Emmanuel de Martonne and the ethnographical cartography of central Europe (1917-1920)

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Emmanuel de Martonne and the Ethnographical Cartography of Central Europe (1917–1920)

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ABSTRACT: Emmanuel de Martonne is well known among geographers as the founding father of geomorphology and as one of Paul Vidal de la Blache's main disciples. He also played a central role as a geographical expert on the Comité d'études, a body set up by Deputy Charles Benoist during the First World War to prepare guidelines for the organization of peace and, in particular, the demarcation of boundaries. De Martonne's special expertise was the construction and comparison of ethnographical maps. He applied his theories on ethnic mapping and improved methods of representation of mixed minorities to his map of the Romanian nation published in 1919 by the Service Géographique de l'Armée. In his reports on Central Europe, de Martonne claimed neutrality, but the graphical options employed on his map offered a biased view of the Romanian nation, inspired mainly by the views of the French school of regional geography.

KEYWORDS: France, Romania, Paris Peace Conference (1919), Comité d'études, thematic mapping, ethnographic map, propaganda maps, applied geography, boundary demarcation, Emmanuel de Martonne.

As early as December 1914, preparations were being made in France for negotiating peace at the end of the First World War. Expert commissions were set up. A geographical commission of experts worked within the Service Géographique de l'Armée in 1915–1916 to write geographical and statistical reports illustrated with general and urban maps. In February 1916, four commissions were established within the Geographical Society of Paris to consider the Franco-German frontier, Central and Eastern Europe, Africa, and Asia. Their sessions were held in the Society's house, close to the book and map collections, and a mass of documentation, reports and maps was produced. This task continued in a more official way in 1917, when the Deputy Charles Benoist was asked by Prime Minister Aristide Briand to create an expert committee, the Comité d'études, to prepare for the peace settlements. Benoist chose for it prestigious scholars, mainly historians and geographers. Ernest Lavisse, the major French historian of the period, was president; Paul Vidal de la Blache, founder of the French school of regional geography, held the vice-presidency until his death in April 1918; and Emmanuel de Martonne was secretary.

The geographers' role in boundary delimitation has been pointed out in several recent studies. The importance of maps in the context of the Peace Conference, however, has rarely been considered. The ethnographic map of Romania drawn by Emmanuel de Martonne is characteristic of the experts' documentary work and the link established between the geographer's discourse and the political requirements.

Emmanuel de Martonne and the Comité d'Études

Emmanuel de Martonne was Vidal's son-in-law and most important disciple (Fig. 1). He was a well-
known specialist in physical geography, the author of an important textbook, the *Traité de géographie physique* (1909), which was translated in several countries, and a pioneer of geomorphology. In the Comité d’études, however, de Martonne was primarily the specialist on Central Europe in general and Romania in particular. He spoke Romanian and knew the country well, and he had conducted several geomorphological surveys and field studies in the southern Carpathians, the first in 1896 when he was twenty-three years old. His science thesis, completed in 1907, dealt with the geomorphology of the Transylvanian Alps (southern Carpathians). He was also qualified in the human geography of Romania, for his first thesis, undertaken under the auspices of the faculty of arts, was about the distribution of population in Walachia and its representation on maps (see the location map in Fig. 2).

At the Peace Conference, de Martonne acted as close adviser to both the Minister for Foreign Affairs, André Tardieu, and the Prime Minister, Georges Clemenceau, as well as performing his important role at the Comité d’études. He also
participated in various territorial commissions and sub-commissions set up to solve specific problems, notably the commissions on Poland and on the Romanian-Yugoslavian boundary.

The Comité d'études held its sessions from February 1917 to July 1919. Making use of general geographical information and maps, the Comité prepared reports on and syntheses of all the territorial problems thought likely to arise at the Peace Conference. The Comité also included in their reports a number of thematic maps, such as flow maps and historical, religious and economic maps. Their ethnographic maps, especially, played a major role as aids to decision making. Such maps had already been used in diplomacy. At the negotiations leading to the Frankfurt treaty (1871), for example, Otto von Bismark had referred to a linguistic map published by Augustus Petermann to support his claim to Alsace, and during the Berlin Conference of 1878, Bismark often cited Heinrich Kiepert's ethnographic map of Eastern Europe. On these occasions, however, ethnographic maps were used mainly as pretexts.

In 1919, with the promotion of the principle of nationalities, the importance of maps showing the distribution of people of different nationalities increased. Isaiah Bowman, the chief expert of the American delegation, wrote in his memoirs of the Peace Conference:

Each one of the Central European nationalities had its own bagful of statistical and cartographical tricks. When statistics failed, use was made of maps in colour. It would take a huge monograph to contain an analysis of all the types of map forgeries that the war and the peace conference called forth. A new instrument was discovered—the map language. A map was as good as a brilliant poster, and just being a map made it respectable, authentic. A perverted map was a life belt to many a foundering argument. It was in the Balkans that the use of this process reached its most brilliant climax. To counter such propaganda maps, the experts for the Great Powers prepared their own documentation. De Martonne wrote several reports on Balkan and Danubian states, including four on the territories claimed by the Romanians: Banat, Transylvania, Bessarabia and Dobruja (see Fig. 2). In these four reports, and in the appendices two of them contained, de Martonne commented on one of the maps he had drawn, the Répartition des Nationalités dans les Pays où dominent les Roumains (Plate 6). This map was published twice after the Peace Conference: first, in 1919, in the Atlas which the Comité produced for restricted circulation, and then again in 1920, when it accompanied an article in the Annales de Géographie. De Martonne discussed in detail the different ways to construct this type of map in his reports and subsequent article. He compared the various methods, weighing up the advantages and drawbacks of each. His main points of principle were, first, that the map should represent as exactly as possible the mix of nationalities in a region, and, second, that the map should also show the numerical importance of each group. He was critical of simple spot maps, with their flat background colour and irregular areas of superimposed strong colour to express the distribution of minorities, which he felt exaggerated their importance. A similar exaggeration, he thought, resulted from the use of stripes of alternating colours. Coloured areas were only acceptable when they were based on precisely defined territorial units, such as parishes.
or parts of parishes. De Martonne also rejected the superimposition on maps of common statistical techniques, such as pie-diagrams or even the isopleths applied by Bertie C. Wallis to a map of Hungary in an article published in 1916. He made no mention of dot maps, but these were relatively uncommon at the time and difficult to interpret.

The Ethnographic Map of Romania

Steering a course between purely statistical representation and what he called ‘tendentious images’, de Martonne proposed a method of his own to portray ethnic data. First, he had to overcome a major difficulty, namely that the geographical space taken up by each nationality did not reflect the relative size of each group. For instance, a particular colour could spread indifferently over uninhabited mountains or densely populated lowlands. So de Martonne decided to mix the systems of ethnographic mapping and population mapping. Each nationality was to be identified by three shades of colour, corresponding to three data classes expressed as population per square kilometre: under 25, 25 to 75, and more than 75 (Plate 7). He made a second decision to represent urban population by proportional circles. Accordingly, the rural element on the map was represented by colouring the administrative units to denote the dominant rural group, and segmented circles were added to show the ethnic composition of towns. This was an unusual procedure, since in those days the distinction between urban and rural population was lost in the case of ethnographic maps, for which the calculations were usually made according the total population of each administrative unit, without differentiating urban from rural.

For Banat and Transylvania, de Martonne used data from the Hungarian census of 1910, in which nationality was defined according to the criterion of ‘mother tongue’. He corrected the census figures, which he thought over-estimated the Magyar population, by referring to data on religion. In doing this, though, he was in fact sacrificing statistical precision in order to create an image that would ‘show at a glance homogeneous regions and the characteristics of mixed ones’. He also made the decision to represent minorities only if the dominant nationality was below 75 per cent of the population. He then used bands of regular width for minorities of more or less equal size (to an approximation of 5 to 10 per cent). If a particular nationality approached or exceeded the absolute majority for the region, its bands were doubled in width (Plate 8).

De Martonne’s objective was to present a general geographical picture. Thus, his use of bands of different colour was neither properly qualitative nor purely quantitative. The method of alternating bands was already an old one. It had been used early in the nineteenth century on vegetation maps as well as ethnographic maps. Yet its graphical application on the ethnographic maps by the Service géographique de l’Armée lacked rigour. Compared with the later nineteenth-century German ethnographic maps, such as Kiepert’s, the various angles of the stripes give an impression of confusion, a shortcoming also seen on some of the other maps prepared for the Comité d’études, such as the Frontière septentrionale des pays yougoslaves.

The Influence of Geographical Concepts

The members of the Comité d’études were independent and not professionally constrained as were the French officers and diplomats. The geographer Jean Brunhes, for example, supported the idea of a greater Albania, which ran counter to Allied interests. De Martonne, whose expertise was closely related to French interests, declared his impartiality and his intention to establish ‘incontestable facts’. His student Georges Chabot, his collaborator at the Peace Conference, boasted of his mentor’s ‘total objectivity, without regard to his friendship for some people or other.’ Yet several elements demonstrate a partiality towards Romania, a country which was on the winning side and which, it was hoped, would become a strong ally and buffer against Soviet Russia.

An indication of de Martonne’s leanings is given by the title of his map, Répartition des nationalités dans les pays où dominent les Roumains [Distribution of nationalities in regions dominated by Romanians], a choice of words which does not sound entirely neutral even if they represented purely statistical evidence. Another hint can be found in de Martonne’s selection of colours, obviously an essential attribute of this type of map. It is clear that the choice of red for Romanians made the areas where they predominated stand out. Other nationalities were less fortunate in the colours they were given or not given; the Russians, for example, were not allotted their own colour but were included within a general ‘Slavic’ category. A comparison of de Martonne’s map with one compiled in Germany a few years earlier by Paul
Langhans is instructive.\textsuperscript{19} Whereas on Langhans's map of 1915 the heart of the Carpathian mountains is left white, indicating a lack of inhabitants, on de Martonne's map it is coloured red as part of Romanian territory.\textsuperscript{20}

A comparison of de Martonne's map with other attempts at ethnographic mapping also brings out the effect of de Martonne's technique of representing urban population separately. The importance of the towns, with their predominantly German and Magyar populations, is considerably reduced on de Martonne's map, where the whole administrative district is coloured according to the rural majority and the urban nationalities are indicated by coloured sectors in proportional circles. Since the urban circles are relatively small, their subdivision according to ethnic composition tends to minimize the visual effect of each constituent national group.

De Martonne's Romanophilia is beyond question. Before the Peace Conference he had described the country as a natural ally of France and legitimated its territorial claims.\textsuperscript{21} In 1918 he both lent his patronage to and wrote for \textit{La Transylvanie}, a Romanian propaganda review published in Paris and subtitled 'organ of the National Committee of Romanians from Transylvania and Bucovina'.\textsuperscript{22} Another point of view is possible, however, when de Martonne's choice of map signs is examined in the light of his geographical views. Like many geographers of the period, he believed that an urban population was inherently unstable and that the ethnic composition of a town was 'rather artificial'.\textsuperscript{23} In contrast, rural settlement was seen as firmly rooted, dependent upon the soil, and to be privileged. The rural element of a region's population thus became the decisive factor in identifying the ethnicity of a territory. Thus a whole region, such as Transylvania, would be classified as Romanian territory despite the predominantly Magyar towns.

Opinions such as these were the result of Vidal de la Blache's influence on French geography. Geographical studies at the beginning of the twentieth century tended to favour backward, mainly agricultural, districts because geographers judged that these traditional rural localities displayed a harmony between the land and its people. Towns were often considered to be 'embarrassing individualities'.\textsuperscript{24} As for statistical accuracy, this had never been a high priority for French, or even European, geographers. Following Friedrich Ratzel's theories, de Martonne emphasized the difference between the statistical and the geographical method, arguing that 'The statistical question is: How many? — The geographical question is: Where? But it is also: Why?'\textsuperscript{25} De Martonne gave greater place to geographical location than to numbers. The shading of his map did not effectively balance the ethnic distribution, since the paler and brighter tones of each colour are insufficiently distinct. In his commentary, de Martonne seldom referred to population density. He preferred to argue about the geographical continuity of the Romanian settlement as opposed to the more fragmented distribution of the other nationalities. He also noted that on the map the coloured areas indicating 'the mass of pure Romanian population included the mountains and the Szekler majority'.\textsuperscript{26}

In his reports, de Martonne approached Romania through its localities—\textit{les pays roumains}—which he saw as the equivalent of the Vidalian 'regions' and which he envisaged according to their internal organization. A Romanian \textit{pays} was made of complementary units (mountain and plain in Banat, for example), the interdependence of which on most occasions was an argument in favour of Romanian claims.

After the war, de Martonne used his map at several conferences to present the 'New Romania' and to justify the peace settlement. The previous state was, he said, incomplete and imperfect: 'It was a thankless subject for a lecturer'.\textsuperscript{27} The new state appeared to him as a sort of geographical ideal with its compact shape, the way the Carpathian mountains formed a dorsal spine, and its balanced regions. To de Martonne, the Romanian state gained its unity from the diversity and complementarity of its \textit{pays}. He was echoing another French geographical concept, that of the geographical \textit{personalité}, when he wrote of the way, 'through the variety of its landscapes and its resources, the Romanian land has something of the harmony of our beautiful France'.\textsuperscript{28}

Nor was the academic geographer's analysis free from physical determinism. De Martonne valued the Carpathians as the cornerstone of the new state, a guarantee of its equilibrium, as well as the organizational centre of settlement in Romania, saying, 'It is always in the surroundings of the Carpathians that the Romanian bloc appears to be more homogeneous; the more you move away from the mountains, the more the outsider elements grow in number.'\textsuperscript{29} He was gratified to notice...
that in the new state, 'natural regions were no longer mutilated by boundaries'.

He certainly took this precept to heart, because he remembered that when he was researching his thesis he found that it was impossible to study the Transylvanian Alps without crossing the frontier time and time again. Even so, he was not completely satisfied: faced with his map, years later, he was still worrying about Magyar minorities, referring to 'green spots which are scattered in all directions, and which represent urban elements, centres of discontent'.

De Martonne published only one ethnographic map as an outcome of work for the Peace Conference, but he probably prepared several others. We know that during one meeting of the commission for Polish affairs, on 24 March 1919, he suggested improving a dot map that was being used to study Poland's eastern frontier. It could be redrawn, he said, to make it easier to read. He suggested transforming it into a map with flat colours, shaded according to density, and he brought such a map to the following session as an example. His methods certainly influenced some of the other experts on the Comité d'études. In the Comité's Atlas, Augustin Bernard's map of the Syrian population follows de Martonne's cartographical principles. Density classes are shown by three degrees of shading, and the urban population is shown separately. There are other examples from the 1920s, such as Arthur Haberlandt's map of Austria (1927).

The Ethnic Factor at the Peace Conference

The experts did not play a major part in the peace negotiations at Versailles in 1919. In France it has even been said that the work of the Comité d'études turned out to be useless. Charles Benoist himself was rather bitter about it, writing in his Souvenirs that 'their work remained secret, unknown, and, what was the most painful for them, half useless'. Such a view seems unduly pessimistic, at least as regards the work of the territorial experts, whose advice, according to Douglas Johnson, the geographer in the American delegation, 'was frequently sought and extensively used', and who played 'no inconsiderable role'.

Even if diplomats and politicians did have the last word, the work of the experts was justified in helping to inform and educate them. With the help of geographers, Woodrow Wilson discovered that there were plenty of Germans in northern Bohemia, and Lloyd George learned the location of Teschen and the difference between Cilicia (in Asia Minor) and Silesia. These instances of 'geographical amazement' of the leaders of the Big Four (and of Lloyd George in particular) seemed to have brought a good deal of entertainment to the participants of the conference, and are frequently cited.

It has been said that 'no other branch of cartography can claim to have so thoroughly applied and with such visible consequences for the structure of modern political boundaries as ethnographic mappings'. We have to ask, in conclusion, whether ethnographic cartography really did play such a major role. A number of other variables were considered in the attempt to demarcate Europe's boundaries at the Versailles peace conference: history, physical geography, economic and strategic resources and, of course, political interests. The fact remains, however, that ethnographic maps were constantly used to estimate the possible repercussions of each boundary change on the nationalities involved. Georges Chabot testified that he had 'to work out in the evening, or in the night, the consequences of every stroke of the pen from the "Big Four" on the map of Europe'. American and English witnesses also confirmed the importance of the ethnographic factor. Charles Seymour, for example, held that 'The frontiers of the new map of Europe conformed more closely with ethnographic divisions than any in previous history'. True or not, Romania was given generously drawn frontiers, and Emmanuel de Martonne and his ethnographic map must have had something to do with that.

After the Versailles peace conference, ethnographic maps went on to play an important part in the inter-war period, notably as tools of German and Hungarian revisionism in eastern Europe. As for de Martonne, the evolution of the Romanian system of government may have made him rather more careful about the merits of applied cartography. He said nothing about his role in the negotiations and returned to the study and teaching of geomorphology. He was never far from the problems of mapping, however, integrating the study of cartography into the geography degree course at the Sorbonne and chairing an International Geographical Union commission on the standardization of maps of physical geography.
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NOTES AND REFERENCES


5. For de Martonne's life and work, see Emmanuel de Martonne, Titres et travaux scientifiques de Emmanuel de Martonne (Paris, A. Colin, 1932).


11. See [Comité d'études], Travaux ... Questions européennes (note 8), 553–76, 579–624, 627–42 and 643–61.

12. Emmanuel de Martonne, Répartition des Nationalités dans les Pays où dominent les Roumains, 1:1 000 000, in de Martonne, Travaux ... Atlas (see note 8), plate 14; and Emmanuel de Martonne, 'Essai de carte ethnographique des pays roumains', Annales de Géographie 29 (1920): 81–98, map in plate IV.


14. De Martonne, 'Essai de carte ethnographique des pays roumains' (see note 12), 87.

15. The method was used for the first time on vegetation maps in Joakim Schouw, Pflanzengeographischer Atlas (Berlin, G. Reimer, 1823). Of de Martonne, Travaux ... Atlas (see note 8), plate 13.

16. [Comité d'études], Travaux ... Questions européennes (see note 8), 560.


18. Paul Langhans, 'Der rumänischen Volksboden und die staatliche Entwicklung des Rumänenhums', 1:1 500 000, Petramms Geographische Mitteilungen 61 (1815); plate 36, opp. 288.

19. On the other hand, de Martonne ([Comité d'études], Travaux ... Questions européennes (see note 8), 606), mentioned a Hungarian ethnographical map by Sygmund Batky (A magyar szent korona országainak nepeit felfedező térképe (Budapest, Hungarian Geographical Institute, 1909)), which enclosed the uninhabited part of the Carpathians within a contour, thus omitting several high altitude Romanian villages.


21. De Martonne's name appears in the list of patrons of La Transylvanie. He also published an article in the second issue (June 1918). The article concerned the Carpathians; the editorial of the same issue discussed 'the illegitimacy of Hungarian claims to Transylvania'.

22. [Comité d'études], Travaux ... Questions européennes (see note 8), 607.

23. 'Pour qui dresse une carte de la densité, les villes sont des individualités encombrantes' [For the compiler of a population map, towns are embarrassing individualities] (Bertrand Auerbach, 'La répartition de la population sur le sol allemand', Annales de géographie 5 (1896): 480).

24. 'La question statistique c'est: combien? — La question géographique c'est: où? Mais c'est aussi pourquoi?' (de Martonne, Recherches sur la distribution géographique de la population en Valachie (see note 7), 11.

25. 'La masse de population roumaine pure comprend des montagnes de même que la masse des Szekler' ([Comité d'études], Travaux ... Questions européennes (see note 8), 608). The Szeklers are the Transylvanian Magyars.

26. 'Pour un conférencier, c'était un sujet ingrat' (Emmanuel de Martonne, 'La terre roumaine', in La Roumaine. Conférences faites à l'Union française (Paris, Union Française, 1920), 62).

27. 'Par la variété de ses aspeas et de ses ressources, la terre roumaine a quelque chose de l'harmonie de notre belle France' (Emmanuel de Martonne, La répartition et le rôle des minorités nationales en Roumanie. Dotation Carnegie pour la paix internationale (Paris, Publications de la conciliation internationale, 1929), 96).

28. 'C'est toujours dans le voisinage des Carpathes que le
Emmanuel de Martonne et la cartographie ethnographique de l'Europe centrale (1917–1920)

Emmanuel de Martonne est connu comme l'un des fondateurs de la géomorphologie, et l'un des principaux disciples de Paul Vidal de La Blache. Mais il joua aussi le rôle de géographe expert au sein du Comité d'études, organisme fondé par le député Charles Benoist pour préparer les règlements de paix de la première guerre mondiale, et notamment les tracés de frontières. L'expertise d'E. de Martonne s'appuyait en particulier sur la comparaison et la construction de cartes ethnographiques. Il développa une réflexion théorique autour de ce thème, en vue d'améliorer la représentation de la mixité ethnique et des minorités. Il appliqua ses principes à la carte de l'Europe, en introduisant des couleurs distinctes pour les divers groupes ethniques. Il revendiqua sa neutralité scientifique, mais ses cartes étaient souvent perçues comme ayant une influence politique. Il participa à la conférence de la Paix en 1919, où il plaça la notion de Frontières ethniques au centre de sa contribution. Il est donc clair que de Martonne a été un géographe de grande importance pour l'évolution des frontières de l'Europe centrale après la Première Guerre mondiale.
Emmanuel de Martonne y la cartografía etnográfica de Europa central (1917–1920)

Emmanuel de Martonne es conocido como uno de los fundadores de la geomorfología y como uno de los principales discípulos de Paul Vidal de La Blache. Sin embargo también jugó un papel de geógrafo experto en el Comité de Estudios, organismo fundado por el diputado Charles Benoit para preparar los tratados de paz en la primera guerra mundial y las nuevas fronteras resultantes. Martonne había trabajado en la comparación y construcción de mapas etnográficos y desarrollado una reflexión teórica para mejorar la representación del mestizaje y de las minorías. Martonne aplicó estos principios a la Carte des pays où dominent les Roumains, que le Service Géographique de l'Armée publicó en 1919. En sus escritos sobre la Europa central, E. De Martonne reivindicaba la neutralidad científica, sin embargo a través de su mapa y de los datos que manejaba, ofrecía una imagen sesgada de la Nación rumana, inspirada en las concepciones de la Escuela francesa de geografía regional.

‘Combler les blancs de la carte’: regards sur l’histoire d’une recherche collective

Dans le cadre du groupe de recherche qui, au sein de l’Université Marc Bloch de Strasbourg, travaille sur les mises en scène de l’espace, trois journées d’études ont récemment été consacrées à l’histoire de la cartographie. C’est par le biais des modalités de constitution des savoirs géographiques et des représentations cartographiques que ce champ a été abordé; une quinzaine de chercheurs venus d’autres universités françaises ou étrangères ont répondu à l’invitation d’Isabelle Laboulais-Lesage à venir participer à cette réflexion collective sur les manières de ‘combler les blancs de la carte’, autre façon de questionner la notion de l’inconnu géographique.

Hélène Biais, Philippe Forêt, Isabelle Surun, François Regourd et Sylvain Venayre ont croisé cette question avec les découvertes géographiques du XVIIe au XXe siècle; Jean-François Chauvard, Claire Fredj, Odile Goerg, Kapil Raj y Sebastien Velut ont quant à eux réfléchi à l’articulation entre les blancs de la carte et différents moments de colonisation ou de conquête; enfin Jean-Marc Besse, Nathalie Bouloux, Catherine Delano-Smith et Isabelle Laboulais-Lesage ont abordé cette notion sous l’angle de l’histoire et de l’épistémologie de la cartographie.


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