

# **Ethnic maps of the Hungarian settlement areas from around the world**

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**Abstract.** Demographic and ethnic maps of Hungary are available in many map collections not only in Hungary, but also in many other countries in Europe. Since there was a large German minority in Hungary before 1920, it was regarded as part of the German cultural area. Furthermore as Hungary was part of the Habsburg empire and later of Austria-Hungary, the German-speaking countries had an interest in mapping the ethnic groups of Hungary. Some maps were also made in the United Kingdom and even in the United States of America.

Many of these maps can be found in their country of origin, although some can be found in other countries as well. Since there is a lower interest in these maps outside of Hungary, they are in some cases in a better state in other countries. Many of these maps, since they were not made in Hungary cannot be found in Hungary to this very day.

**Keywords:** Ethnic maps, Historical maps, OpenSource

## **Introduction**

Demographic and ethnic maps of Hungary are available in many map collections not only in Hungary, but also in many other countries in Europe. Since there was a large German minority in Hungary before 1920, it was regarded as part of the German cultural area. Furthermore as Hungary was part of the Habsburg empire and later of Austria-Hungary, the German-speaking countries had an interest in mapping the ethnic groups of Hungary. Some maps show the entire monarchy, other only show the whole or part of the territory of Hungary in 1920. Some maps only show the areas of Hungary where Germans lived. Similarly the maps indicating religions in some cases indicated only those parts where the Lutheran church was dominant, while others showed the whole of Hungary or the Monarchy.

## **Hungary: a state whose ethnic groups were mapped around the world**

Besides the maps made in German-speaking countries there are maps in the German archives made all over the world, amongst others ones made in English-speaking countries. The legend on these maps is somewhat similar to the German maps, but if the presented area is not the whole of Hungary, it is confined to areas where the populations are very heterogeneous. Besides the German archives, there are many ethnic maps of the territories of Hungary before 1920. The states of the Little Entente also made maps of the areas that they demanded. In many cases there were very large Hungarian populations in these areas. Due to the great interest in these maps, some of the ethnic maps that are in Hungarian archives are in a very bad state, and one can sometimes find a copy that is in a better state in a foreign archive. Some maps were also put on walls, and the contents have faded.

Part of my work is to make these maps available on the Internet. This conserves the state of the originals, as well as makes it much easier for researchers to do research on these maps. Searches can be done either by entering certain parameters of the map (title, author, publisher, date of publication, scale, size) or by selecting the archive from a list or on a map. A further search method that is independent of the above is by selecting on a map of Hungary (1914) which counties should be on the results, and which should not.

## **Scanning and publishing the maps on the Internet using OpenSource technologies**

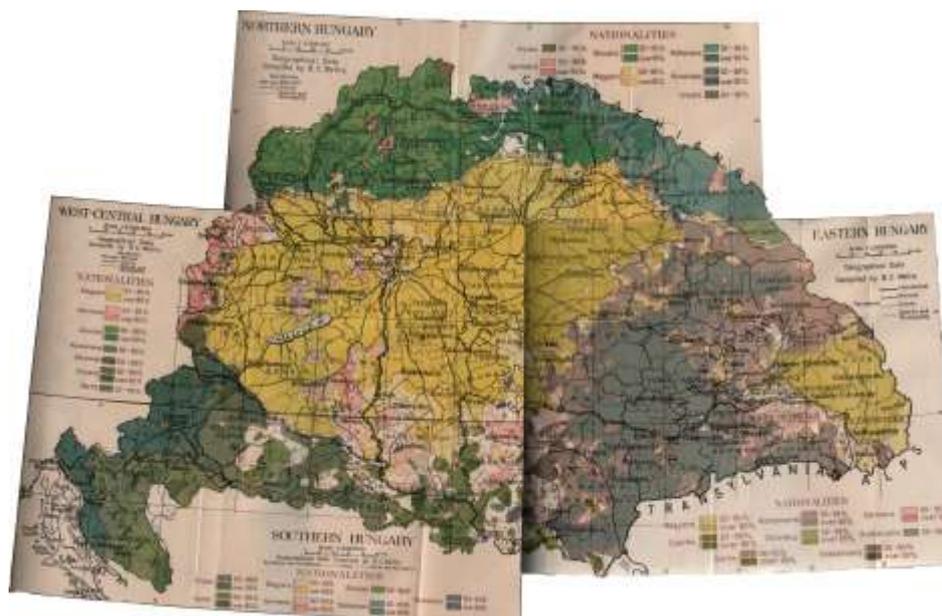
The best way to make digital copies of the maps is by scanning them. This avoids distortions that result from the axis of the lens not being perpendicular to the map, as well as the distortion of colours caused by insufficient light or badly set white balance. Unfortunately this option was not always available. In this case digital photographs made from a stand with artificial lighting was also a good option. Unfortunately using a hand held camera with no artificial lighting does not produce images good enough for publishing on the Internet.

I made a homepage using OpenSource technologies to make these maps widely available to researchers and anyone else interested in the topic world-wide. The web page is published in Hungarian, German and English. The database behind the system is a MySQL database running on a Linux server. The server side technology used at the moment is PHP. The interac-

tive vector maps use SVG and JavaScript. The point of the project was to use OpenSource technologies only where possible.

## Maps not known in Hungary until recently

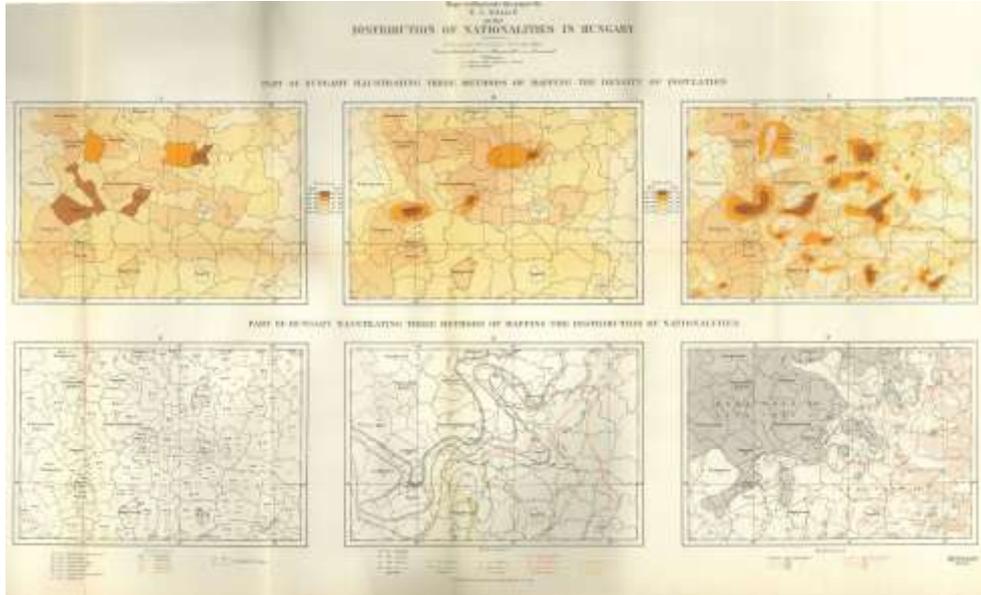
### 3.1 The ethnic map published by B. C. Wallis in New York



**Map 1:** Ethnic map of Hungary made by B. C. Wallis, published in 1917 in New York on four sheets (put together digitaly)

There were many maps in the German archives that were not known up to the present in Hungary. Among these were the three maps made by B.C.Wallis (full name and time of birth and death unknown). These maps were published in New York in 1917, each map comprising four sheets. One was an ethnic map (map 1) of Hungary, the second a population density map, the third a relief map.

The map has two categories for each ethnic group. One is 50-95%, while the other is over 95%. The colours used above 95% are pretty much equal in intensity. Under 95% the Hungarians and Germans are shown somewhat lighter than the other ethnic groups.



**Map 2:** Sheet with six ethnic maps of the Banat published made by B. C. Wallis, published in London in 1916

There are not many details of the author, but we do know that he published a map sheet one year earlier in London, on which there are 6 maps of the Banat, on which he wanted to present the different methods mapping population density and ethnic groups.

The top three maps used three methods for mapping population density. On the left hand side he used administrative boundaries. On the other two he used contours. The difference between the middle one and the one on the right hand side is not mentioned anywhere on the sheet, although it can be seen at first sight. It looks as if it probably comes from the fact that on the one in the middle he did not take into account the population of the big cities (Temesvar, Arad). On the three maps on the bottom of the sheet he mapped ethnic groups. On the first one, he just wrote into every administrative boundary the percentage of the population belonging to a particular ethnic group. On the next two he used contours. In the middle he made different colour contours for all ethnic groups living in the area (Hungarians, Germans, Slovaks, Romanians, Serbians). On the one on the right hand side he only made contours for the Hungarians and the Romanians. On this map he also filled the contours for a population above 95%.

### **3.2 Another ethnic map published in London**

In the same year Sir Arthur Evans (date of birth and death unknown) published a map in London presenting the Slavic areas east of the Adriatic. This presented primarily the southern areas of the historical Hungary, Croatia and Bosnia. An interesting fact about the map is that it represents the different ethnic groups using a coloured boundary band. It also has an interesting combination of themes. Besides ethnic groups, it shows the future railway line connecting Constantinople to western Europe. There is a separate category for the sections of the line to be built. The method used for mapping ethnic groups on this map makes it much easier to show the railway line, but makes seeing ethnic groups spread on large areas very difficult. (map 3)

### **3.3 Ethnic map of Hungary by Paul Langhans**

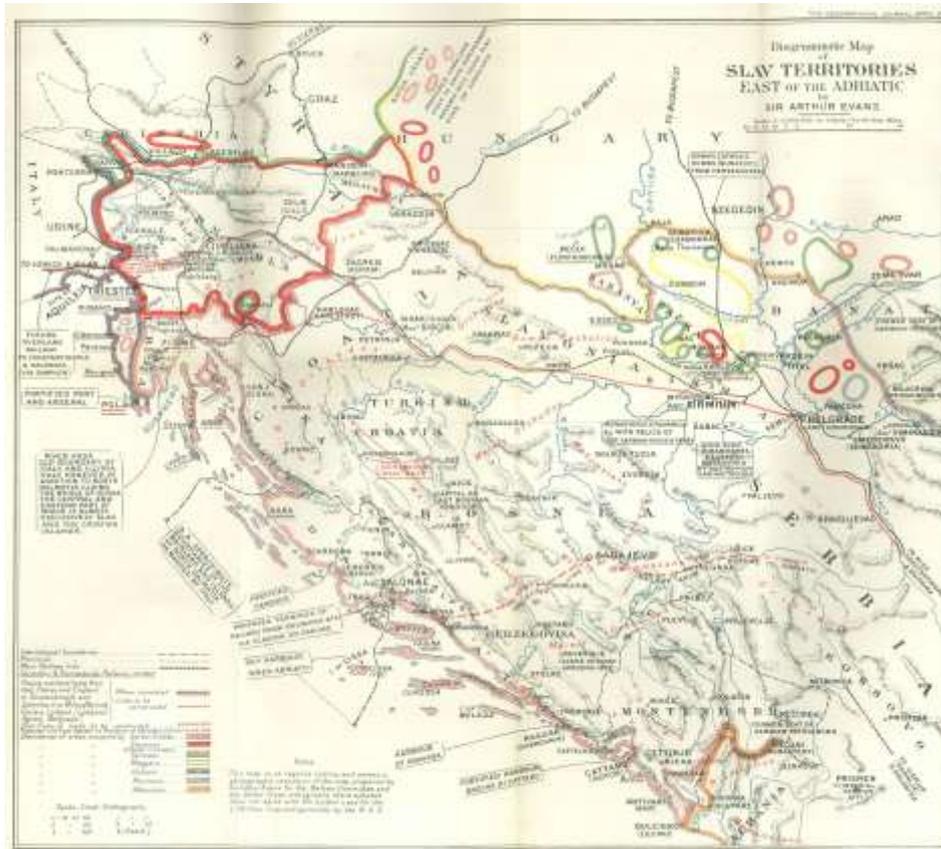
In 1920 Paul Langhans (1867-1952) published a map presenting the ethnic groups of Hungary.

Langhans made three separate categories for each ethnic group: relative majority, absolute majority, and above 90%. Each ethnic group had a colour assigned to it. The darker shade was used for the higher the population from that particular ethnic group.

All maps mentioned so far in paragraph 3 have been scanned.

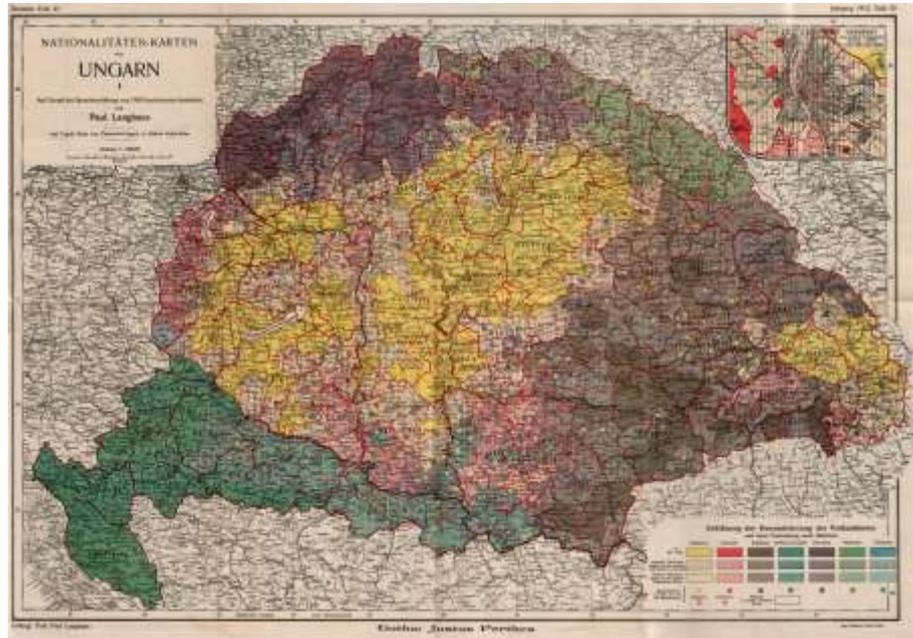
### **3.4 Maps made by Karl Czörnig in archives in Budapest and Ljubljana**

In the map collection of the Institute of Military History in Budapest there is an ethnic map of the Habsburg empire published in 1955 by Karl Czörnig (1804-1889). It was printed using copper plate and was coloured by hand. It was published on four sheets. A later publication was printed using lithography and was published in 1856. There is a copy of the 1855 map in the collection of the Slovenian National Library in Ljubljana. This is a print without colouring, although one can see that it was intended to be coloured, since the legend was prepared on the copper plate. It was not possible to scan this map, but only a digital camera on a stand could be used with artificial lighting. The image was stitched together from mosaics. Unfortunately the map is not in a very good state, but it is the only copy I know of.



**Map 3:** Diagrammatic map of Slav territories east of the Adriatic by Sir Arthur Evans published in London in 1916

The legends of the maps prepared in 1855 and 1856 regarding colours are very similar. The only notable difference comes from the fact that the first version is coloured by hand, while the second version is printed using lithography, so the inks used are different. The size of the 1856 version is a quarter of the size of the 1855 version. The one published in 1855 has a relief printed on using the copper plate, while the later publication is printed without relief. (In Ljubljana there is a print of the 1855 publication without colouring, although one can see that it was intended to be coloured, since the legend is prepared on the copper plate.)



**Map 4:** Ethnic map of Hungary by Paul Langhans published in Gotha in 1920

### 3.5 Ethnic maps of Hungary in Tübingen

In the library of the geographical institute of the University of Tübingen there is a black and white ethnic atlas of Hungary (author, publisher and year of publication unknown). A copy of this atlas is also found in Hungary at the Department of Cartography and Geoinformatics at Eötvös Loránd University, but it is in such a bad state, that it could not be scanned. (map 6)

In Tübingen there is also an ethnic map of central Europe published in 1943. An interesting fact is that the borders shown on the map are those dating from 1940, even though the borders changed in 1941 when Yugoslavia was dissolved. The “official” ethnic group of the given state is always shown in white, while all other ethnic groups are shown in various colours all over the map. This makes reading the map on first sight very confusing. (map 7)

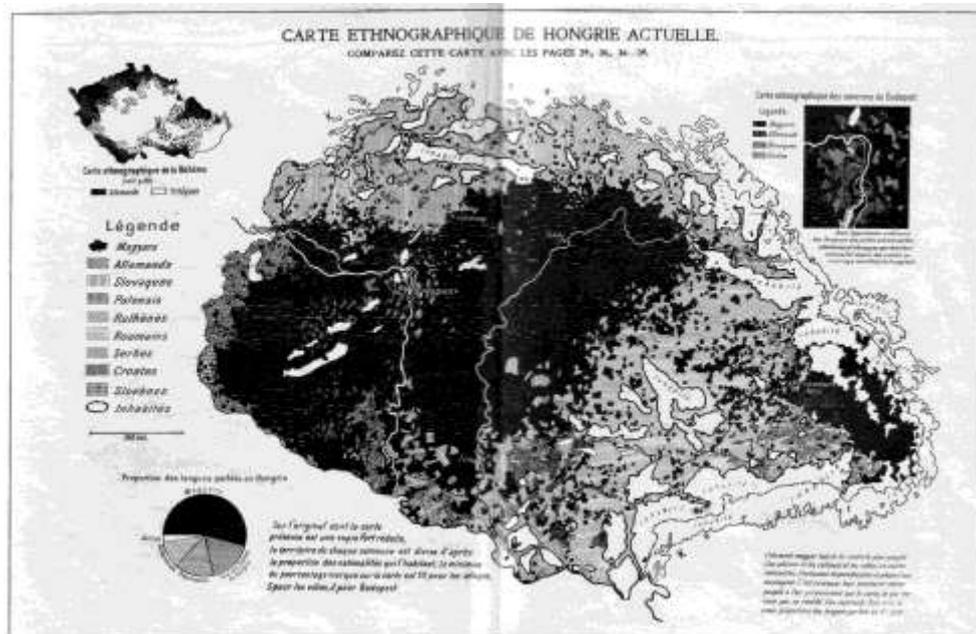


Map 5: Ethnic map of the Austrian Monarchy by Karl Czörnig

### 3.6 Maps that only showed parts of Hungary

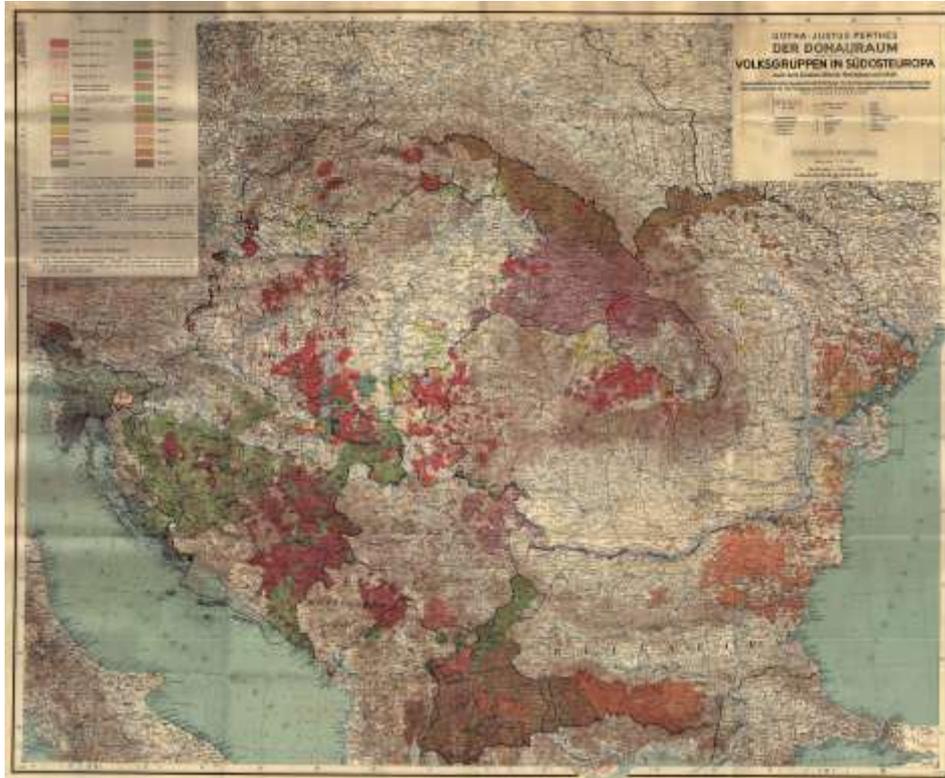
Maps were made not only of the full territory of Hungary as it existed prior to 1920, but also of parts of the country. One of these is the Historical, Political and ethnic atlas of Romania, which contains ethnic maps of the areas which Romania demanded. The data source used on the map is not shown in the atlas. This causes some problems since the content differs from the other maps made around that time. (map 8)

At the time maps were also made of Czechoslovakia. In 1920 Paul Langhans made a map of Czechoslovakia, on which he presented ethnic groups and mining and industry. This map is in the state library of Baden. An interesting fact is that Ruthenia is not on the map, while Budapest is on it. The Czechs and the Slovaks are one category in the legend, but not as a Czechoslovak nation. White was used for this category.



**Map 6:** Ethnic map of Hungary in an atlas found in Tübingen, author as well as date and place of publication unknown.

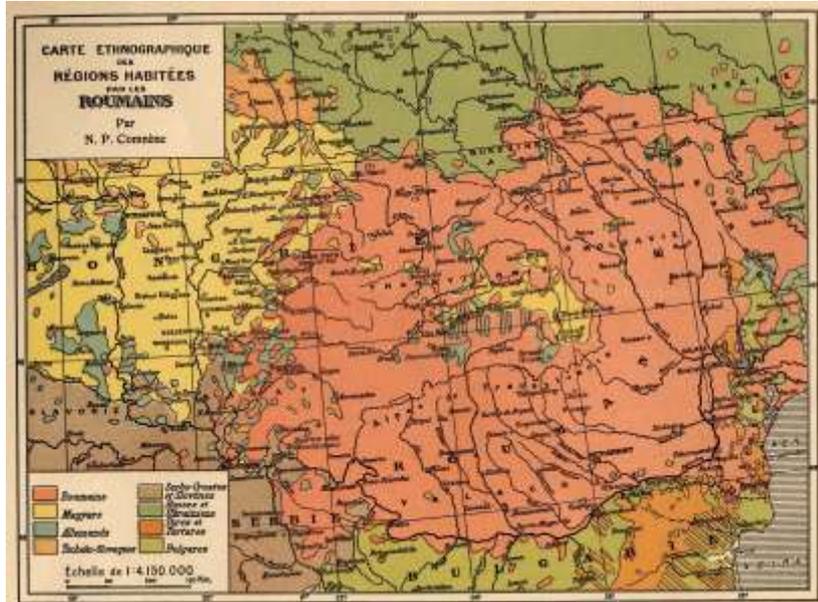
There are also many ethnic maps of the territories of pre-1920 Hungary in the Croatian State Archives in Zagreb, especially areas which were later incorporated into Yugoslavia. Unfortunately only the use a hand held digital camera without artificial lighting was allowed to be used for copying. For this reason the quality of these scanned pictures is very bad. This is an especially big problem on large maps, as it is very hard to get the whole map onto one picture, and the further the camera has to be placed from the map, the lower the resolution. A very good example is an ethnic map of Serbia dating from 1867 (map 9). It is in a very bad state, but the archive has three copies. According to the title it shows the area with Serb population of Turkey and Austria (Austria-Hungary), so the map also presents areas that are north of the Danube bend. Unfortunately the map is thorn, and the errors in setting of the printing plates can be clearly seen. In the top right hand corner the old emblem of greater Serbia can be seen.



**Map 7:** Ethnic groups in southeastern Europe published in Gotha in 1943. Author unknown.

## Conclusion

We can see that although for completely different reasons many nations made ethnic maps of Hungary from the second half of the nineteenth century until the middle of the twentieth century. Since these maps are located all over Europe today, researching these maps can become an international project. Since there are a lot of these maps in German archives, Germany is a very good country to conduct this type of research. Hungary and its neighboring countries also have a lot maps in their archives. Since these maps are old, the best way to preserve them is by digitalizing them.



**Map 8:** Map from page 55 of the atlas „Roumania through the Ages: An historical, political and ethnographical atlas" (Spelling as on cover), published in Paris in 1914.



**Map 9:** Historic-Ethnic map of the Serbs in Turkey and Austria published in Belgrade in 1973, by Miloš Milošević (regarding quality of image see text)

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