middle of the picture.

Sad Conclusion

It appears that hardly any scientist martyr of the Hungarian Holocaust is remembered as victim of the Holocaust by a personal memorial. In the second half of the 2010s this is the more gruesome observation, because the number of memorials honoring anti-Semitic authors, politicians, and other public figures of the Horthy era steadily increases. There is a strengthening impression that it is not only that official Hungary avoids facing the Past, but that beyond the falsification of history, it carries on the political legacy of the era between the two world wars that led to a national catastrophe.



Left: László Ernster in the Jewish Hospital as Dr. Alfréd Lajta's assistant. Middle: Dr. Lajta, murdered by the Arrow Cross with all the other doctors and patients of the Jewish Hospital (Ernster was elsewhere at the time). Right: The Queen of Sweden at the Nobel Prize award ceremony in 1978. Ernster is on her right (all 3 photographs courtesy of the late Lars Ernster).

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Endnotes

- 1 First appeared in Hungarian in the Jewish cultural periodical *Múlt és Jövő* (Fall 2017, pp. 102–124). Photographs, unless indicated otherwise, are by the author (© István Hargittai).
- 2 Istvan Hargittai and Magdolna Hargittai, *Budapest Scientific: A Guidebook* (Oxford: Oxford University Press, 2015). Since then, we have published a similar volume for New York: Istvan Hargittai and Magdolna Hargittai, *New York Scientific: A Culture of Inquiry, Knowledge, and Learning* (Oxford: Oxford University Press, 2017). We are currently completing Istvan Hargittai and Magdolna Hargittai, *Moscow Scientific: Memorabilia of a Research Empire*.
- 3 Hargittai István, "Hetvenéves fehér folt," *Magyar Tudomány* (2013): 1035–1045.
- 4 http://mta.hu/data/MTA_Tortenete_ENG.pdf (last access December 30, 2017).
- 5 Communication by e-mail from Soma Rédey, deputy-head of the Department of Communication, June 13, 2017.
- 6 Letter of November 30, 1945, from Albert Szent-Györgyi to the Secretary General of the Hungarian Academy of Sciences. The letter is stored under registry number 48/1946 in the Manuscript Archive of the Library of the Hungarian Academy of Sciences.

- 7 Lajos Pillich, "Richter Gedeon (1872–1944)," in Krisztina Novák Takács and István Hermecz (ed.), *Esti beszélgetés: Magyar gyógyszerészkutatók portréi* (Budapest: Magyar Gyógyszerésztudományi Társaság, 2005), 69–82.
- 8 Max Born, *My Life: Recollections of a Nobel Laureate* (New York: Charles Scribner's Sons, 1978), p. 214.
- 9 "Diszkrimináció, Emancipáció – Asszimiláció," *Diszkrimináció: Magyarországi egyetemi tanárok életrajzi adattára 1848–1944. I. Zsidó és zsidó származású egyetemi tanárok*, ed. Gábor I. Kovács, compiled by Gábor I. Kovács, Zsuzsanna Kiss, and Árpád Takács (Budapest: ELTE Eötvös Kiadó, 2012).
- 10 "Tagajánlások 1934-ben," Magyar Tudományos Akadémia, Budapest, 1934 (unpublished manuscript), p. 62.
- 11 Prior to 1949, honorary membership was given to officers of the Academy, prominent members of public life, politics, the churches, and the financial world. Also, elder academicians were recognized for their achievements by this distinction. See *A Magyar Tudományos Akadémia tagjai 1825–2002*, MTA Társadalomkutató Központ – Tudománytár, Vol. 1 (Budapest, 2003), p. 14.
- 12 *Nemzetgyűlési Napló, 1922–1926*, Vol. XXIV, Session 295, p. 320 (June 4, 1924), in Mária Kovács M., *Törvénytől sújtva: A numerus clausus Magyarországon, 1920–1945* (Budapest: Napvilág, 2012), p. 50.
- 13 Max Born, *My Life: Recollections of a Nobel Laureate* (New York: Charles Scribner's Sons, 1978), p. 236.
- 14 Letter labeled K785/139 in the Archives of the Hungarian Academy of Sciences; quoted in István Hargittai, "Wigner Jenőről," *Élet és Irodalom* (October 10, 2014), p. 12.
- 15 Claudia K. Farkas, "Jogok nélkül: A zsidó lét Magyarországon, 1920–1944," in Mária Kovács M., *Törvénytől sújtva: A numerus clausus Magyarországon, 1920–1945* (Budapest: Napvilág, 2012), p. 218.
- 16 Thomas Orszag-Land (translator), *The Witness: Selected Poems by Miklós Radnóti* (London: Tern Press, 1977), p. 42. Other translations exist.
- 17 Quote from "The Protector" by Miklós Radnóti, in Thomas Orszag-Land (translator), *The Witness*, p. 35. Other translations exist.
- 18 Éva Gergő, Géza Grünwald's daughter, informed me about the correct years of birth and death.
- 19 Hargittai István, "Fejes Tóth László," *Magyar Tudomány* 166 (March 2005), 318–324.
- 20 In 1942, my father was killed the same way as Dezső Lázár. Then, our story continued as that of his family's, but only up to a point. In June 1944, my mother, my brother, and I were put into a box-car and the train departed for Auschwitz. Along the way, somewhere, however, the train stopped, moved back for a while, and continued in a different direction, toward Vienna. What happened was that a train that had been destined for Austria had already left for Auschwitz, by mistake. Our train was the replacement. My brother was ten years old and I was not yet three.

Cf. I. Hargittai, *Our Lives: Encounters of a Scientist* (Budapest: Akadémiai, 2004), pp. 52–54.

- 21 Géza Komoróczy, “Öt héber szó,” *Élet és Irodalom* (December 4, 2015).
- 22 Istvan Hargittai, *Judging Edward Teller: A Closer Look at One of the Most Influential Scientists of the Twentieth Century* (Amherst, NY: Prometheus Books, 2010), p. 48.
- 23 Balazs Hargittai and Istvan Hargittai, *Wisdom of the Martians of Science: In Their Own Words with Commentaries* (Singapore: World Scientific, 2016), p. 191.

