



Bridging the centuries: 1918-2017

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Soil mapping techniques have changed a lot since the birth of soil science in the late 19th century. The methodology of the development of the first European soil map was accepted in 1926, in Budapest, in 1918, after the presentation of the soil map of Hungary – in that time covering the entire area of the Carpathian basin. The idea of developing this map was the major driving factor to organize the first soil science conference – that time called agrogeology – in Budapest, Hungary 1909. The most important reason to organize that meeting was to have the soil scientists from the Dokutchaev school and the Central and Western European soil scientists sit and discuss a common mapping procedure integrating all the prospective elements and agree on a common soil mapping strategy. It was agreed that all countries had to develop their first general soil maps to understand the major factors, and the development of the detailed soil maps can be started only after summarizing the results of these maps.

The map, called the General map of the soil regions of Hungary, was compiled by Péter Treitz and Béla Timkó. The field work started in 1911. The first version was completed in 1918 and was presented at the third soil science conference in Praha, 1922. Treitz was a real Central-European soil scientist, who visited several countries all over Central-, Southern- and Western-Europe, like Sweden, Germany, Poland, Italy, Bosnia, Serbia, Romania, and also Russia, and studied different approaches of the developing soil science. He combined the Western-European knowledge with the Dokutchaev school. Using these two approaches as basic inputs, he developed a new soil mapping approach. The idea was first discussed in 1909 in Budapest – at the first soil science conference, and also in 1926, also in Budapest, discussing the experiences learned from the – already compiled and introduced - Hungarian map. There have been several versions in between because Treitz was not satisfied with the legend of the first versions and continuously developed that.

This soil region map was the basis for all soil maps developed in Europe in the first half of the 20th century and for all the Hungarian soil maps till the early 2000s. This mapping campaign was followed by the so-called Kreybig mapping at the scale of 1 to 25 thousand – according to the conclusion of 1909 conference in Budapest. After several soil maps of Hungary, the first one following a new approach - digital soil mapping - was published in 2017, the one included into the national atlas of Hungary. The two maps and the 100 years between them frame the development of soil science and represent the growing soil science knowledge and better understanding of soil forming processes and their spatial aspect, and also the great efficiency introduced by the new digital soil mapping techniques and digital datasets.