PRINTED HUNGARIAN GLOBES FROM THE BEGINNINGS TO OUR DAYS

The first exhibition introducing the history of the first Hungarian celestial and terrestrial globes was opened in the National Széchényi Library on 16th October 2010. Although cartographic documents, such as printed celestial and terrestrial globes are ruled by the prevailing provisions for mandatory deposit copies, to our greatest regret, the fullest editions of these works are found in private collections. This display of magnificent pieces was enabled through the generous support of the owner of the collection.

The history of producing globes in Hungary is given a brief overview here. The use of globes is closely related to schools. These documents did not only impart geographic knowledge to students about the Earth, but also enabled the demonstration of other events and phenomena of astronomy. Thus, it is not surprising that the pioneer of Hungarian education, János Apáczai Csere (1625-1659), who returned to Hungary after his studies at a Dutch university, recommended in his Hungarian Encyclopedia published in 1655 that "globes[1] or sheet maps[2]" should be used for teaching geography.[3] While the *Ratio Educationis* decree of 1777 for the reform of Hungarian school education only mentions the possibility and advantages of applying globes, in its 1806 revised form, law-makers already made them a requisite of any school's equipment. For a long time their high price prohibited the widespread use of "man-made globes" in schools. A considerable drop in the printing costs of the globe segments was due to lithography, while the mass production of the actual spheres was built on the emergence of workshops and small factories that were able to cope with the task.

The wide use of printed celestial and terrestrial globes, or "spheres" as they were called in 19th century Hungary, was strongly related to more general, and eventually mandatory elementary education for all. This process is demonstrated by the NSZL exhibition, the first time that a comprehensive display of printed Hungarian celestial and terrestrial globes and their history has been shown to the public.

The first Hungarian celestial and terrestrial globe for schools is associated with Károly Nagy (1797–1868)[4], funded by Count Kázmér Antal Ferenc Batthyányi's (1807-1854) contribution of ten thousand silver florins. One of the globes[5] was made in Vienna, while another one[6] in Paris. The Hungarian Scholarly Society was also actively involved in creating these "spheres": On the author's request, they willingly undertook to render the inscriptions on the globes into Hungarian, thus laying down the basics of the discipline's terminology. The contributors to this project were no less than the poet József Bajza (1804–1858), the physician and language reformer Pál Bugát (1793–1855) and the poet, writer and lawyer Mihály Vörösmarty (1800-1855).

Celestial globe made by Károly Nagy

Issue 77 of 1840 of the weekly *Hírnök* is pleased to inform the public that the first Hungarian spheres are ready, and thanks to Count Kázmér Batthyány's generosity all Hungarian schools "that teach geography to a considerable extent will be given one as a present." Thus within a short time, schools received as many as 128 globes. The noble manufacturers did not sell any

of them for money, but gave them away free of charge in order to demonstrate their respect.

In 1841 the creators' community of the first Hungarian globe donated to the Hungarian Scholarly Society the remaining prints and the fixtures for the spheres, stipulating that for educational purposes they should continue to be used free of charge. The possibility of launching the second edition of the "First Hungarian Celestial Globe…" with the help of the Hungarian Scholarly Society[7] and the outstanding publisher and printer Gusztáv Emich (1814–1869) came up as early as 1847. However, the actual publication probably happened only in 1850, after the defeat of the War of Liberty.

The first globe created by a Hungarian was printed and commercially circulated by Ferenc Elekes (1811–after 1868) of Szentkatolna[8], who was promoted to the rank of major in the 1848–49 War of Liberty. His globes were issued in 1844[9] and 1851 in Vienna[10] by Franz Leopold Schöninger (1790–1877)[11]. According to contemporary newspaper advertisements, they were circulated both in German and Hungarian, although today we only know of one copy of each of the German editions.

Following the 1867 Compromise, Article No. XXXVIII of the 1868 Law was about elementary education, according to which celestial and terrestrial globes featured again in public schools. The quick implementation of the law was enabled by the 1869 state lottery[12], which raised 201,500 forints for this purpose. Most of this amount went towards establishing new schools and modernising existing ones, but with some of the money various teaching tools (e.g. wall maps and celestial and terrestrial globes) and textbooks could be purchased. In addition to books, up to the year 1872, poor public schools received free wall maps of Hungary and Europe; 15,600 pupils were offered "manual sheet maps" of Hungary, and it was through this project that six thousand globes of various sizes were given to schools. These globes were rendered into Hungarian by János Hunfalvy (1820–1888) and Pál Gönczy (1817–1892)), who were involved in the law-making process, while they were actually manufactured by the Prague company run first by Jan Felkl (1817–1887), later by Jan Felkl and his son, one of the major European producers of various globes for schools in Europe. For a long time, they were practically the only suppliers of tools for teaching geography in the Austro-Hungarian Monarchy. In 1893 the Minister of Culture asked the Hungarian Geographical Society to make recommendations for globes to be used in our schools. They suggested that there should be globes of two different diameters: the smaller with a diameter of 25.5 centimeters, the bigger one with a diameter of 51 centimeters. [13]

Terrestrial globe by Károly Nagy

In the 1895 Geographical Review Béla Erődi reported the followings: *"We are witnessing laudable progress in the area of domestic cartography partly due to the generosity of the Ministry of Religion and Public Education, which supports the former Hölzel firm, and presently Manó Kogutowicz's company in their effort to publish wall maps in the Hungarian language. The numbers of the publishing company's maps have increased over the past year. There is progress also regarding globes to be published in Hungary, thus by the Millennium we are most likely to have our own domestic globes."* [14]

About the events of 1896, the Hungarian Geographical Society's president reported the followings in the association's journal: *"Special attention is due to the maps of the Hungarian geographical institute made by Manó Kogutowicz, their Hungarian representations and globes. At long last, we think that the problem of Hungarian globes is solved by the spheres of the Kogutowicz firm, produced in two sizes: with 25.5 and 51 centimeters in diameter. The smaller ones are available in three different qualities."*

For his school maps, atlases and globes Manó Kogutowicz (1851-1908) was awarded the gold medal of the Millennium exhibition[15], and we owe him the first globes designed and mass produced in Hungary. In fact, it is since his time that geographical and historical wall maps, atlases and globes edited according to uniform principles have been available.

The Embossed Mapping Institute founded in 1927 by István Turner (1900–1974) produced globes from 1931 onwards. They were planned by Károly Kogutowicz (1886–1948), the names were transcribed by József Takács (1901–1986) and the globes were designed and drawn by Ferenc Turner (1899–?), while the segments were printed by the Hungarian Royal State Cartography. The publisher of the globes was Lajos Kókai (?–?).

Using formerly printed globe segments, the NEON Cooperative of Budapest sold globes made by István Turner, occasionally corrected manually only, whose segments had still been commissioned by Lajos Kókai. From 1953 onwards, new globes edited by Lajos Füsi (1920–1999) were issued. From the 1960s the Cartographic Company produced globes on traditional spheres. Later this company also switched to more sophisticated and mass producible plastic spheres, although still sticking on the segments manually.[16] In our days, the Hungarian BELMA Company produces globes of various sizes, where both the map and its body are made of plastic.

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1 terrestrial globe
2 wall map

3 "[To my disciples] I would recommend that first they should study some easier part [of the Hungarian Encyclopedia], for example the image of the Earth, visually following a globe or sheet where the earth is depicted." In: Magyar gondolkodók.17. század. (Hungarian thinkers. 17th century) Selected and edited by Márton Tarnóc. Budapest, 1979. 670.

4 Pál Hrenkó: Az első magyar földgömb alkotóközössége. (The creative community of the first Hungarian terrestrial globe) In: Geodézia és Kartográfia. (Geodesia and Cartography) 1984. 268-274.

5 Globe: The first Hungarian sphere' after the most recent sources / Cut by Biller. – [1:40 000 000]. – Vienna, 1840. – Diameter: 316.5 mm

6 [Celestial globe]; Positions of stars are for 1840. / Made by Dien Károly. – Paris, 1840. – Diameter: 316.5 mm

7 Hungarian Academic Report. Vol. 2. 1847. 19.

8 Gábor Bona: Tábornokok és törzstisztek az 1848/49. évi szabadságharcban. (Generals and officers in the 1848-49 War of Liberty) third revised edition, Budapest, 2000. 319.; For identifying Ferenc Elekes's exact date and place of birth (Árapatak, 29 June 1811), I owe my thanks to genealogist János Kocs, who found them in the register of the Árapatak Reformed Church. Elekes's father served as a reformed priest at Árapatak from 1809 to 1818.

9 with a diameter of 16 cm.

10 with a diameter of 12 cm

11 Modelle der Welt. Erd- und Himmelsgloben. Hrsg. Peter E. Allmayer-Beck. Wien. 1997.193.

12http://www.1000ev.hu/index.php?a=3&param=5337; http://mek.oszk.hu/09500/09536/html/0016/7.html

13 Földrajzi Közlemények (Geographical Issues). 1893. 315-316.

14 Földrajzi Közlemények. 1895. 223.

15 Földrajzi Közlemények. 1896. 279.

16 Mátyás Márton: A Kartográfiai Vállalat földgömbjei. (The terrestrial globes of the Cartographic Company.) In: Geodézia és Kartográfia. (Geodesia and Cartography) 1988, 42-48.