

SQUARING THE NATION

Two strange Hungarian cartograms from 1902

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Two of the twenty-two map appendices in Pál Balogh's book *A népfajok Magyarországon* (The Ethnic Species of Hungary), published in 1902,¹ which runs to more than one thousand and thirteen pages, are remarkable for the way they present the ethnicities and religions of Hungary (Figs 1 & 2). The graphic method used to produce them is variously known as equal square/area grid map, or telegram, or mosaic map, and it has been suggested that they may be the first examples of maps employing this method.² The two maps, designed by Balogh and drawn by Kocsárd Sándor Proff are well known in Hungarian map history, especially within ethnic cartography.³ Balogh's work is also a frequently cited source in the Hungarian historical demographic literature. But the now popular method used to produce the maps⁴ or 'anamorphic cartograms'⁵ is worth a closer look.

The method

The novel method used in the two maps to visualise the data can be interpreted as a response to a problem of distortion, particularly in ethnic mapping that was already recognised and discussed in the nineteenth century.⁶ The traditional method of colouring surfaces framed by administrative boundaries used in ethnic mapping, the so-called choropleth, or the 'Dupin system', named after its inventor,⁷ is manipulative. This is because the choropleth method does not take into account population density, settlement density, populated areas or topography. These limitations caused problems of distortion in ethnic mapping because it did not allow for expressing proportions. The same percentage would have the same depth of colour even if it was a village of a few hundred inhabitants or a city of several hundred thousand. It

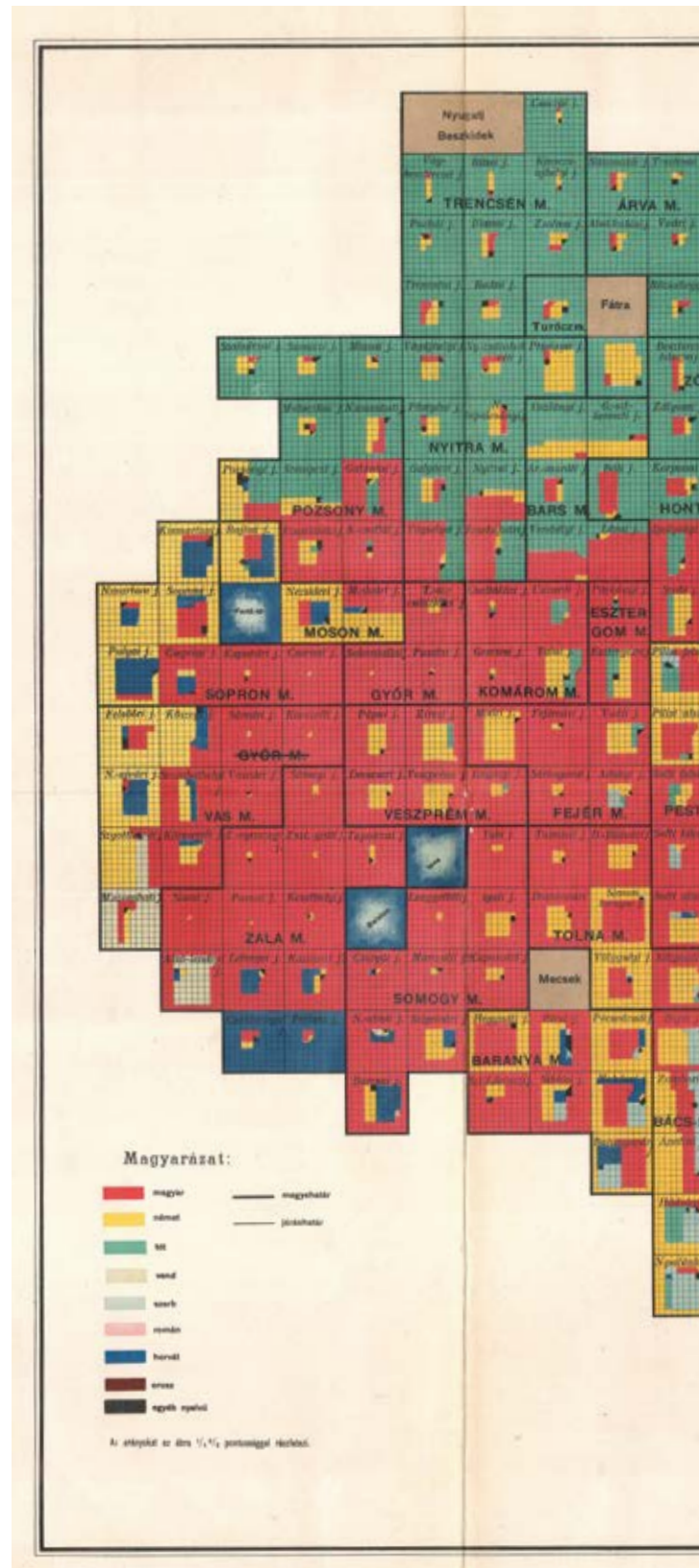


Fig. 1 Pál Balogh and Kocsárd Sándor Proff, 'Magyarország Fajnépei. A vármegyék járásáiban' ('Ethnic species of Hungary. In the districts of the counties') from *The Ethnic Species of Hungary*, 1902. 55.5 x 57.5 cm. Image courtesy of Dániel Segyevy.

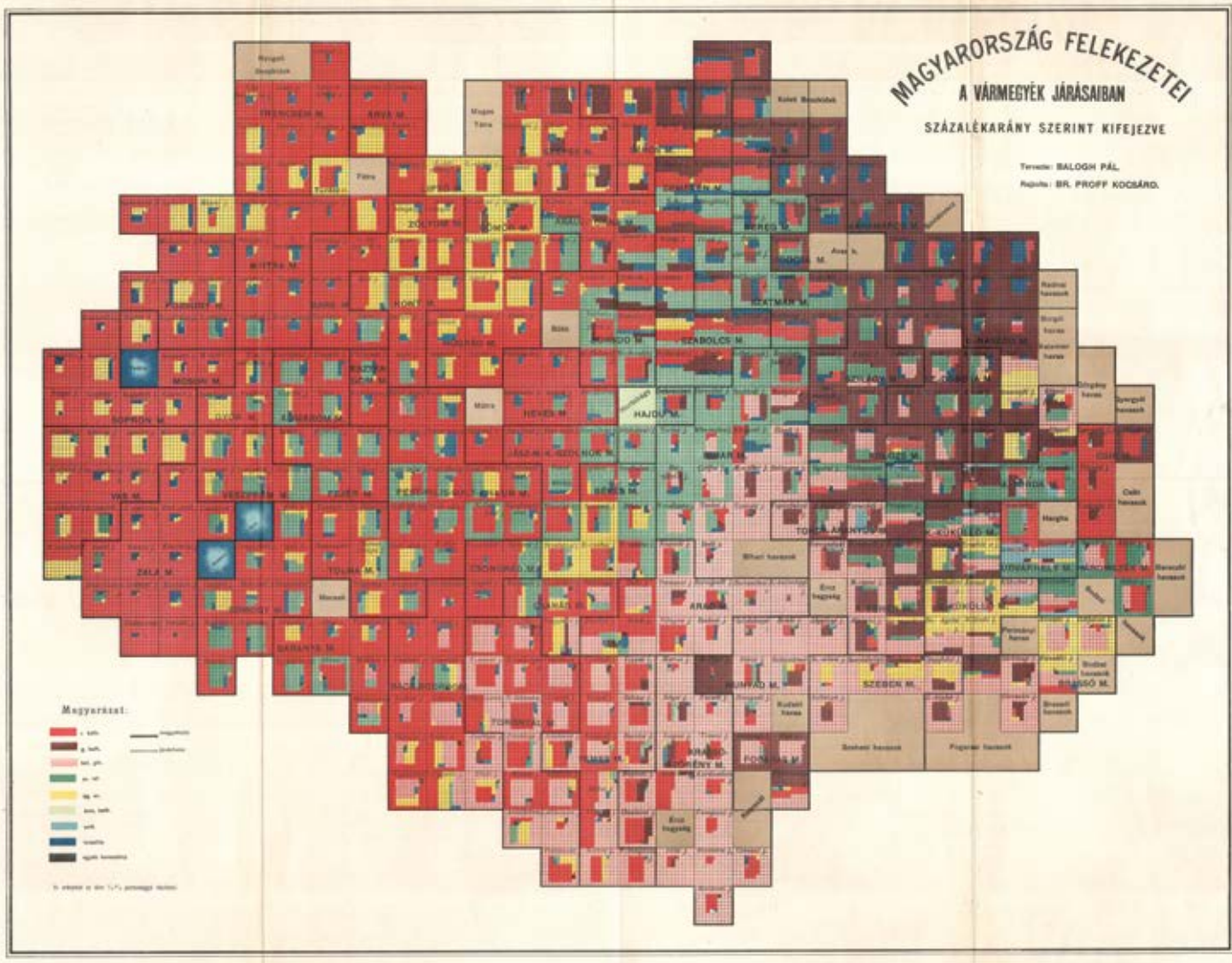


Fig. 2 Pál Balogh and Kocsárd Sándor Proff, 'The Religions of Hungary', 1902. 55.5 x 57.5 cm. Image courtesy of Dániel Segyevy.

was also misleading in that the administrative boundaries followed the geographic and settlement structure rather than being tailored to population size or populated areas. Thus, the spatial extent of a city with a significantly larger population could be much smaller than that of a municipality of a few thousand inhabitants. Consequently, the latter was also much more visible on the map. Finally, this method can only represent the absolute majority within a given administrative unit, thus obscuring the complex and diverse ethnic relations within the administrative unit. Although Balogh and Proff also used coloured surfaces to denote ethnicity, which they based on the 1890

census data, the essence of their method was that they did not concern themselves with the precise geographic location and territorial size of the districts in the country, but drew each district, four hundred and thirteen in all, as a square of 10 x 10, or one hundred units. Balogh explained the choice in this way:

...The rectangles are equal, and do not show the territorial differences of the counties, because their purpose is to show the relations of the people, not the relations of space: the figure is not a map, but a graph. Our topographies are shown on it, and their insertion was necessary for the sake of clarity and ease of reference. We could not use the normal map. The